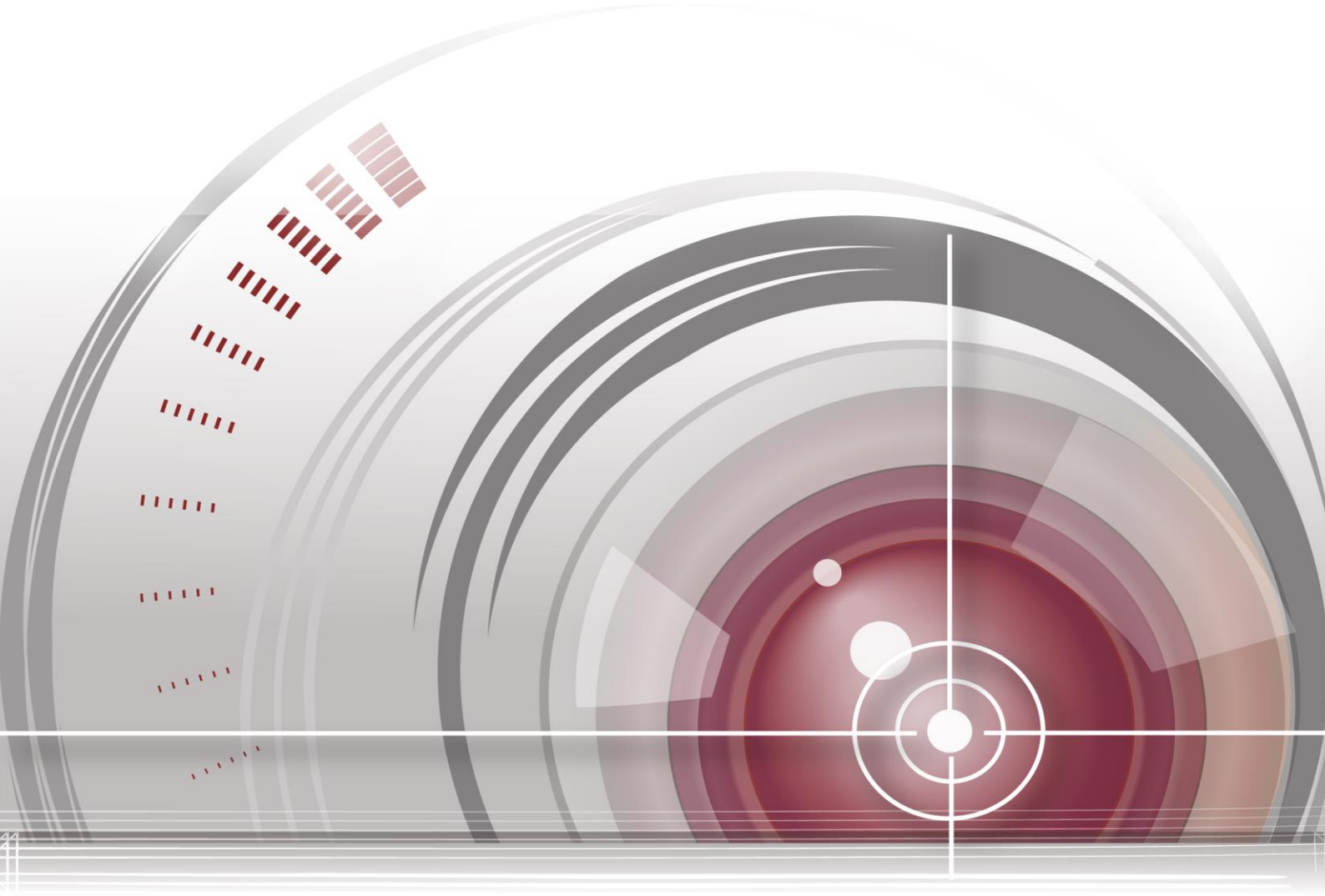


Network Camera

Installation Manual

UD.6L0201A1681A02

Thank you for purchasing our product. If there are any questions, or requests, please do not hesitate to contact the dealer.
There is variety of structures of network cameras in our company. Installing instructions of all these cameras are listed in this manual.

This manual may contain several technical incorrect places or printing errors, and the content is subject to change without notice. The updates will be added to the new version of this manual. We will readily improve or update the products or procedures described in the manual.

DISCLAIMER STATEMENT
"Underwriters Laboratories Inc. ("UL") has not tested the performance or reliability of the security or signaling aspects of this product. UL has only tested for fire, shock or casualty hazards as outlined in UL's Standard(s) for Safety, UL60950-1. UL Certification does not cover the performance or reliability of the security or signaling aspects of this product. UL MAKES NO REPRESENTATIONS, WARRANTIES OR CERTIFICATIONS WHATSOEVER REGARDING THE PERFORMANCE OR RELIABILITY OF ANY SECURITY OR SIGNALING RELATED FUNCTIONS OF THIS PRODUCT."

Safety Instruction

These instructions are intended to ensure that the user can use the product correctly to avoid danger or property loss.

The precaution measure is divided into 'Warnings' and 'Cautions':

Warnings: Serious injury or death may be caused if any of these warnings are neglected.

Cautions: Injury or equipment damage may be caused if any of these cautions are neglected.

Warnings Follow these safeguards to prevent serious injury or death.	**Cautions** Follow these precautions to prevent potential injury or material damage.

Warnings:

- Please adopt the power adapter which can meet the safety extra low voltage (SELV) standard. And source with 12 VDC or 24 VAC (depending on models) according to the IEC60950-1 and Limited Power Source standard.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)
- To reduce the risk of fire or electrical shock, do not expose this product to rain or moisture.
- This installation should be made by a qualified service person and should conform to all the local codes.
- Please install blackouts equipment into the power supply circuit for convenient supply interruption.
- Please make sure that the ceiling can support more than 50(N) Newton gravities if the camera is fixed to the ceiling.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)

Cautions:

- Make sure the power supply voltage is correct before using the camera.
- Do not drop the camera or subject it to physical shock.
- Do not touch sensor modules with fingers. If cleaning is necessary, use a clean cloth with a bit of ethanol and wipe it gently. If the camera will not be used for an extended period of time, put on the lens cap to protect the sensor from dirt.
- Do not aim the camera lens at the strong light such as sun or incandescent lamp. The strong light can cause fatal damage to the camera.
- The sensor may be burned out by a laser beam, so when any laser equipment is being used, make sure that the surface of the sensor not be exposed to the laser beam.
- Do not place the camera in extremely hot, cold temperatures (the operating temperature should be between -30℃ ~ 60℃, or -40°C ~ 60°C if the camera model has an "H" in its suffix), dusty or damp environment, and do not expose it to high electromagnetic radiation.
- To avoid heat accumulation, good ventilation is required for a proper operating environment.
- Keep out of water and any liquid.
- While shipping, the camera should be packed in its original packing.
- Improper use or replacement of the battery may result in hazard of explosion. Please use the manufacturer recommended battery type.

NOTE

For the dome camera that supports IR, you are required to pay attention to the following precautions to prevent IR reflection:

- Dust or grease on the dome cover will cause IR reflection. Please do not remove the dome cover film until the installation is finished. If there is dust or grease on the dome cover, clean the dome cover with clean soft cloth and isopropyl alcohol.
- Make certain the installation location does not have reflective surfaces of objects too close to the camera. The IR light from the camera may reflect back into the lens causing reflection.
- The foam ring around the lens (for dome cameras) must be seated flush against the inner surface of the bubble to isolate the lens from the IR LEDS. Fasten the dome cover to camera body so that the foam ring and the dome cover are attached seamlessly.

Table of Contents

Chapter 1 Introduction **7**

1.1 Applications 7
1.2 Preparations 7

Chapter 2 Box Camera Installation **9**

2.1 Type I Box Camera 9
2.1.1 Camera Description *9*
2.1.2 Installation *11*
2.2 Type II Box Camera 12
2.2.1 Camera Description *12*
2.2.2 Installation *15*

Chapter 3 Dome Camera Installation **20**

3.1 Type I Dome Camera 20
3.1.1 Camera Description *20*
3.1.2 Installation *21*
3.2 Type II Dome Camera 27
3.2.1 Camera Description *27*
3.2.2 Installation *28*
3.3 Type III Dome Camera 32
3.3.1 Camera Description *32*
3.3.2 Installation *33*
3.4 Type IV Dome Camera 37
3.4.1 Camera Description *37*
3.4.2 Installation *38*
3.5 Type V Dome Camera 48
3.5.1 Camera Description *48*
3.5.2 Installation *49*
3.6 Type VI Dome Camera 54
3.6.1 Camera Description *54*
3.6.2 Installation *56*
3.7 Type VII Dome Camera 63
3.7.1 Camera Description *63*
3.7.2 Installation *66*
3.8 Type VIII Dome Camera 70
3.8.1 Camera Description of Type A Dome Camera *70*
3.8.2 Installation of Type A Dome Camera *71*
3.8.3 Camera Description of Type B Dome Camera *74*
3.8.4 Installation of Type B Dome Camera *75*
3.9 Type IX Dome Camera 78
3.9.1 Camera Description of Type A Dome Camera *78*
3.9.2 Installation of Type A Dome Camera *80*

3.9.3 Camera Description of Type B Dome Camera *89*
3.9.4 Installation of Type B Dome Camera *89*
3.10 Type X Dome Camera 93
3.10.1 Camera Description *93*
3.10.2 Remote Control *95*
3.10.3 Installation *96*
3.11 Type XI Dome Camera 99
3.11.1 Camera Description *99*
3.11.2 Installation *101*
3.12 Type XII Dome Camera 107
3.12.1 Camera Description *107*
3.12.2 Installation *109*

Chapter 4 Bullet Camera Installation 113

4.1 Type I Bullet Camera 113
4.1.1 Camera Description *113*
4.1.2 Installation *114*
4.2 Type II Bullet Camera 115
4.2.1 Camera Description *115*
4.2.2 Installation *116*
4.3 Type III Bullet Camera 120
4.3.1 Camera Description *120*
4.3.2 Installation *120*
4.4 Type IV Bullet Camera 122
4.4.1 Camera Description *122*
4.4.2 Installation *123*
4.5 Type V Bullet Camera 124
4.5.1 Camera Description *124*
4.5.2 Installation *126*
4.6 Type VI Bullet Camera 132
4.6.1 Camera Description *132*
4.6.2 Installation *132*
4.7 Type VII Bullet Camera 136
4.7.1 Camera Description *136*
4.7.2 Installation *137*
4.8 Type VIII Bullet Camera 143
4.8.1 Camera Description *143*
4.8.2 Installation *144*
4.9 Type IX Bullet Camera 147
4.9.1 Camera Description *147*
4.9.2 Installation *148*
4.10 Type X Bullet Camera 154
4.10.1 Camera Description *154*
4.10.2 Installation *155*

4.11 Type XI Bullet Camera 158
4.11.1 Camera Description 158
4.11.2 Installation 159
4.12 Type XII Bullet Camera 162
4.12.1 Camera Description 162
4.12.2 Installations for Type I Bullet Camera 164
4.12.3 Installations for Type II Bullet Camera 168

Chapter 5 Turret Camera Installation 173

5.1 Camera Description 173
5.2 Installation 173

Chapter 6 Cube Camera Installation 178

6.1 Type I Cube Camera 178
6.1.1 Camera Description 178
6.1.2 Installation 179
6.2 Type II Cube Camera 180
6.2.1 Camera Description 180
6.2.2 Remote Control Overview 182
6.2.3 Installation 183
6.3 Type III Cube Camera 185
6.3.1 Camera Description 185
6.3.2 Notice 188
6.3.3 Installation 189

Chapter 7 Mini Camera Installation 192

7.1 Camera Description 192
7.2 Installation 193

Chapter 8 Mobile Camera 195

8.1 Camera Description 195
8.2 Installation 196

Chapter 1 Introduction

The network camera is a kind of embedded digital surveillance product that combines the features of both traditional analog camera and the encoder. With a built-in video server, the network camera is capable of providing real-time video stream compression, processing, video analysis and transmission simultaneously. Adopting the latest processing chip and hardware platform, the network camera can be widely applied to various surveillance and image processing systems with high reliability and stability.

1.1 Applications

The network camera can be used in many surveillance scenes., e.g.:

- Network surveillance for over-the-counter activities in the banks, ATMs, supermarkets and factories.
- Remote surveillance systems for nursing homes, kindergartens and schools.
- Artificial Intelligent access control systems .
- Artificial Intelligent office building/residential compounds management systems.
- Unguarded power station and telecommunication base station surveillance systems.
- Pipelining and warehousing monitoring systems.
- Surveillance systems for airports, railway stations, bus stops, etc.

1.2 Preparations

- Make sure the device in the package is in good condition and all the assembly parts are included.
- Make sure all the related equipment is power-off during the installation.
- Check the specification of the products for the installation environment.
- Make sure the power supply is matched with your required voltage to avoid damage.
- If the product does not function properly, please contact your dealer or the nearest service center. Do not disassemble the camera for repair or maintenance by yourself.

- Make sure that the wall is strong enough to withstand three times the weight of the camera.

For the camera that supports IR, you are required to pay attention to the following precautions to prevent IR reflection:

- Dust or grease on the dome cover will cause IR reflection. Please do not remove the dome cover film until the installation is finished. If there is dust or grease on the dome cover, clean the dome cover with clean soft cloth and isopropyl alcohol.
- Make sure that there is no reflective surface too close to the camera lens. The IR light from the camera may reflect back into the lens causing reflection.
- The foam ring around the lens must be seated flush against the inner surface of the bubble to isolate the lens from the IR LEDS. Fasten the dome cover to camera body so that the foam ring and the dome cover are attached seamlessly.

Chapter 2 Box Camera Installation

2.1 Type I Box Camera

2.1.1 Camera Description

The overview of Type I box camera is shown below:

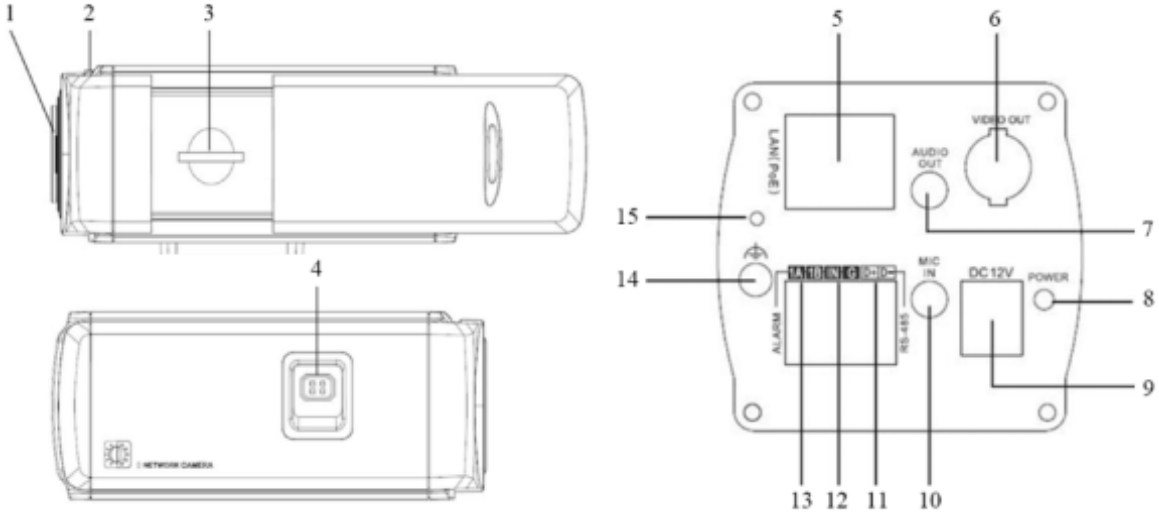


Figure 2-1 Overview

Table 2-1 Description

No.	Description
1	Lens Mount
2	Back Focus Ring
3	SD Card Slot
4	Auto-iris Interface
5	10M/100M Self-adaptive Ethernet Interface
6	VIDEO OUT: Video Output Interface
7	AUDIO OUT: Audio Output Interface
8	POWER: Power LED Indicator
9	Power Supply Interface
10	MIC IN: Audio Input Interface

11	D+, D-: RS-485 Interface
No.	**Description**
12	IN, G: Alarm Input Interface
13	1A, 1B: Alarm Output Interface
14	Grounding
15	RESET: Reset Button

Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

The type of auto-iris interface is shown as below figure:

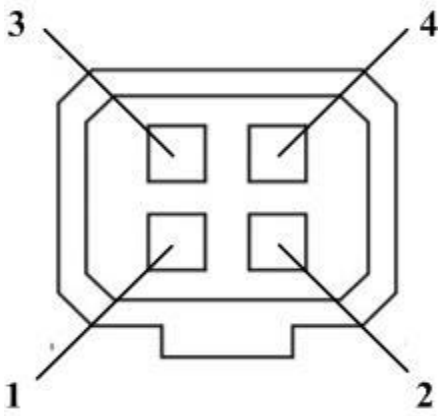


Figure 2-2 Auto-iris Interface

Table 2-2 Pins

No.	**DC-driven**
1	Damp-
2	Damp+
3	Drive+
4	Drive-

Power, Video and GND pins are used when the auto-iris is driven by video; And Damp+, Damp-, Drive+ and Drive- pins are used when the auto-iris is driven by DC.

2.1.2 Installation

Steps:

1. Fix the mounting bracket to the ceiling.

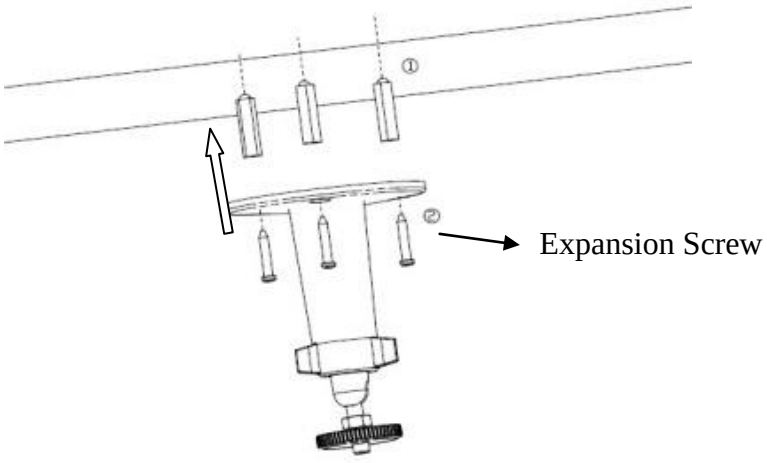


Figure 2-3 Fix Camera Mounting Bracket

2. Aim the screw hole on the camera at the bracket and rotate the camera tightly.
3. Adjust the camera to the desired surveillance angle and tighten the knob on bracket to secure the camera.

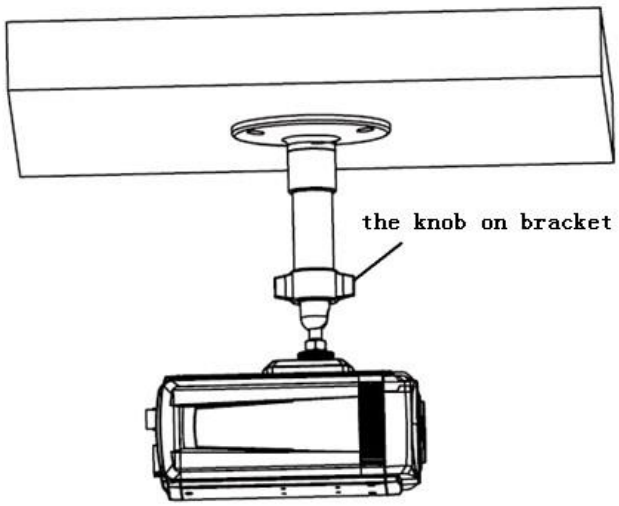


Figure 2-4 Fix the Camera

4. Install the lens.

1). Connect the VIDEO OUT interface of the camera to the debugging monitor.

2). Adjust the lens focus to obtain a perfect image on the monitor.

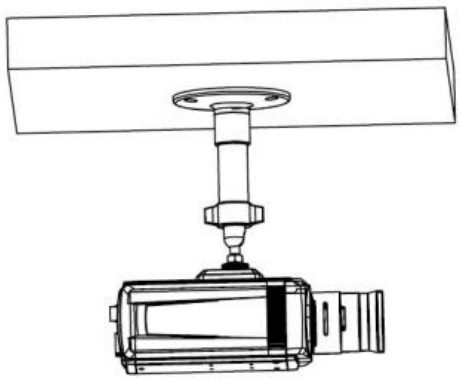


Figure 2-5 Install the Lens

2.2 Type II Box Camera

2.2.1 Camera Description

The overview of Type II box camera is shown below:

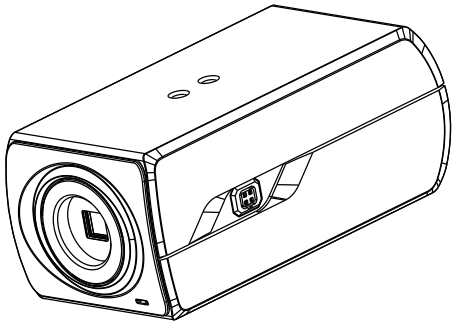


Figure 2-6 Overview (1)

The overview of the components and the interface are shown below:

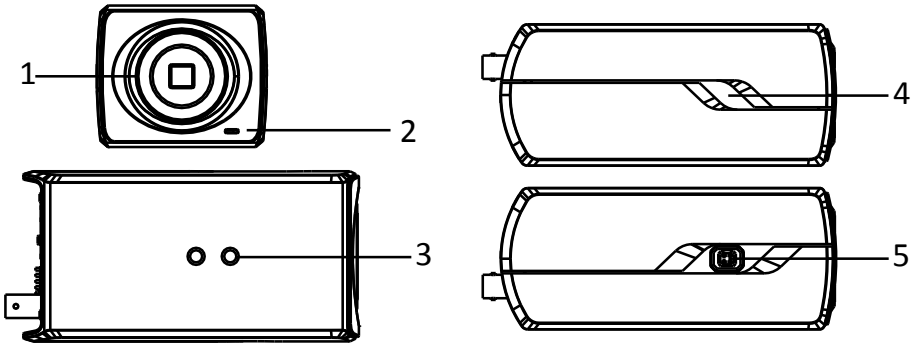


Figure 2-7 Overview (2)

The interfaces on the rear panel are shown below:

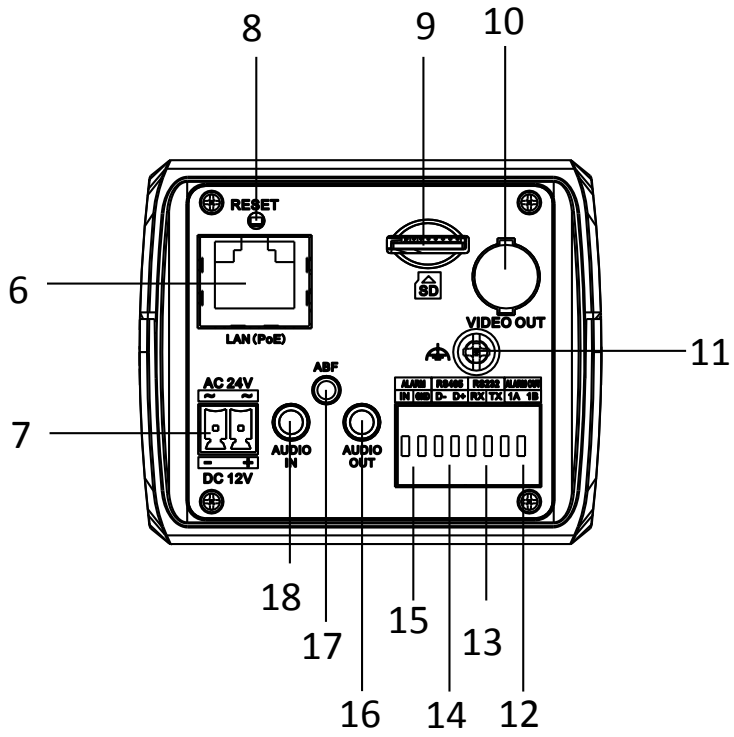


Figure 2-8 Overview (3)

Table 2-3 Description

No.	Description	No.	Description
1	Lens Mount	2	MIC
3	¼-20 UNC Screw Hole	4	Status Indicator
5	Auto-iris Interface	6	LAN(PoE)
7	Power Outlet	8	Reset

9	Micro SD Card Slot	10	Video Out
11	Grounding	12	Alarm Out
13	RS-232	14	RS-485
15	Alarm In	16	Audio Out
17	ABF	18	Audio In

Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

The type of auto-iris interface is shown as below figure:

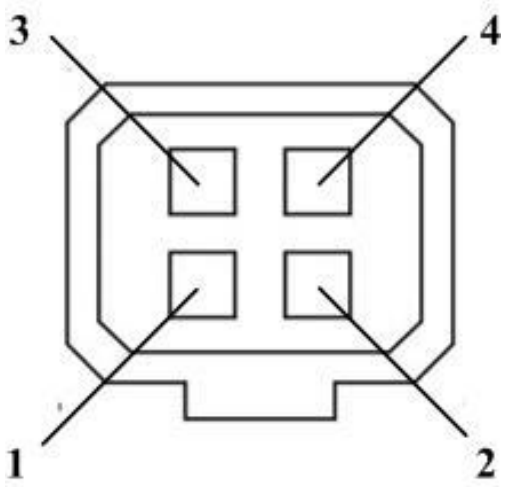


Figure 2-9 Auto-iris Interface

Table 2-4 Pins

No.	DC-driven
1	Damp-
2	Damp+
3	Drive+
4	Drive-

Power, Video and GND pins are used when the auto-iris is driven by video; Damp+, Damp-, Drive+ and Drive- pins are used when the auto-iris is driven by DC.

2.2.2 Installation

- **Ceiling Mounting**

Steps:

1. Install the ceiling mount to the ceiling with the supplied expansion screws.

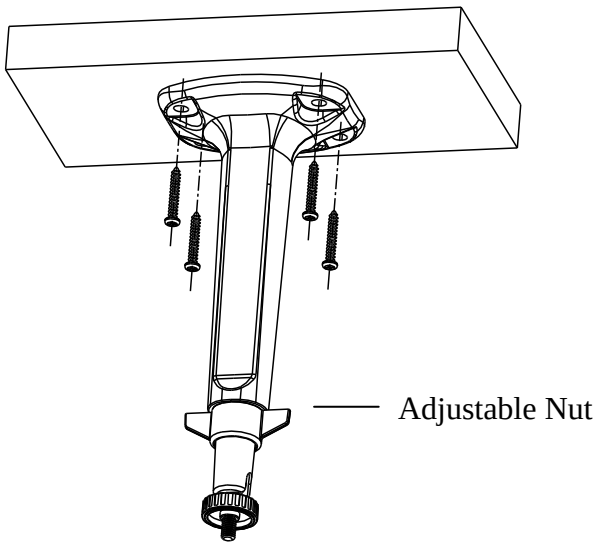


Figure 2-10 Install the Mount

2. Fit the lens (not supplied) to the camera and rotate it to get it tightened.

- Install the adapter ring to the lens interface if a C-mount lens is used.
- A manual-iris lens can be directly installed to the camera without plugging the power cable of the auto-iris to the auto-iris interface.

3. Plug the auto-iris cable to the auto-iris interface.

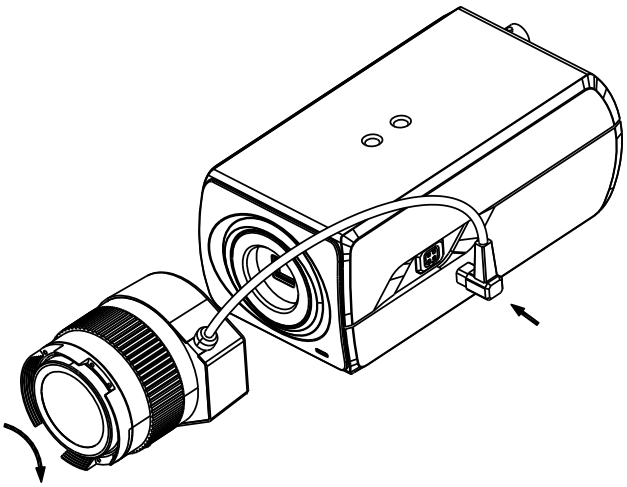


Figure 2-11 Install the Lens

4. Align the screw hole on the camera with the ceiling mount and rotate the camera to get it fixed.

5. Adjust the surveillance angle.

   1). Loosen the pan nut to adjust the pan angle [0°-360°].

   2). Loosen the knob on the ceiling mount to adjust the tilt angle [0°-90].

6. Adjust the Lens

   1). Connect the VIDEO OUT interface of the camera to the debugging monitor.

   2). Adjust the Zoom Lever and Focus Lever to obtain a perfect image on the monitor.

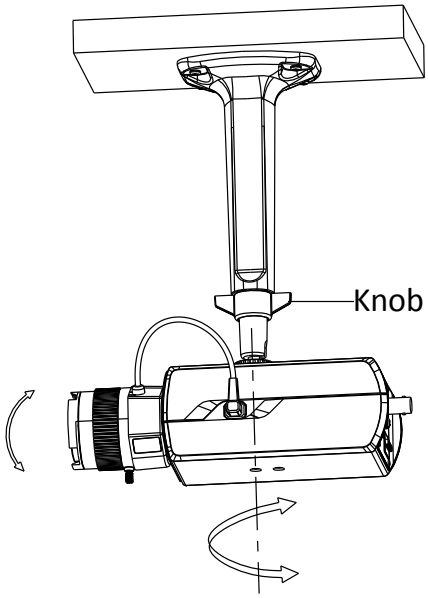


Figure 2-12 Install the Camera to the Mount and Adjust the Angle

- **Wall Mounting**

1. Install the lens (not supplied) to the camera and rotate it to get it tightened.

2. Plug the auto-iris cable to the auto-iris interface.

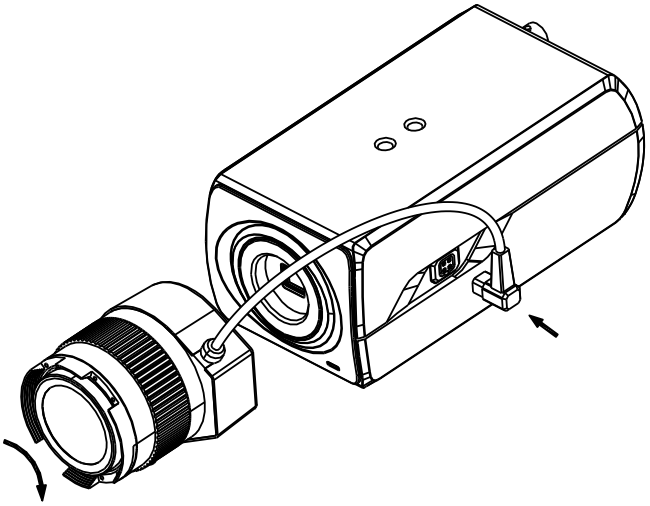


Figure 2-13 Install the Lens

3. Loosen the lock screw on the mount and remove the tilt adjust table from the wall mount.

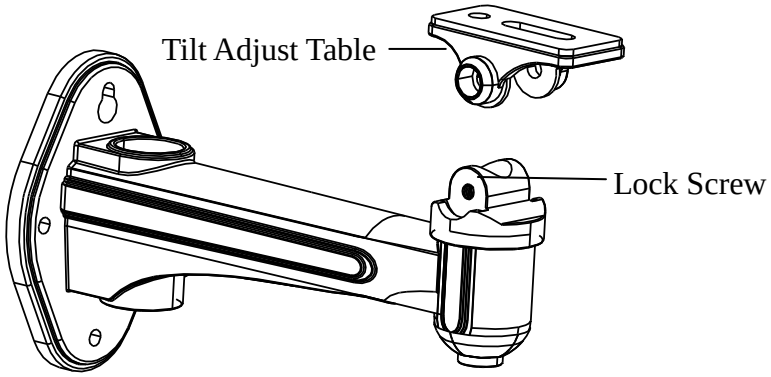


Figure 2-14 Remove the Tilt Adjust Table

4. Fit the removed tilt adjust table to the camera, and fix it with two screws.

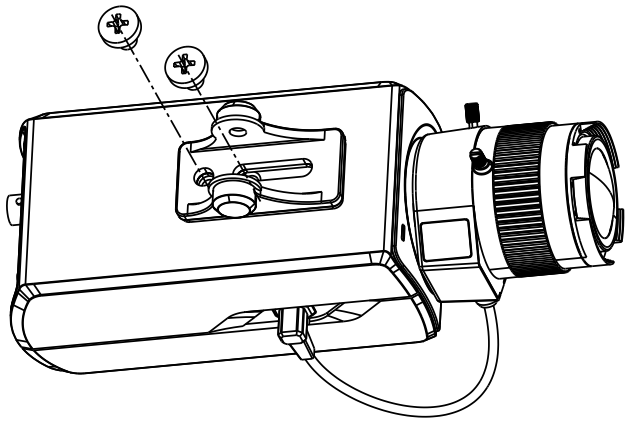


Figure 2-15 Install the Tilt Adjust Table

5. Secure the wall mount to the wall with the supplied expansion screws.

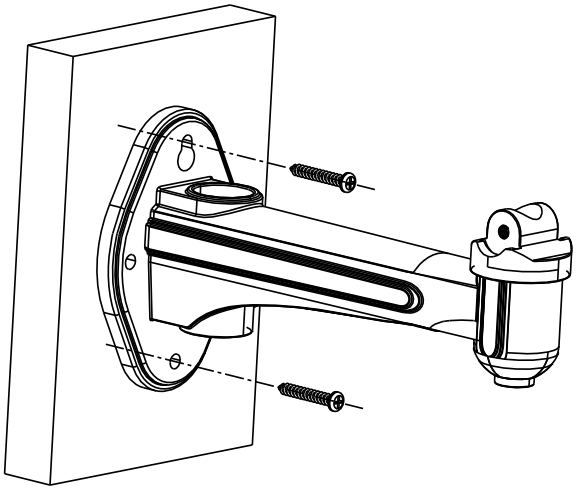


Figure 2-16 Install the Wall Mount

6. Install the camera to the wall mount and tighten the two lock screws.

7. Adjust the surveillance angle.

1). Loosen the pan nut to adjust the pan angle [0°-360°].

2). Loosen the knob on the ceiling mount to adjust the tilt angle [0°-±45°].

8. Adjust the Lens

1). Connect the VIDEO OUT interface of the camera to the debugging monitor.

2). Adjust the focus lever to obtain a perfect image on the monitor.

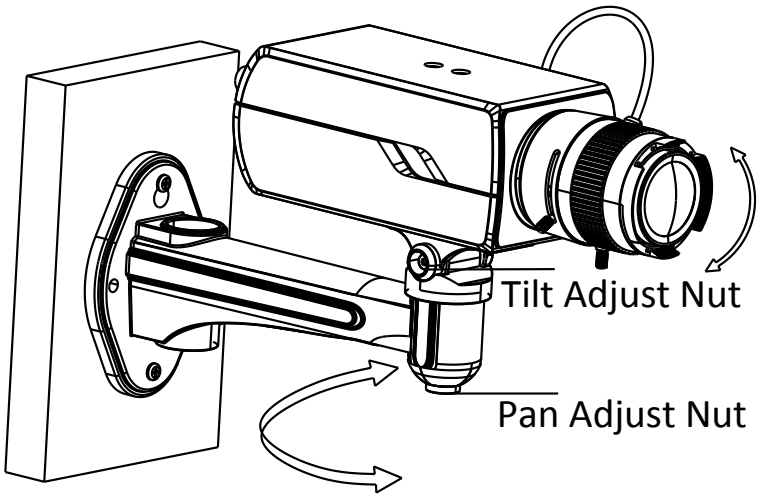


Figure 2-17 Adjust the Surveillance Angle

- **Installing the SD Card**

- Insert the SD card to the SD card slot to get it installed.

- Push the inserted SD card slightly to get it sprung by its built-in springing to remove it.

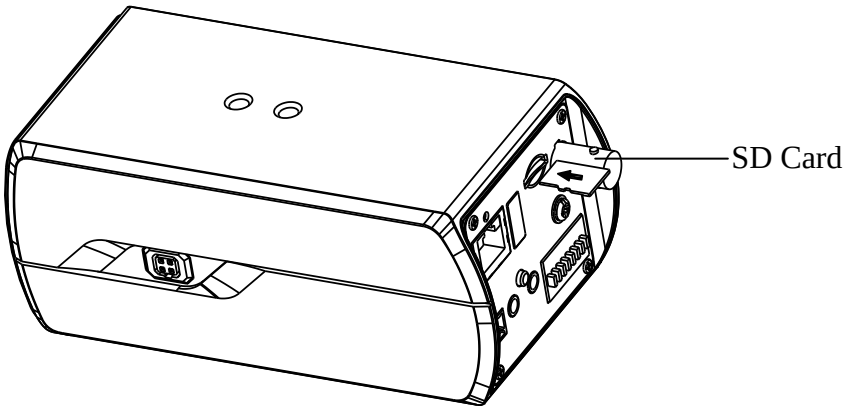


Figure 2-18 Install the SD Card

Chapter 3 Dome Camera Installation

3.1 Type I Dome Camera

3.1.1 Camera Description

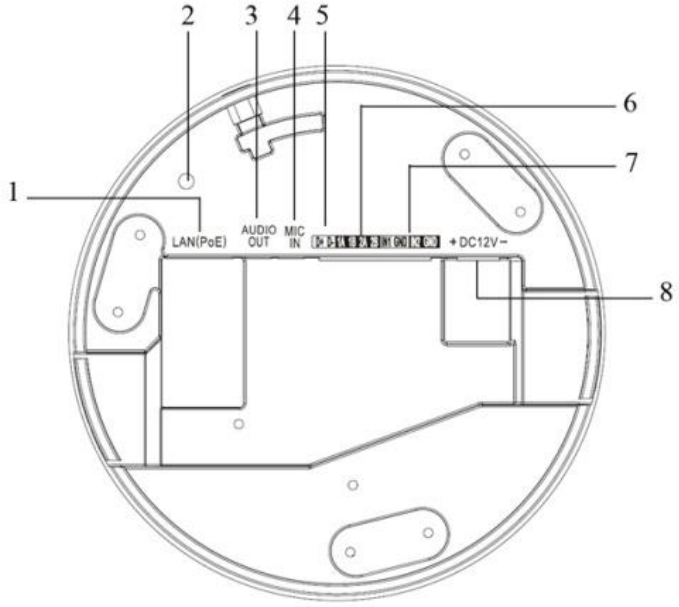


Figure 3-1 Overview

Table 3-1 Description

No.	Description
1	10M/100M self-adaptive Ethernet interface
2	Reset Button
3	AUDIO OUT: Audio output interface
4	MIC IN: Audio input interface
5	D+, D-: RS-485 interface
6	1A, 1B, 2A, 2B: Alarm output interface
7	IN1, GND, IN2, GND: Alarm input interface
8	Power Supply Interface

NOTE

Press RESET about 10s when the camera is powering on or rebooting to restore the default settings,

including the user name, password, IP address, port No., etc.

3.1.2 Installation

- **Ceiling Mounting**

Steps:

1. (Optional) use a plier to remove one clip or both two clips (marked in dotted line in Figure 3-2) on the side of the back box and then route cables through the opening to secure the cables on the ceiling.

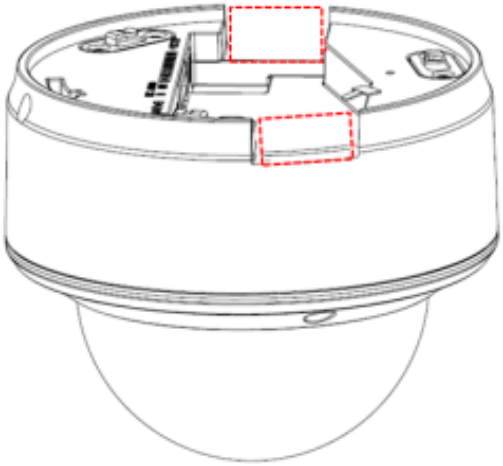


Figure 3-2 Side Clips

2. Drill the screw hole and the cable hole according to the supplied drill template.

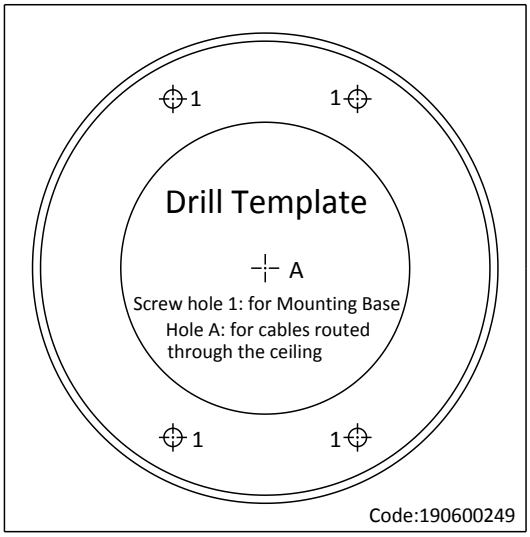


Figure 3-3 Drill Template

3. Fix the mounting base to the ceiling; rotate the back box counterclockwise to secure it to the mounting base; use the lock screw to secure the dome camera.

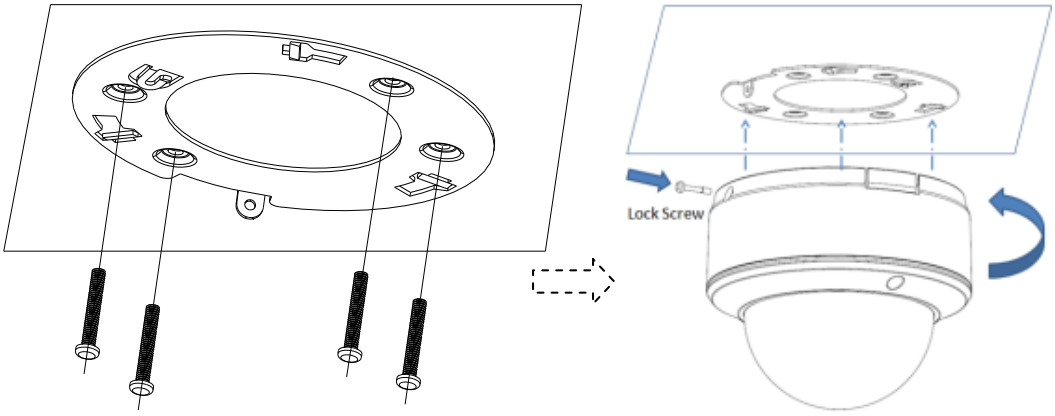


Figure 3-4 Mounting

4. Loosen the set screws with the hex key (supplied) to remove the bubble.

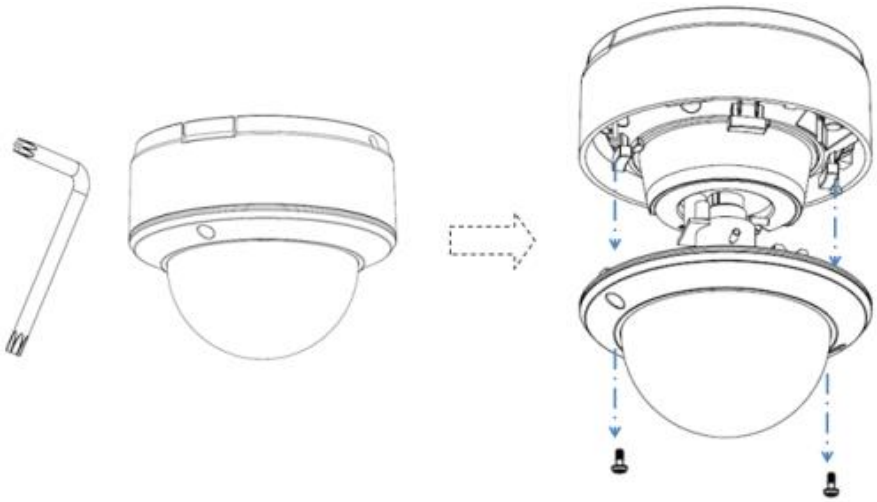


Figure 3-5 Disassembling

5. Connect the RCA analog video output with a monitor to view the image of the camera. Loosen the lens set screw to adjust the angle of pan, tilt and rotation direction.

6. Adjust the focus to obtain a perfect image. Fasten the lens set screw.

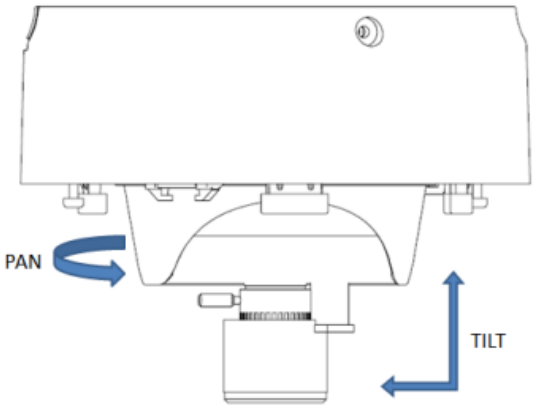


Figure 3-6 Image Adjusting

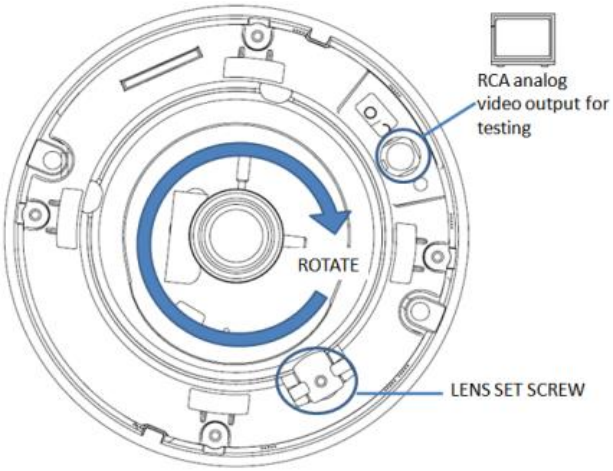


Figure 3-7 Image Adjusting

7. Reinstall the bubble and tighten the screws.

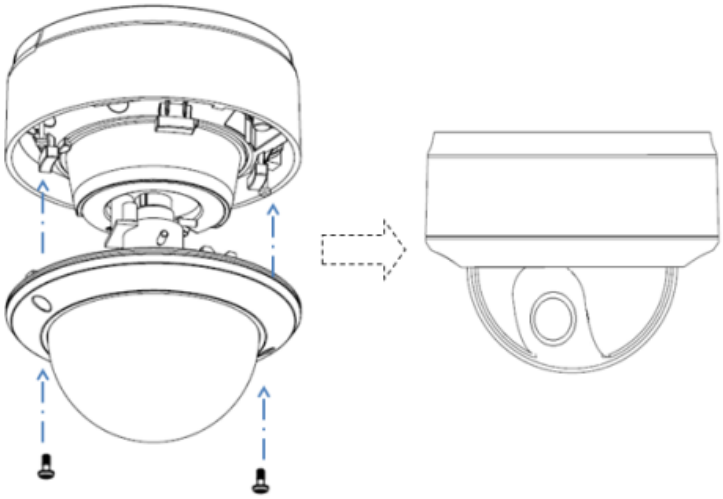


Figure 3-8 Reinstall

- **In-ceiling mounting**

Steps:

1. Secure the mounting base to the in-ceiling mounting base with screws.

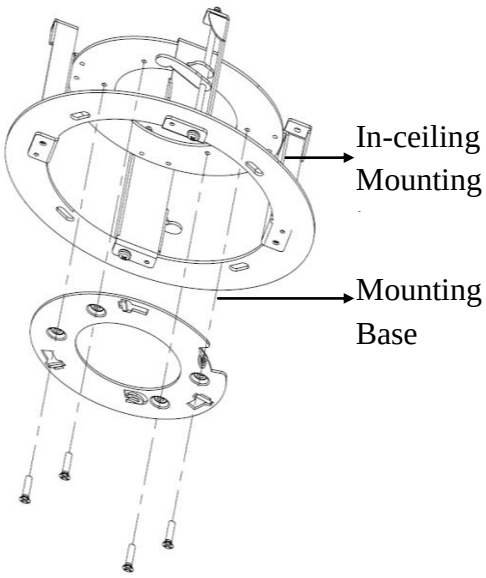


Figure 3-9 Mounting Base

2. Push the dome camera to the in-ceiling mounting base, rotate the dome camera for 10 degrees counterclockwise and then fasten the lock screws to fix the camera.

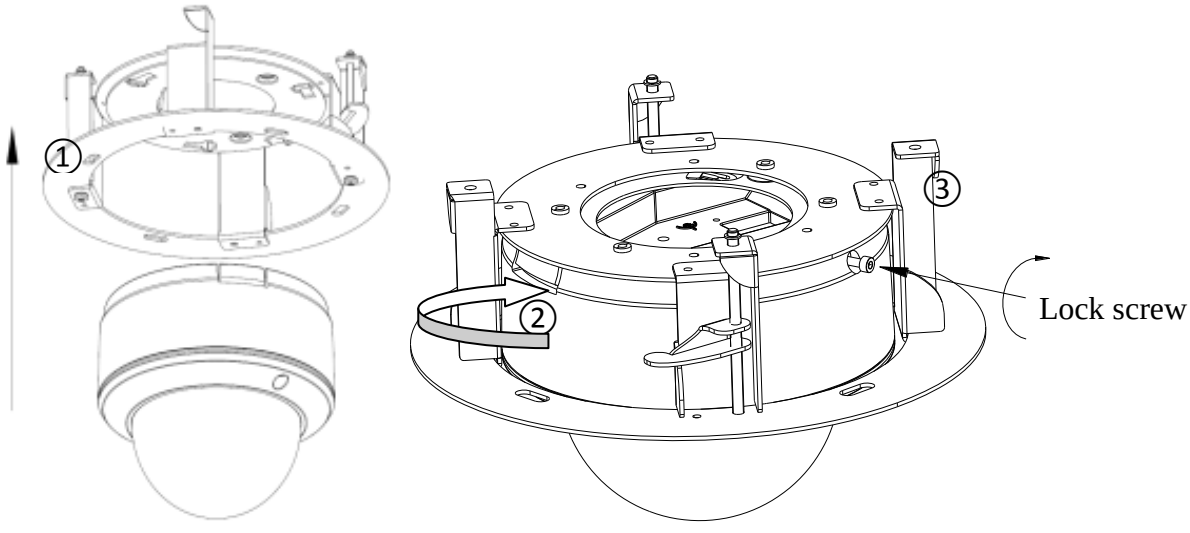


Figure 3-10 Camera and Mounting Base

3. Cut a 176~180 mm diameter hole in the ceiling and push the dome camera with in-ceiling mounting base to the hole.

NOTE

The thickness of the ceiling should be less than 30 mm.

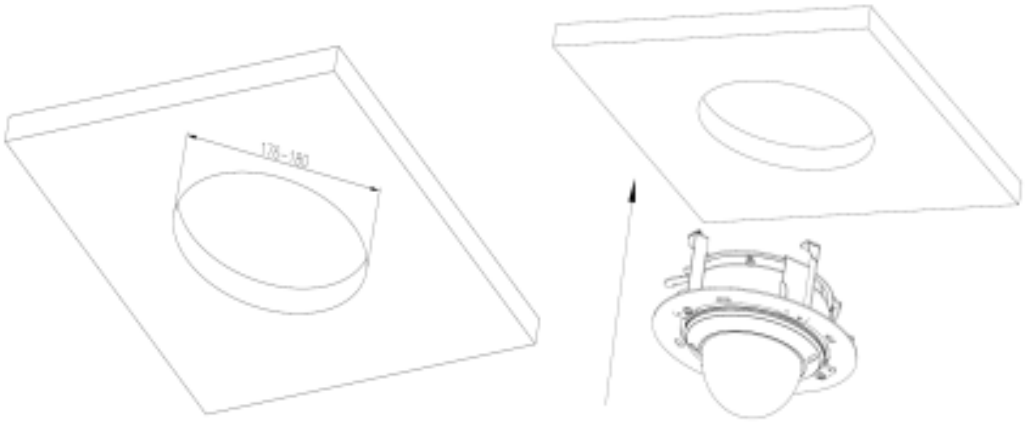


Figure 3-11 Installing

4. It is strongly recommended that you use a safety rope to secure the in-ceiling mounting base to the roof.

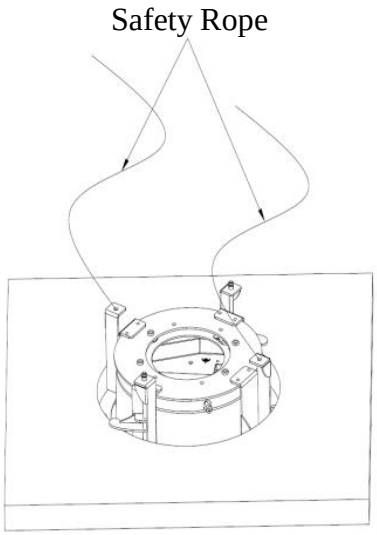


Figure 3-12 Safety Rope

5. Fasten the lock screws to secure the dome camera.

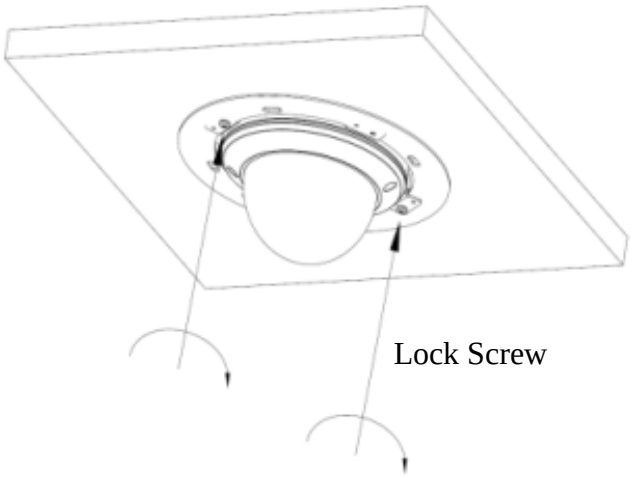


Figure 3-13 Fasten Screws

6. Remove the bubble and connect the RCA analog video output with a monitor to view the image of the camera. Loosen the lens set screw and pan, tilt or rotate the lens to get a desired surveillance angle. Adjust the lens focus to obtain a perfect image. Fasten the lens set screw. Reinstall the bubble.

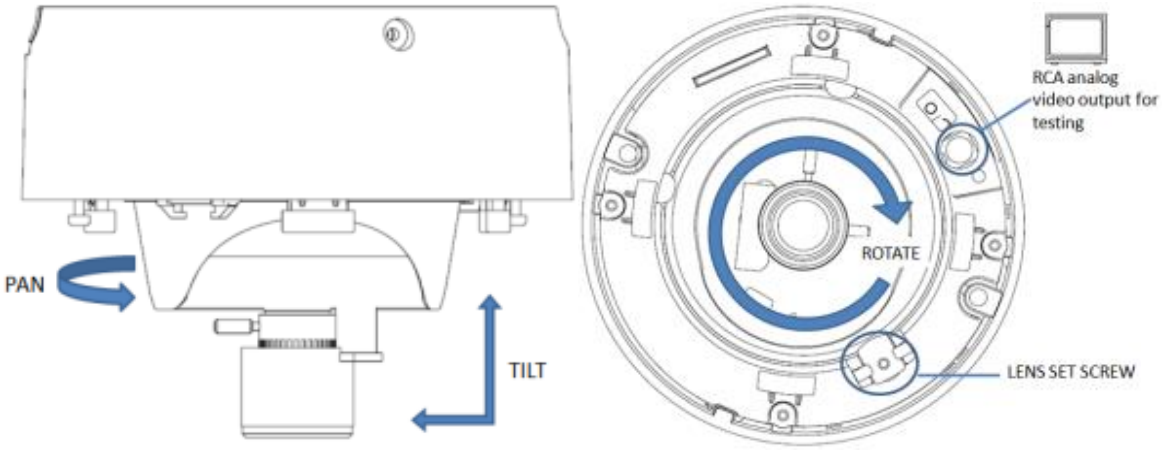


Figure 3-14 Image Adjusting

7. Install the trim plate with screws to finish the installation.

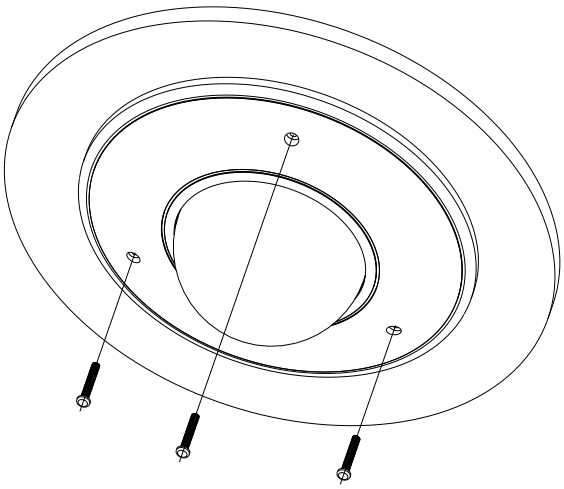


Figure 3-15 Trim Plate Installing

3.2 Type II Dome Camera

3.2.1 Camera Description

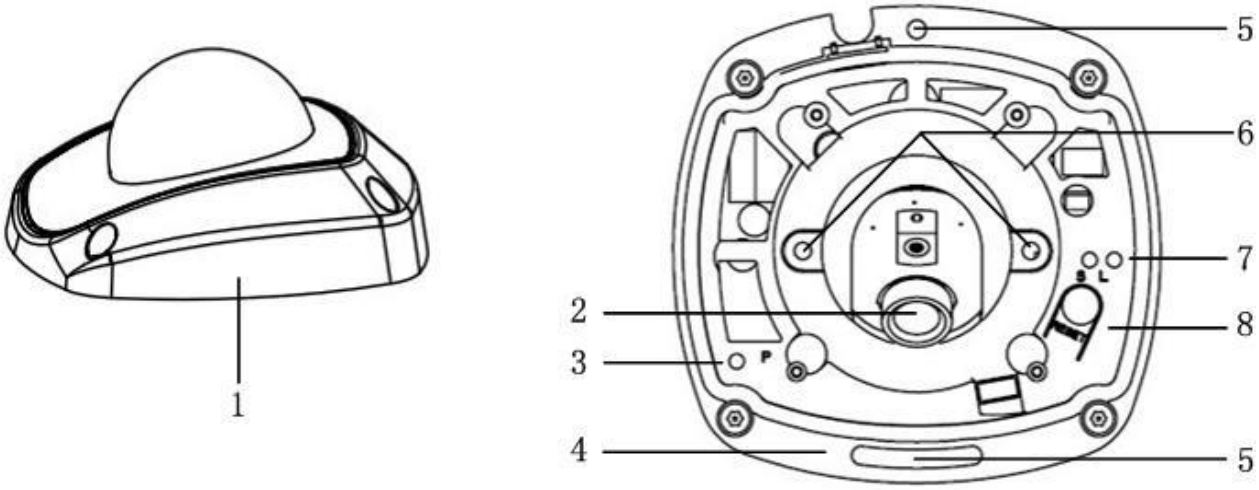


Figure 3-16 Overview

Table 3-2 Physical Description

No.	Description
1	Cover
2	Lens
3	Power LED indicator, It turns solid red when power is connected.

No.	Description
4	Base plate
5	Set screw hole
6	Set screw of lens
7	S & L: Network status indicator. When the network is connected, the “S” LED is solid yellow, while the “L” LED flashes orange.
8	RESET Button

Press RESET button about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

3.2.2 Installation

Steps:

1. (Optional) Use a plier to remove the clip (marked in dotted line in 0) on the side of the back box and then route the cables through the opening instead of the cable hole.

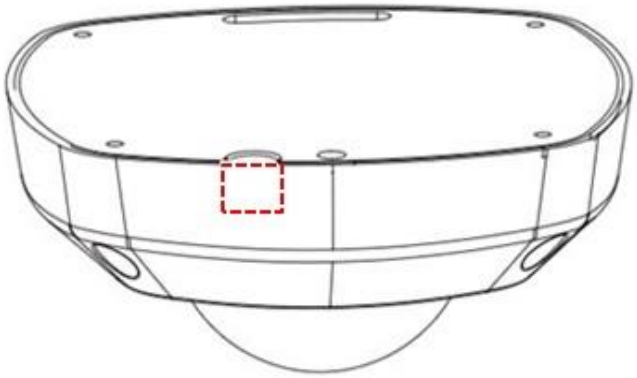


Figure 3-17 Side Clip

2. Loosen the set screws with a hex key (supplied) to remove the cover.

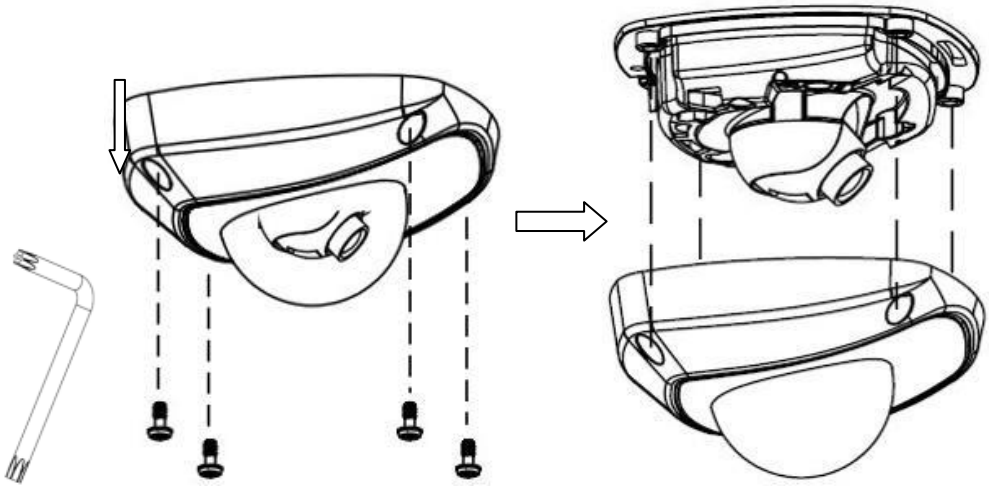


Figure 3-18 Remove the Cover

3. Fix the camera to the ceiling with the supplied screws.

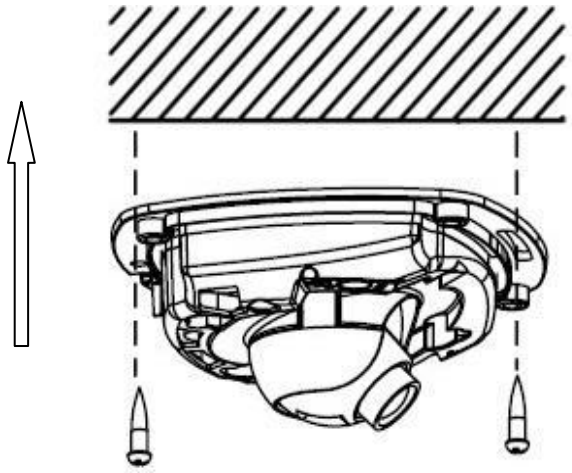


Figure 3-19 Fix the Camera

4. View the video image of the camera over the network.

5. Loosen the lens set screws.

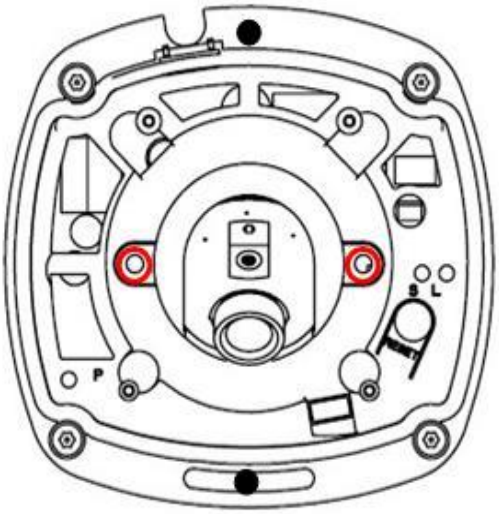


Figure 3-20 Loosen the Lens Set Screws

6. Insert the hex key into the hole marked in the picture and rotate the hex key to adjust the panning position and tilting position until getting the desired surveillance angle. Tighten the set screws.

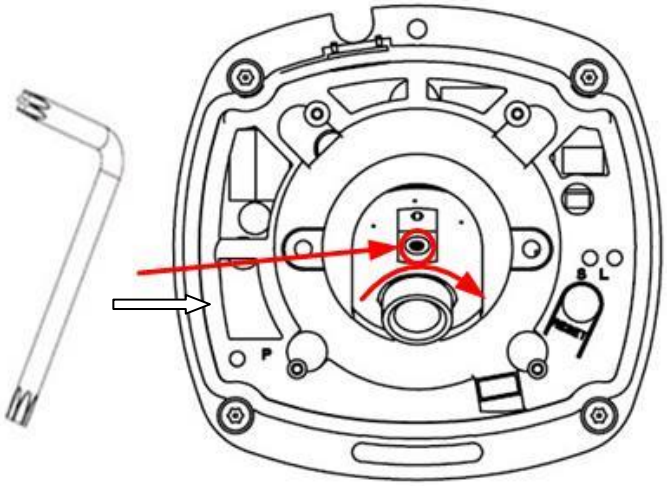


Figure 3-21 Adjust Panning Position

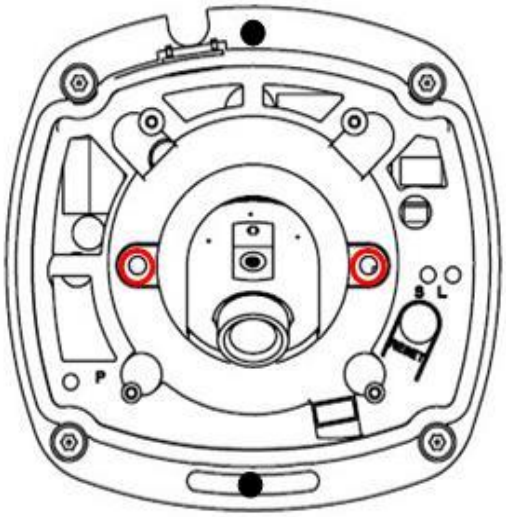


Figure 3-22 Adjust Tilting Position

NOTE

As the lens of camera has already been factory adjusted to the best imaging effect, you just need to adjust the panning position and tilting position to get the desired surveillance angle.

7. Reinstall the cover before viewing the image so that you can get the same surveillance effect as the installation is done.
8. Install the cover, and tighten the set screws.

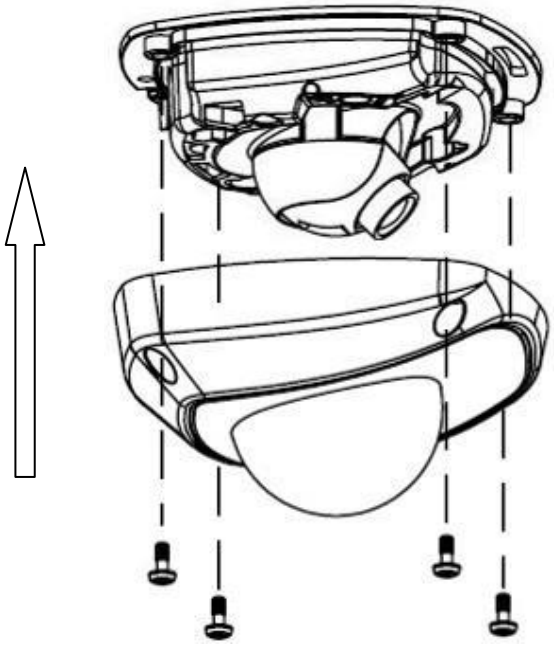


Figure 3-23 Install the Back Box

3.3 Type III Dome Camera

3.3.1 Camera Description

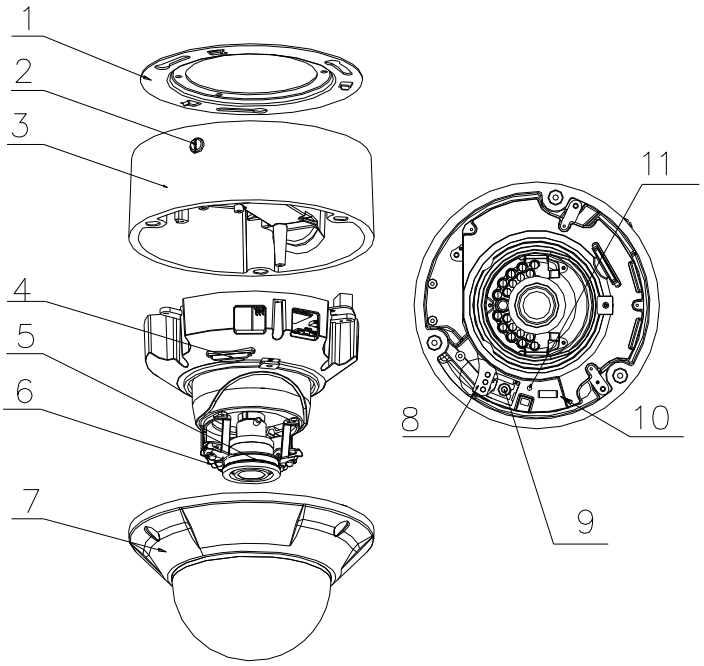


Figure 3-24 Overview

Table 3-3 Description

No.	Description
1	Ceiling Mount
2	Lock Button
3	Mounting Base
4	SD Card Slot
5	Lens
6	IR LED
7	Bubble
8	Status Indicator
9	RCA Analog Video Output
10	Debug

11	Reset

Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

3.3.2 Installation

Steps:

1. Drill the screw holes and the cable hole in the ceiling according to the supplied drill template.

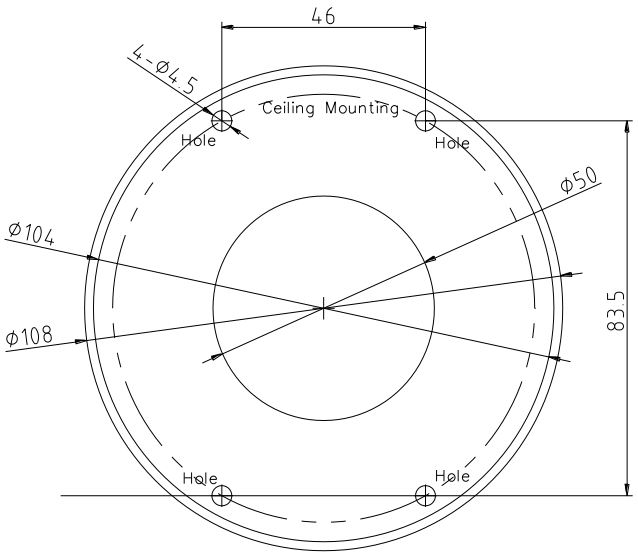


Figure 3-25 Drill Template

2. Fix the ceiling mount to the ceiling with screws.

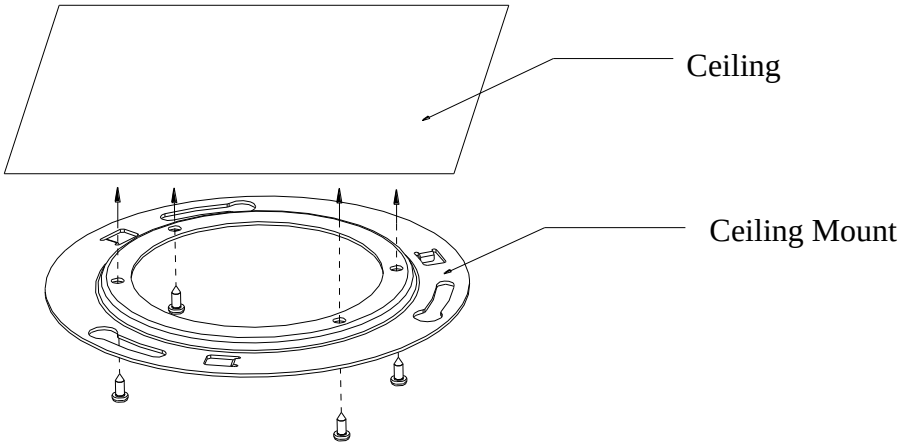


Figure 3-26 Fix the Ceiling Mount

3. Route the cables through the cable hole on the ceiling.

NOTE

If required, you can rotate the side outlet on the mounting base to remove it and route the cables through the side outlet.

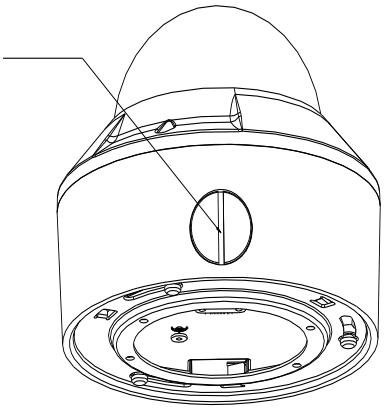


Figure 3-27 Side Outlet

4. Insert the three screws on the mounting base into the corresponding holes on the ceiling mount.
5. Rotate the mounting base clockwise to secure the dome camera to the ceiling mount.

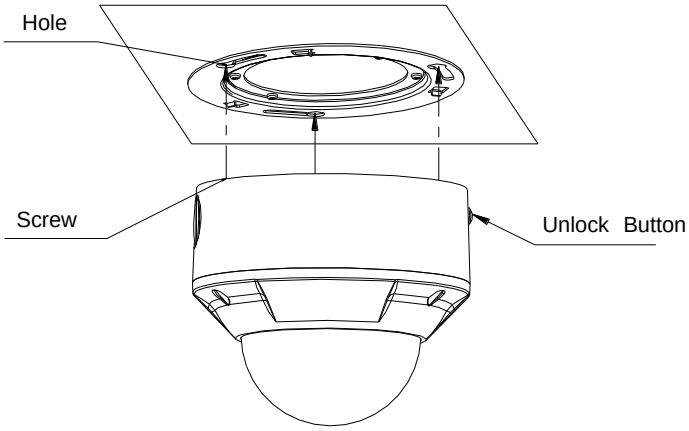


Figure 3-28 Install the Dome Camera

NOTE

To uninstall the dome camera, press the lock button and rotate the mounting base counterclockwise.

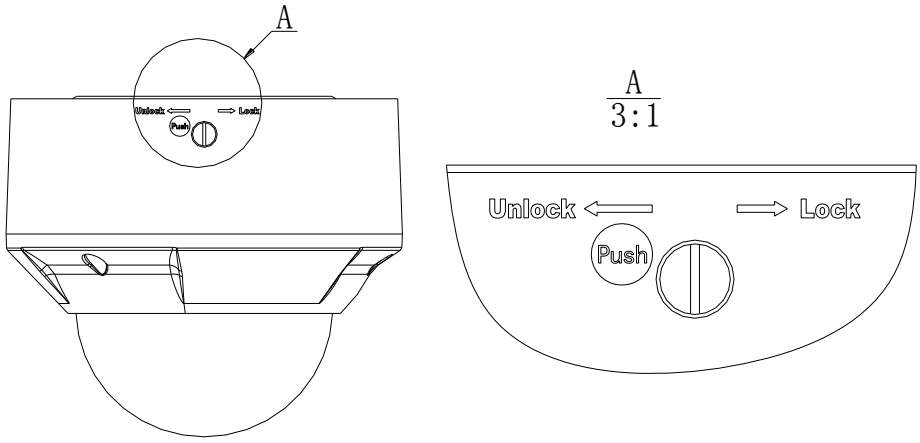


Figure 3-29 Uninstall the Dome Camera

6. Loosen the set screws with a hex key (supplied) to remove the bubble.

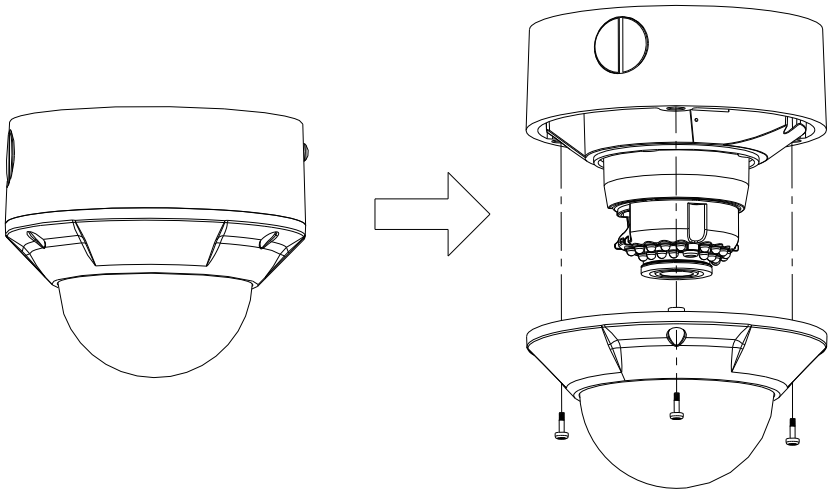


Figure 3-30 Remove the Bubble

7. Connect the RCA analog video output with a monitor to view the image.
8. Loosen the set screw and adjust the panning position and tilting position until you get the desired surveillance angle.
9. Loosen the zoom puller and focus puller and adjust the lens focus to obtain a perfect image.

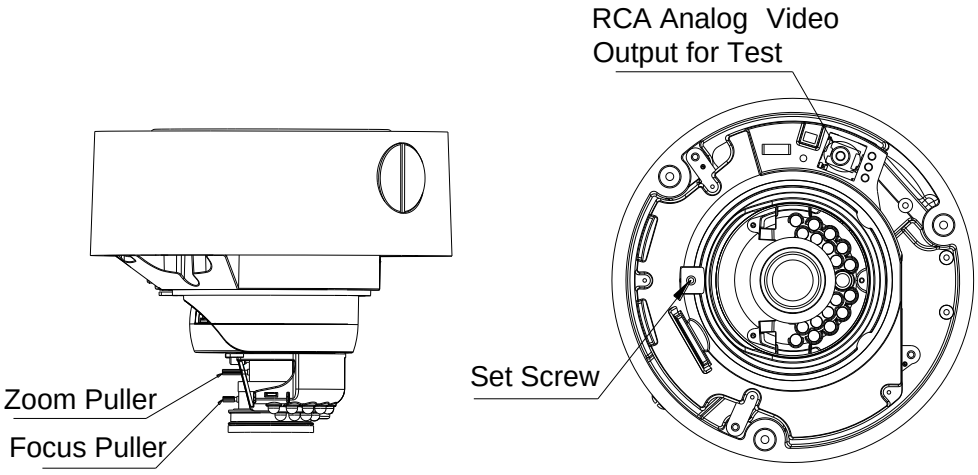


Figure 3-31 Image Adjusting

10. Reinstall the bubble and tighten the screws to complete the installation.

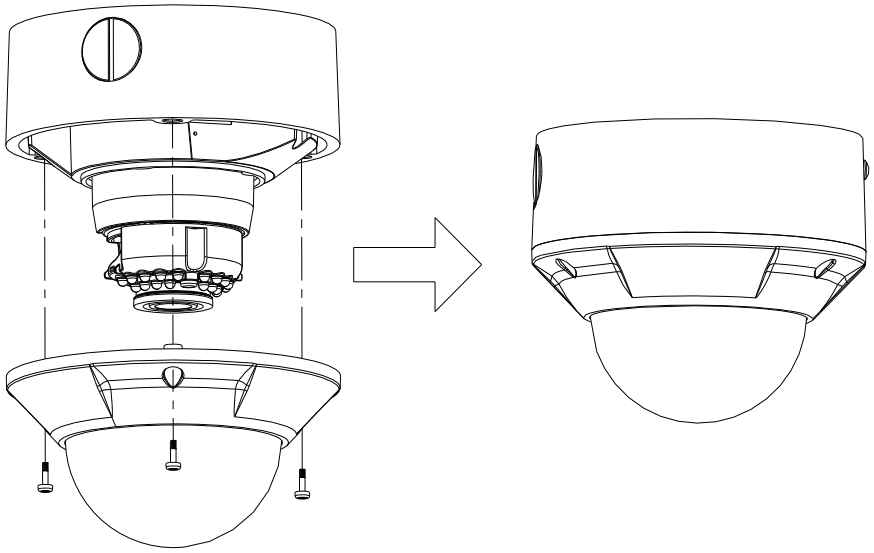


Figure 3-32 Reinstallation

3.4 Type IV Dome Camera

3.4.1 Camera Description

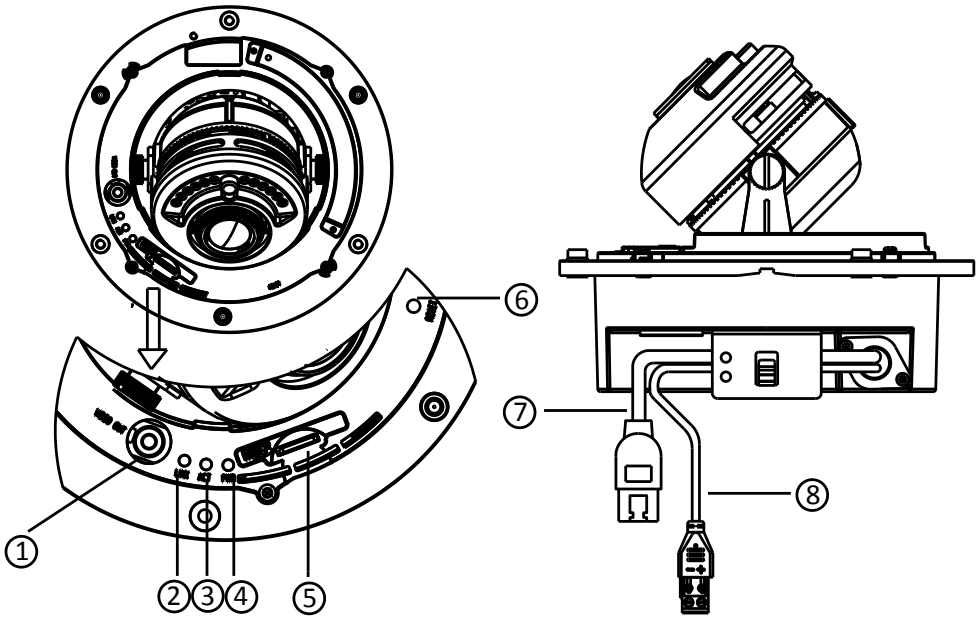


Figure 3-33 Overview

Table 3-4 Physical Description

No.	Description
1	Video output interface

2	LINK: Indicator is solid yellow when network is connected.
3	ACT: Indicator flashes blue when network connection is functioning properly.
4	PWR: Indicator is solid red when the device is powered on.
5	Micro SD slot
6	RESET: Reset the camera.
7	10M/100M self-adaptive Ethernet interface
8	Power supply interface

NOTE

- The extended interface can be connected to alarm input/output interface, audio input/output interface, RS-485 interface, etc.
- Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

3.4.2 Installation

- **Ceiling Mounting**

Steps:

1. Drill the screw holes on the ceiling with the supplied drilling template. If you need to route the cables from the bottom of the camera, cut a cable hole in the ceiling.

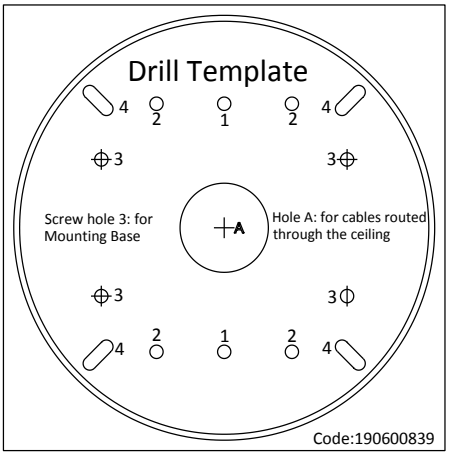


Figure 3-34 Drilling Template

2. Secure the back box to the ceiling with screws.

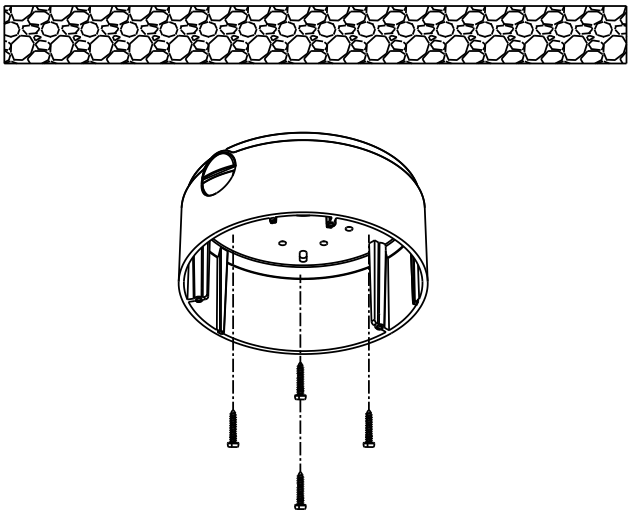


Figure 3-35 Mount Back Box

3. Loosen the set screws with the hex key (supplied) to remove the bubble; remove the black liner.

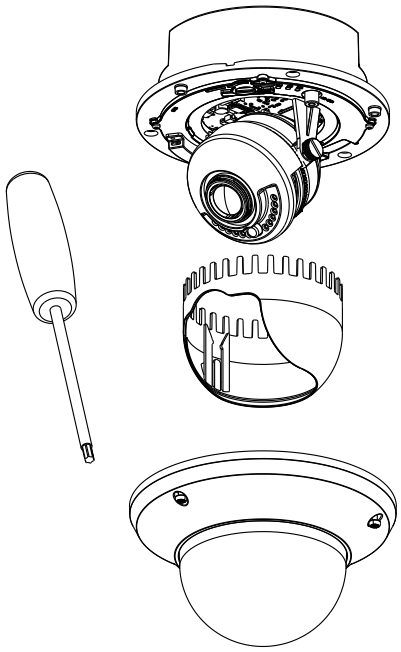


Figure 3-36 Disassembling

4. Install the dome drive to the back box and pull the cables through the cable outlet on the bottom of the back box.

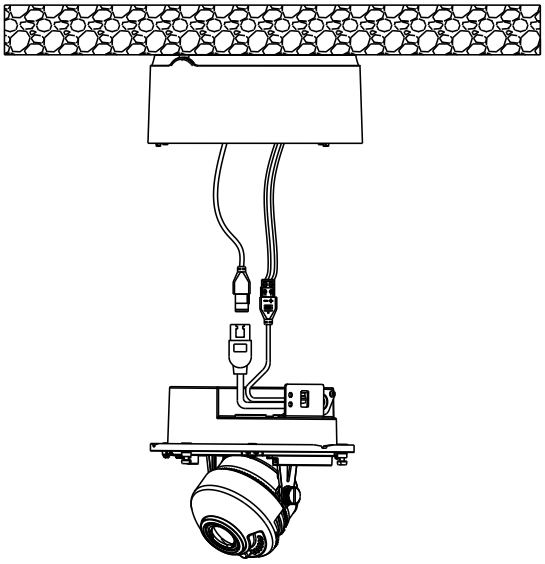


Figure 3-37 Dome Drive Installing

NOTE

If you need to pull the cable through the side outlet of the camera, please remove the cover and use water-proof joints and water-proof pipe to route the cables.

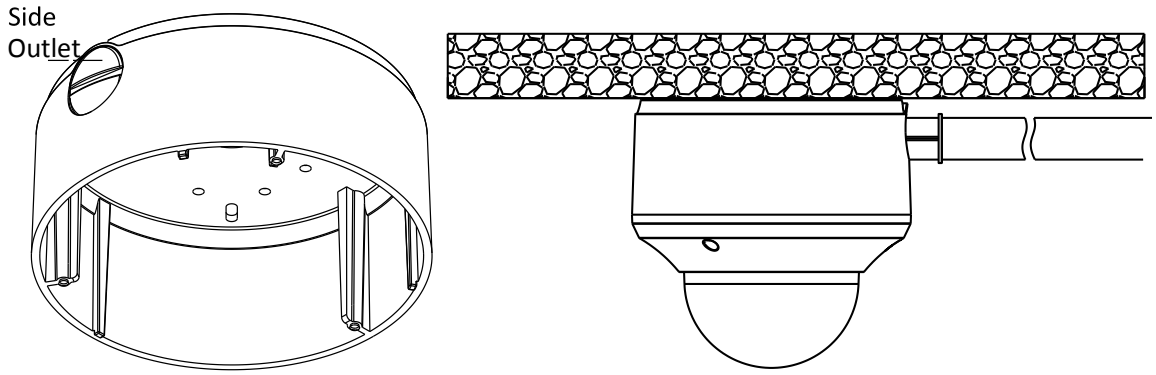


Figure 3-38 Side Cable Routing

5. After connecting the network cable and power cable, view the image of the camera over the network. Loosen the lock screws; adjust the panning position and tilting position and rotate the lens to get the desired surveillance angle; fasten the lock screws.

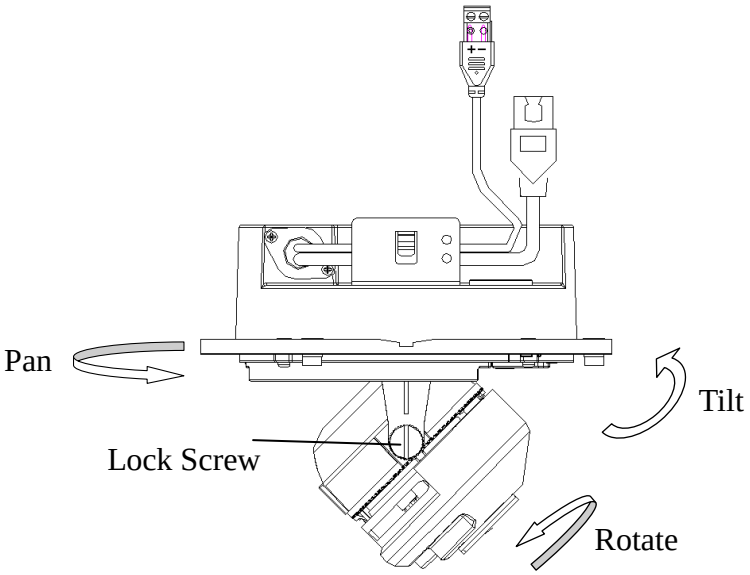


Figure 3-39 Angle Adjusting

6. Reinstall the black liner and bubble to finish the installation.

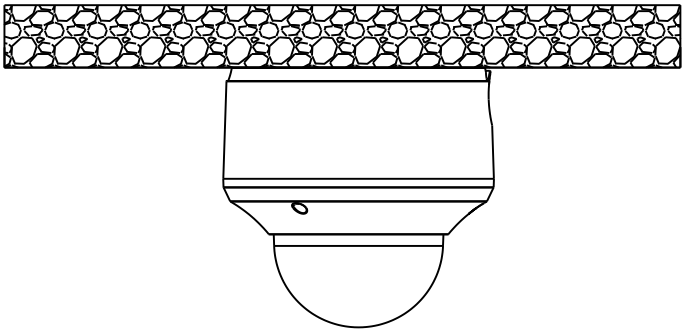


Figure 3-40 Reinstall

- **In-ceiling Mounting:**

Steps:

1. Drill the screw holes and the cable hole on the ceiling according to the supplied drill template.

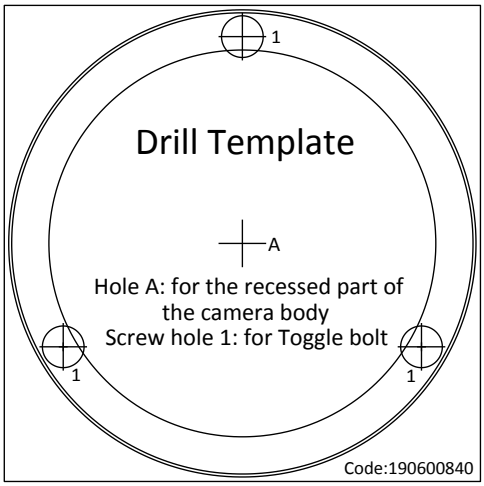


Figure 3-41 Drill Template

2. Loosen the set screws with the hex key (supplied) to remove the bubble; and remove the black liner.

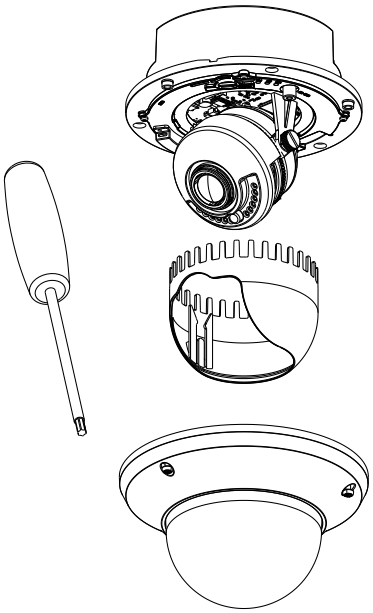


Figure 3-42 Disassembling

3. Rotate the toggle to remove it from the toggle bolt.

4. Insert the bolt into the toggle bolt hole on the dome drive and use the screw driver to rotate the bolt slightly but not tightly.

5. Reinstall the toggle and push the dome drive to the cable hole on the ceiling with toggle bolts aligned with the screw holes on the ceiling.

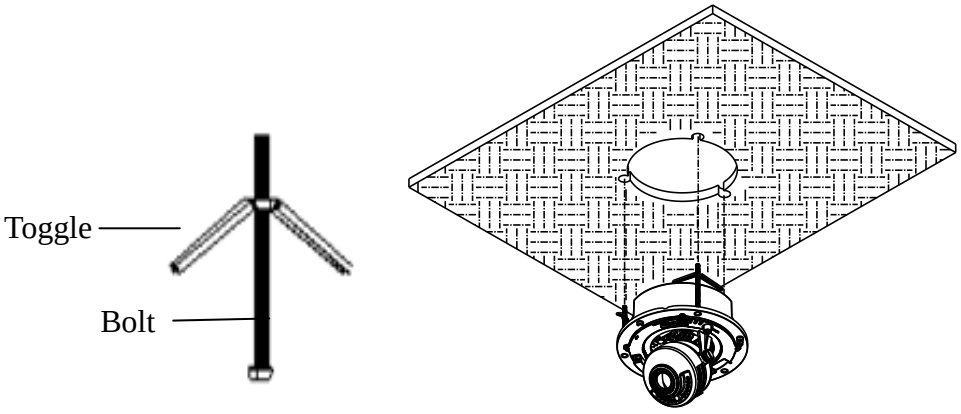


Figure 3-43 Dome Drive Installing

6. Fasten the toggle bolt and the toggle will automatically secure the dome drive to the ceiling.

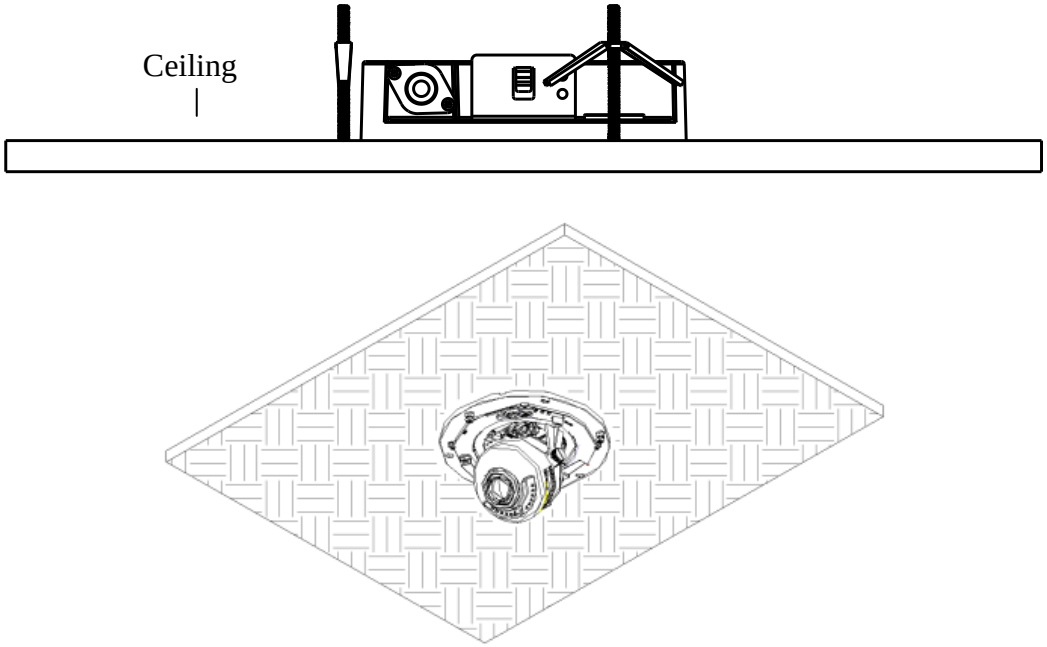


Figure 3-44 Fasten Toggle Bolt

7. Connecting the network cable and power cable.
8. View the camera image over the network.
9. Loosen the lock screws to adjust the panning position and tilting position and rotate the lens to get the desired surveillance angle.
10. Fasten the lock screws.

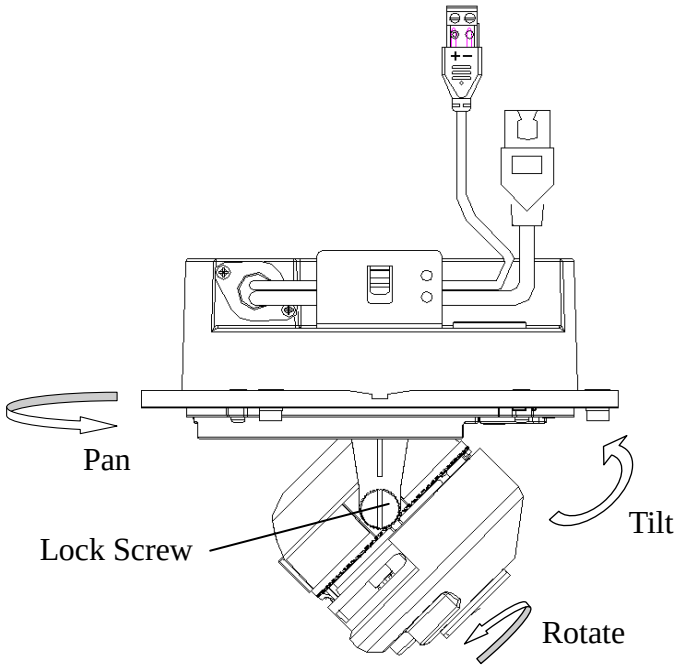


Figure 3-45 Angle Adjusting

11. Reinstall the black liner and dome drive to finish the installation.

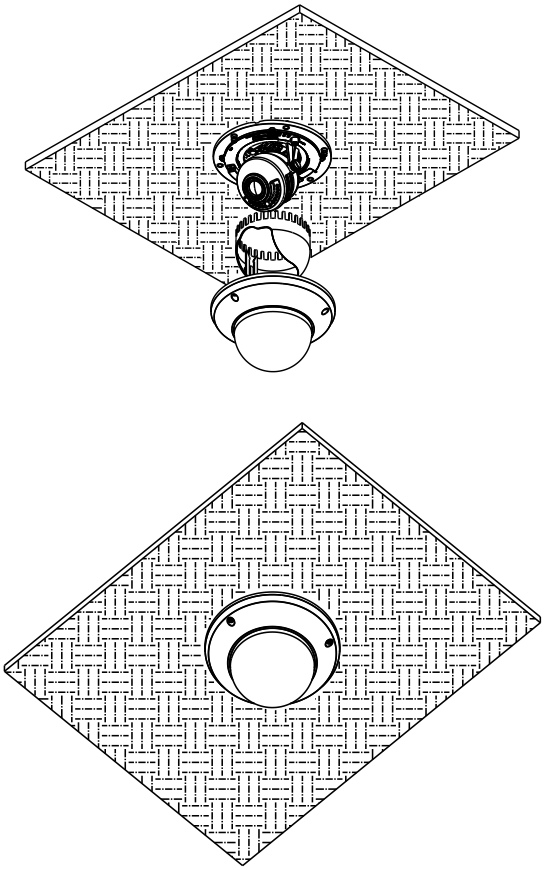


Figure 3-46 Complete the Installation

- **Wall mounting:**

Steps:

1. Drill the screw holes and the cable hole on the wall according to the supplied drill template.

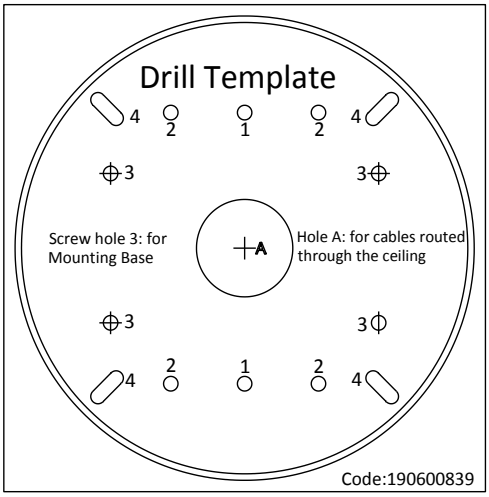


Figure 3-47 Drilling Template

2. Secure the back box to the wall with the supplied screws.

NOTE

Position the side cable outlet directly below to prevent moisture from getting inside the camera.

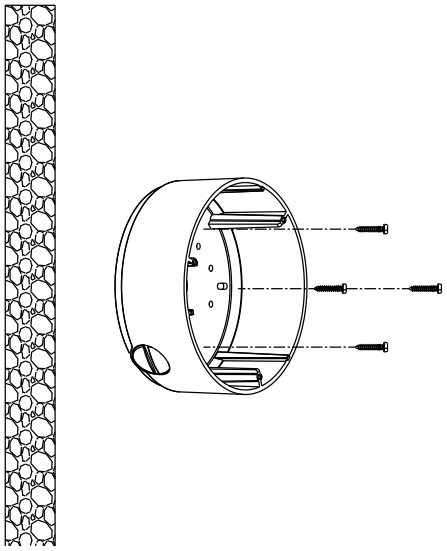


Figure 3-48 Secure Back box

3. Loosen the set screws with the hex key (supplied) to remove the bubble; remove the black liner.

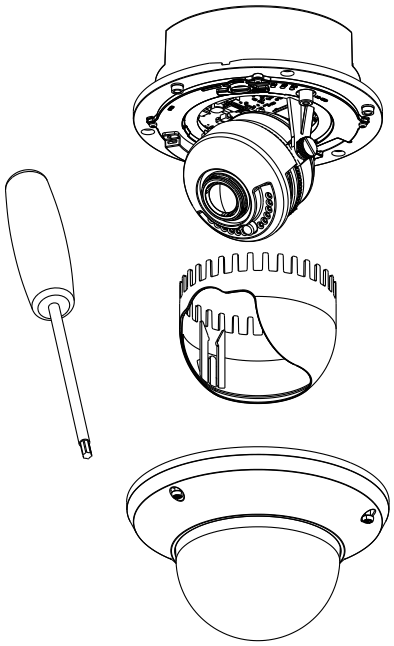


Figure 3-49 Disassembling

4. Install the dome drive to the back box and pull the cables through the side outlet on the bottom of the back box.

NOTE

If you need to pull the cable through the cable outlet from the side of the camera, please remove the cover and use water-proof joints and water-proof pipe to route the cables.

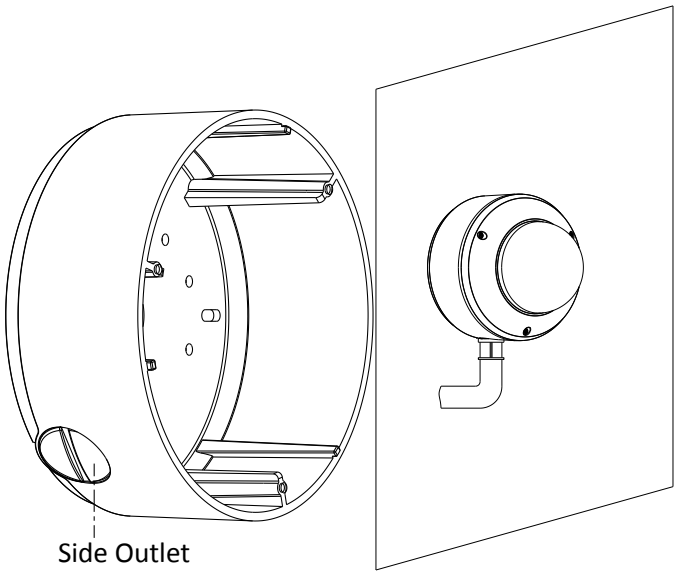


Figure 3-50 Side Cable Routing

5. Connecting the network cable and power cable.
6. View the camera image over the network.
7. Loosen the lock screws to adjust the panning position and tilting position, and rotate the lens to get the desired surveillance angle.
8. Fasten the lock screws.

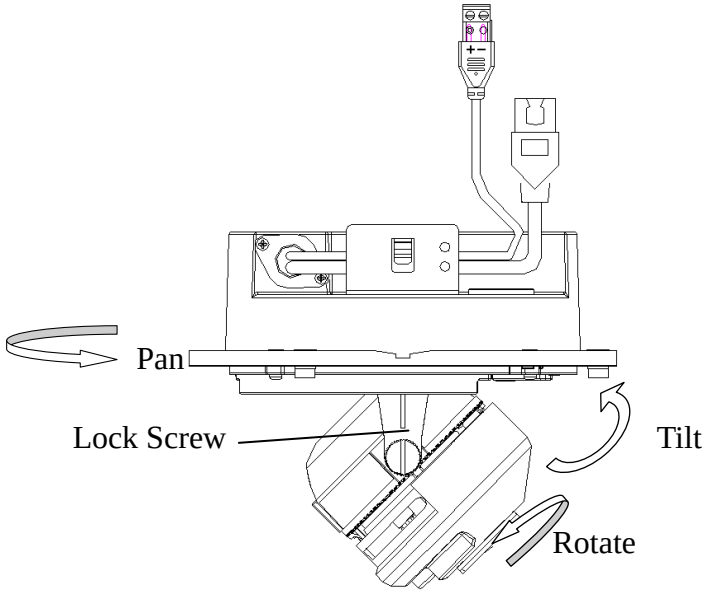


Figure 3-51 Angle Adjusting

9. Reinstall the black liner and bubble to finish the installation.

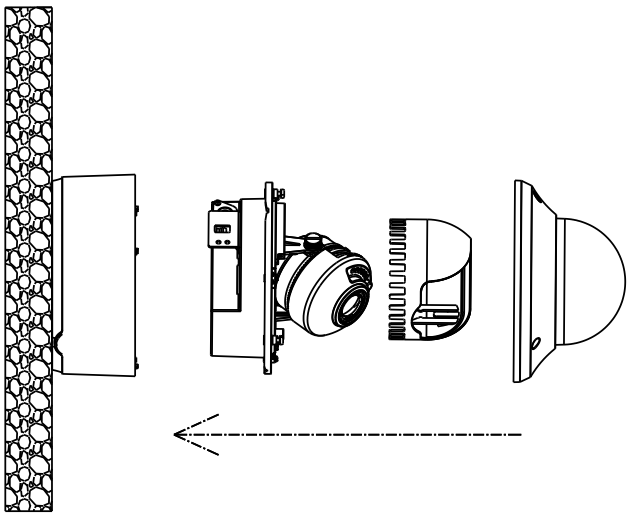


Figure 3-52 Complete the Installation

3.5 Type V Dome Camera

3.5.1 Camera Description

There are two types of camera appearance for this series of camera according to the different models.

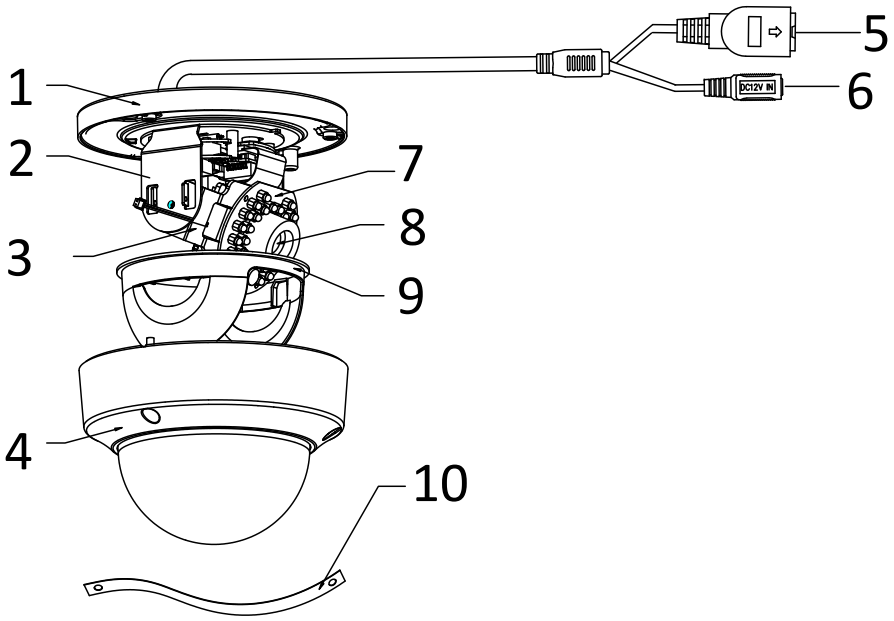


Figure 3-53 Overview of Type I Camera

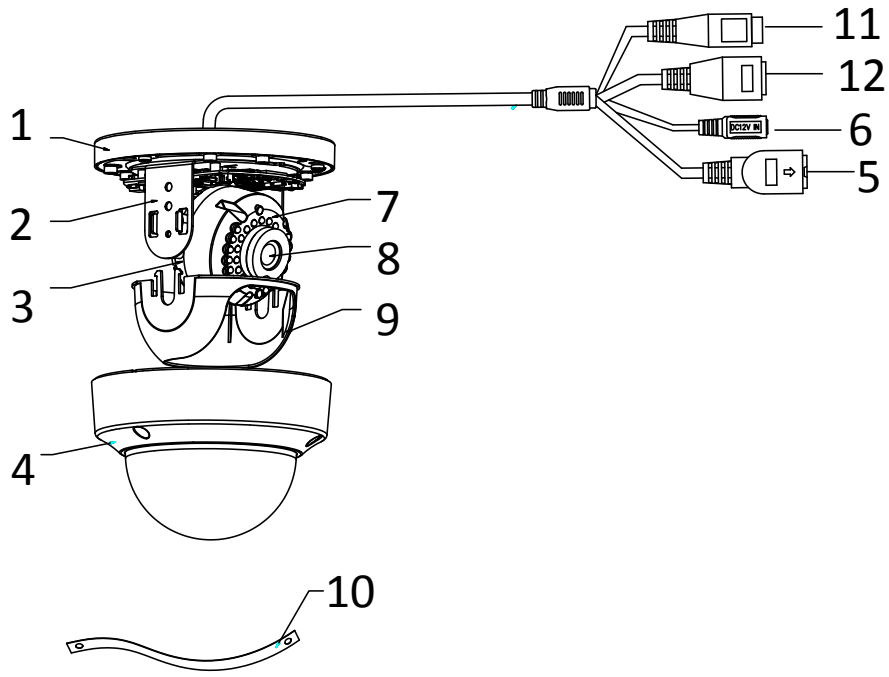


Figure 3-54 Overview Of Type II Camera

Table 3-5 Description of Type I/II Camera

No.	Description
1	Mounting Base
2	Horizontal Stand
3	Vertical Stand
4	Bubble
5	Network Interface
6	Power Interface
7	IR LED
8	Lens
9	Black Liner
10	Safety Rope
11	Audio Interface (Only supported by the camera with "-S" in its model)
12	Alarm Interface (Only supported by the camera with "-S" in its model)

Press RESET button about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

3.5.2 Installation

❖ Ceiling mounting

Steps:

1. Drill the screw holes on the ceiling according to the drill template.

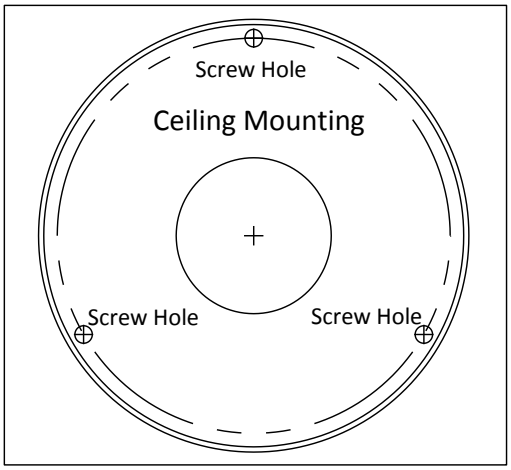


Figure 3-55 Drilling Template

2. Loosen the set screws with a hex key (supplied) to remove the bubble.

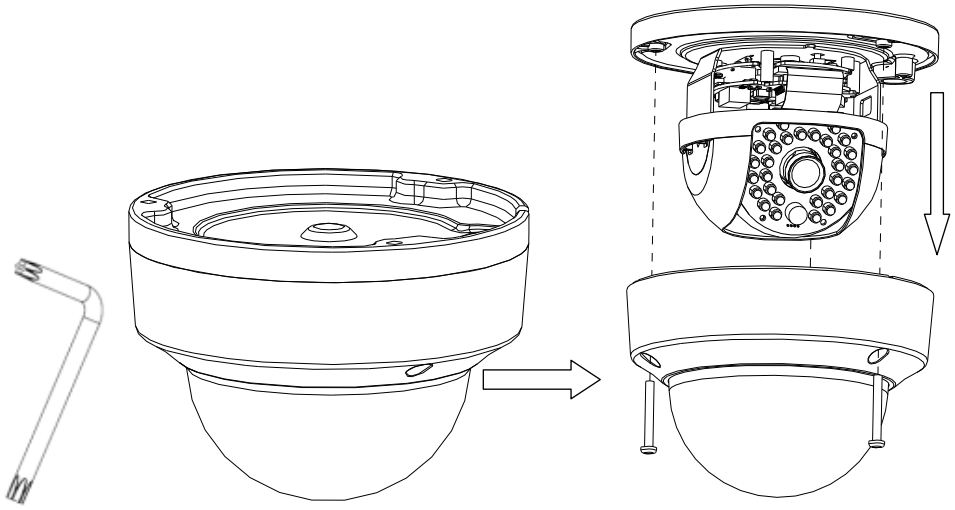


Figure 3-56 Remove the Bubble

3. Fix the mounting base on the ceiling with screws.

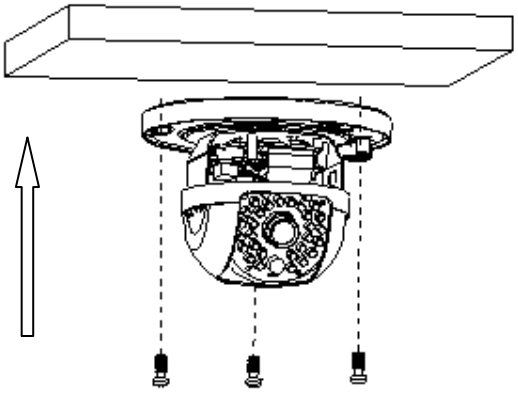


Figure 3-57 Fix the Mounting Base

If required, you can route cables through the side opening on the side of the mounting base.

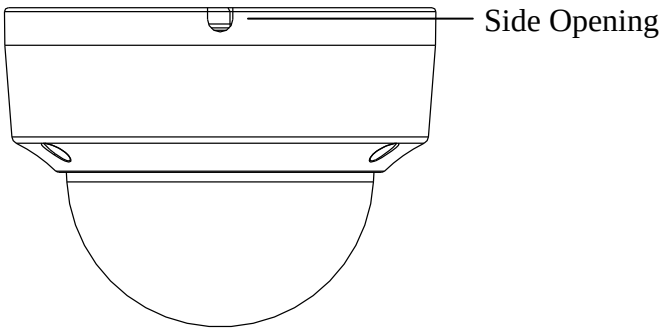


Figure 3-58 Side Opening

4. Loosen the tilt lock screws, adjust the tilting position in a range of 65 degrees, and tighten the tilt lock screws.
5. Rotate the black liner to adjust the panning position in a range of 180 degrees until you get the desired surveillance angle.

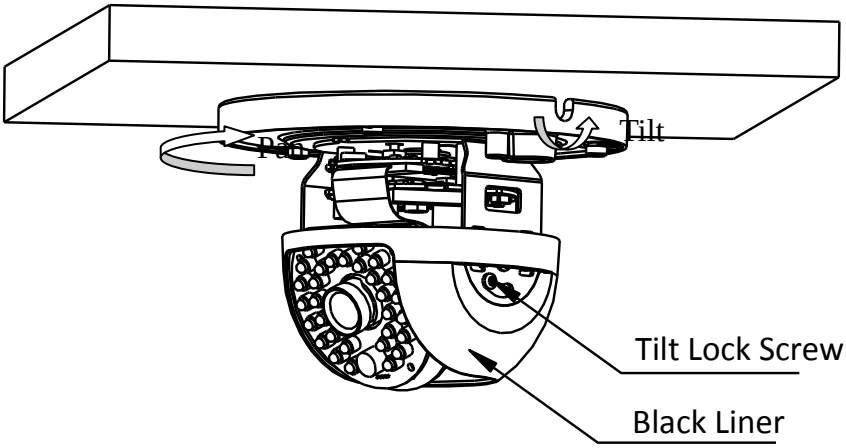


Figure 3-59 Surveillance Angle Adjustment

As the lens has already been factory adjusted to the best imaging effect, you just need to adjust the panning position and tilting position to get the desired surveillance angle.

6. Reinstall the bubble and tighten the screws.

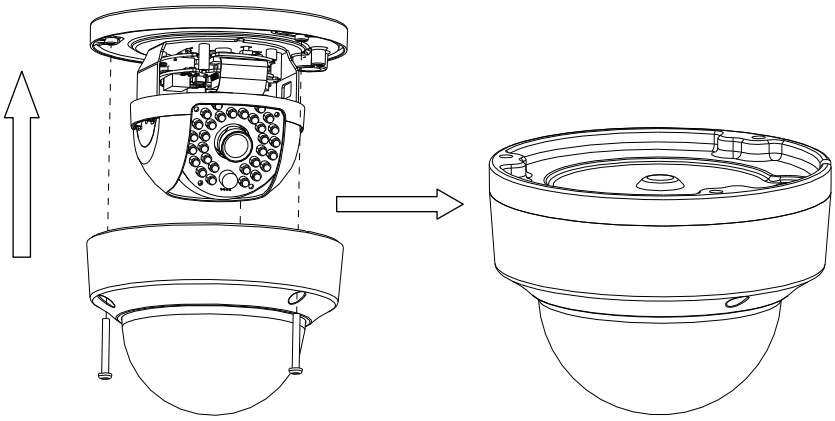


Figure 3-60 Bubble Reinstallation

❖ **Micro SD Card Installation**

Steps:

1. Loosen the lock screws on the bubble to disassemble the camera.

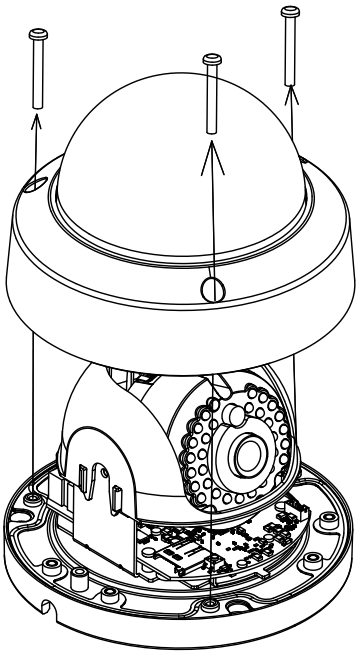


Figure 3-61 Disassemble the Camera

2. Insert the micro SD card to the card slot.

3. (Optional) Push the inserted micro SD card inside, and the micro SD card will be sprung out.

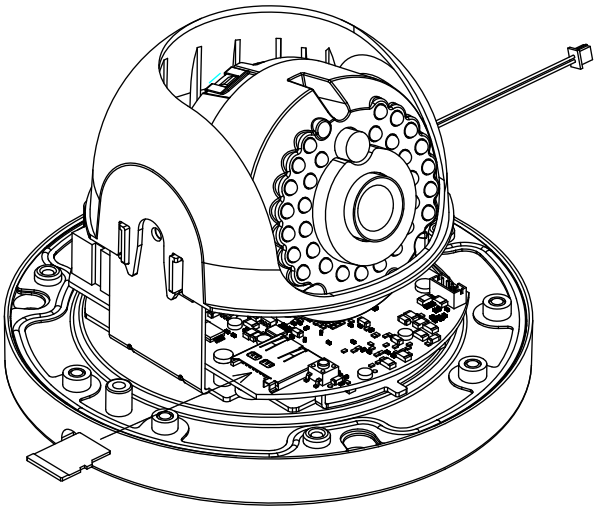


Figure 3-62 Insert the Micro SD Card

4. Install the bubble back, and tighten the lock screws on it.

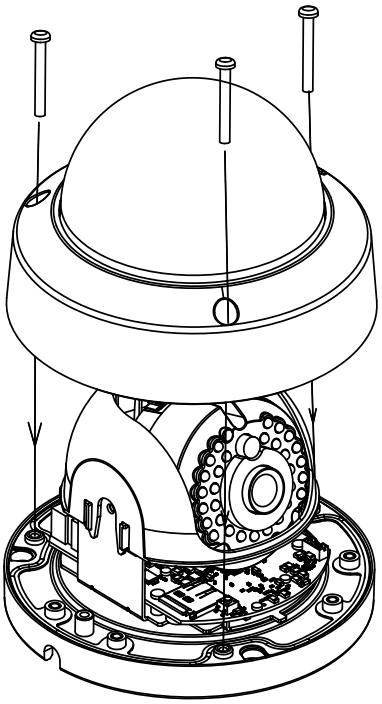


Figure 3-63 Install the Bubble

3.6 Type VI Dome Camera

3.6.1 Camera Description

The overview of the network dome camera is shown below.

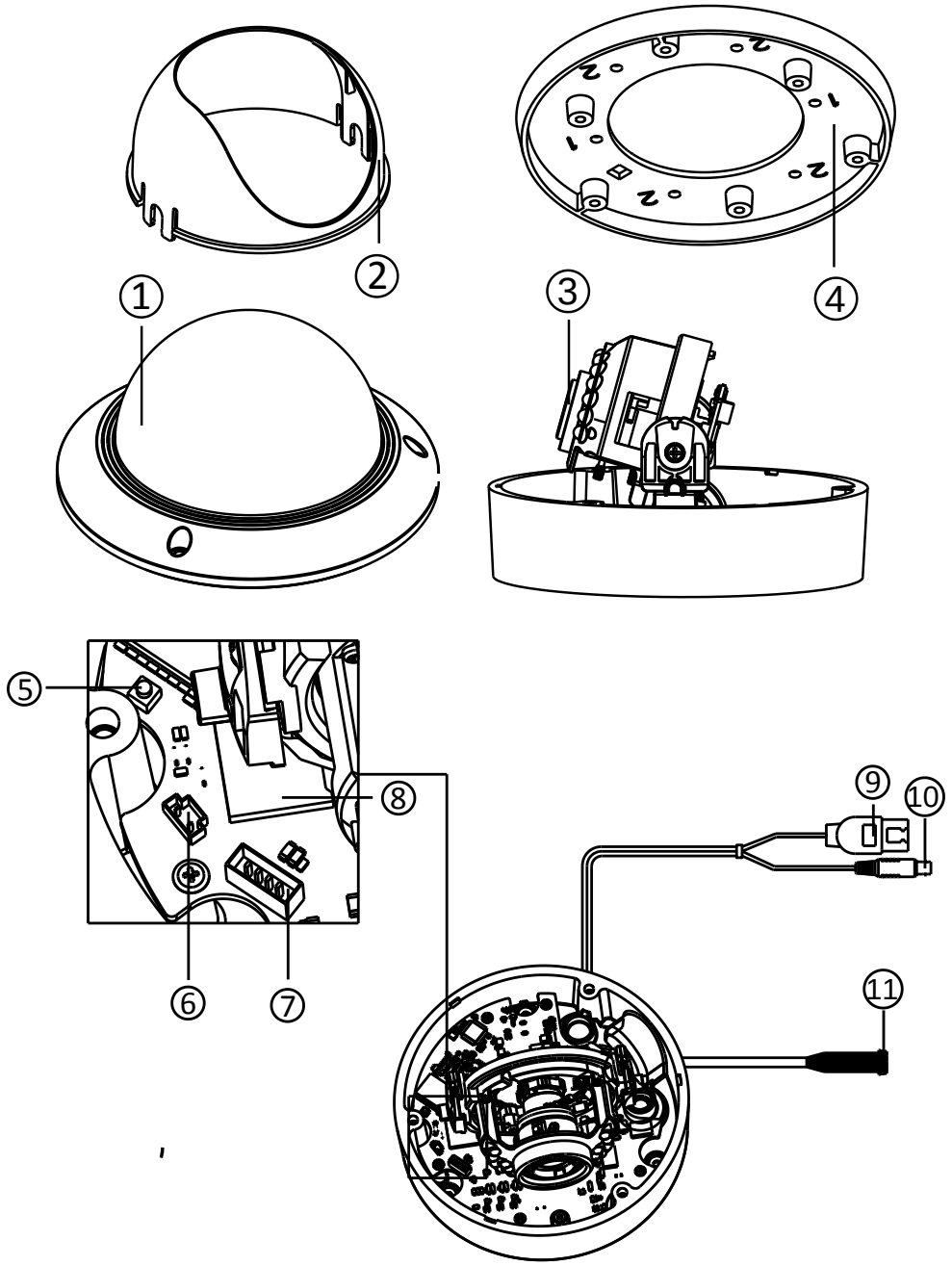


Figure 3-64 Overview

Table 3-6 Overview

No.	Description
1	Bubble
2	Black Liner
3	Lens
4	Mounting Base
5	Reset
6	Auxiliary Video Output
7	Serial Port
8	Micro SD Card Slot
9	Network Cable
10	Power Cable
11	Audio/Alarm Interface

NOTE

- Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.
- The DS-2CD2712F-IS and DS-2CD2732F-IS models support audio and alarm functions. The interfaces are shown as follows.

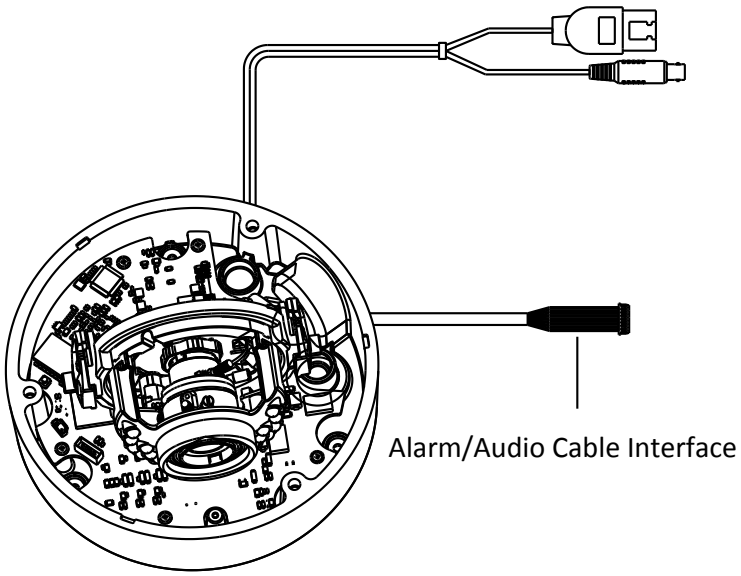


Figure 3-65 Audio and Alarm Interfaces

3.6.2 Installation

❖ Ceiling mounting

Steps:

1. Loosen the three screws on the edge of the bubble with the screw driver.

2. Open the bubble and remove the inner black liner.

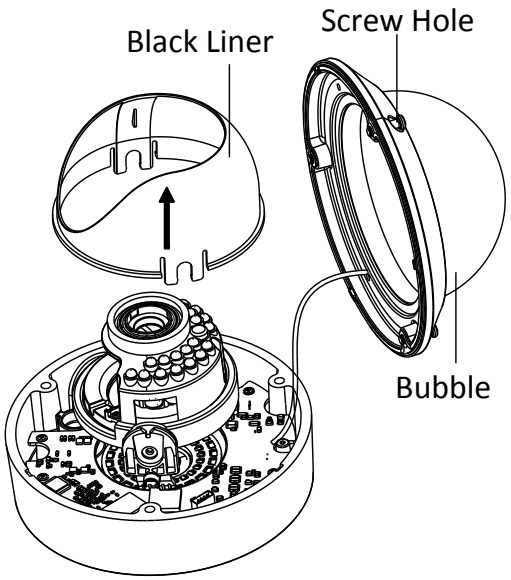


Figure 3-66 Remove the Bubble and Black Liner

3. Attach the drill template (supplied) to the place where you want to fix the camera.

4. According to the drill template as shown below, drill three screw holes in the ceiling.

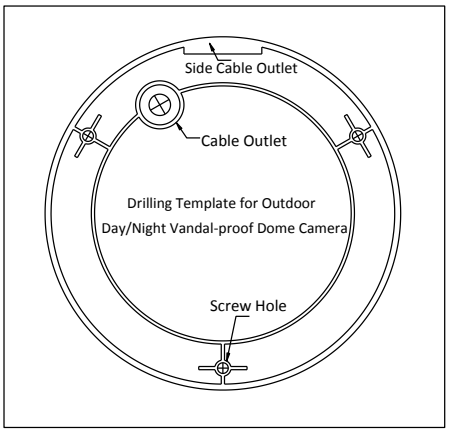


Figure 3-67 Drill Template

5. If you want to route the cables inside the ceiling, drill a cable hole in the ceiling according to the drill template. Skip this step if you want to route the cables on the surface of the ceiling. Refer to Conduit Installation on the Side for side cable routing.
6. Attach the camera to the ceiling by aligning the holes of the back box with the holes on the ceiling.
7. Secure the camera with the supplied screws as shown below.

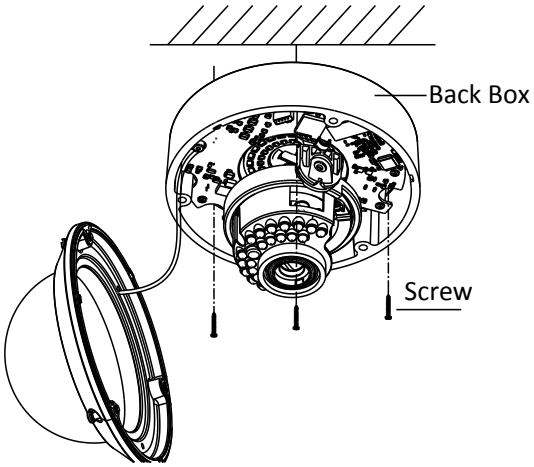


Figure 3-68 Secure the Camera

8. Route the cables through the cable hole.
9. Connect the video output connector to the monitor. Connect the power connector to the power supply.
10. Adjust the image and focus. Please refer to ***Image and Focus and Adjusting*** for more detailed information.
11. Install the inner black liner back to the camera.
12. Install the bubble back to the camera and secure it with screws as shown below.

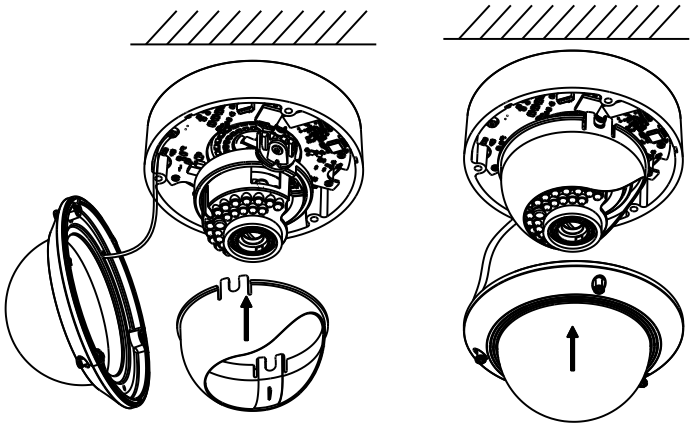


Figure 3-69 Secure Black Liner and Bubble

❖ Conduit Installation on the Side

If you want to route the cables from side of the camera, you need to follow the steps below to install a conduit for cable routing.

Steps:

1. Rotate the water-proof plug counterclockwise to remove it from the camera.

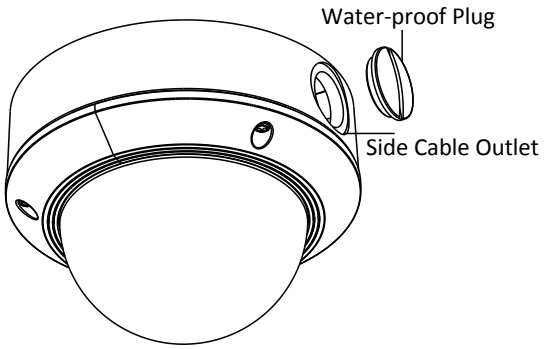


Figure 3-70 Remove the water-proof plug

2. Route the power cable and network cable through the side outlet to the conduit.

3. Align and rotate clockwise the conduit to the side outlet tightly.

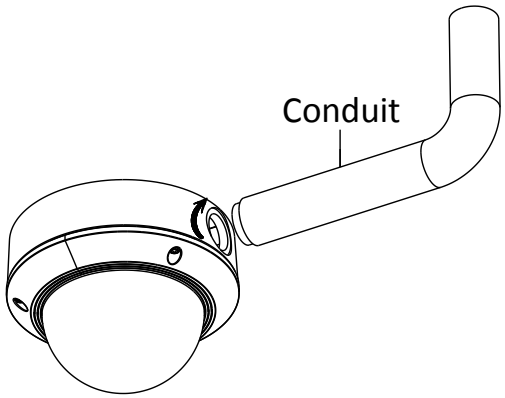


Figure 3-71 Install the Conduit to the Camera

NOTE

For wall mounting, position the side outlet directly downward for water-proof.

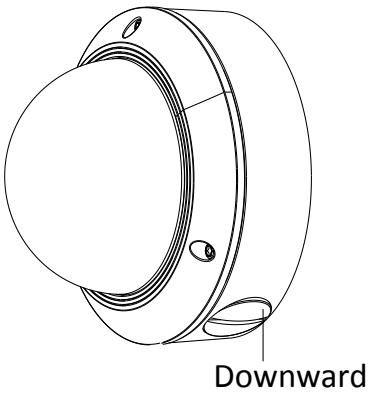


Figure 3-72 Side Outlet Direction

❖ Ceiling Mounting With Gang Box

Steps:

1. Disassemble the camera.
2. Install the gang box in the ceiling.
3. Attach the mounting base to the gang box with two screws.

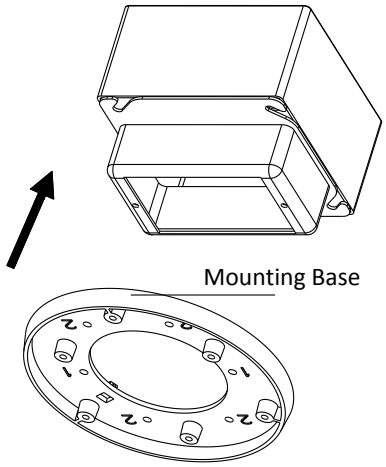


Figure 3-73 In-ceiling Mount

4. Route the cables through the hole in the center of the mounting base.
5. Align the camera with the mounting base.
6. Tighten the screws to secure the camera with the mounting base.
7. Connect the video output connector to the monitor. Connect the power connector to the power supply.
8. Adjust the image and focus. Please refer to the ***Image and Focus Adjusting*** for more detailed information.

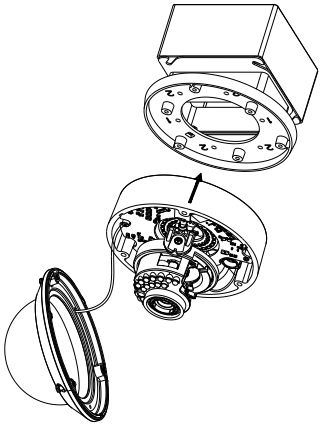


Figure 3-74 Secure Camera

9. Install the inner black liner back to the camera.
10. Align the bubble with the camera.
11. Tighten the screws to secure the bubble with the camera as shown below.

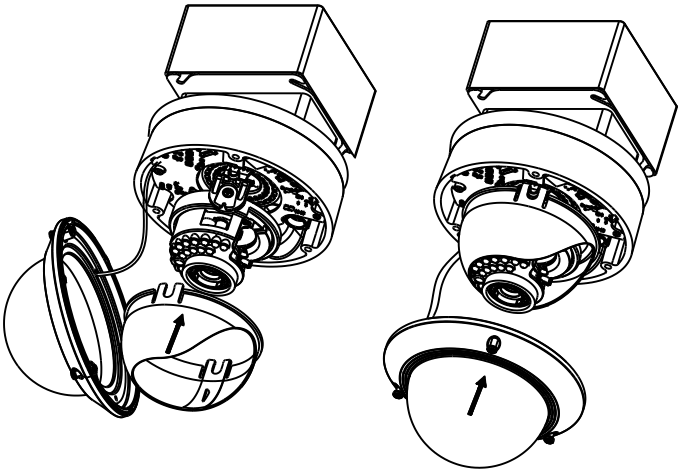


Figure 3-75 Secure the Bubble

❖ **Wall Mounting**

For the wall mounting, you have to purchase a wall mount.

Steps:

1. Disassemble the camera.
2. Install the wall mount and mounting adapter as shown below.
3. Align the screw holes of the mounting base with the corresponding screw holes of the mounting adapter.
4. Secure the mounting base to the mounting adapter with four screws.

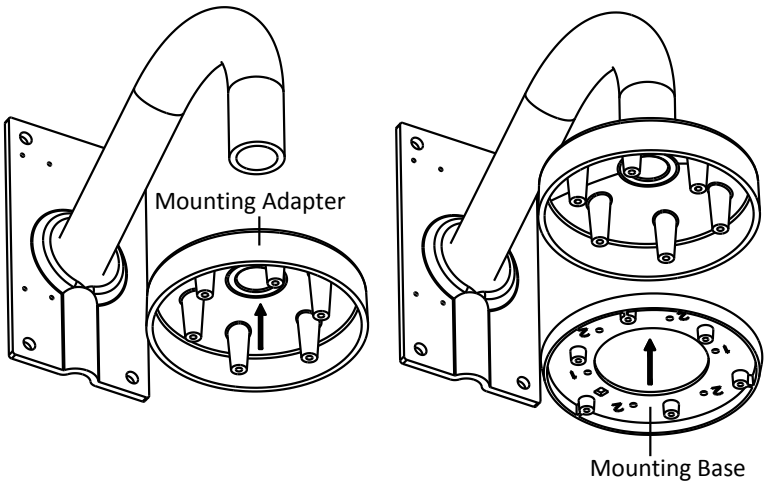


Figure 3-76 Secure Mounting Base

5. Route the cables through the hole in the center of the wall mount.

6. Align the camera with the mounting base.

7. Tighten the set screws to secure the camera with the mounting base.

8. Connect the video output connector to the monitor. Connect the power connector to the power supply.

9. Adjust the image and focus. Please refer to ***Image and Focus Adjusting*** for more detailed information.

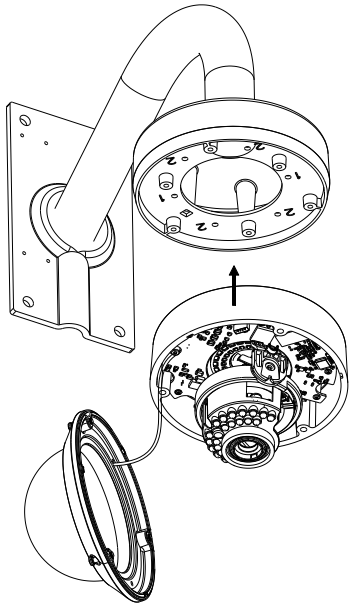


Figure 3-77 Secure Camera

10. Install the inner black liner back to the camera.

11. Align the bubble with the camera.

12. Tighten the screws to secure the bubble with the camera.

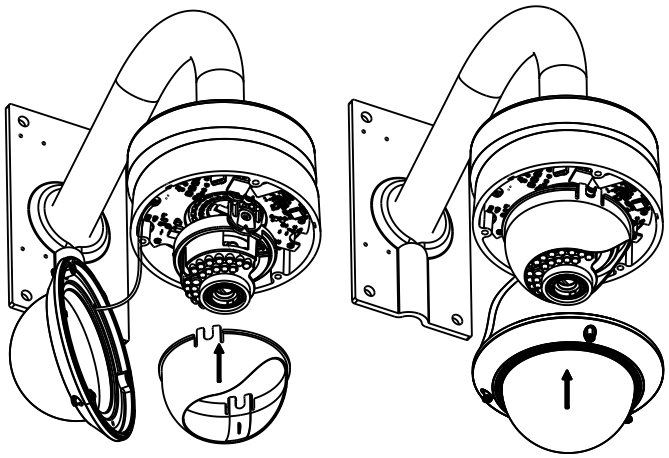


Figure 3-78 Secure Black Liner and Bubble

❖ Image and Focus Adjusting

Steps:

1. View the camera image using the monitor.
2. Rotate the panning table to adjust the panning position of the camera.
3. Rotate the tilting axes to adjust the tilting position of the camera.
4. Rotate the lens table to adjust the azimuth angle of the image.

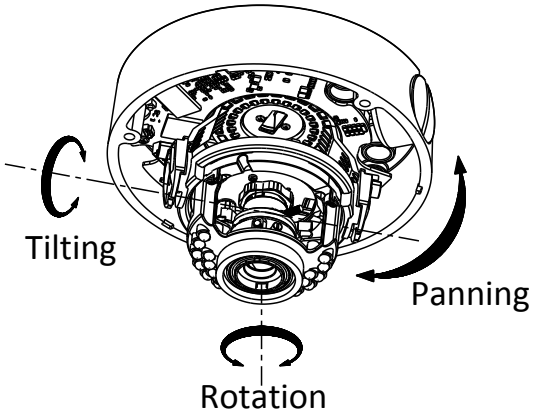


Figure 3-79 3-axis Adjustment

5. Zoom and focus adjustment.
   1). View the camera image using the monitor.
   2). Loosen the zoom lever and move the lever between T (Tele) and W (Wide) to obtain the appropriate angle of view.
   3). Tighten the zoom lever.

4). Loosen the focus lever and move the lever between F (Far) and N (Near) to obtain the optimum focus.

5). Tighten the focus lever.

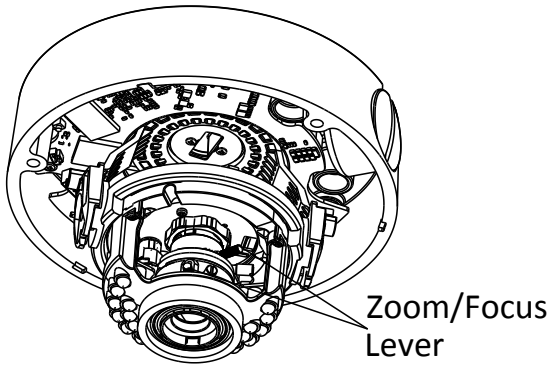


Figure 3-80 Lens Adjustment

3.7 Type VII Dome Camera

3.7.1 Camera Description

The overview of the dome camera is shown below:

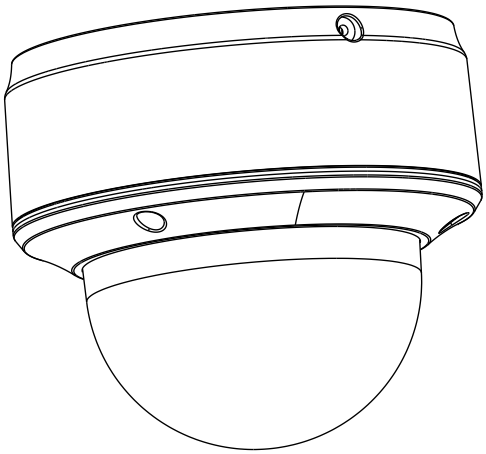


Figure 3-81 Overview

The overview of the components and the interface are shown below:

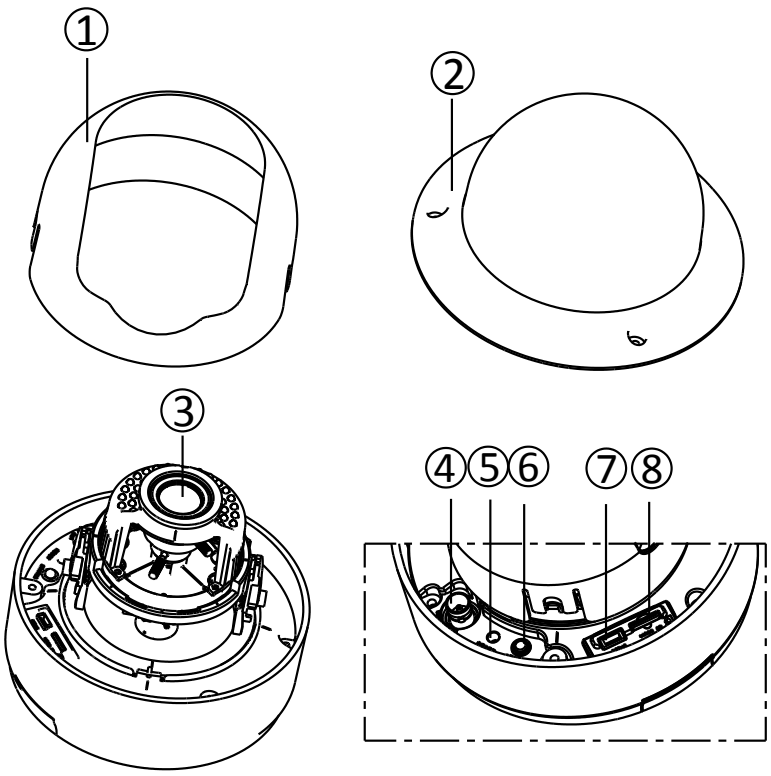


Figure 3-82 Overview (2)

The interfaces on the rear panel are shown below:

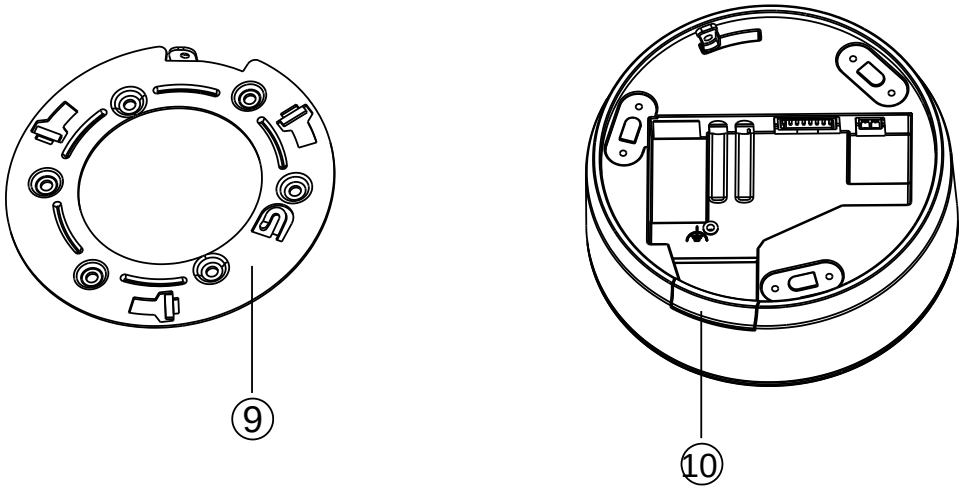


Figure 3-83 Overview (3)

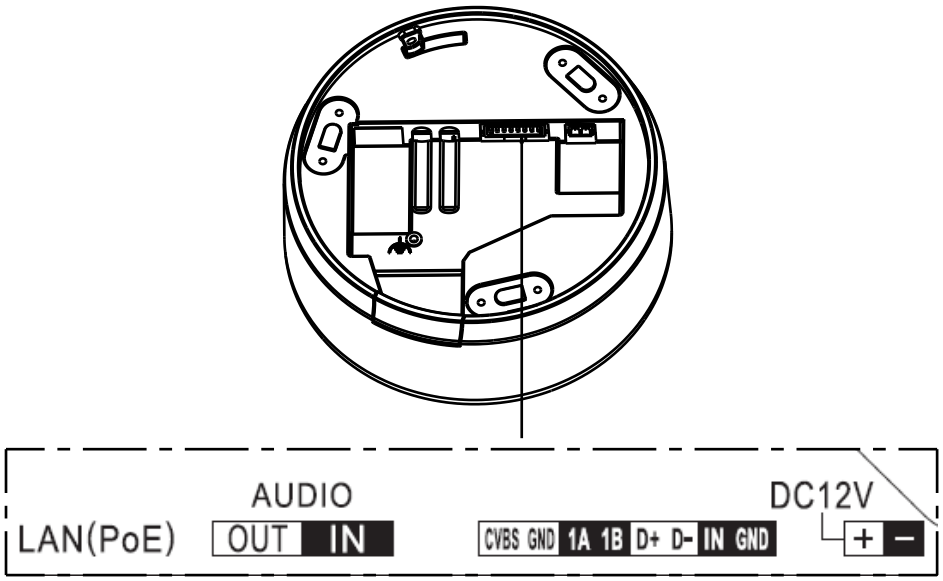


Figure 3-84 Overview (4)

Table 3-7 Description of Overview (2~3)

No.	Description	No.	Description
1	Black Liner	2	Bubble
3	Lens	4	BNC Interface
5	Reset	6	Status Indicator
7	Test Serial Port	8	Micro SD Card Slot
9	Adapter Plate	10	Side Outlet

Table 3-8 Description of Overview (4)

Name	Description
LAN（PoE）	10M/100M Self-adaptive Ethernet Port(PoE Supported)
AUDIO OUT/IN	Audio Out/In
CVBS，GND	Auxiliary video output
1A，1B	Alarm Out
D+，D-	RS-485 Interface
IN，GND	ALARM IN
DC12V	Power Supply Interface（12 VDC ）

Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

3.7.2 Installation

Steps:

1. Drill the screw holes and the cable hole according to the supplied drill template.

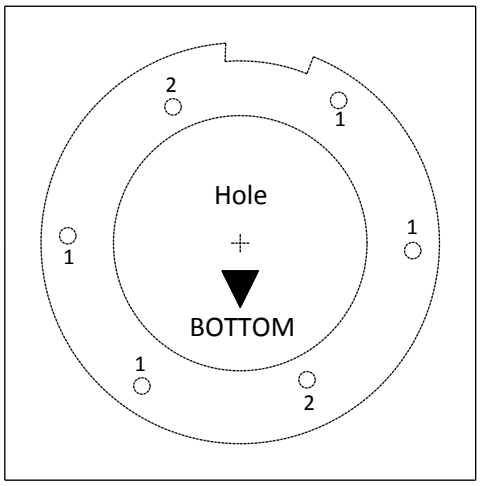


Figure 3-85 Drill Template

(Optional)Routing the cable from the side outlet instead of the cable hole drilled on the ceiling is supported. Use a plier to remove the part shown in the figure below, and you can route the cables from the side outlet.

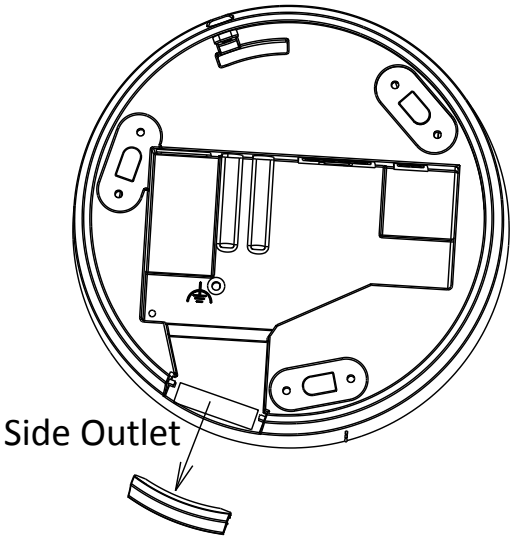


Figure 3-86 Side Outlet

2. Fix the adapter plate to the ceiling with the supplied screws.

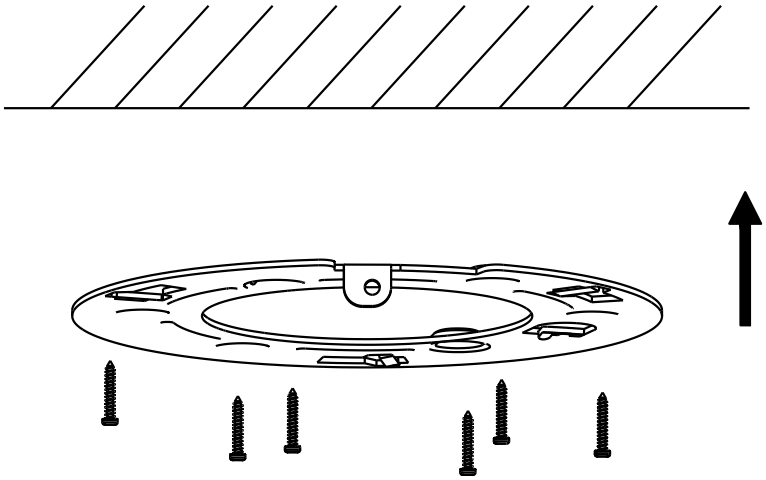


Figure 3-87 Install the Adapter Plate

3. Align the mounting base with the adapter plate and route the mounting base anticlockwise to get it fitted with the adapter plate, and then fix it by tightening the lock screw.

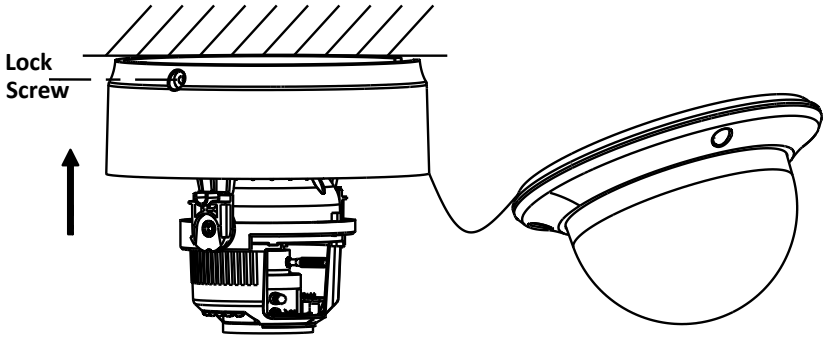


Figure 3-88 Install the Mounting Base

4. Adjust the surveillance angle according to the figure below. Panning angle [0~80 °], tilting angle [0~355 °], and azimuth angle of the lens [0~355 °].

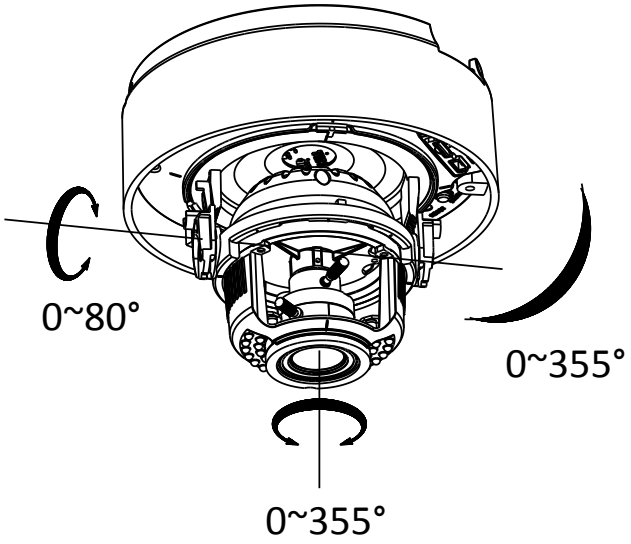


Figure 3-89 3-axis Adjustment

5. Adjust the focus and zoom.

1). Connect the VIDEO OUT interface of the camera to the debugging monitor.

2). Set the iris type to MANUAL first.

3). Adjust the No.1 Zoom Lever (T~W) to select a proper angle of view.

4). Adjust the NO.2 Focus Lever (F~N) to obtain a perfect image on the monitor.

5). Set the iris type as MANUAL if the environment has a good and stable illumination, and set the iris type as AUTO if the environment has a strong and changeable illumination.

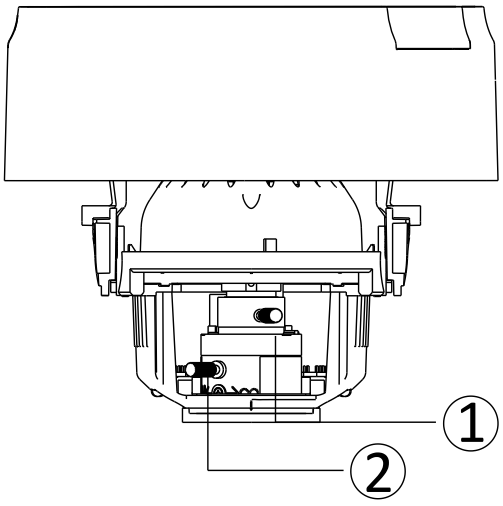


Figure 3-90 Adjust the Lens

NOTE

For the camera adopts electronic lens, you can adjust the zoom and focus by visiting the device, and

adjust it from the PTZ control interface.

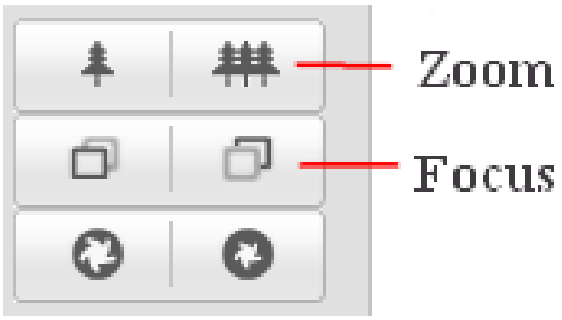


Figure 3-91 Zoom and Focus Adjustment of Electronic Lens

6. Attach the black liner to the dome drive.
7. Attach the bubble to the dome drive and rotate it to get tightened.

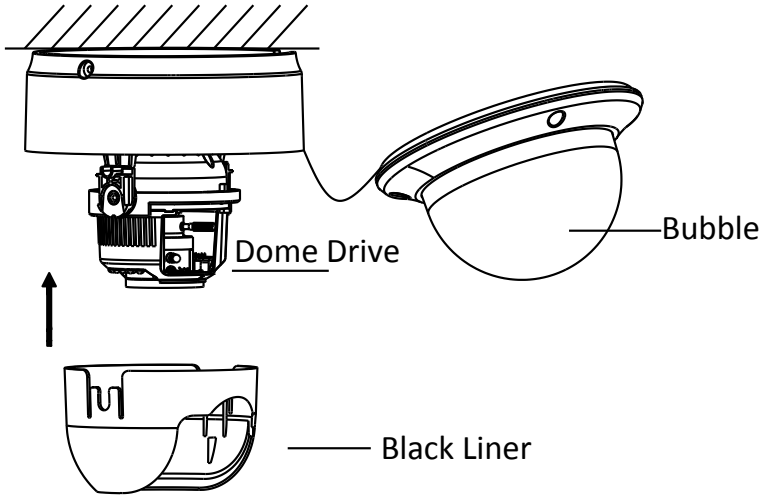


Figure 3-92 Install the Black Liner and Bubble

8. Tighten the lock screw to complete the installation.

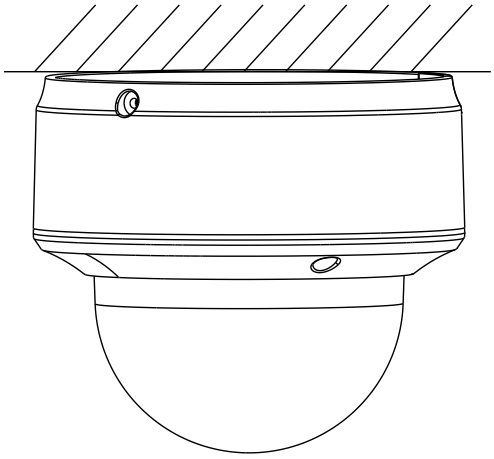


Figure 3-93 Complete the Installation

3.8 Type VIII Dome Camera

3.8.1 Camera Description of Type A Dome Camera

The overview of the outdoor dome camera is shown below:

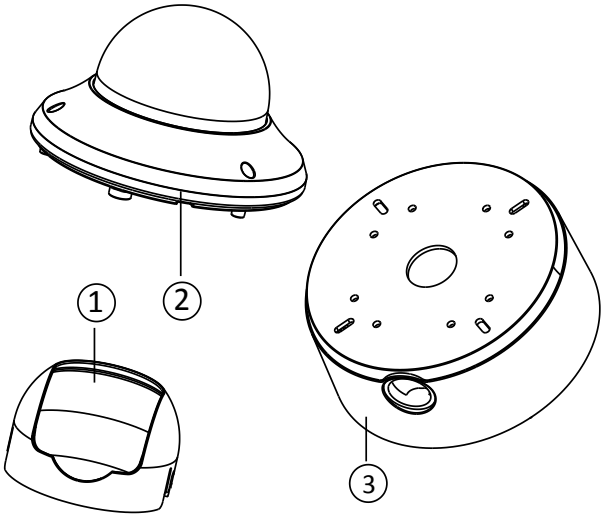


Figure 3-94 Overview (1)

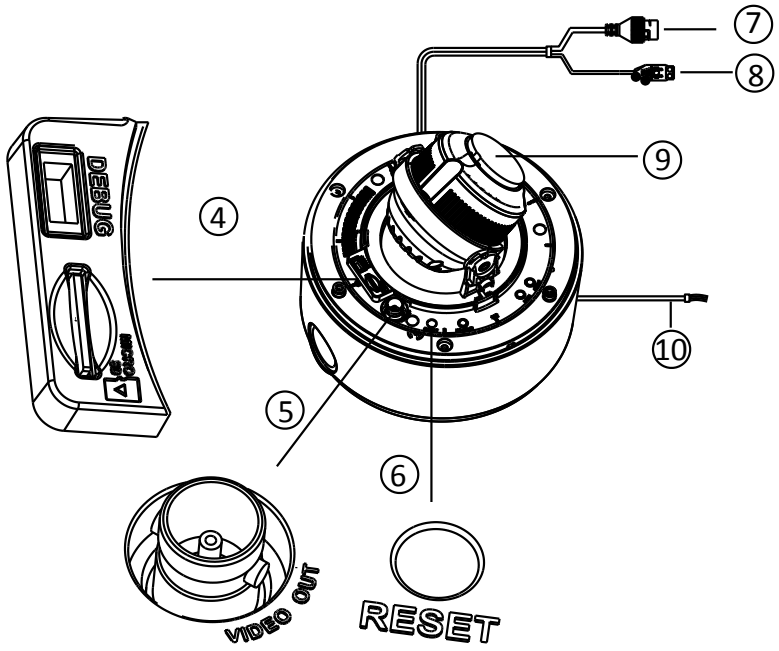


Figure 3-95 Overview (2)

Table 3-9 Description of Overview (1~2)

No.	Description	No.	Description

1	Black Liner	6	Reset
2	Bubble	7	Power Cable
3	Mounting Base	8	10/100M Self-adaptive Ethernet Interface
4	SD Card Slot	9	Lens
5	Video Out	10	Audio and Alarm Cables

3.8.2 Installation of Type A Dome Camera

Steps:

1. Drill the screw holes and the cable hole according to the supplied drill template.

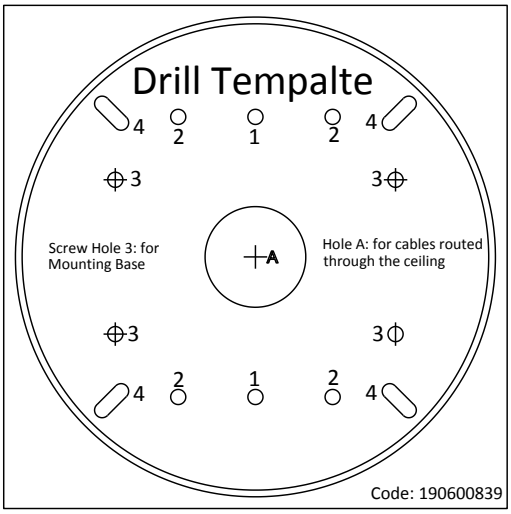


Figure 3-96 Drill Template

2. Install the mounting base to the ceiling with the supplied screws.

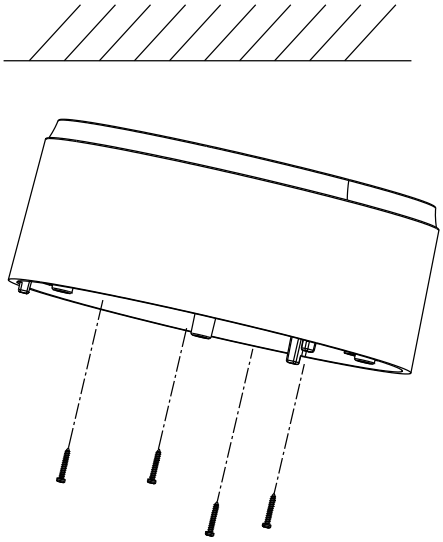


Figure 3-97 Install the Mounting Base

3. Connect the corresponding power cable, network cable, audio and alarm cables.
4. Install the dome drive to the mounting base.

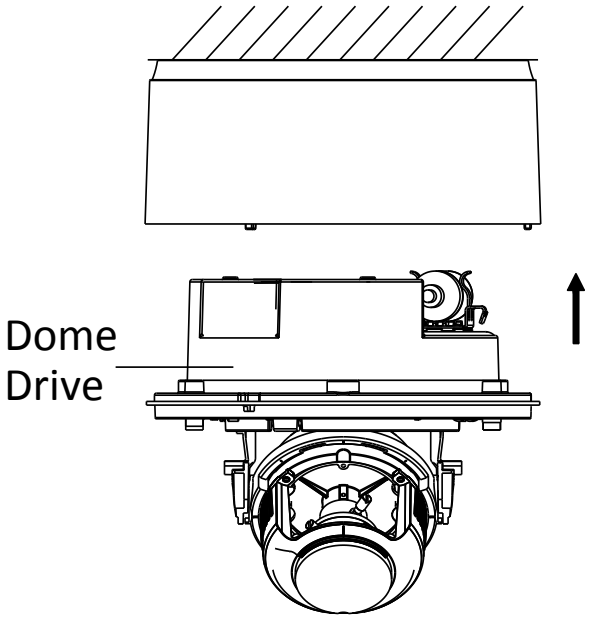


Figure 3-98 Install the Dome Drive

5. Adjust the surveillance angle.

1). Loosen the lock screw besides the lens.

2). Hold the plastic plate and rotate the camera to adjust the panning angle [0~350 °].

3). Push the lens forward and backward to adjust the tilting angle [0~80 °].

4). Rotate the lens to adjust the azimuth angle of the camera [0~350 °].

5). Tighten the lock screw.

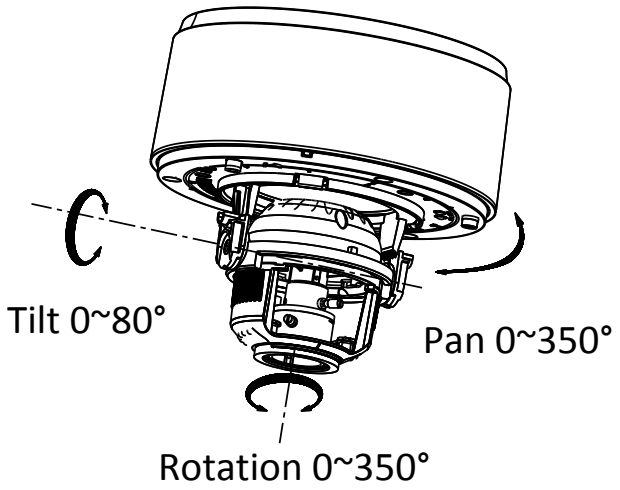


Figure 3-99 3-axis Adjustment

6. Adjust the Lens.

1). Connect the VIDEO OUT interface of the camera to the debugging monitor.

2). Set the iris type to MANUAL first.

3). Adjust the No.2 Zoom Lever (T~W) to select a proper angle of view.

4). Adjust the No.1 Focus Lever (F~N) to obtain a perfect image on the monitor.

5). Set the iris type as MANUAL if the environment has a good and stable illumination, and set the iris type as AUTO if the environment has a strong and changeable illumination.

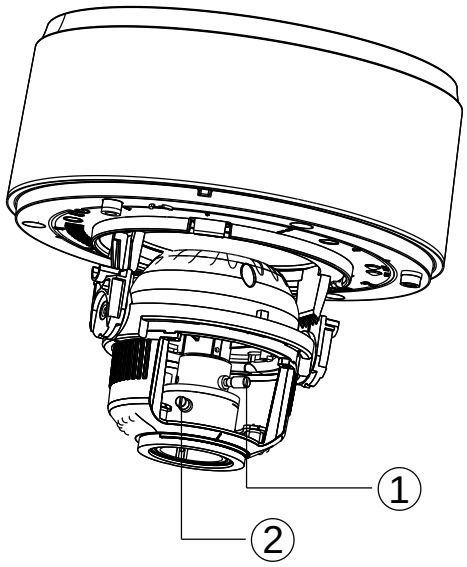


Figure 3-100 Adjust the Focus and Zoom

7. Fit the black liner back to the camera.

8. Align the bubble to camera and fix it by tightening the screws to complete the installation.

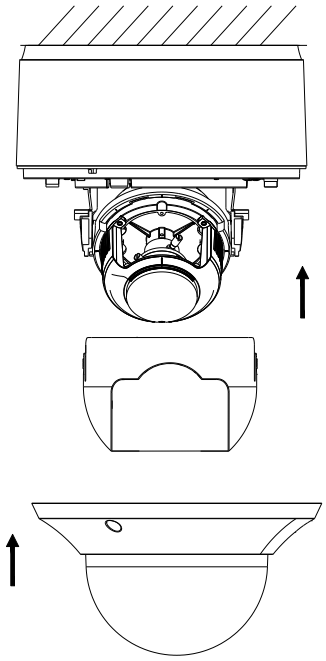


Figure 3-101 Install the Black Liner and Bubble

3.8.3 Camera Description of Type B Dome Camera

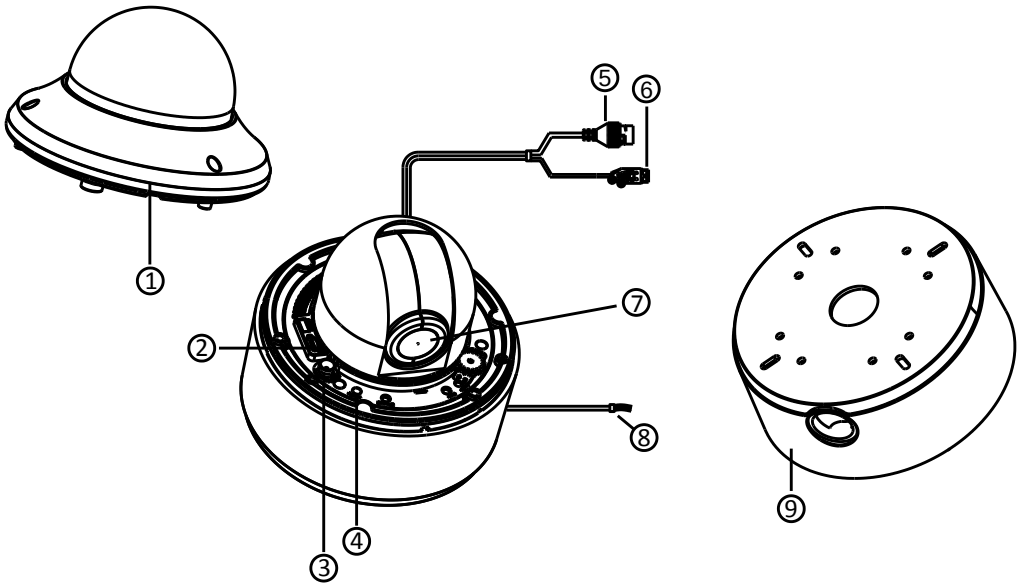


Figure 3-102 Overview of Type B Dome Camera

Table 3-10 Description of Type B Dome Camera

No.	Description	No.	Description
1	Bubble	6	10/100M Self-adaptive Ethernet Interface

2	SD Card Slot	7	Lens
3	Video Out Interface	8	Audio/Alarm Cables
4	Reset	9	Mounting Base
5	Power Cable	10	

- The most distinguish difference between type A and type B dome camera is type B dome camera has an internal PT (Pan and Tilt) unit, and you can adjust the pan and tilt angle of the camera from the client software or via web browser.
- Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

3.8.4 Installation of Type B Dome Camera

Steps:

1. Drill the screw holes and the cable hole according to the supplied drill template.

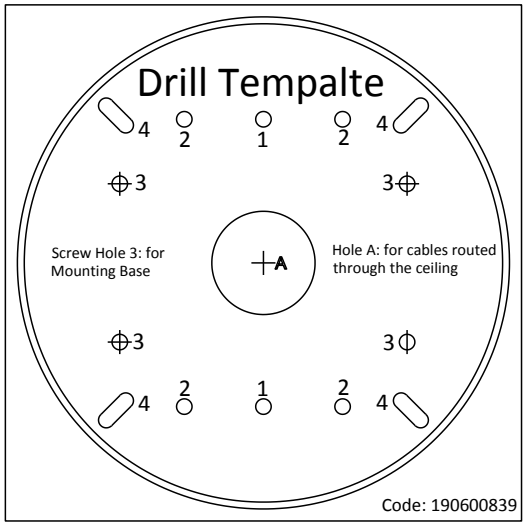


Figure 3-103 Drill Template

2. Install the mounting base to the ceiling with the supplied screws.

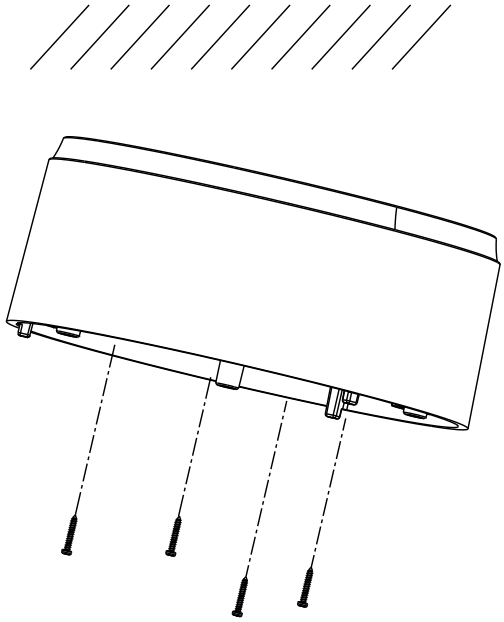


Figure 3-104 Install the Mounting Base

3. Connect the corresponding power cable, network cable, audio and alarm cables.
4. Install the dome drive to the mounting base.

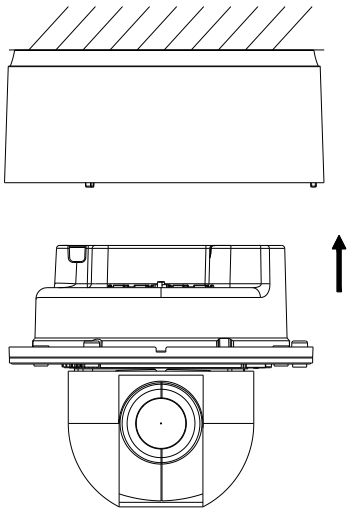


Figure 3-105 Install the Dome Drive

NOTE

The surveillance angle of the camera is well- adjusted by default. If the pan and tilt angle is required to adjusted according to the different installation environment, go to the live view interface via web browser or client software after the installation is completed. Please refer to the pan and tilt adjustment interface below.

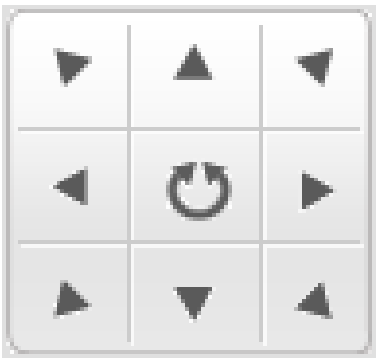


Figure 3-106 Pan and Tilt Adjustment Interface

5. Install the bubble to complete the installation.

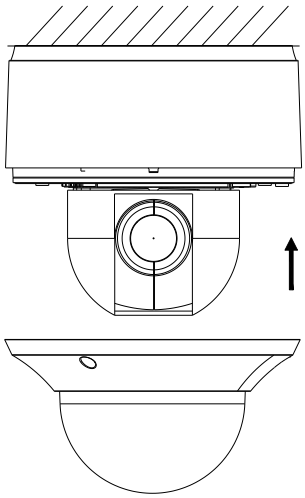


Figure 3-107 Install the Bubble

3.9 Type IX Dome Camera

3.9.1 Camera Description of Type A Dome Camera

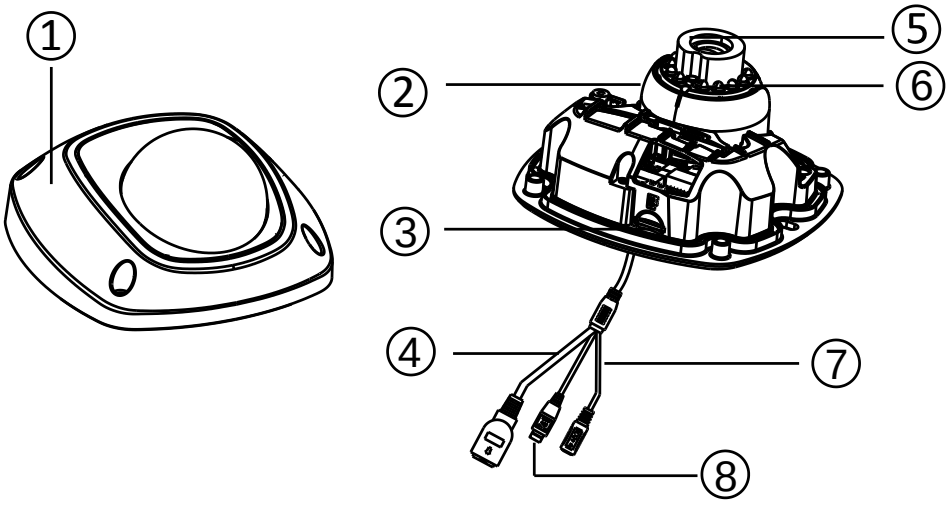


Figure 3-108 Overview (1)

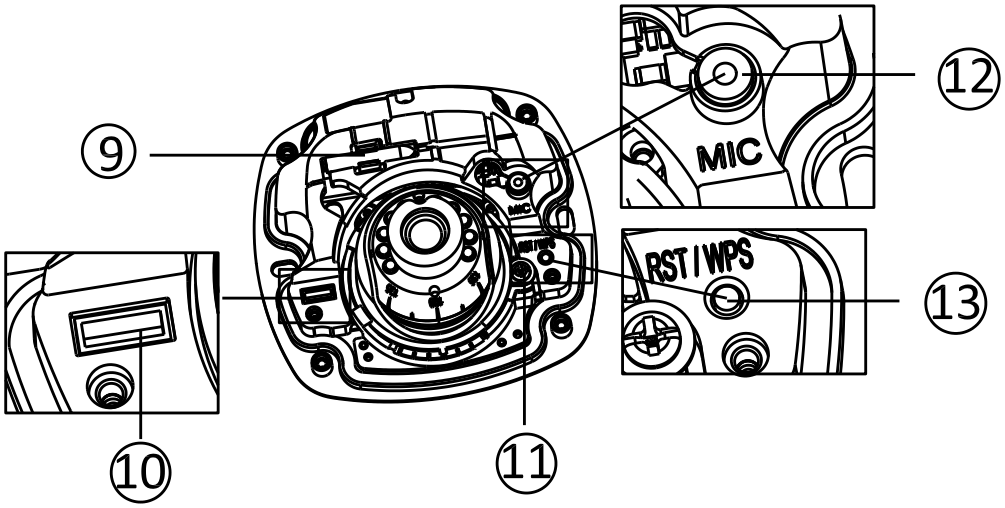


Figure 3-109 Overview (2)

Table 3-11 Physical Description

No.	Description
1	Front Cover
2	Dome Drive
3	Micro SD Card Slot
4	Network Cable

No.	Description
5	Lens
6	IR LED
7	Power Cable
8	Audio/Alarm Cables
9	Wi-Fi Antenna
10	Serial Port Interface
11	Hex Screw
12	MIC
13	RESET/WPS Button

- Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.
- No.8 is the audio/alarm cable interface, of which the "I" mark connects to the alarm input, the "o" mark connects to the alarm output, the "GND" mark connects the grounding, and the "A" mark connects the audio output.
- WPS (Wi-Fi Protected Setup, also known as AOSS or QSS) is a computing standard that attempts to allow easy establishment of a secure wireless network. Refer to user manual for details.
- A wireless router with the WPS function is required to enable the WPS function of the camera. Refer the steps below.

Steps:

1. Press the WPS button on the router.
2. Press the WPS button (about 2s) on the camera within 120s you enable the WPS of the router to join in the wireless network.

- The WPS button works as a reset button only when you press it when the camera is powering on.
- Press the WPS button on the camera, and then press the WPS button on the router will establish a connection as well, and the expire time of WPS connection on the camera is 120s.
- The link indicator blinks if the wireless connection is succeeded.

3.9.2 Installation of Type A Dome Camera

Steps:

1. Drill the screw holes and the cable hole in the ceiling according to the supplied drill template.

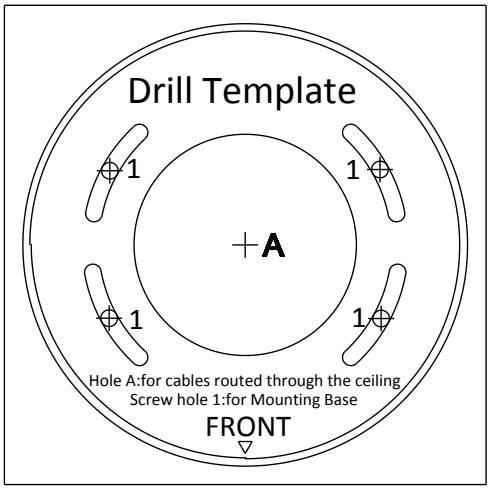


Figure 3-110 Type I Drill Template

NOTE

A different type of drill template might be provided because of the different batches of products. And also, the contained adapter plate matches with type II drill template differs as well. See figure below.

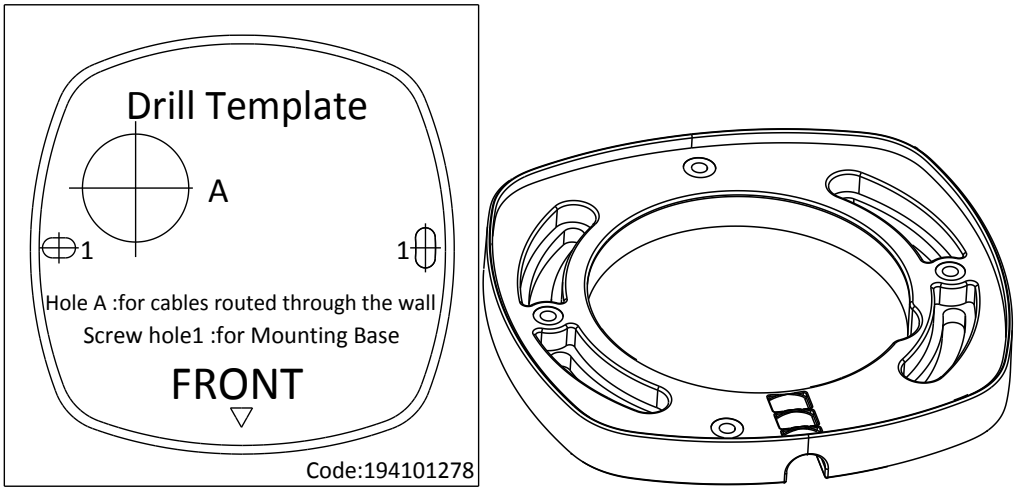


Figure 3-111 Type II Drill Template/Adapter Plate

2. Loosen the set screw on the front cover to disassemble the camera with the supplied Allen key.

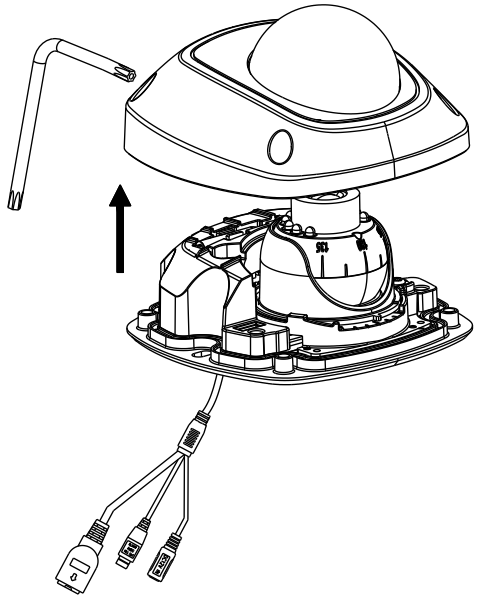


Figure 3-112 Disassemble the Camera

3. Fix the adapter plate to the ceiling with the supplied expansion screws.

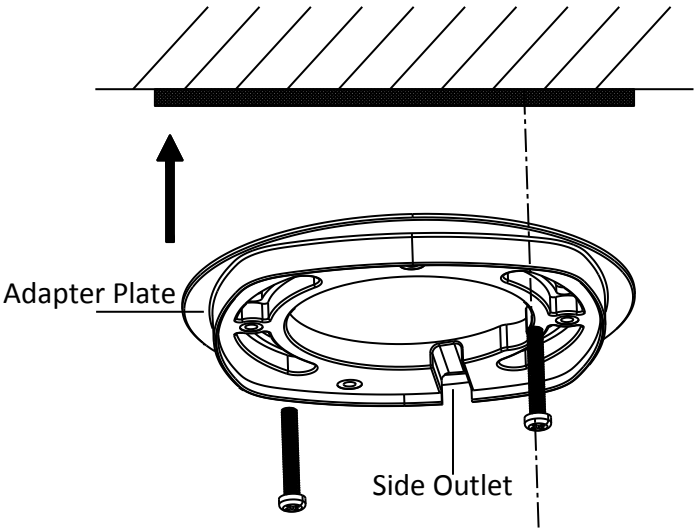


Figure 3-113 Fix the Adapter Plate

NOTE

If the supplied drill template is type II drill template, you can skip step 3 and go straight to step 4.

4. Fix the dome drive with the supplied PM4x8 screws.

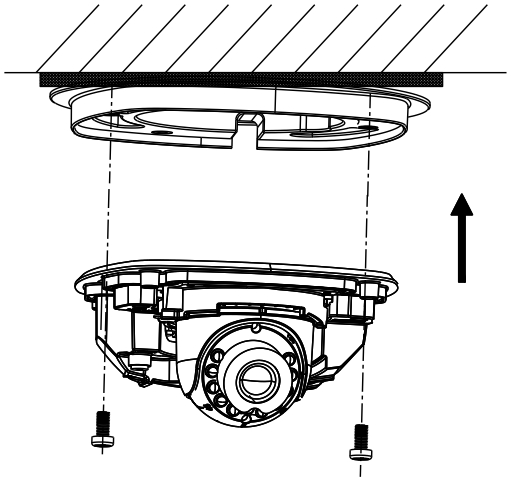


Figure 3-114 Fix the Dome Drive

5. Connect the power cable, network cable, and the alarm/audio cable.

NOTE

Use a plier to remove the removable part and route the cables via side outlet (as shown in Figure 3-113) if no cable hole is drilled in step 1, and connect the corresponding cables.

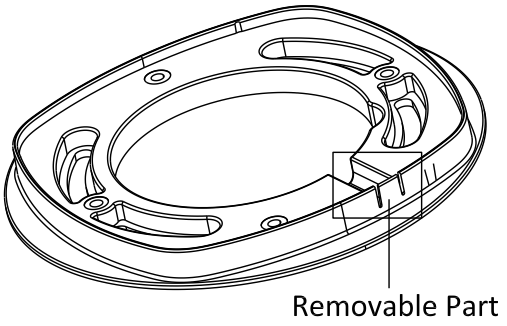


Figure 3-115 Remove the Removable Part

6. View the image via the web browser.
7. Slightly loosen the hex screw beside the WPS/RESET button to adjust the surveillance angle.
8. Use the supplied adjusting tool to adjust the pan [±30°], tilt [0~80°], and rotation direction [0~360°].

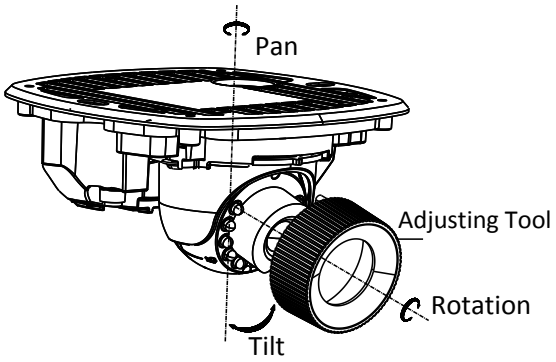


Figure 3-116 3-axis Adjustment

9. Tighten the hex screw to fix the well-adjusted surveillance angle.

10. Align the front cover to the dome drive and tighten the set screws on the front cover to complete the installation.

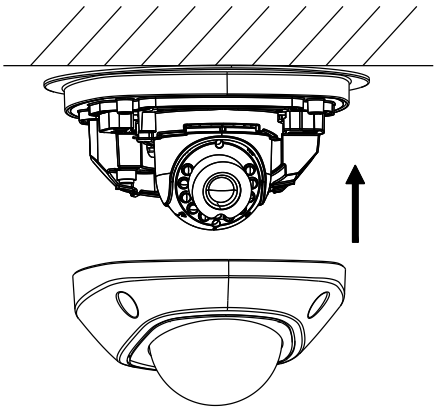


Figure 3-117 Install the Front Cover

❖ **Ceiling Mounting with a Gang Box**

Steps:

1. Fix the adapter plate to the gang box with the supplied PM4x8 screws.

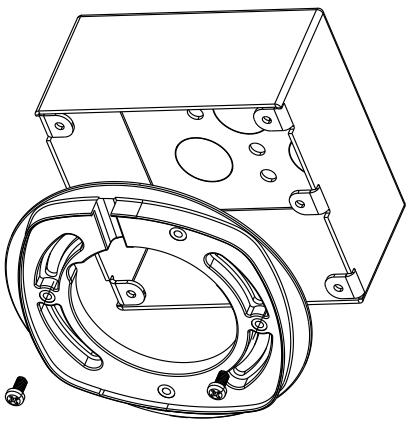


Figure 3-118 Fix the Adapter Plate

2. Fix the dome drive to the adapter plate with the supplied PM4x8 screws.

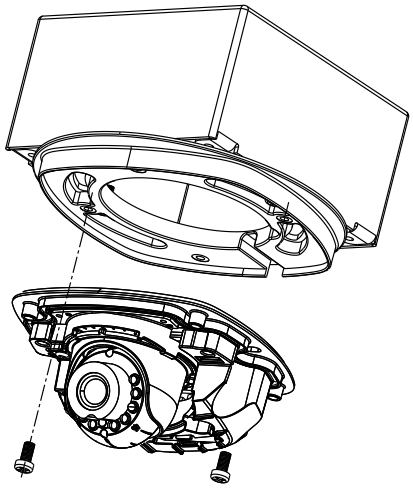


Figure 3-119 Fix the Dome Drive

3. Connect the power cable, network cable, and the alarm/audio cables.
4. Align the front cover to the dome drive and tighten the set screws on the front cover to complete the installation.

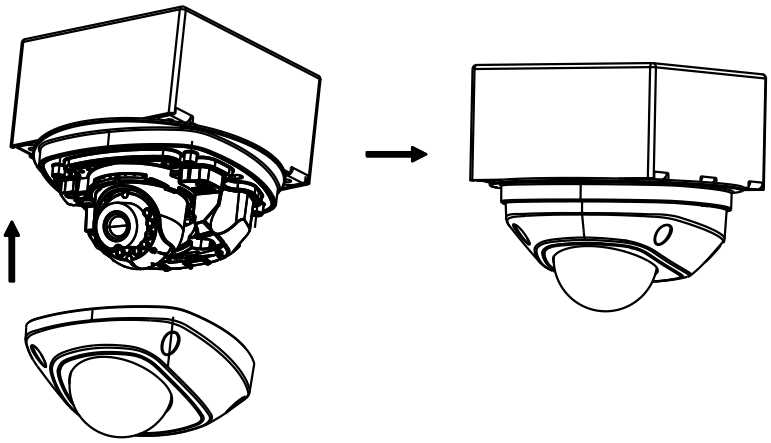


Figure 3-120 Install the Front Cover

❖ **Ceiling Bracket Mounting**

Steps:

1. Install the bracket to the ceiling with the supplied screws in the ceiling bracket package.

NOTE

The matched ceiling bracket model is DS-1271ZJ-120, and you need to purchases it separately if

ceiling bracket mounting is adopted.

2. Fix the adapter plate to the ceiling bracket with the supplied PM4x8 screws.

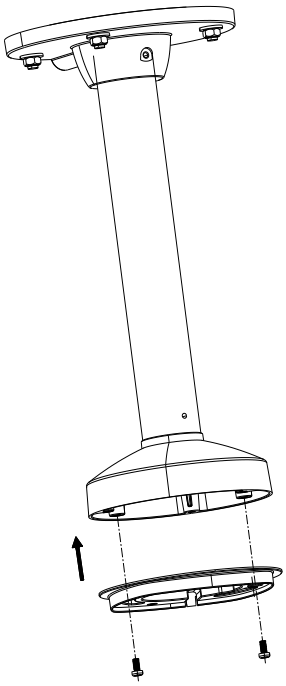


Figure 3-121 Fix the Adapter Plate

3. Install the dome drive to the adapter plate.

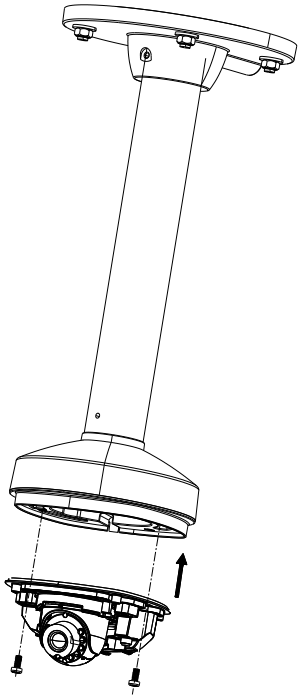


Figure 3-122 Fix the Dome Drive

4. Align the front cover to the dome drive and tighten the set screws on the front cover to complete the installation.

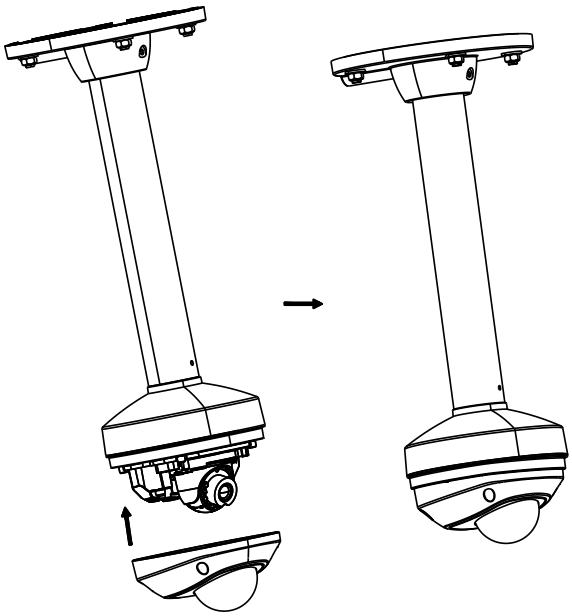


Figure 3-123 Install the Front Cover

❖ **Wall Bracket Mounting**

Steps:

1. Install the wall bracket to the wall with the supplied screws in the wall bracket package.

NOTE

The matched ceiling bracket model is DS-1272ZJ-120B, and you need to purchases it separately if wall bracket mounting is adopted.

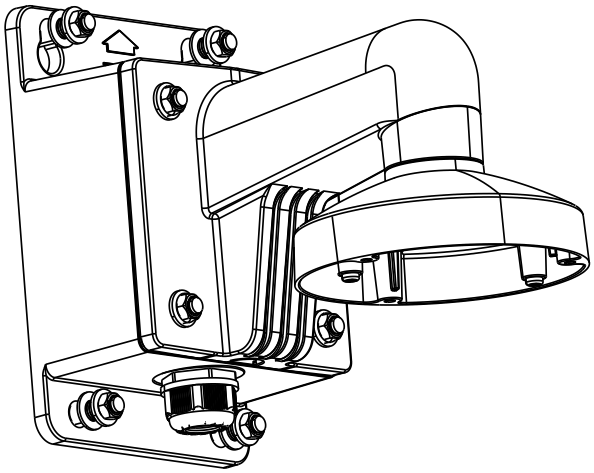


Figure 3-124 Install Wall Bracket

2. Fix the adapter plate to the wall bracket.

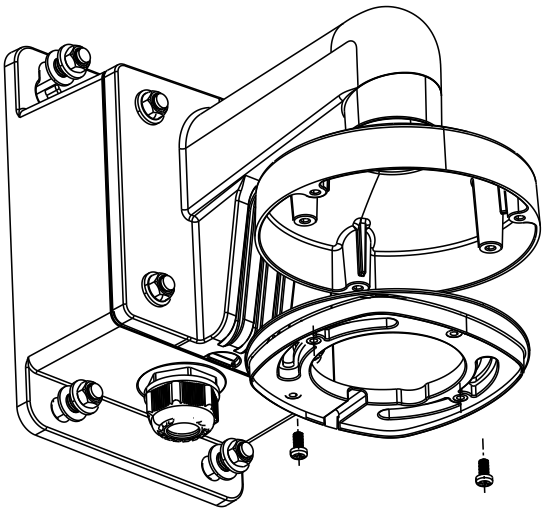


Figure 3-125 Fix the Adapter Plate

3. Fix the dome drive to the wall bracket with the supplied screws.

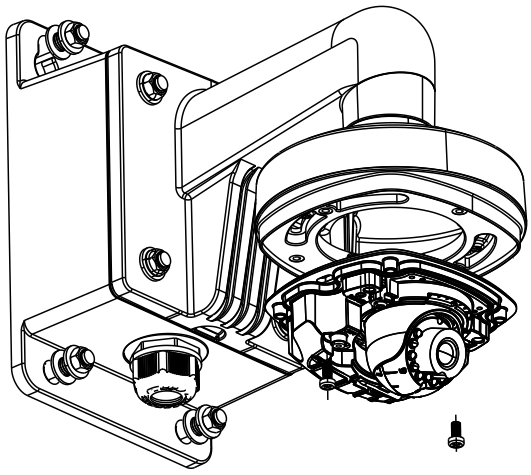


Figure 3-126 Fix the Camera

4. Align the front cover to the dome drive and tighten the set screws on the front cover to complete the installation.

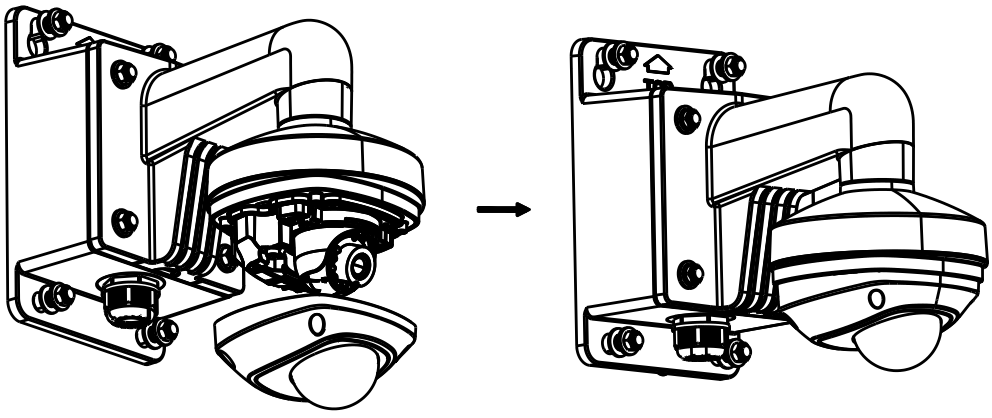


Figure 3-127 Install the Front Cover

❖ **Install the Micro SD Card**

This series of camera supports local storage, please refer to the following steps to install the micro SD card.

Steps:

1. Remove the front cover by loosening the set screws on it.

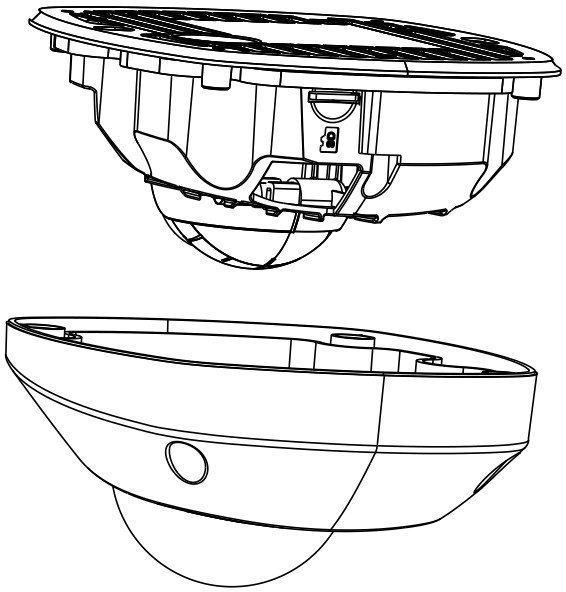


Figure 3-128 Remove the Front Cover

2. Insert the micro SD card to the card slot until you hear a click.

3. (Optional)Slightly push the inserted micro SD card to uninstall it from the camera.

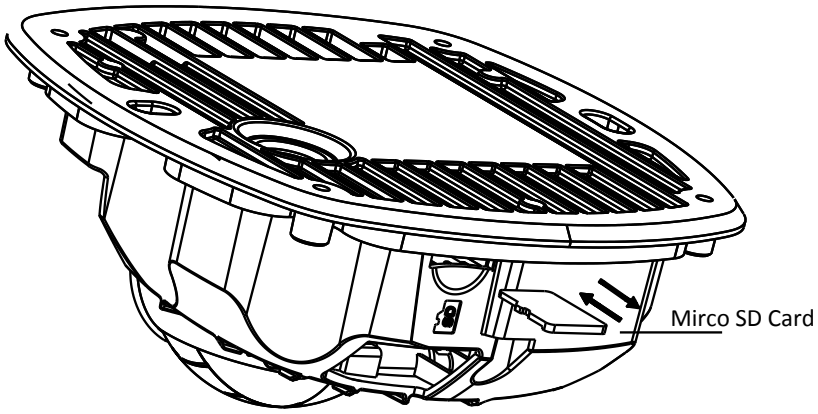


Figure 3-129 Install and Uninstall Micro SD Card

3.9.3 Camera Description of Type B Dome Camera

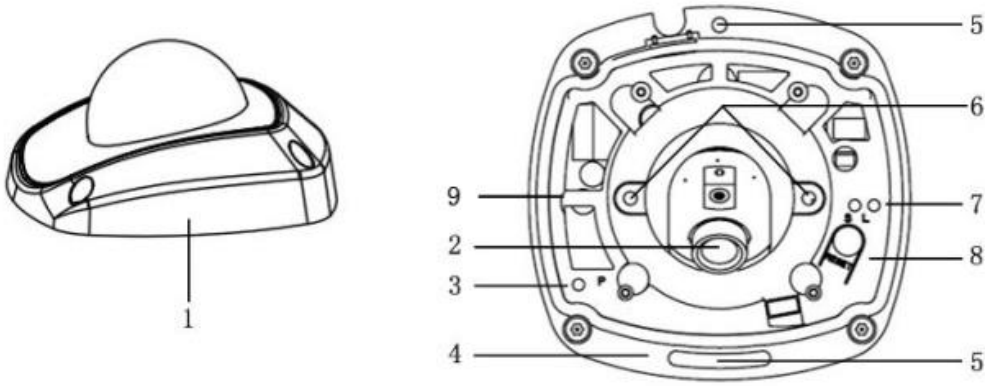


Figure 3-130 Overview

Table 3-12 Physical Description

No.	Description
1	Cover
2	Lens
3	Power LED indicator, It turns solid red when power is connected.
4	Base Plate
5	Set Screw Hole
6	Set Screw of Lens
7	S & L: Network Status Indicator. When the network is connected, the “S” LED is solid yellow, while the “L” LED flashes orange.
8	RESET Button
9	Micro SD Card Slot

NOTE

Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

3.9.4 Installation of Type B Dome Camera

Steps:

1. (Optional) Use a plier to remove the clip (marked in dotted line in the figure below) on the side of the back box and then route the cables through the opening instead of the cable hole.

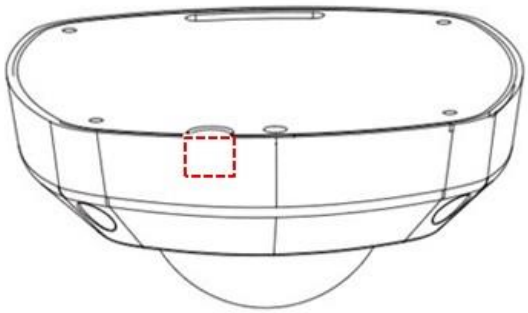


Figure 3-131 Side Clip

2. Loosen the set screws with a hex key (supplied) to remove the cover.

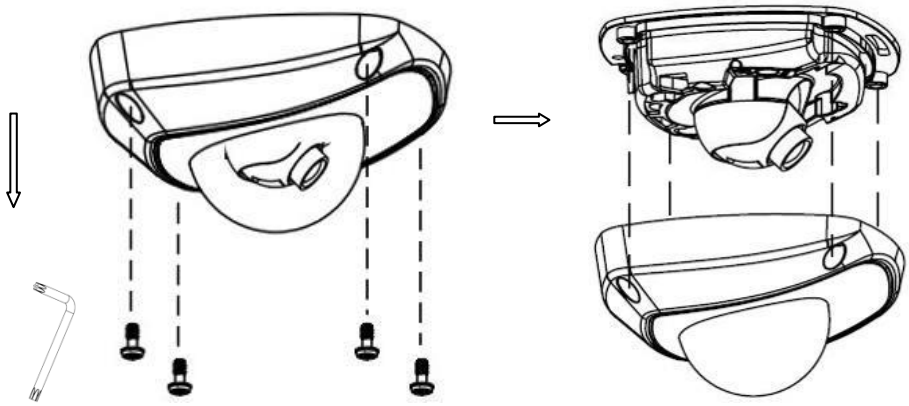


Figure 3-132 Remove the Cover

3. Install the micro SD card to the card slot.

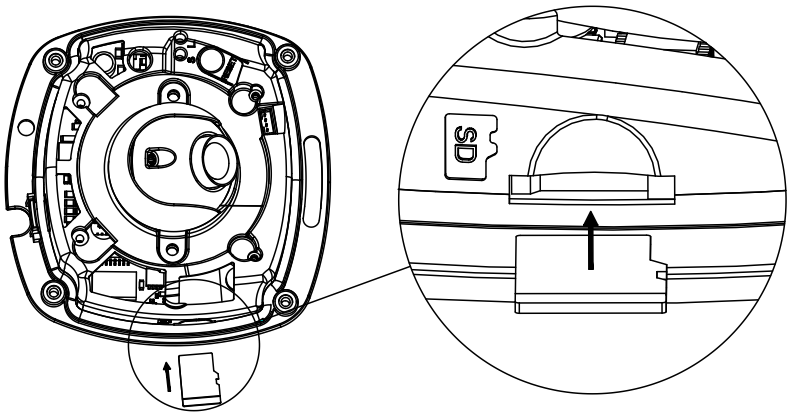


Figure 3-133 Install Micro SD Card

4. Fix the camera to the ceiling with the supplied screws.

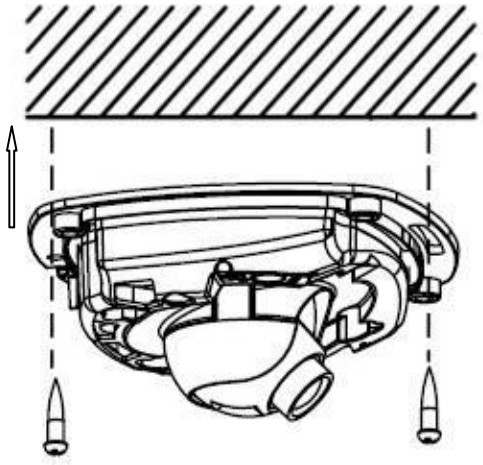


Figure 3-134 Fix the Camera

5. View the video image of the camera over the network.

6. Loosen the lens set screws.

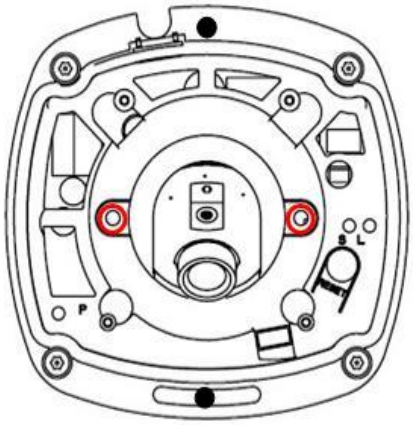


Figure 3-135 Loosen the Lens Set Screws

7. Insert the hex key into the hole marked in the picture and rotate the hex key to adjust the panning position and tilting position until getting the desired surveillance angle. Tighten the set screws.

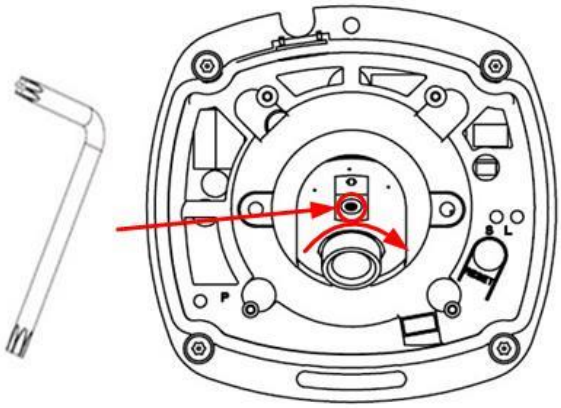


Figure 3-136 Adjust Panning Position

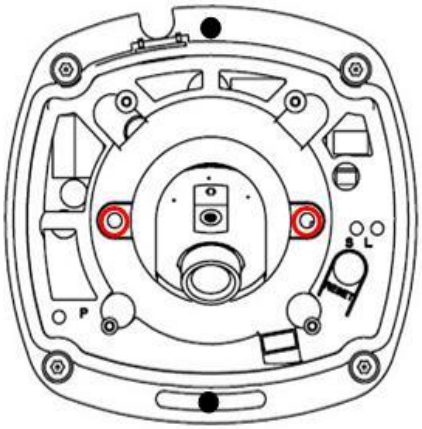


Figure 3-137 Adjust Tilting Position

As the lens of camera has already been factory adjusted to the best imaging effect, you just need to adjust the panning position and tilting position to get the desired surveillance angle.

8. Reinstall the cover before viewing the image so that you can get the same surveillance effect as the installation is done.
9. Install the cover, and tighten the set screws.

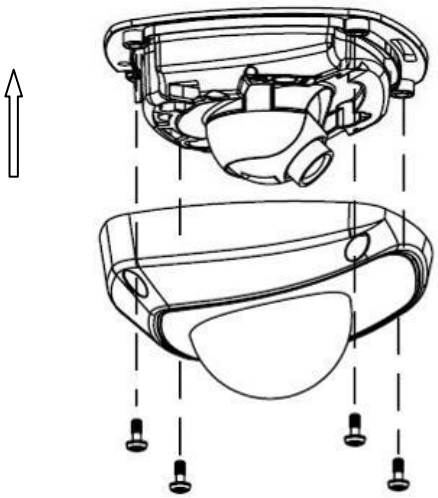


Figure 3-138 Install the Back Box

3.10 Type X Dome Camera

3.10.1 Camera Description

Two types of network Mini PT cameras are shown below.

Type I: Wi-Fi network transmission is supported for the Type I network Mini PT camera.

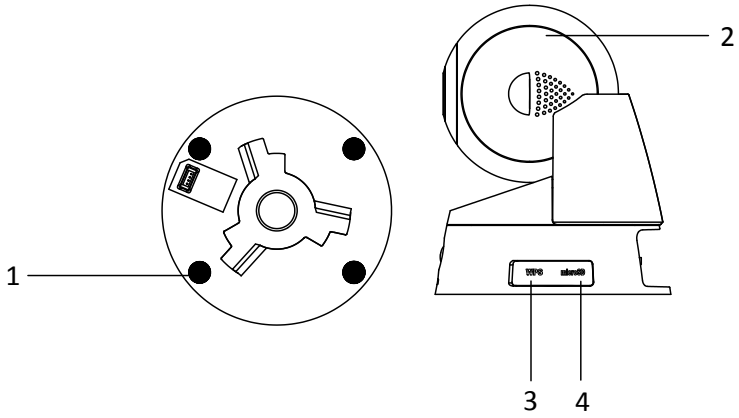


Figure 3-139 Overview (1)-Type I

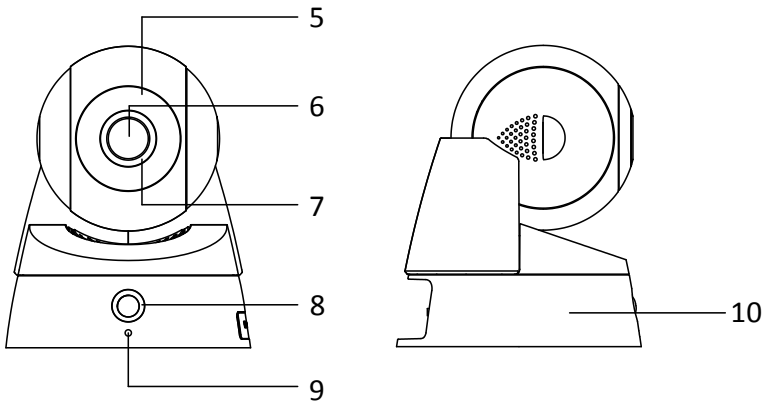


Figure 3-140 Overview (2)-Type I

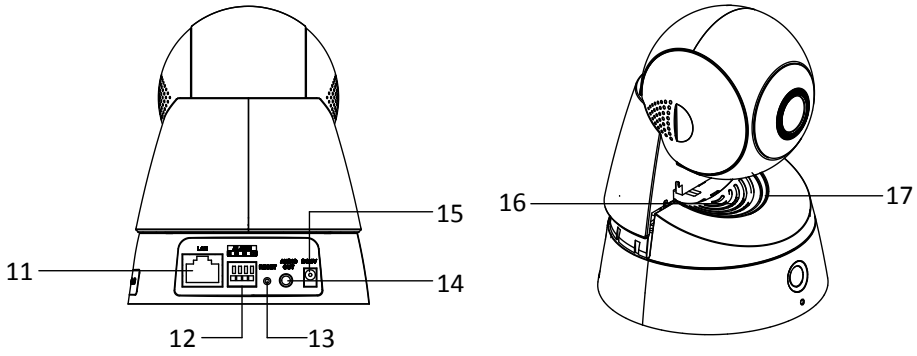


Figure 3-141 Overview (3)-Type I

Table 3-13 Description of Type I Network Mini PT Camera

No.	Description
1	Silicone Gasket
2	Dome Drive
3	WPS(Wi-Fi Protected Setup) Button
4	Micro SD Card Slot
5	Photic Cover
6	Lens
7	Lens Ring
8	PIR(Passive Infrared) sensor
9	MIC
10	Mounting Base
11	10M / 100M self-adaptive Ethernet interface
12	Alarm Input/output Interface
13	Reset
14	Audio Out
15	Power supply interface (5 VDC)

No.	Description	
16	Speaker	
17	Status LED	Solid blue: Network is connected, and camera is unarmed. Flicking blue: No network connection.
		Solid red: Camera is armed. Flicking red: Camera is not working properly.
		Solid green: Camera is connected to the platform.

❖ You can disable the status LED when you access the camera via browsers. Go to **Configuration**—**Advanced Configuration**—**System**—**Service**, and check off the check box of **Enable Status LED** to disable the status LED.

❖ Press RESET about 10s when the camera is power on or rebooting to restore the default settings, including the user name, password, port No., etc.

❖ A wireless router with the WPS function is required to enable the WPS function of the camera.

Steps:

1. Press the WPS button on the router.
2. Press the WPS button (about 2s) on the camera within 120s you enable the WPS of the router to join in the wireless network.

3.10.2 Remote Control

A remote control is supplied for the Type II network Mini PT camera.

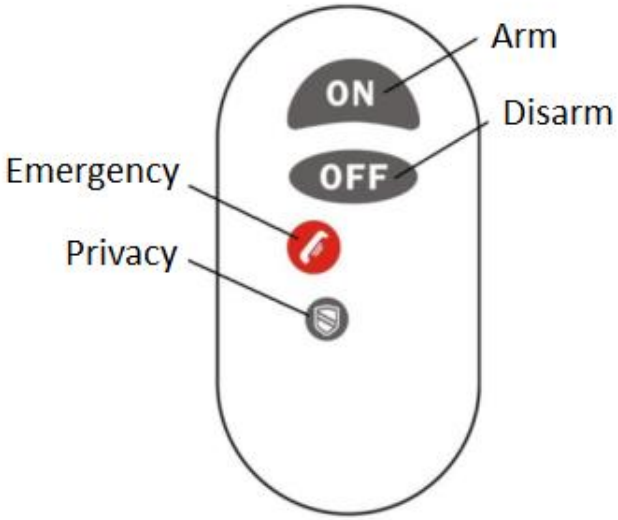


Figure 3-142 Remote Control

Table 3-14 Description of Remote Control

Button	Description
Arm Button	Press the button to arm the camera. In arming status, the alarm function, such as the wireless alarm and the PIR alarm is enabled.
Disarm Button	Press the button to disarm the camera. In the disarming status, the alarm linkage is disabled.
Emergency Button	Long press the button for 2s to trigger the emergency alarm. The emergency alarm has the highest priority.
Privacy Button	Press the button to stop or start video stream sending. When the video stream is stopped, you can't see the live view or get the record stream on the remote client or web browser.

3.10.3 Installation

❖ Ceiling Mounting

1. Drill the screw holes on the ceiling according to the supplied drill template.

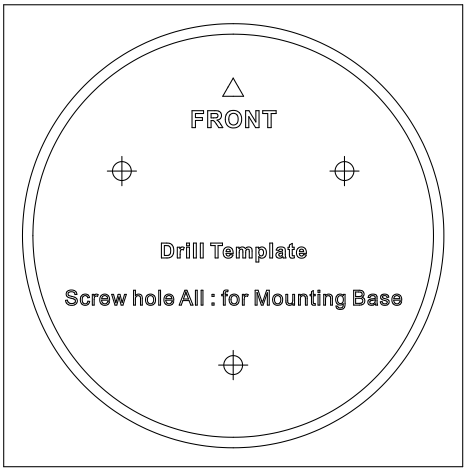


Figure 3-143 Drill Template

3. Align the screw holes on the ceiling and adapter plate, and then fix the adapter plate to the ceiling with the supplied screws.

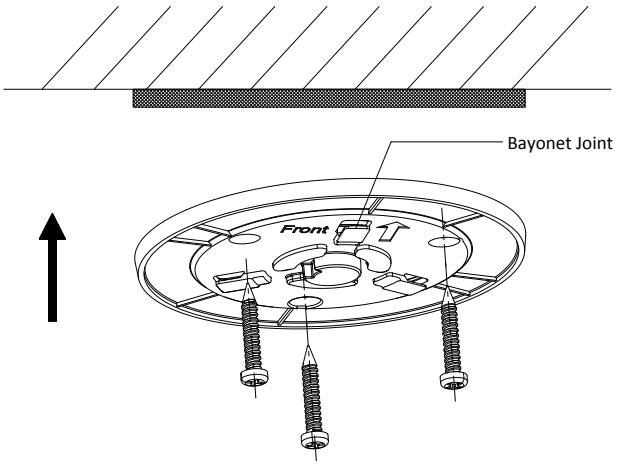


Figure 3-144 Install the Adapter Plate

NOTE

For cement wall, you need to use the expansion screw to fix the mount; for wooden wall, you can just use the self-tapping screw to fix the mount.

4. Align the mounting base of the camera to the adapter plate, and rotate the camera clockwise until it is locked up by the three bayonet joints on the adapter plate.

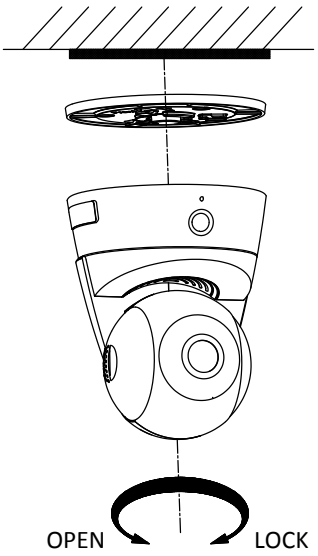


Figure 3-145 Install the Camera

5. Adjust surveillance view angle.

1) Hold and rotate the main camera body to adjust the view angle in the pan direction: [0 °~355 °].

2) Move the dome drive upwards or downwards to adjust the view angle in the tilt direction: [-20 °~90 °].

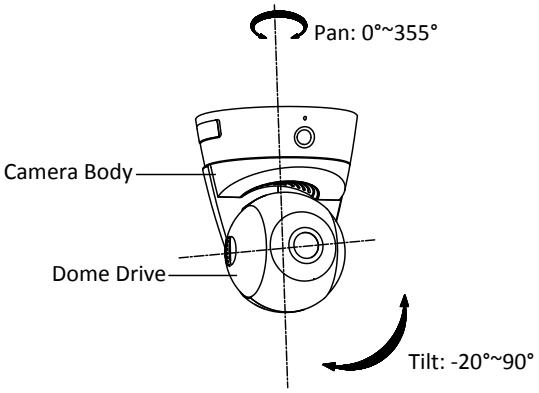


Figure 3-146 Adjust the View Angle

NOTE

Table mounting is also available for the network Mini PT camera. If the camera needs to be fixed on the table, refer to the above steps described for the ceiling mounting; if not, just place the camera on the table.

❖ Micro SD / SIM Card Installation

Steps:

1. Pull the removable cover on the mounting base outwards and move it aside.
2. Insert the SIM card into the SIM card slot.

NOTE

SIM card slot is only available for some certain camera models.

3. Insert the micro SD card into the micro SD card slot.
4. Fix the cover back to the mounting base.

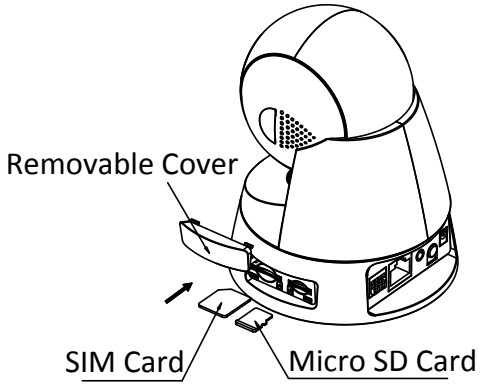


Figure 3-147 Install SD / SIM Card

3.11 Type XI Dome Camera

3.11.1 Camera Description

The overview of type XI network dome camera is shown below.

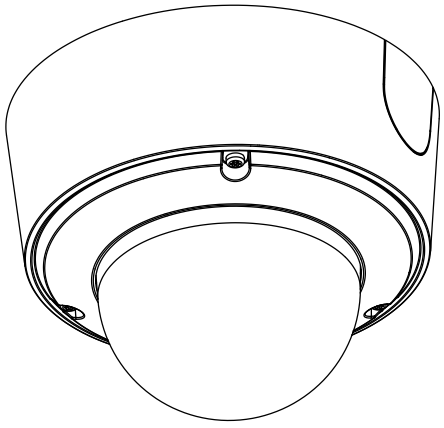


Figure 3-148 Overview

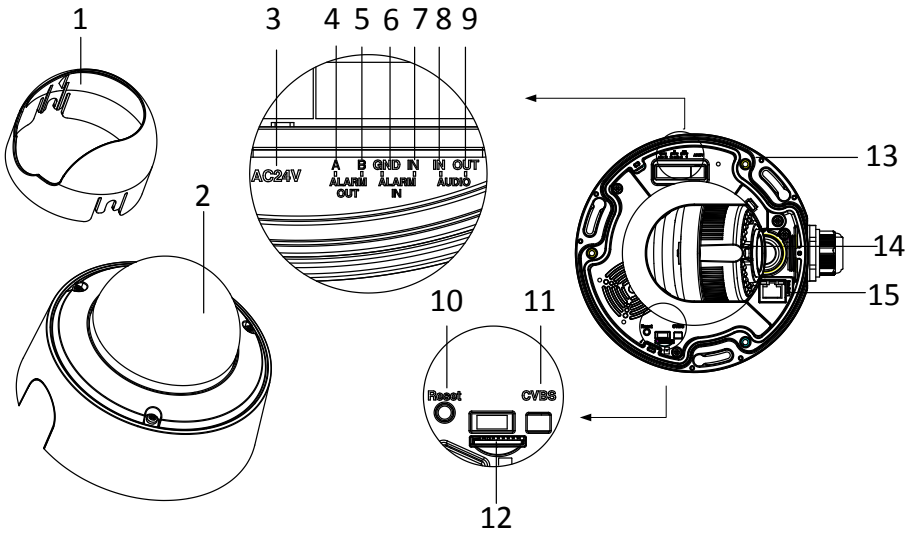


Figure 3-149 Detailed Components

Table 3-15 Description

No.	Description
1	Black Liner
2	Bubble
3	Power Cable Interface
4	Alarm Output A
5	Alarm Output B
6	Grounding
7	Alarm Input
8	Audio In
9	Audio Out
10	Reset Button
11	CVBS Interface
12	SD Card Slot
13	Mounting Base
14	Lens
15	Network Cable Interface

NOTE

Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

3.11.2 Installation

❖ Ceiling Mounting

Steps:

2. Drill the screw holes and the cable hole in the ceiling according to the supplied drill template.

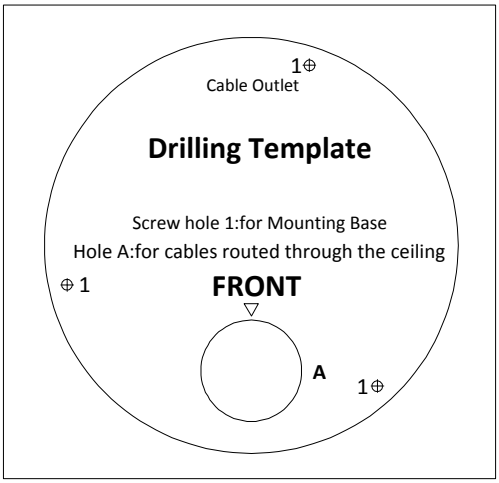


Figure 3-150 Drill Template

3. Hammer the supplied screws to the ceiling.

NOTE

Do not hammer the screws into the ceiling completely. It is recommended you hammer half of a screw into the ceiling, so as to hook the camera to the screws.

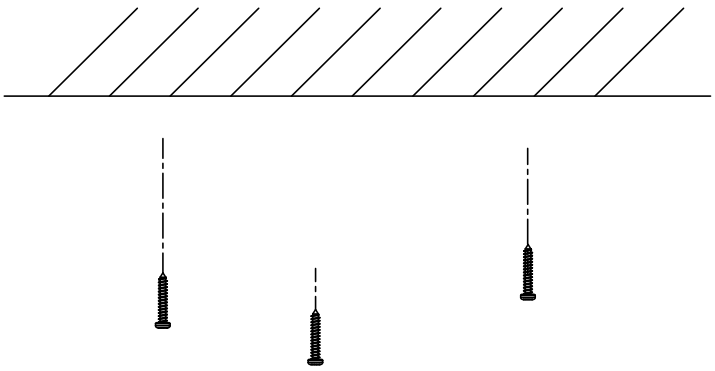


Figure 3-151 Hammer the Screws

4. Use a hexagonal screwdriver to loosen the lock screw on the bubble, and remove the black liner.
5. Route the cables from the cable hole, and connect the corresponding cables.

NOTE

You can select to route the cables from the side outlet instead of the cable hole in the ceiling. See Figure below.

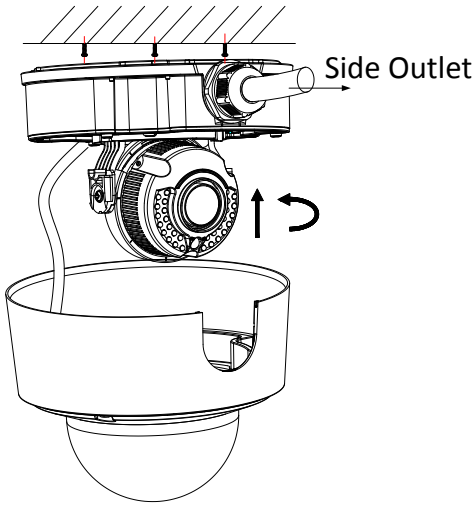


Figure 3-152 Route the Cables via Side Outlet

6. Align the screws holes on the camera to the inserted screw, and rotate the camera to hook the camera to the screws.
7. Tighten the screws.
8. Install the black liner and bubble back.

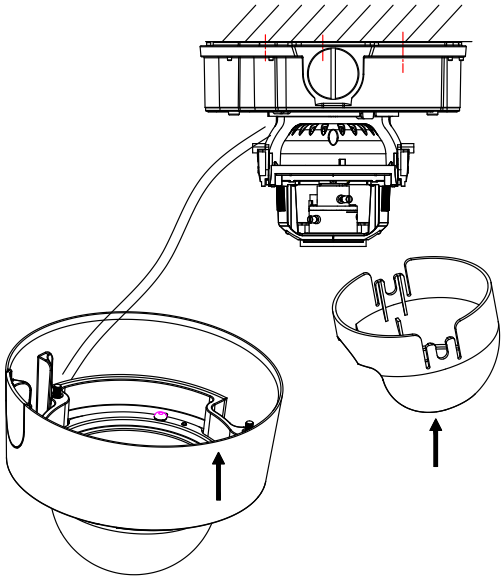


Figure 3-153 Install the Black Liner and Bubble

9. Tighten the lock screw on the bubble.

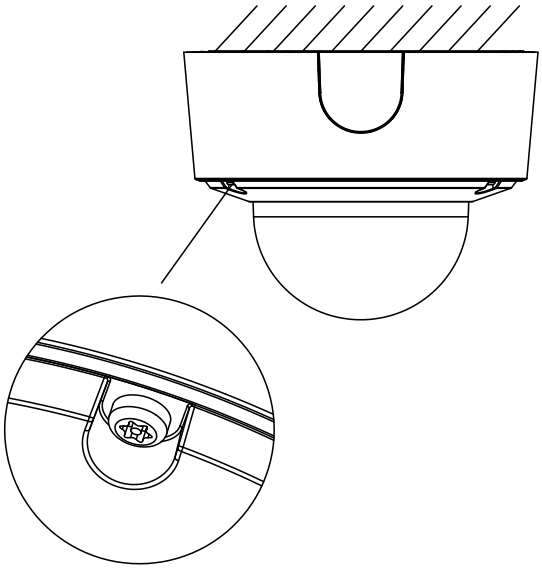


Figure 3-154 Tighten the Lock Screw

❖ Wall Mounting

You need to purchase a wall bracket separately if wall mounting is selected.

1. Fix the wall bracket to the wall with the screws.

Please insert the expansion screws first if the camera is mounted to the cement wall, and you can use the self-tapping screws directly if camera is mounted to the wooden wall.

2. Install the bowl-shape cover to the wall bracket.

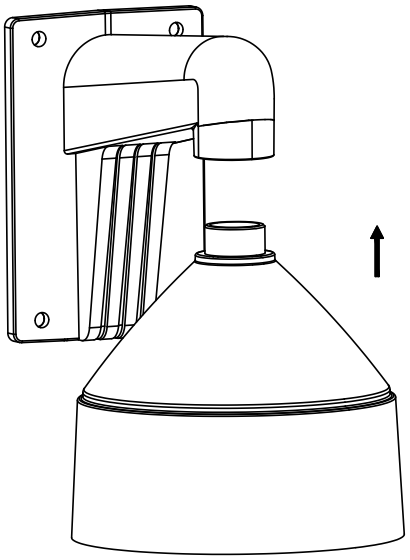


Figure 3-155 Install the Wall Bracket

3. Align the supplied rubber ring to the bowl-shape cover.

4. Insert the screws half-deep to the screws holes on the rubber ring.

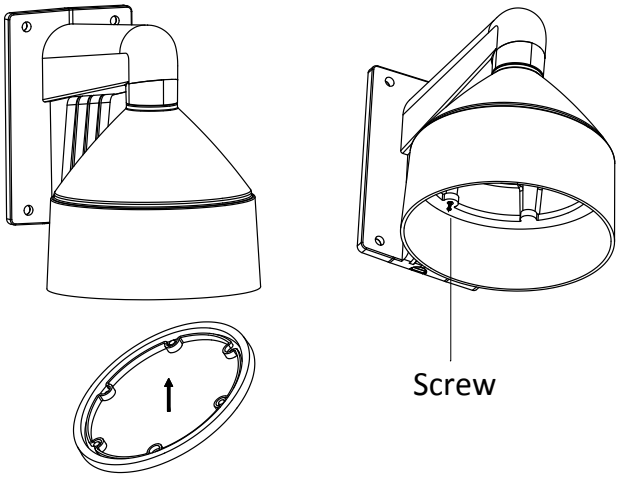


Figure 3-156 Install the Rubber Ring and Screws

5. Align the screws holes on the camera to the installed screws, and rotate the camera to hook to the camera to the screws.

6. Install the black liner and bubble.

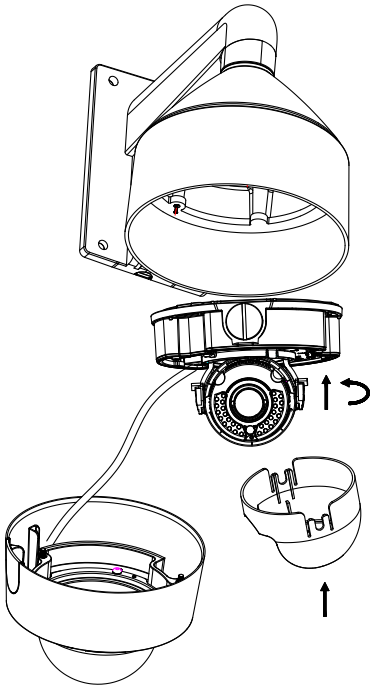


Figure 3-157 Install the Black Liner and Bubble

7. Tighten the lock screw on the bubble.

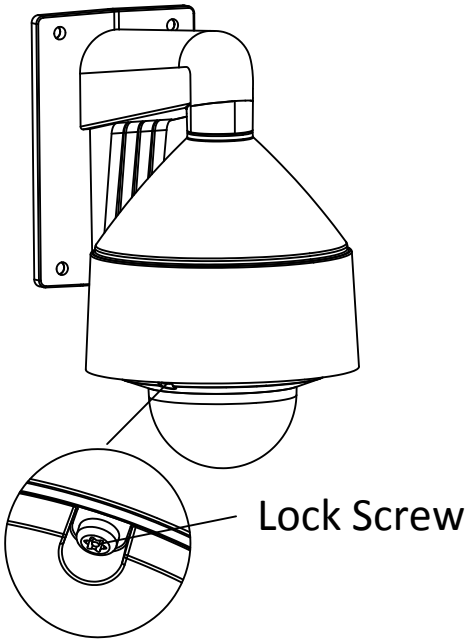


Figure 3-158 Tighten the Lock Screw

❖ 3-axis Adjustment and Lens Adjustment

3-axis Adjustment

This series of camera supports 3-axis adjustment, and you can adjust the camera to the desired

surveillance angle after the black liner is installed.

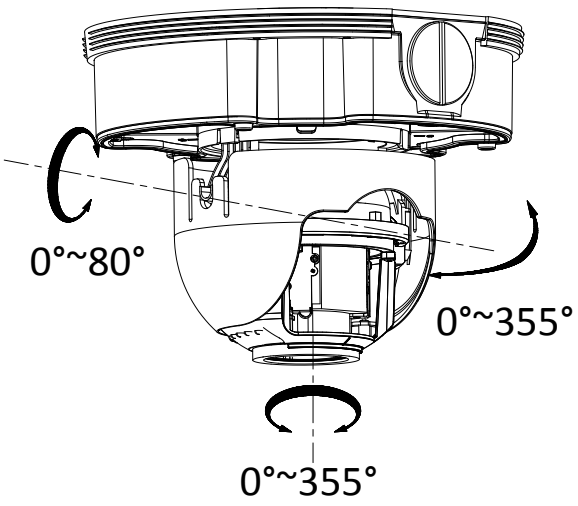


Figure 3-159 3-axis Adjustment

Lens Adjustment

The camera with letter "Z" in its model suffix support electronic lens. You can adjust the lens via the zoom button or focus button on the PTZ control interface after you login to a camera.

Please refer to the chapter 3 and chapter 4 for details to login to the camera.

Figure 3-160 Zoom/Focus Adjustment Via PTZ Interface

And the camera without letter "Z" in its suffix asks you to adjust the lens after the black liner is installed.

Connect the camera to a debug monitor so as to get the live view, and adjust the zoom lever (T~W) to adjust the zoom, and adjust the focus lever (F~N) to adjust the focus till you get a clear view.

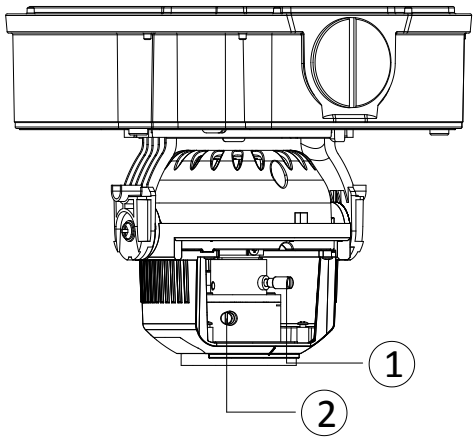


Figure 3-161 Lens Adjustment

3.12 Type XII Dome Camera

3.12.1 Camera Description

The overview of type XII dome camera is shown below.

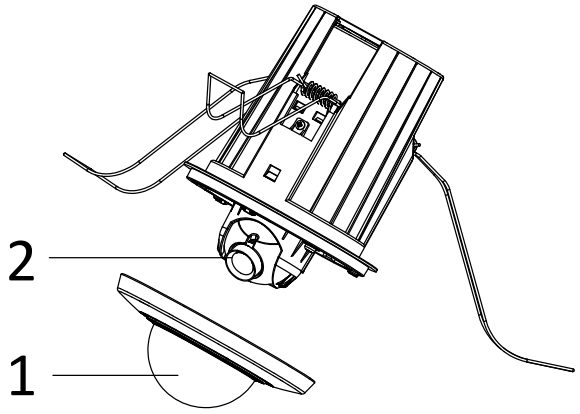


Figure 3-162 Overview(1)

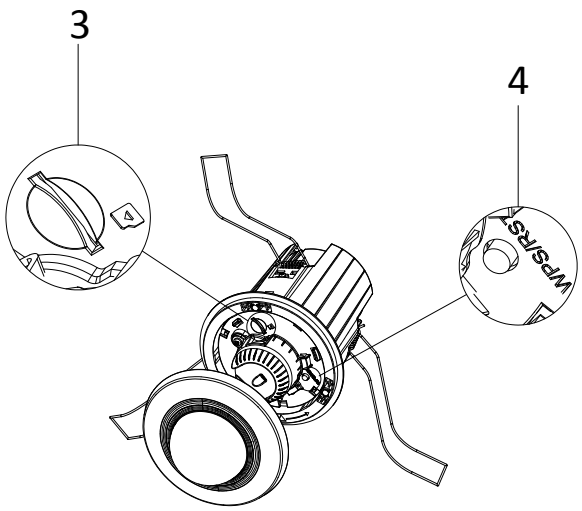


Figure 3-163 Overview (2)

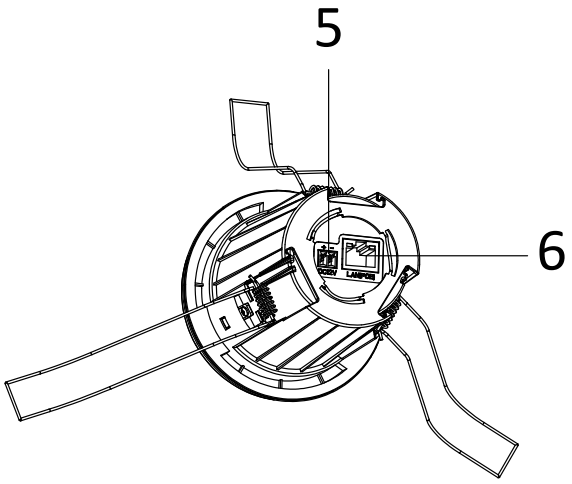


Figure 3-164 Overview(3)

Table 3-16 Description of Overview

No.	Description
1	Bubble
2	Lens
3	Micro SD Card Slot
4	WPS (Wi-Fi Protected Setup) / Reset Button
5	Power Supply Interface (12 VDC)
6	10M / 100M self-adaptive Ethernet interface & PoE

3.12.2 Installation

❖ Ceiling Mounting

Steps:

1. Drill the hole according to the supplied drill template.

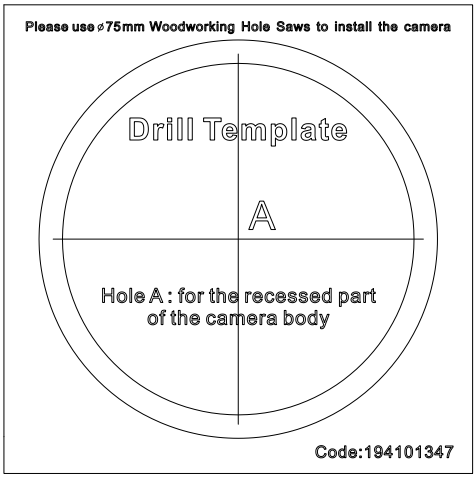


Figure 3-165 Drill Template

2. Hold and remove the bubble from the camera body.

NOTE

The bubble is attached to the camera body via magnetic force. Be gentle but firm when removing it.

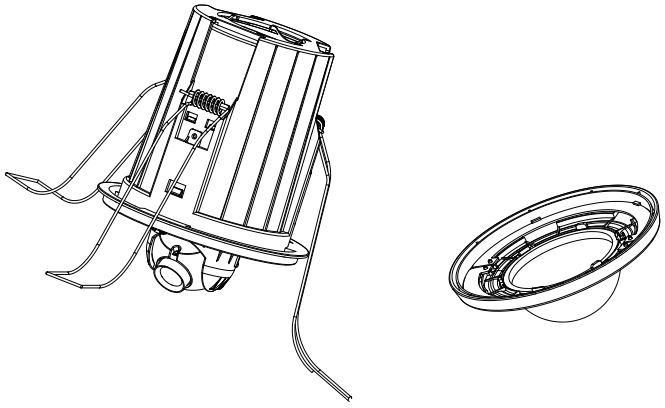


Figure 3-166 Remove the Bubble

3. Route the cables through the mounting hole and connect the corresponding cables including power cable, network cable, etc.

4. Gather together the brackets, as shown below, and push the brackets and camera body upward through the mounting hole.

The brackets will automatically expand under the spring force and fix the camera body to the wall.

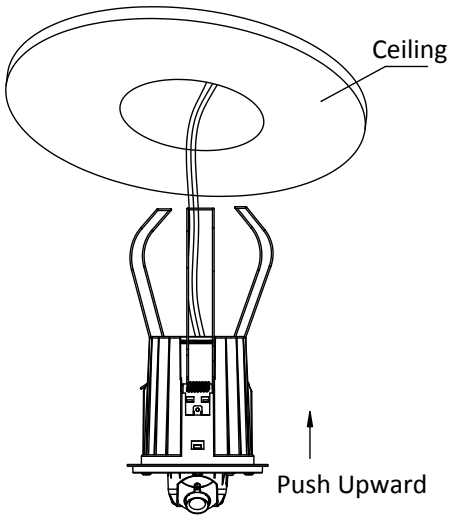


Figure 3-167 Fix the Camera Body

5. Adjust the view angle:

(1): Connect the cables and view the video of the camera on the monitor.

(2): Rotate the camera body in the pan direction (0 °~355 °) or rotate the lens in the tilt direction (0 °~80 °) to get the desired view angle.

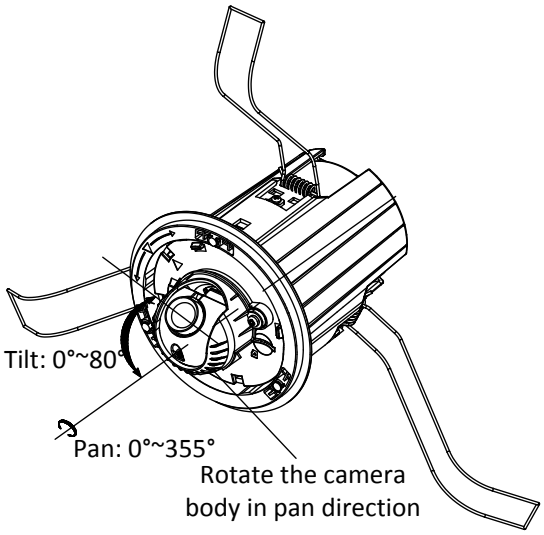


Figure 3-168 Adjust the View Angle

6. Re-install the bubble. The bubble will be automatically attached to the camera body under the magnetic force.

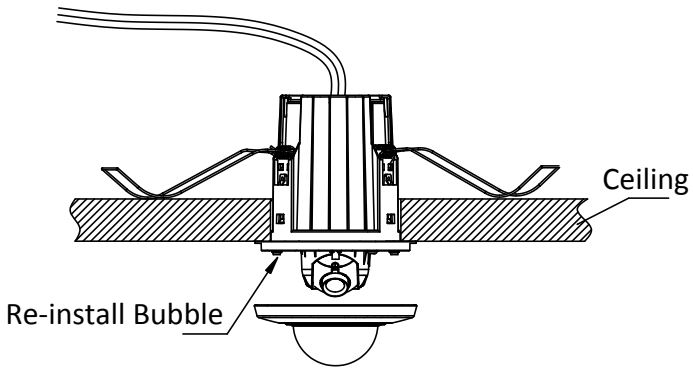


Figure 3-169 Re-install the Bubble

7. The installation is complete.

❖ Install SD Card

Steps:

1. Remove the bubble from the camera body, and you can see the micro SD card slot.
2. Insert the micro SD card into the micro SD card slot.
3. Re-install the bubble to the camera body.

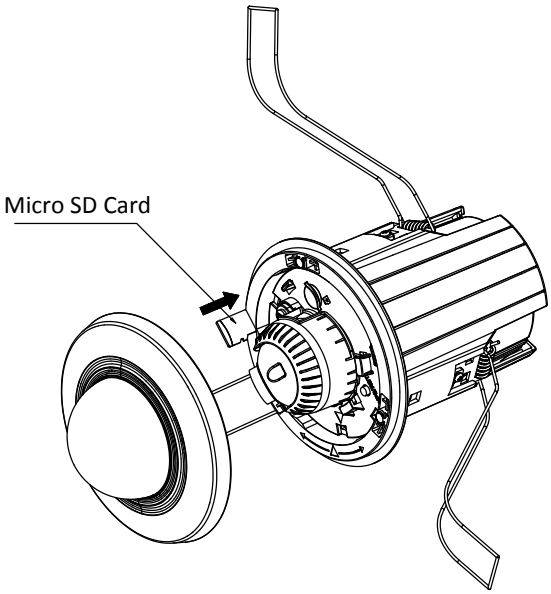


Figure 3-170 Install the SD Card

- Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.
- A wireless router with the WPS function is required to enable the WPS function of the camera. Refer to the steps below.

1) Press the WPS button on the router.

2) Press the WPS button (about 2s) on the camera within 120s you enable the WPS of the router to join in the wireless network.

- The WPS button works as a reset button only when you press it when the camera is powering on.
- Press the WPS button on the camera, and then press the WPS button on the router will work as well, and the expire time of WPS connection on the camera is 120s.
- The link indicator blinks if the wireless connection succeeded.

Chapter 4 Bullet Camera Installation

4.1 Type I Bullet Camera

4.1.1 Camera Description

The camera overview is shown as follows:

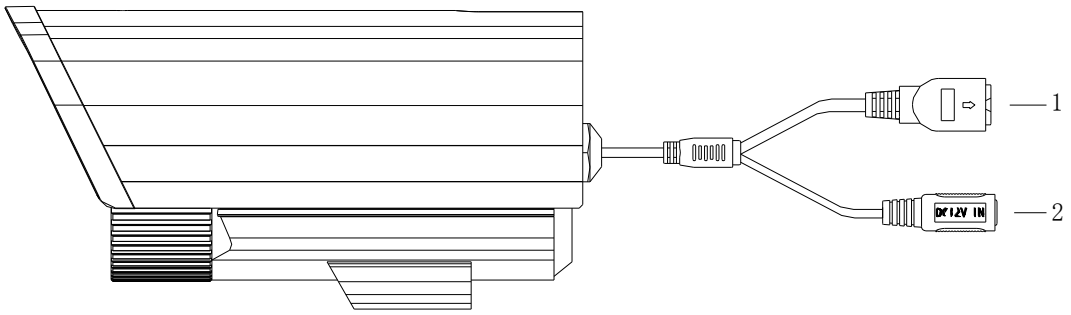


Figure 4-1 Overview

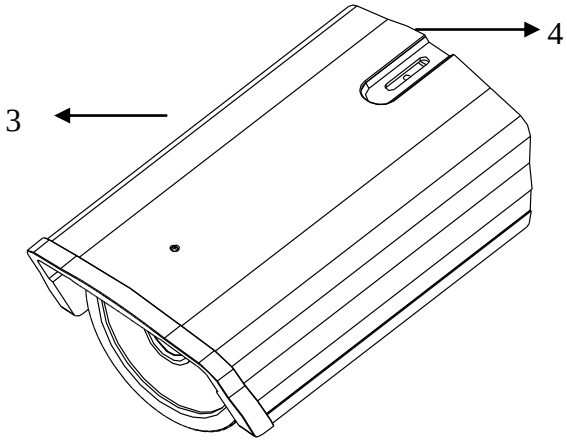


Figure 4-2 Overview

Table 4-1 Description

No.	Description
1	10M/100M self-adaptive Ethernet interface
2	Power Supply
3	Sun Shield
4	Adjusting Screw

4.1.2 Installation

Steps:

1. Attach the wall mount (not provided) to the wall and tighten the screws to fix it.

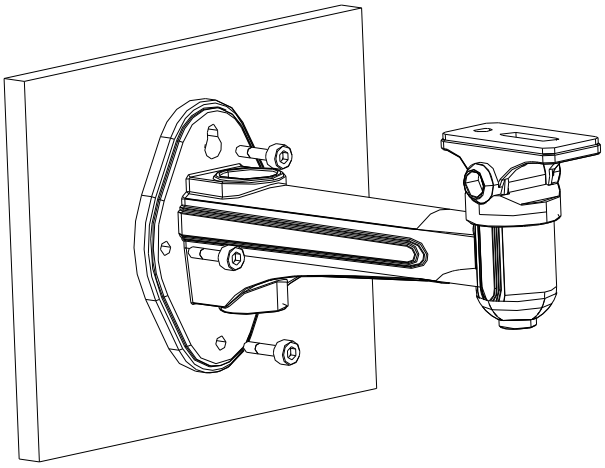


Figure 4-3 Install the Wall Mount

2. Secure the camera to the wall mount with set screws.
3. Route the cables for the camera as shown follows.

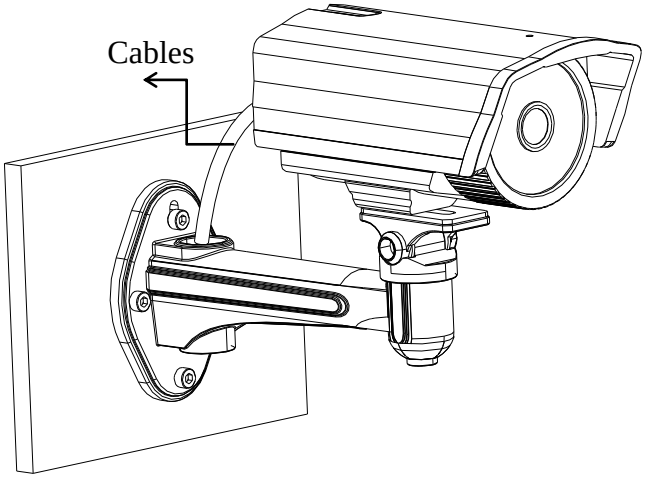


Figure 4-4 Mount the Camera

4. Loosen the panning lock screw to adjust the panning angle [0~360 °].

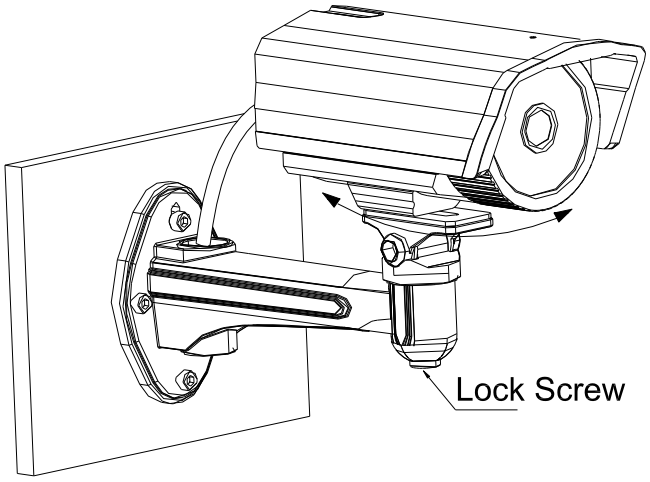


Figure 4-5 Panning

5. Loosen the tilting lock screw to adjust the tilting angle [0~90 °].

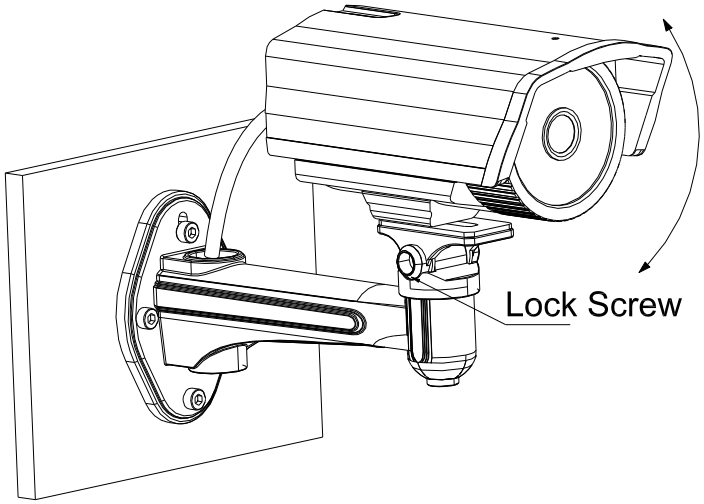


Figure 4-6 Tilting

4.2 Type II Bullet Camera

4.2.1 Camera Description

Two types of camera rear panel are shown in Figure 4-7 and Figure 4-8. Choose the right figure according to your purchased product.

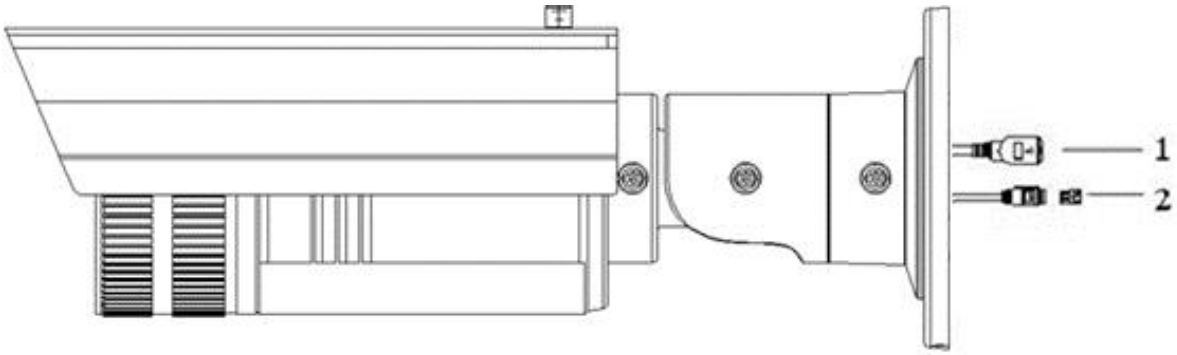


Figure 4-7 Overview

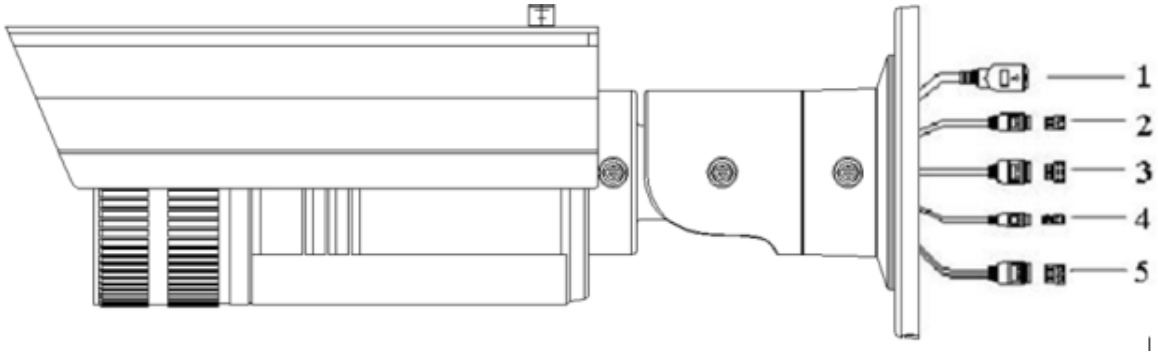


Figure 4-8 Overview

Table 4-2 Physical Description

No.	Description
1	10M/100M Self-adaptive Ethernet Interface
2	Power Supply Interface
3	IN, G: Alarm input interface 1A, 1B: Alarm output interface
4	D+, D-: RS-485 interface
5	AUDIO IN, G: Audio input interface AUDIO OUT, G: Audio output interface

4.2.2 Installation

Steps:

1. Fix the mounting base to the wall.

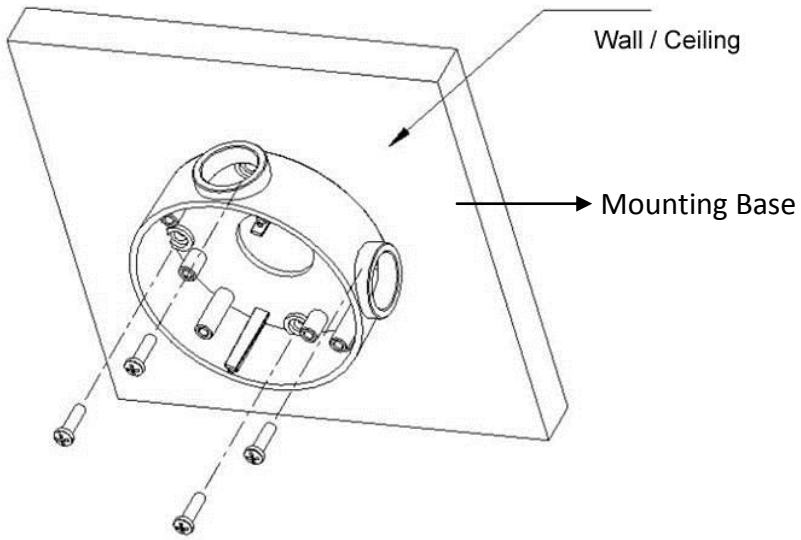


Figure 4-9 Fix the Mounting Base

2. Fix the mounting bracket with the camera to the mounting base.

NOTE

The “bottom” mark on the mounting base should align with the “bottom” mark on the mounting bracket.

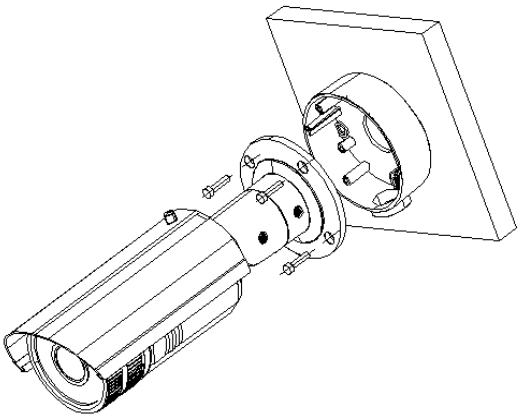


Figure 4-10 Fix the Camera

3. View the image of the camera over the network.

4. Loosen the screws on the bracket slightly.

NOTE

Please loosen the screws slightly until you can adjust the camera and do not remove the screws from the bracket.

5. Adjust the camera to the desired surveillance angle and then tighten the screws on bracket to fix the camera.

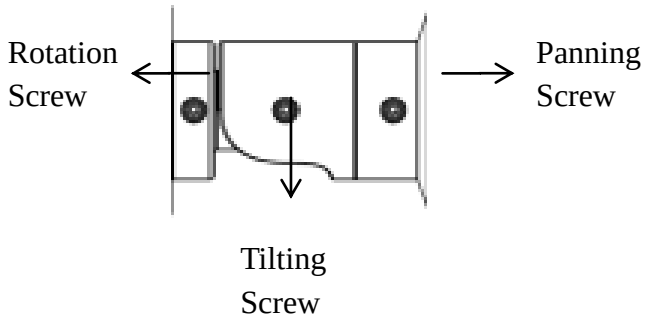


Figure 4-11 Adjust Monitoring Angle

6. Loosen the lock screw on the sun shield and slide the sun shield until you can remove it. Remove the sun shield.

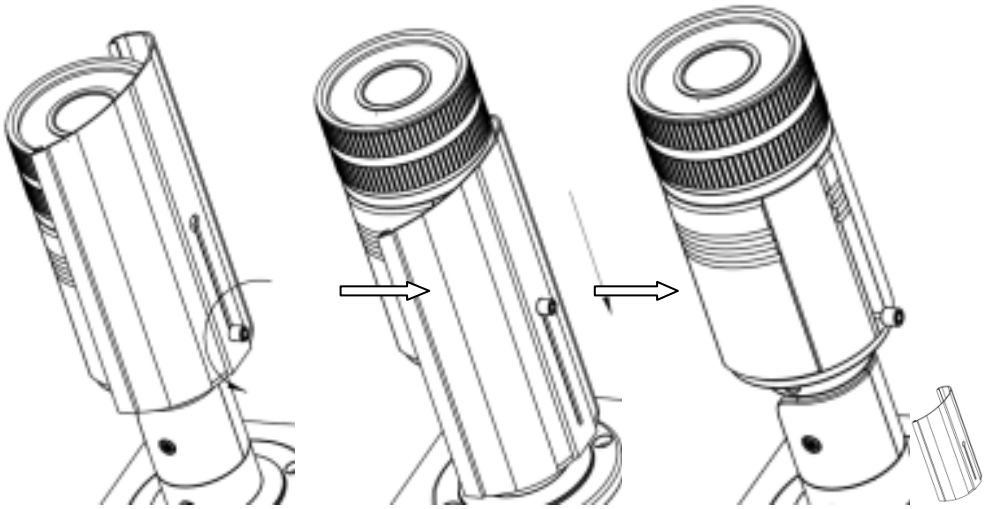


Figure 4-12 Remove the Sun Shield

7. Rotate to remove the front cover from camera and adjust the lens to get a clear image.

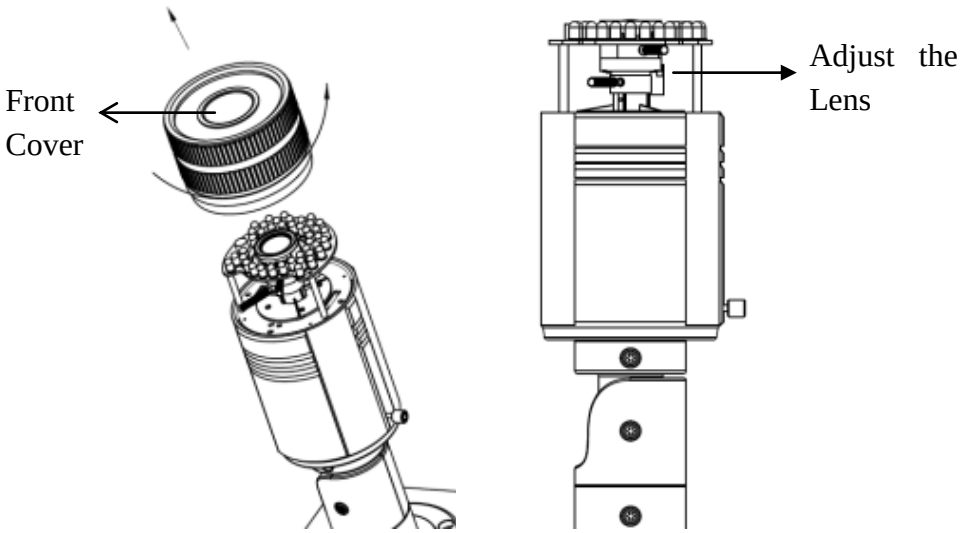


Figure 4-13 Adjust the Lens

8. Fix the lens; reinstall the front cover and the sun shield to finish the installation.

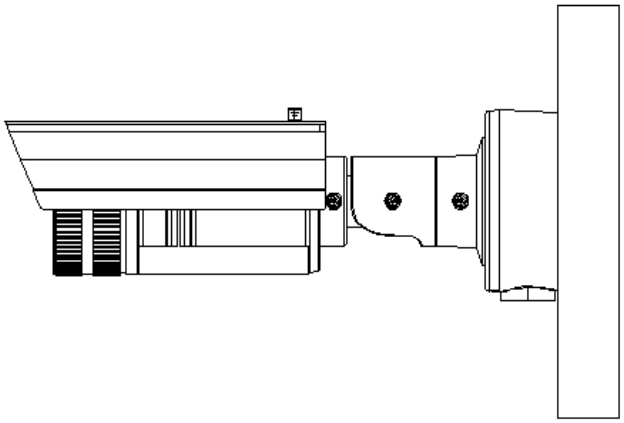


Figure 4-14 Complete the Installation

4.3 Type III Bullet Camera

4.3.1 Camera Description

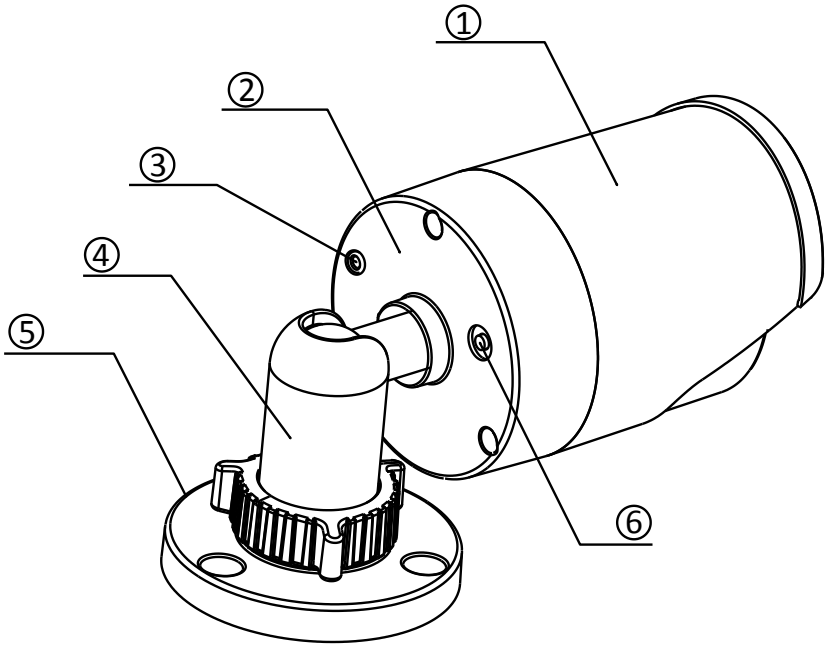


Figure 4-15 Bullet Camera Overview

Table 4-3 Description

No.	Description
1	Sun Shield
2	Back Box
3	Grounding Screw
4	Adjustable Bracket
5	Mounting Base
6	Reset

4.3.2 Installation

Steps:

1. Attach the drill template on the wall.

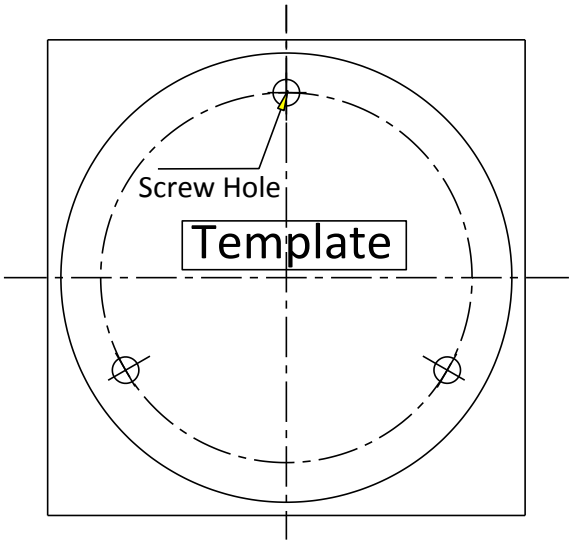


Figure 4-16 Attach the template

2. Secure the camera to the ceiling with the supplied expansion screws.

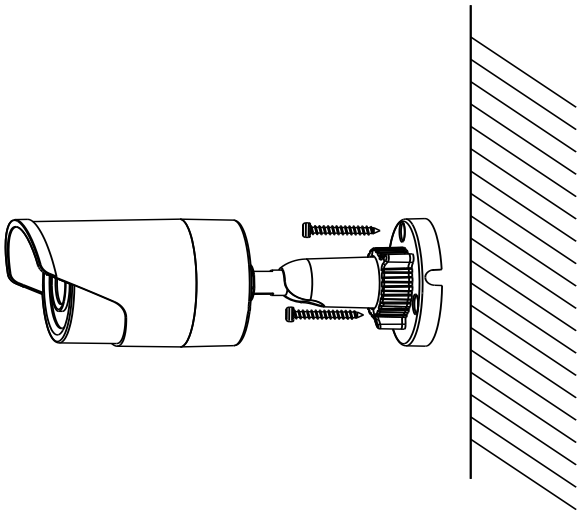


Figure 4-17 Secure the Camera to the Ceiling

3. Adjust the Lens.

1). Loosen the adjustable nut on the bracket.

2). Adjust the panning angle [0~360 °] of the camera.

3). Adjust the tilting angle [0~90 °] of the camera.

4). Rotate 0~360 °to adjust azimuth angle of the image.

5). Tighten the adjustable nut to complete the installation.

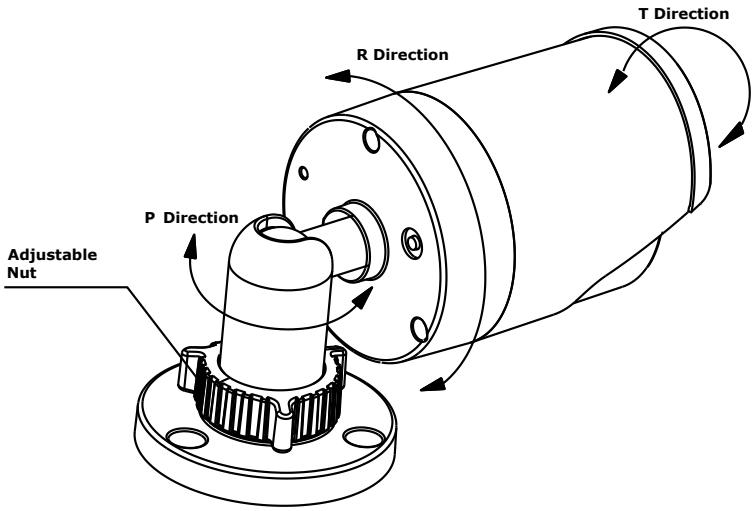


Figure 4-18 3-axis Adjustment

4.4 Type IV Bullet Camera

4.4.1 Camera Description

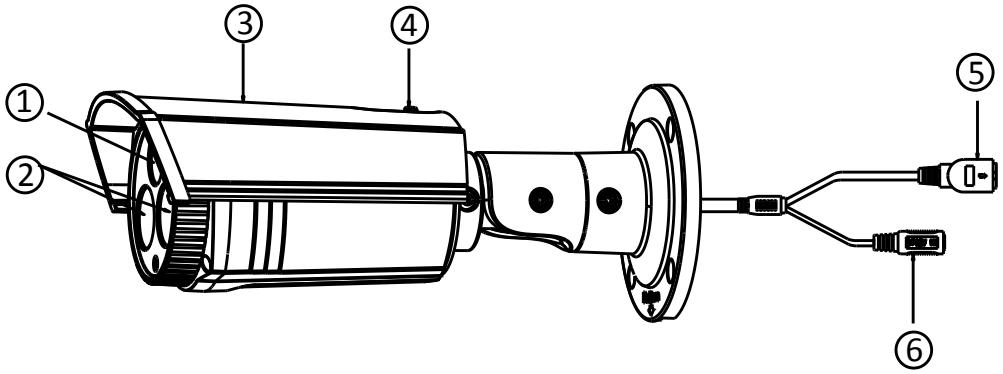


Figure 4-19 Bullet Camera Overview

Table 4-4 Description

No.	Description
1	Lens
2	IR LED
3	Sun Shield
4	Adjusting Screw
5	Network Cable

6	Power Cable

4.4.2 Installation

Steps:

1. Drill the cable hole and the screw hole in the ceiling according to the supplied drill template.

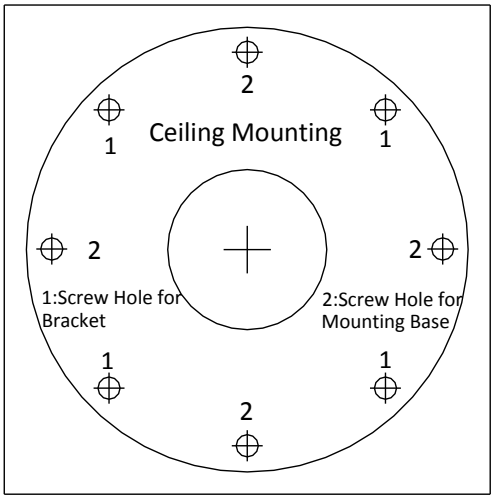


Figure 4-20 The Drill Template

2. Hammer the supplied plastic expansion bolt into the screw holes.
3. Route the cables to the cable hole and connect the corresponding power cable and video cable
4. Fix the camera to the wall with the supplied screws

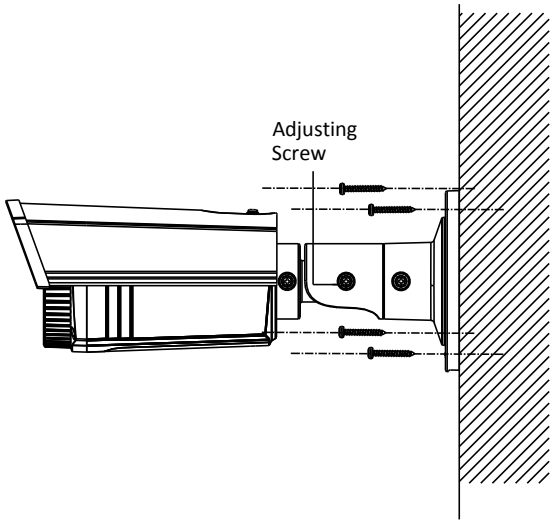


Figure 4-21 Fix the Camera to the Ceiling

5. Adjust the surveillance angle.

1). Loosen No.1 adjusting screw to adjust the panning position [0 °~ 360 °].

2). Tighten No.1 adjusting screw.

3). Loosen the No.2 adjusting screw to adjust the tilting position [0 °~ 100 °].

4). Tighten No.2 adjusting screw.

5). Loosen No.3 adjusting screw to adjust the azimuth angle [0 °~ 360 °].

6). Tighten No.3 adjusting screw.

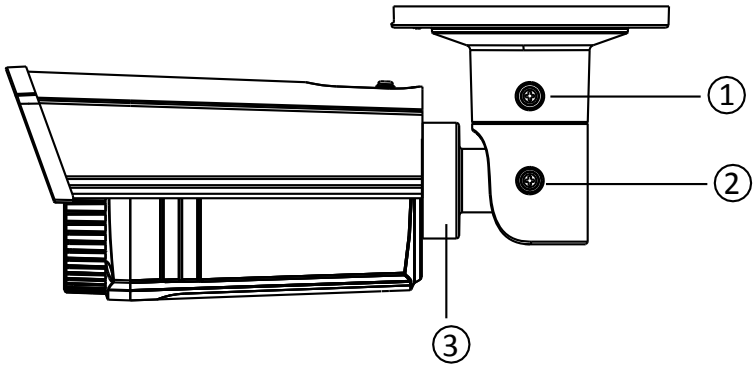


Figure 4-22 3-axis Adjustment

4.5 Type V Bullet Camera

4.5.1 Camera Description

The overview of the network bullet camera is shown below.

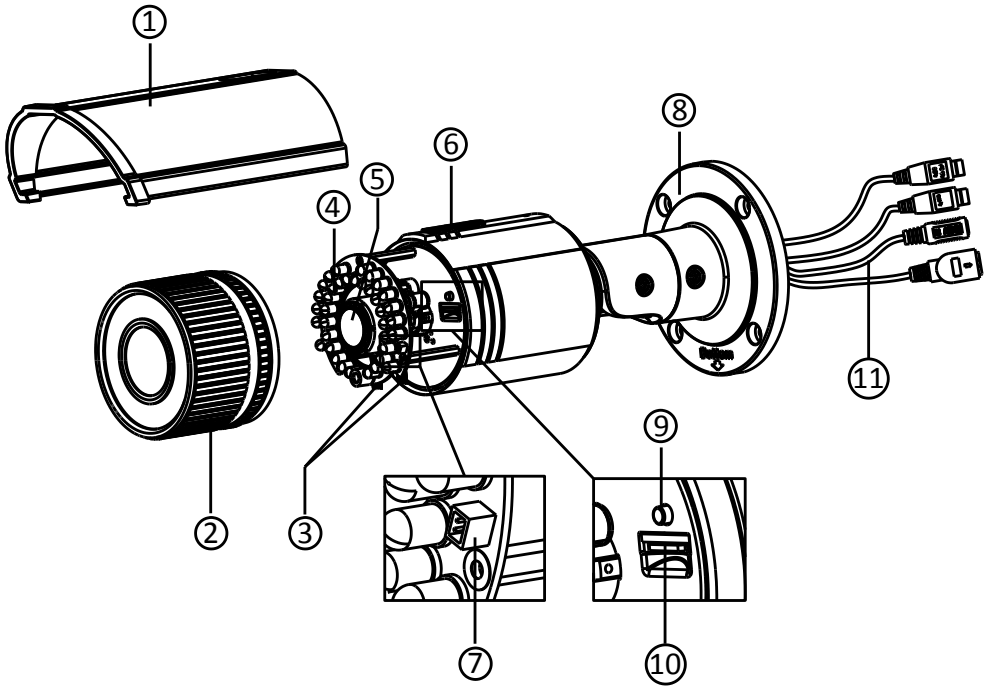


Figure 4-23 Overview

Table 4-5 Overview

No.	Description
1	Sun Shield
2	Front Cover
3	Zoom and Focus Lever
4	IR LED
5	Lens
6	Air Vent
7	Video Output Interface
8	Integrated Bracket
9	Reset Button
10	Micro SD Card Slot
11	Power Interface
12	Network Interface

NOTE

- Press RESET button about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

- Some of the models support audio and alarm functions. The interfaces are shown as follows.

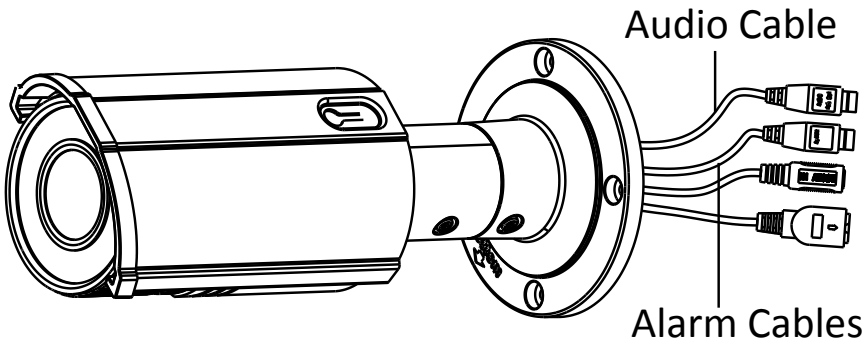


Figure 4-24 Audio and Alarm Interfaces

4.5.2 Installation

- **SD Card Installation**

Steps:

1. Loosen the lock screw on the sun shield to slide the sun shield according to the arrow direction as shown in Figure 4-25 (left).
2. Remove the sun shield according to the arrow direction as shown in Figure 4-25 (right).
3. Remove the front cover by rotating it counterclockwise as shown in Figure 4-25 (right).

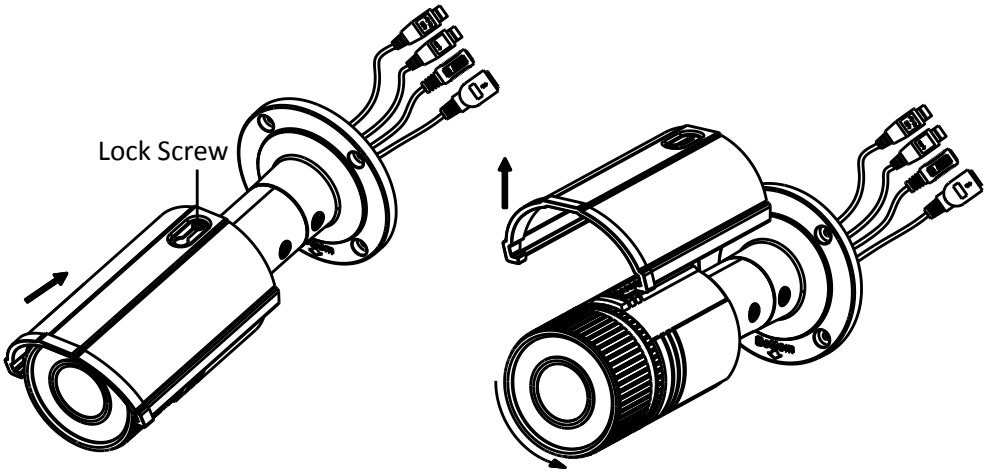


Figure 4-25 Disassemble the Camera

4. Insert the micro SD card to the micro SD card slot.
5. Rotate the front cover clockwise to install the sun shield according to the arrow direction as shown in Figure 4-26(right).

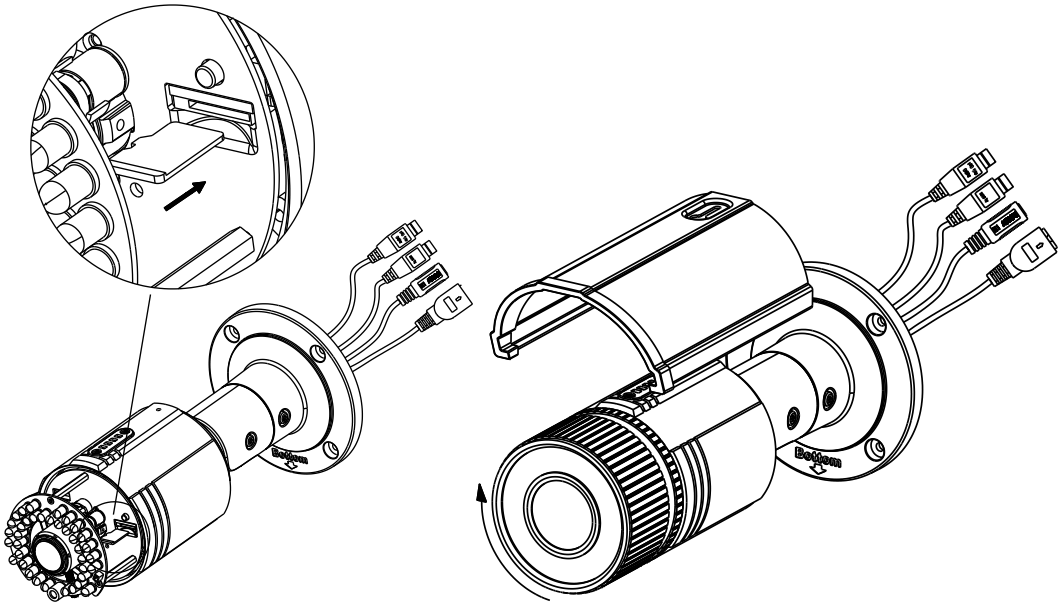


Figure 4-26 Install the SD Card

6. Slide the sun shield according to the arrow direction as shown in Figure 4-27(left).

7. Tighten the lock screw on the sun shield.

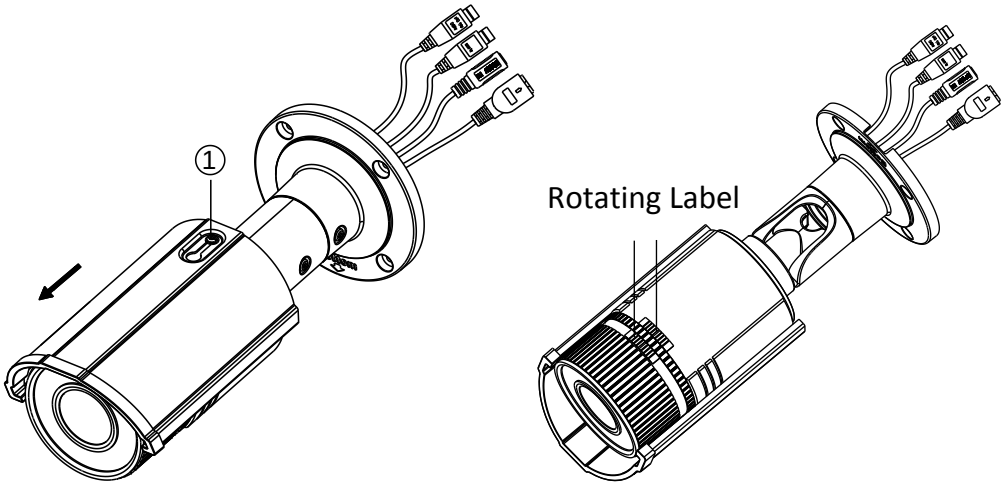


Figure 4-27 Assemble the Camera

NOTE

For water-proof, please align the rotating label on the front cover with that on the camera when you rotate the front cover clockwise. Refer to Figure 4-27 (right).

- **Wall Mounting**

Steps:

4. Attach the drill template (supplied) to the wall where the camera is to be mounted.

5. Drill screw holes in the wall according to the No.1 hole of the drill template.

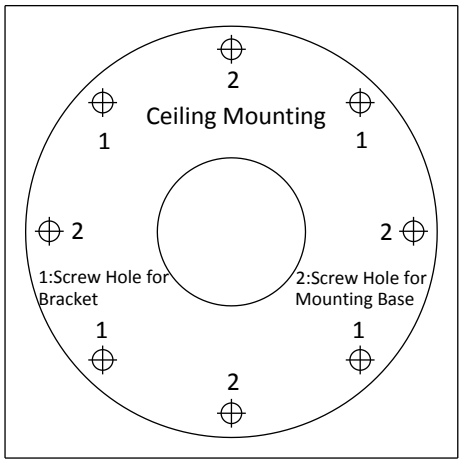


Figure 4-28 Drilling Holes in the Wall

6. If you need to route cables through the wall (or ceiling), cut a cable hole according to the drill template. Skip this step, if you want to route the cables on the surface of the ceiling.
7. Route the cables of the camera.
8. Secure the camera to the wall (or ceiling) with expansion screws. Refer to the Figure 4-29.

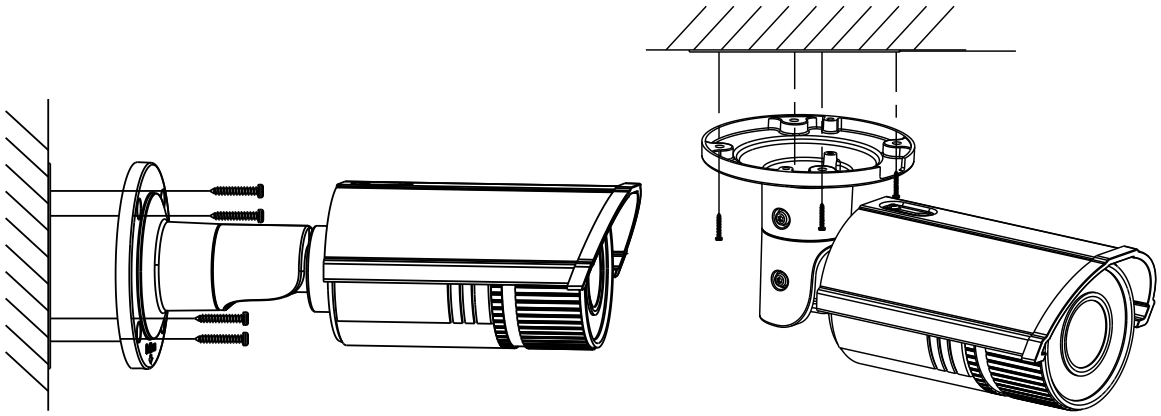


Figure 4-29 Secure the Camera

- **Wall Mounting with a Junction Box**

Before you start:

For mounting with a junction box, you have to purchase a junction box.

Steps:

1. Attach the drill template (supplied) to the wall where the camera is to be mounted.
2. Drill holes in the wall according to the No.2 holes of the drill template. Refer to the Figure 4-28.
3. If you need to route cables through the wall (or ceiling), cut a cable hole according to the drill template. Skip this step, if you want to route the cables on the surface of the ceiling.

4. Secure the junction box to the wall with expansion screws.

5. Route the cables of the camera.

9. Connect the video output connector to the monitor. Connect the power connector to the power supply.

10. Adjust the image and focus. Please refer to ***Zoom and Focus Adjusting*** for more detailed information.

11. Hook the camera to the junction box with the safety rope. Refer to the Figure 4-30.

12. Secure the camera to the junction box with screws.

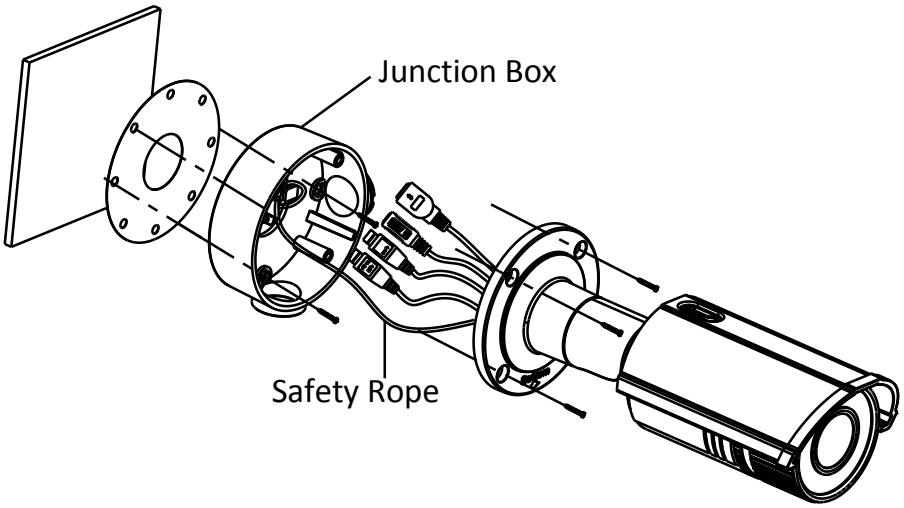


Figure 4-30 Secure the Camera

- **Wall Mounting with a Gang Box**

Before you start:

For mounting with a gang box, you have to purchase a gang box.

Steps:

1. Secure the camera attachment to a gang box with screws.

2. Route the cables of the camera.

3. Secure the camera to the camera attachment with screws. Refer to the Figure 4-31.

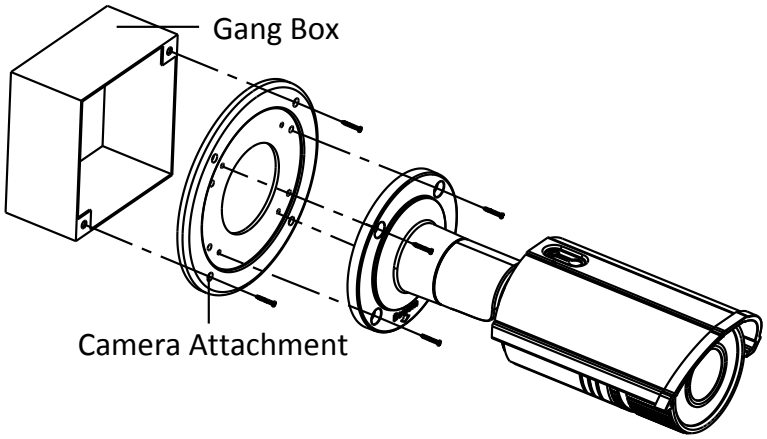


Figure 4-31 Secure the Camera

- **View Angle Adjusting**

Purpose:

3-axis (pan/tilt/rotation) adjusting allows adjustment for optimum camera rotation and placement.

Pan Adjustment

Steps:

1. Loosen the lock screw-1.
2. Adjust the panning position of the camera. The adjusting range is from 0 degrees to 360 degrees.
3. Tighten the lock screw-1.

Tilt Adjustment

Steps:

1. Loosen the lock screw-2.
2. Adjust the tilting position of the camera. The adjusting range is from 0 degrees to 90 degrees.
3. Tighten the lock screw-2.

Rotation Adjustment

Steps:

1. Loosen the lock screw-3.
2. Rotate the rotation position to adjust the azimuth angle of the image. The adjusting range is from 0 degrees to 360 degrees.
3. Tighten the lock screw-3.

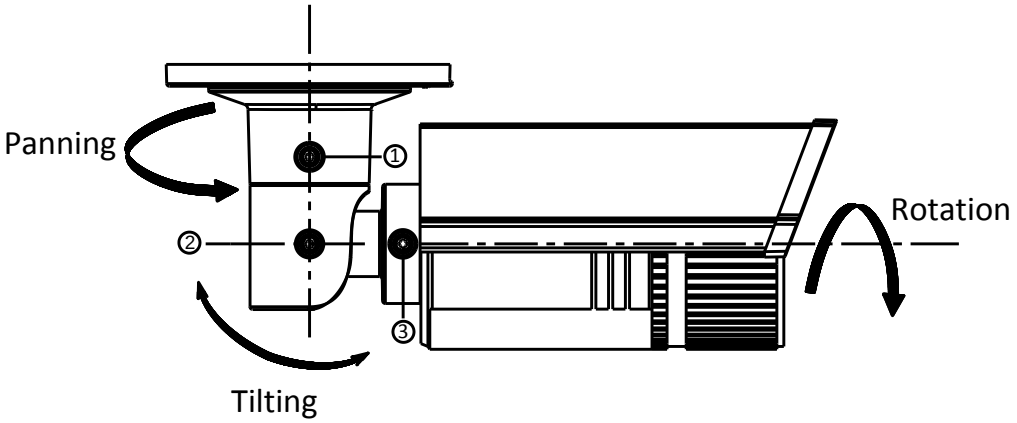


Figure 4-32 Lens Adjustment

- **Zoom and Focus Adjusting**

Purpose:

You can use the zoom lever and focus lever to adjust the zoom value and focus value.

Steps:

1. Disassemble the camera.
2. View the camera image using the monitor.
3. Loosen the zoom lever and move the lever between T (Tele) and W (Wide) to obtain the appropriate angle of view.
4. Tighten the zoom lever.
5. Loosen the focus lever and move the screw between F (Far) and N (Near) to obtain the optimum focus.
6. Tighten the focus lever.
7. Assemble the camera.

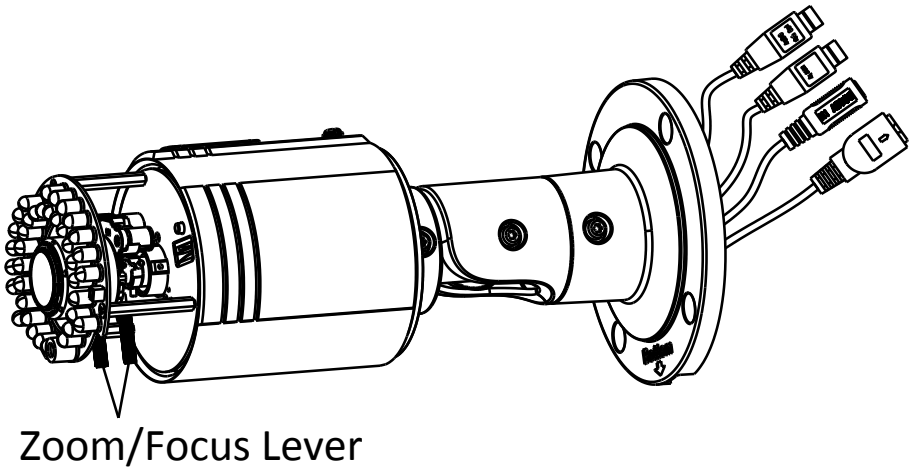


Figure 4-33 Zoom and Focus Adjustment

4.6 Type VI Bullet Camera

4.6.1 Camera Description

The overview of the network bullet camera is shown below:

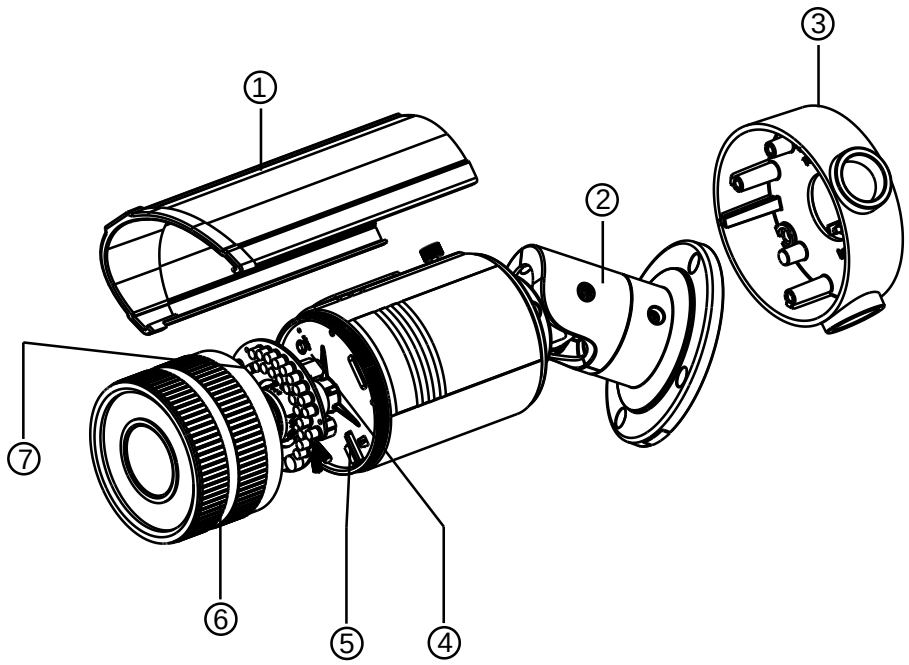


Figure 4-34 Overview

Table 4-6 Description

No.	Description	No.	Description
1	Sun Shield	2	Bracket
3	Junction Box	4	Reset
5	SD Card Slot	6	Front Box
7	Analog Video Output		

4.6.2 Installation

Steps:

1. Drill four screw holes in the wall according to the No.2 holes of the supplied drill template.

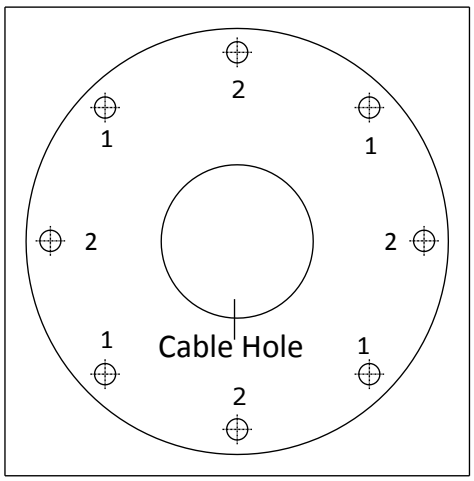


Figure 4-35 Drill Template

2. Drill one cable hole according to the sign shown on the drill template.

NOTE

If you want to route the cables through the side of the junction box, you can skip this step.

3. Fix the junction box to the wall with the expansion screws.

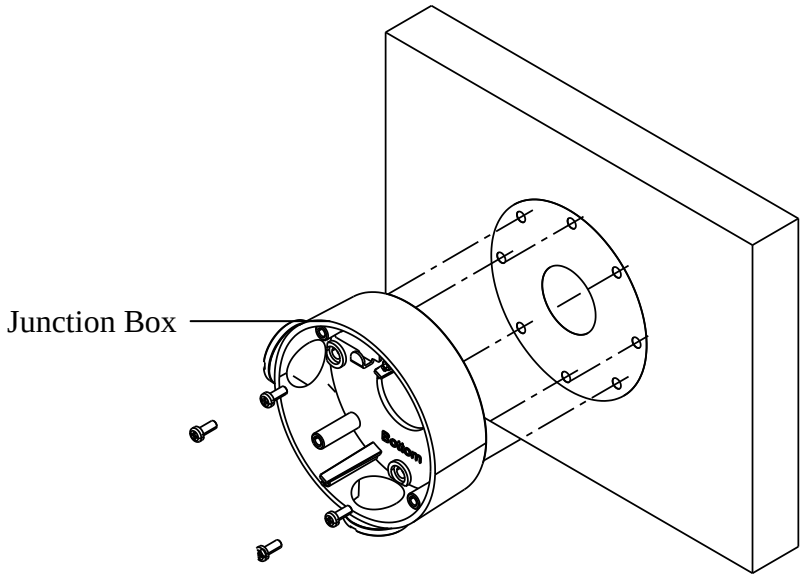


Figure 4-36 Install the Junction Box

4. Route the cables of the camera.
   - Route the cables through the junction box and the cable hole if there is a cable hole drilled on the ceiling.
   - Route the cables through the side outlet of the junction box to the surface of the ceiling if there is no cable hole drilled on the ceiling.

5. Hook the camera to the junction box with the safety rope.
6. Tighten the screws to fix the camera to the junction box.

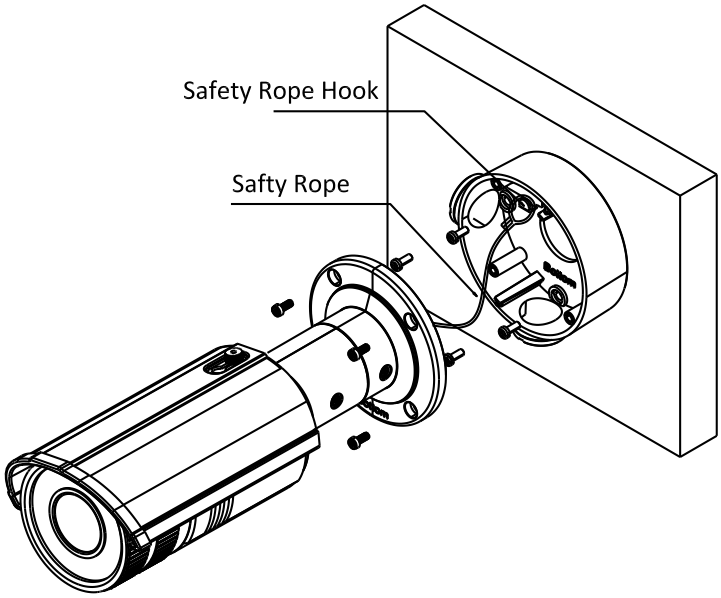


Figure 4-37 Fix the Camera to the Junction Box

7. Adjust the camera to the desired surveillance angle and then tighten the screws on bracket to fix the camera.

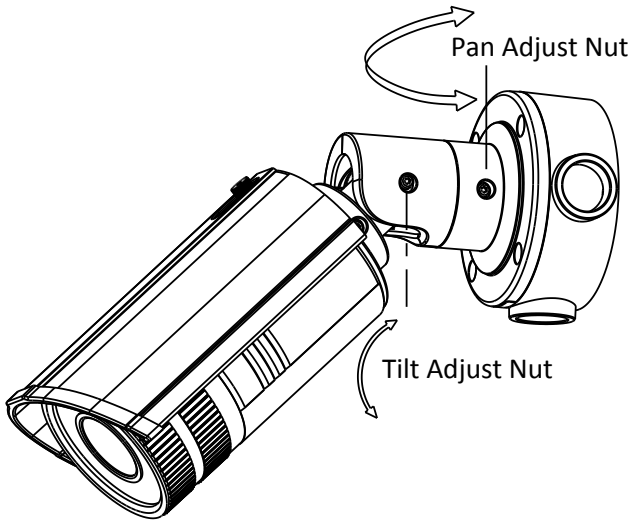


Figure 4-38 Adjust Monitoring Angle

NOTE

- Please loosen the screws slightly until you can adjust the camera and do not remove the screws from the bracket.
- After the monitoring angle is adjusted, you may need to install a water-proof rubber case

(purchased separately) to the foldable position of the bracket to protect it from water.

8. Loosen the lock screw on the sun shield and remove the sun shield.
9. Rotate to remove the front box from camera and adjust the zoom lever and focus lever to get a clear image.

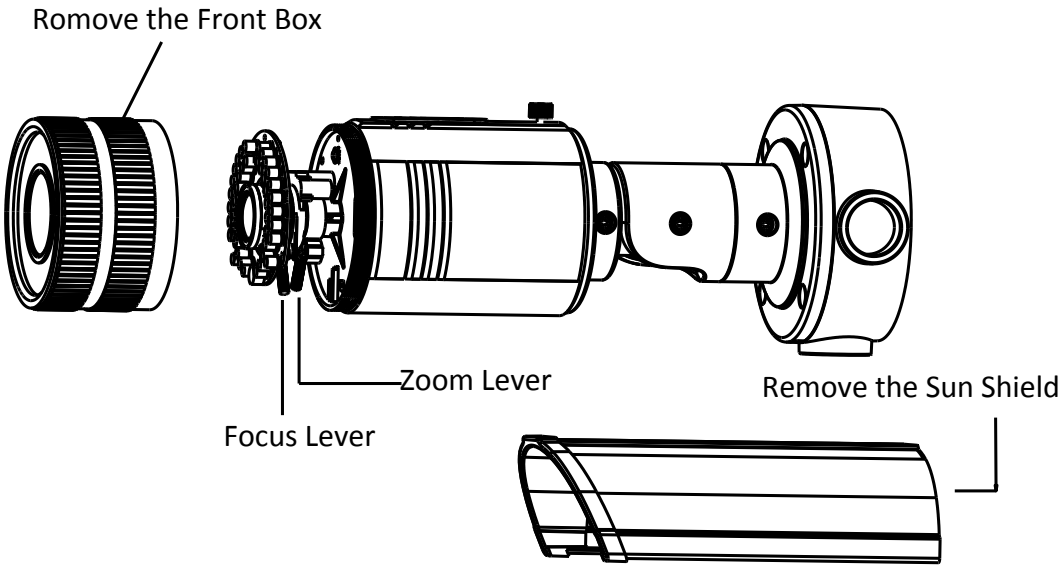


Figure 4-39 Lens Adjustment

10. Reinstall the front box and the sun shield to finish the installation.

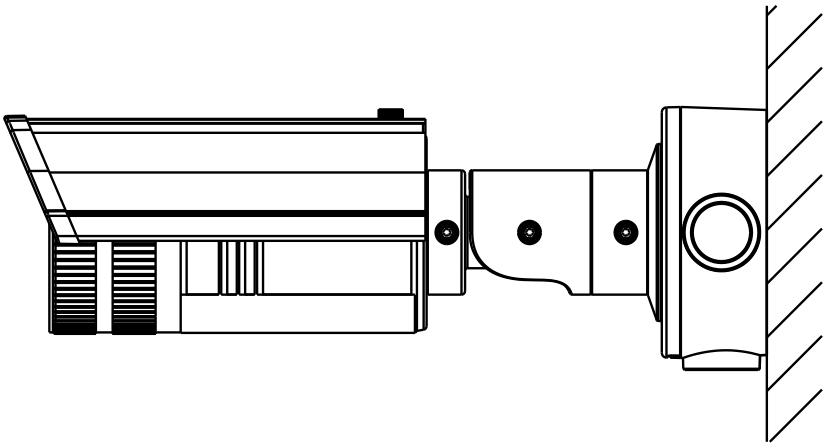


Figure 4-40 Installation Complete

4.7 Type VII Bullet Camera

4.7.1 Camera Description

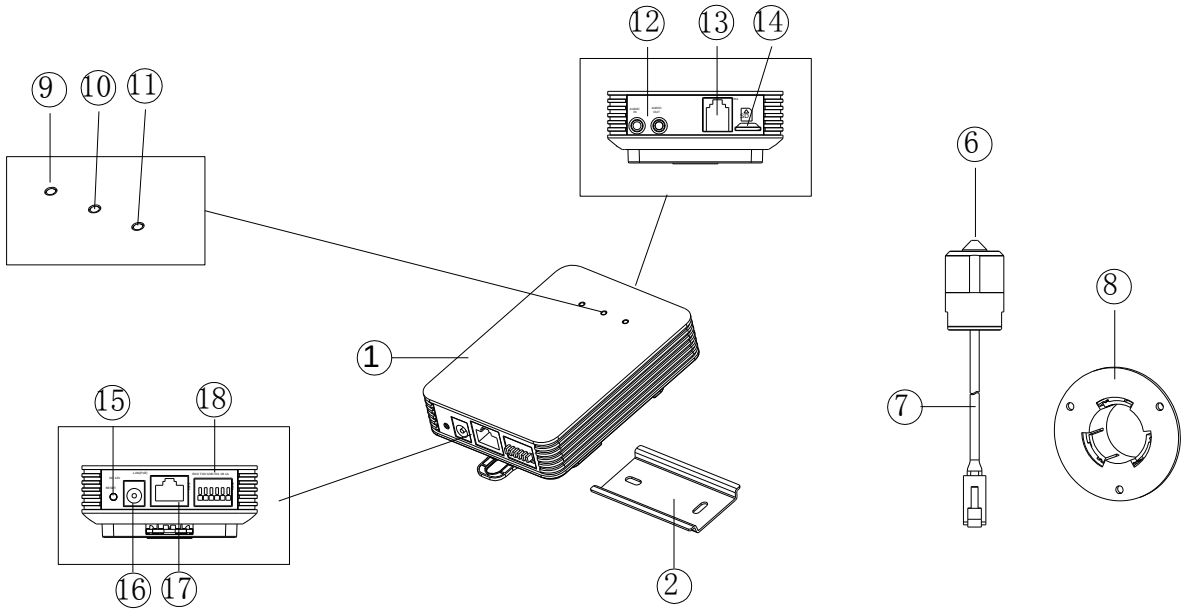


Figure 4-41 The Overview of Covert Camera with Cylindrical Sensor Unit

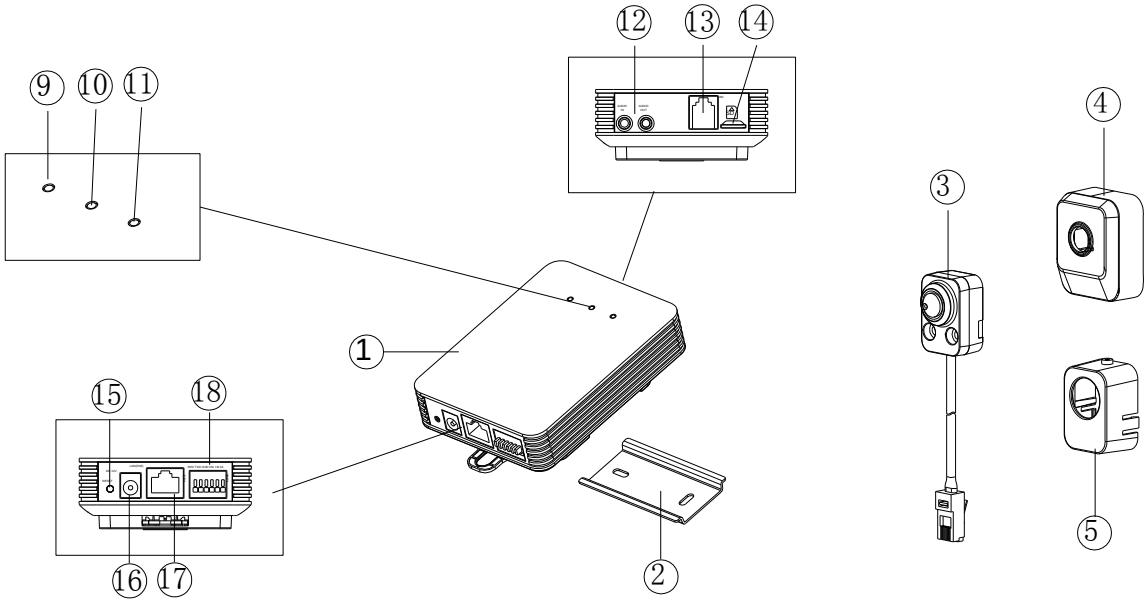


Figure 4-42 The Overview of Covert Camera with Block-shaped Sensor Unit

Table 4-7 Description of the Camera

No.	Description	No.	Description
1	Main Unit	10	STATUS Indicator LED

2	Mounting Rail	11	LINK Indicator LED
3	Block-Shaped Sensor Unit	12	Audio Interface
4	Cover	13	RJ-12 Interface
5	Straight Mounting Bracket	14	Micro SD Card Slot
6	Cylindrical Sensor Unit	15	RESET Button
7	RJ-12 Cable	16	Power Interface
8	Round Rail Mounting Bracket	17	PoE & Network
9	POWER Indicator LED	18	RS-232 &Alarm Interface

Press RESET button about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

Table 4-8 LED Indicator

LED	Color& Status	Indicator
POWER	Solid red	On normal operation
	Unlit	Power Off
STATUS	Solid green	Camera works properly
	Unlit	Camera does not work properly.
LINK	Flashing amber	Network connection is functioning properly
	Unlit	No network connection

4.7.2 Installation

- **Installation of Main Unit**

Steps:

1. Fix the standard mounting rail on the mounting surface. As shown in Figure 4-43.

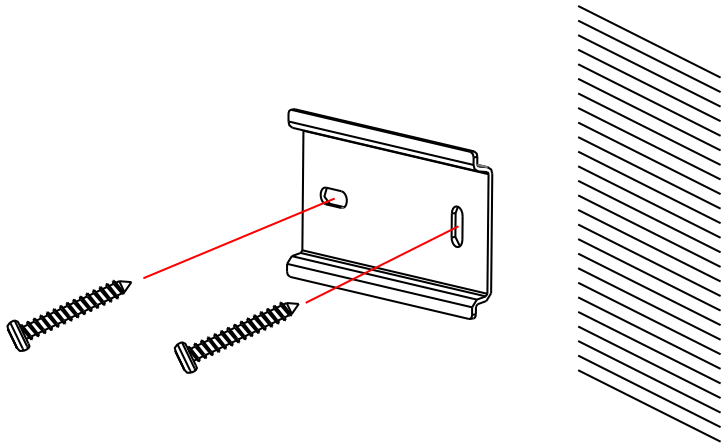


Figure 4-43 Fix the Standard Mounting Rail

- For cement surface mounting, you need to use the expansion screw to fix the camera.
- For wooden surface mounting, you can just use the self-tapping screw to fix the camera.

2. Hang the hook which is on upper-side of the main unit onto the rail, press a little harder on the lower part of the main unit, and then the elastic clasp will be automatically buckled. As shown in Figure 4-44.

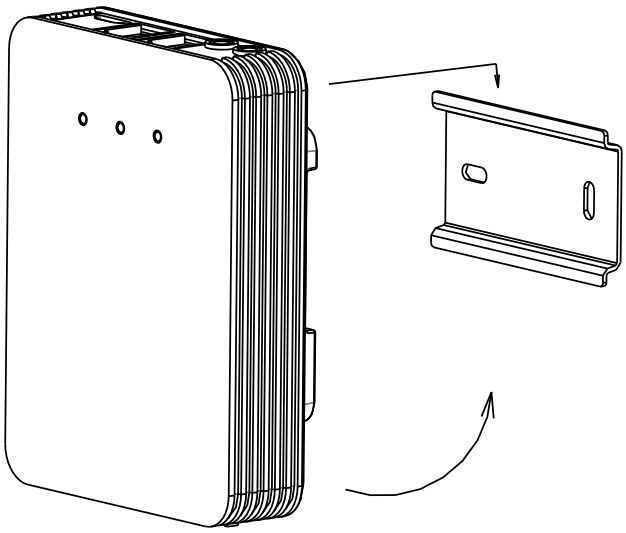


Figure 4-44 Buckle the Main Unit

If you already had a standard rail to be installed, you can buckle the main unit onto the installed rail directly.

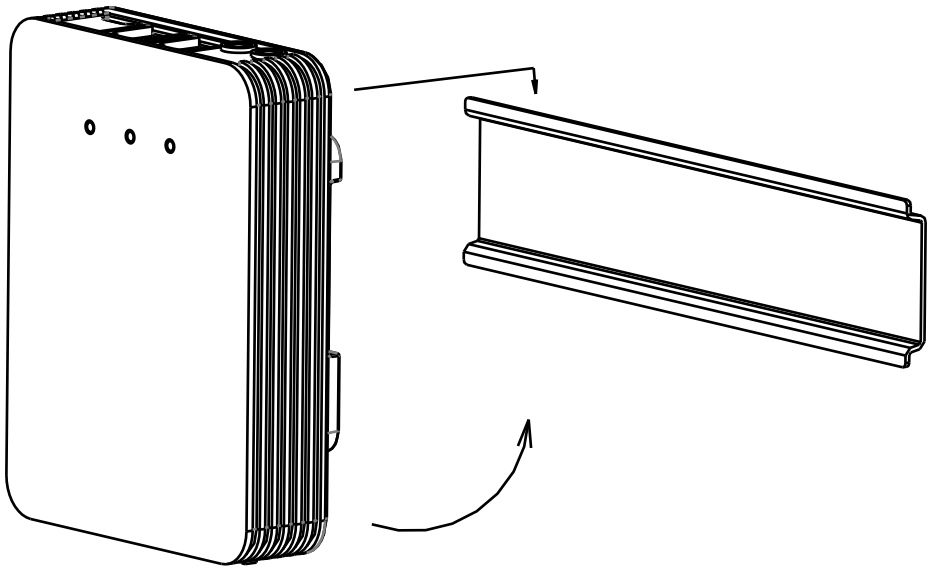


Figure 4-45 Buckle the Main Unit onto Standard Rail

- **Installation of Block-Shaped Sensor Unit**

This series of camera support concealed mounting and exposed mounting with a decorative cover.

❖ Concealed Mounting

Please make sure that the mounting surface is suitable for adhesive pasting.

Steps:

1. Drill on the mounting surface. As shown in Figure 4-46.

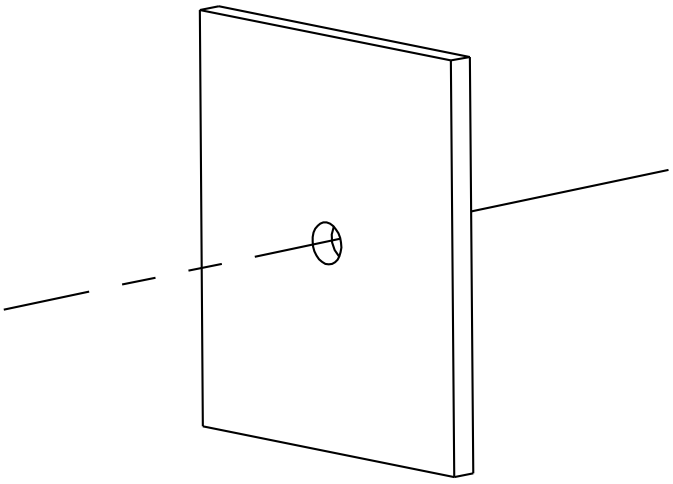


Figure 4-46 Drill on the Surface

NOTE

Make sure the drilling hole is big enough for the camera lens.

2. Remove a side of the adhesive tape on the bracket. Paste the bracket on the mounting surface with aligning with the drilling hole. As shown in Figure 4-47.

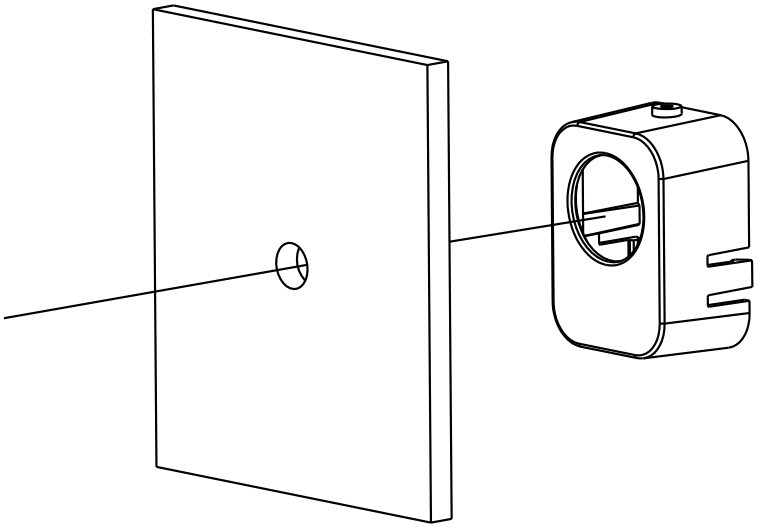


Figure 4-47 Paste the Bracket

3. Install the Block-shaped sensor unit into the bracket and make it to be buckled.
4. Tighten the fastening screw on the top of the bracket.

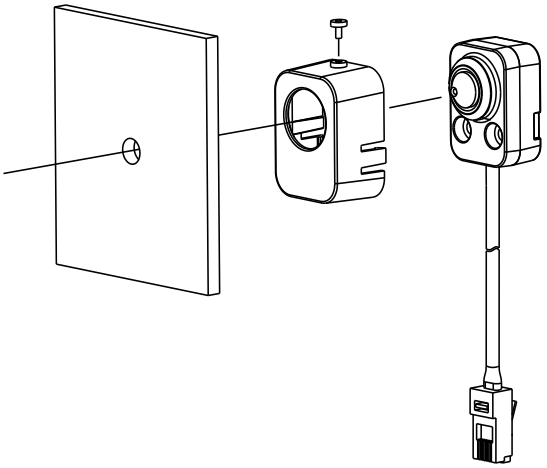


Figure 4-48 Insert the Block-shaped Sensor Unit

❖ Exposed Mounting

Steps:

1. Fix the Block-shaped sensor unit on the mounting surface with screws. As shown in Figure 4-49.

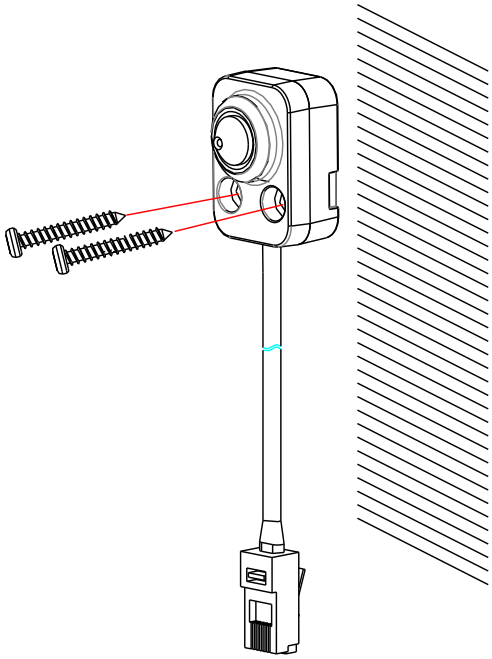


Figure 4-49 Fix the Block-shaped Sensor Unit

NOTE

- For cement surface mounting, you need to use the expansion screw to fix the camera.
- For wooden surface mounting, you can just use the self-tapping screw to fix the camera.

2. Shield the sensor unit with the decorative cover. As shown in Figure 4-50.

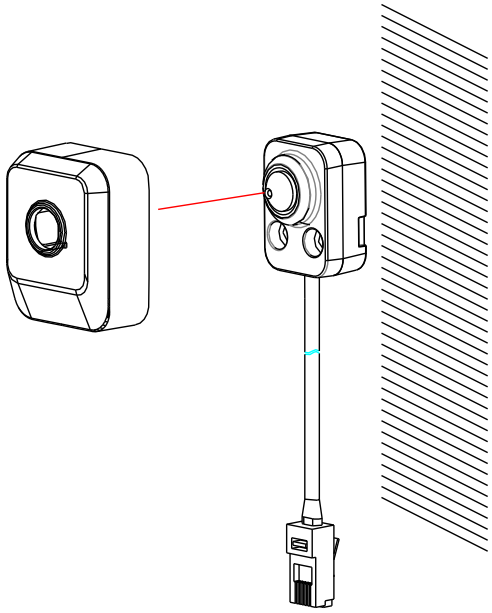


Figure 4-50 Hood the Cover

- **Installation of Cylindrical Sensor Unit**

This series of camera only support concealed mounting.

Please make sure that the mounting surface is suitable for adhesive pasting.

Steps:

1. Drill on the mounting surface. As shown in Figure 4-51.

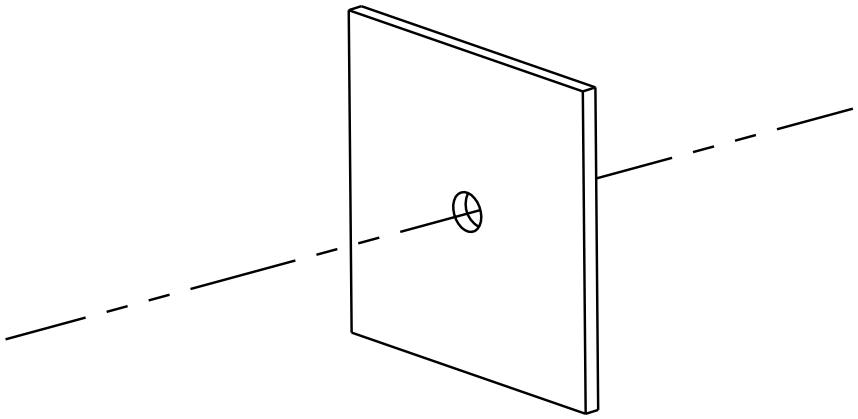


Figure 4-51 Drill on the Surface

Make sure that the drilling hole is big enough for the camera lens.

2. Remove a side of the adhesive tape on the bracket. Paste the bracket on the mounting surface with aligning with the drilling hole. As shown in Figure 4-52.

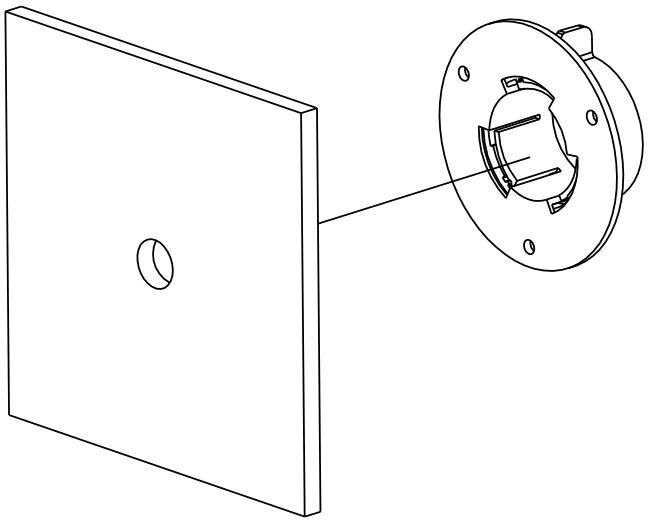


Figure 4-52 Paste the Bracket

3. Install the cylindrical sensor into the mounting hole in the round rail bracket.

4. Turn the locking sleeve to fix the sensor. As shown in Figure 4-53.

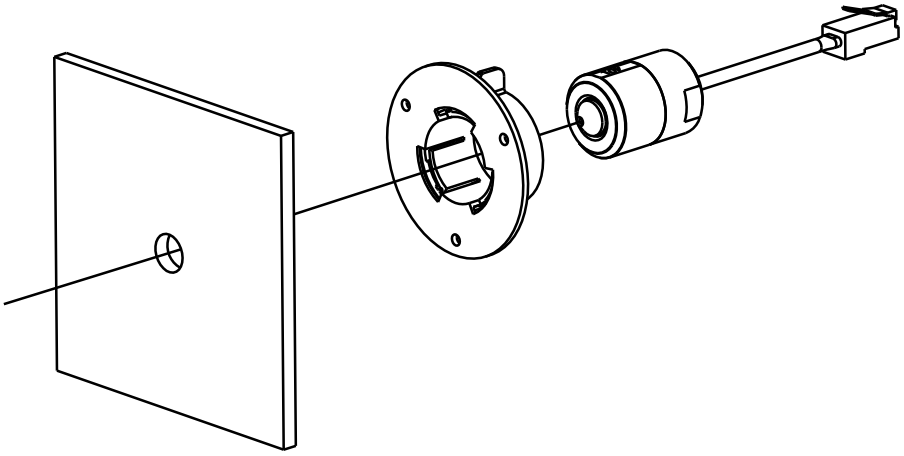


Figure 4-53 Install the Cylindrical Sensor

4.8 Type VIII Bullet Camera

4.8.1 Camera Description

The overview of the network bullet camera is shown below.

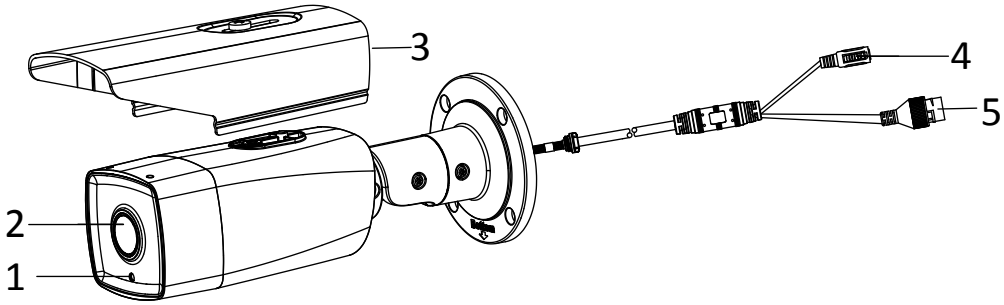


Figure 4-54 Overview

Table 4-9 Description

No.	Description
1	Photoresistor
2	Lens
3	Sun Shield
4	Power Interface
5	Network Interface

Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

4.8.2 Installation

❖ Ceiling Mounting

Steps:

1. Drill the screw holes and the cable hole in the ceiling according to the supplied drill template.

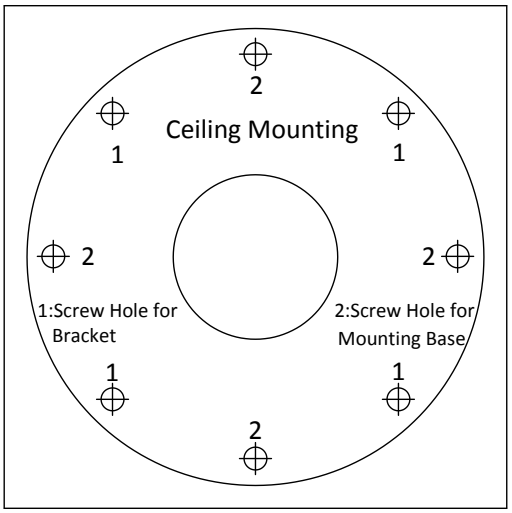


Figure 4-55 Drill Template

2. Fix the camera to the wall with the supplied screws.

Please insert the expansion screws first if the camera is mounted to the cement ceiling. And you can use the self-tapping screws directly if camera is mounted to the wooden ceiling.

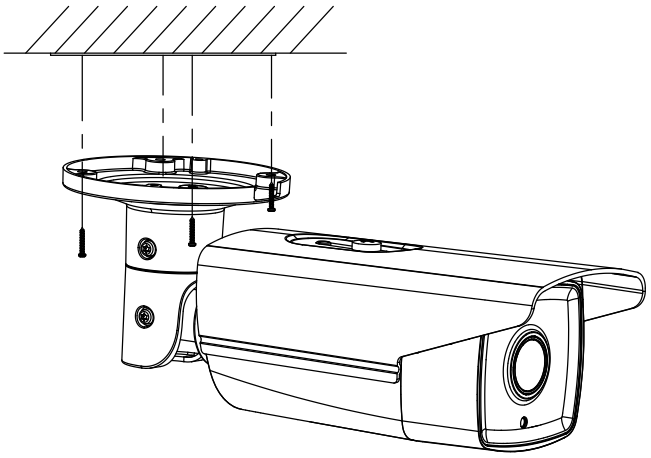


Figure 4-56 Install the Camera

3. Adjust the surveillance angle.

1). Loosen No.1 lock screw to adjust the tilt angle [0 °~100 °].

2). Loosen No.2 lock screw to adjust the pan angle [0 °~360 °].

3). Loosen No.3 lock screw to rotate the camera [0 °~360 °].

4). Tighten the lock screws.

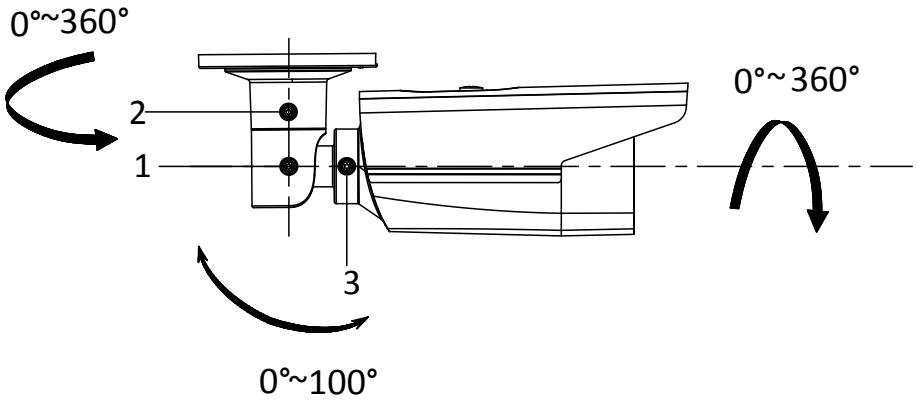


Figure 4-57 Adjust the Surveillance Angle

❖ Wall Mounting with a Junction Box

1. Drill the screw hole and cable hole according to the supplied drill template (as shown in Figure 4-69).

2. Align the screw holes of the junction box to the drill template, and fix the junction box to the wall with screws.

3. Route the cables.

4. Fix the camera to the junction box with screws.

5. Adjust the surveillance angle according to step 3 in ceiling mounting.

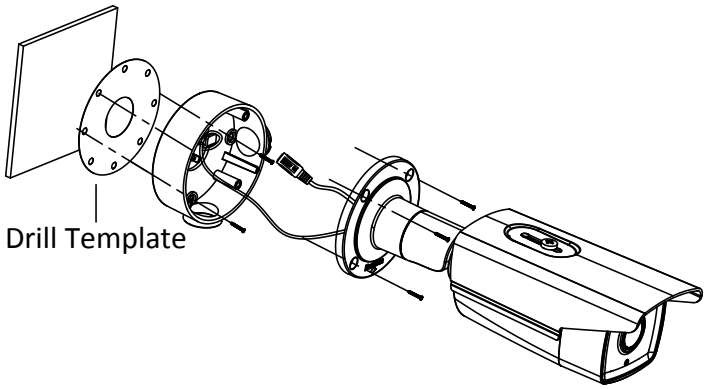


Figure 4-58 Installation with a Junction Box

❖ Wall Mounting with a Gang Box

An adapter plate should be purchased separately if you mount the camera to a gang box.

Steps:

1. Install the adapter plate to the gang box.

2. Route the cables.

3. Fix the camera to the adapter plate with screws.

4. Adjust the surveillance angle according to step 3 in ceiling mounting

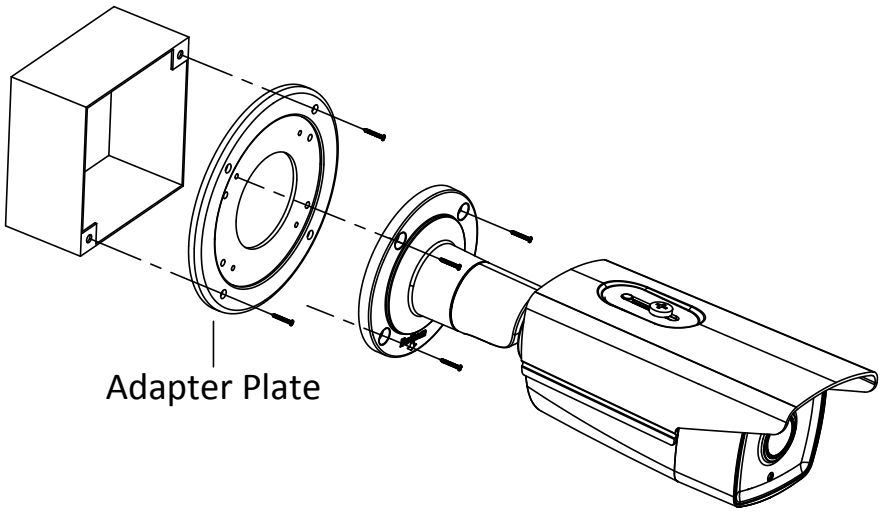


Figure 4-59 Installation with a Gang Box

4.9 Type IX Bullet Camera

4.9.1 Camera Description

The overview of the network bullet camera is shown below.

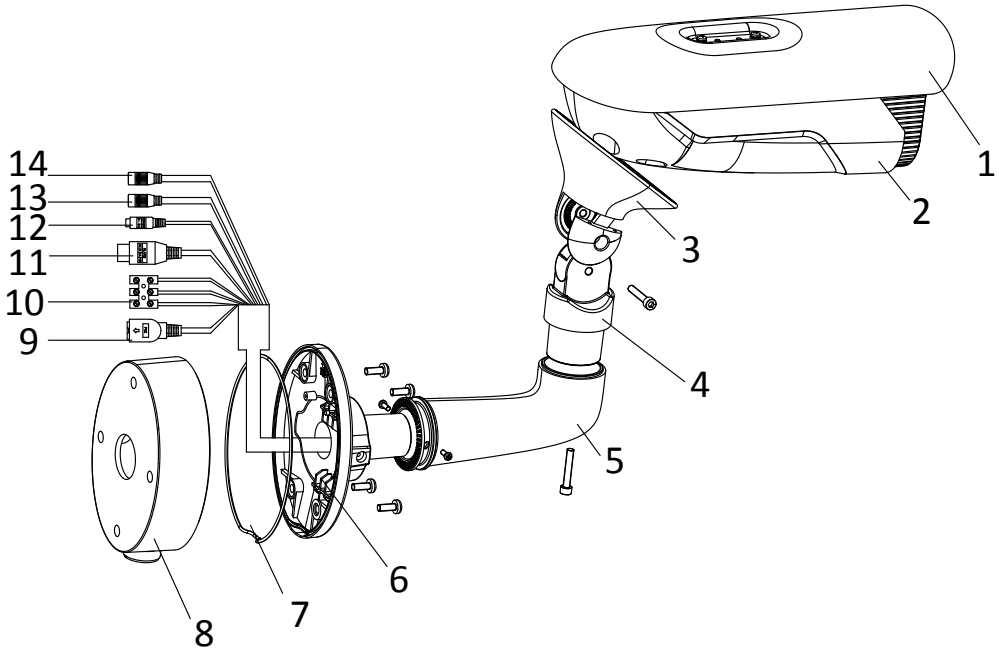


Figure 4-60 Overview(1)

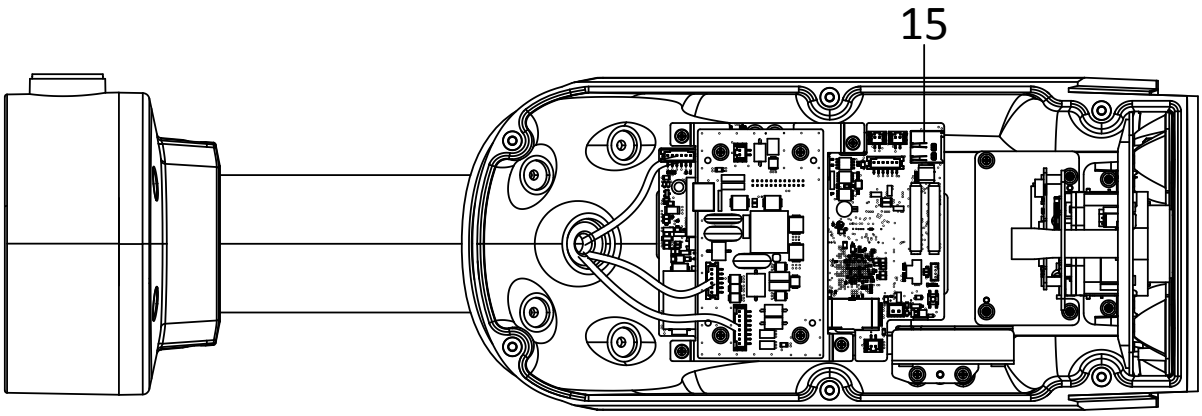


Figure 4-61 Overview (2)

Table 4-10 Description

No.	Description
1	Sun Shield
2	Camera Body
3	Bracket Tray
4	Bracket Hinge
5	Bracket Bearing
6	Mounting Base
7	Seal Ring
8	Junction Box
9	Network Cable Interface
10	Power Cable Interface
11	Alarm Interface IN, G: Alarm In 1A,1B: Alarm Out
12	RS-485 Communication Interface
13	Audio Input
14	Audio Output
15	SD Card Slot

Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

4.9.2 Installation

❖ Ceiling Mounting

Steps:

1. Drill the screw hold and the cable hole according to the supplied drill template.

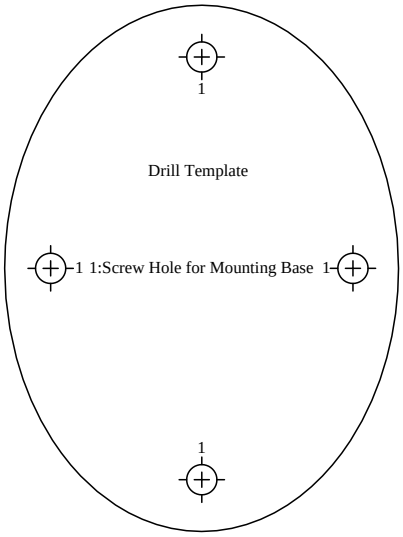


Figure 4-62 Drill Template

2. Fix the junction box to the ceiling with the supplied screws.

Please insert the expansion screws first if the camera is mounted to the cement ceiling. And you can use the self-tapping screws directly if camera is mounted to the wooden ceiling.

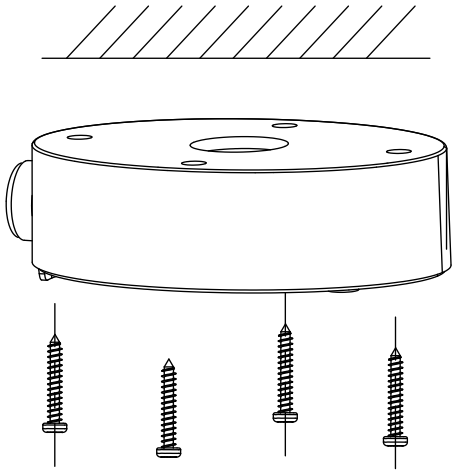


Figure 4-63 Install Junction Box

3. Route the cables.

4. Align the screw holes on the mounting base to those on the junction box, and tighten the camera with screws.

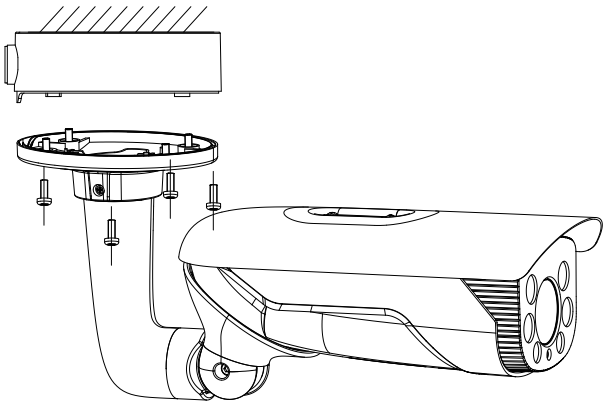


Figure 4-64 Install Camera

5. Tighten the lock screw on the camera to complete installation.

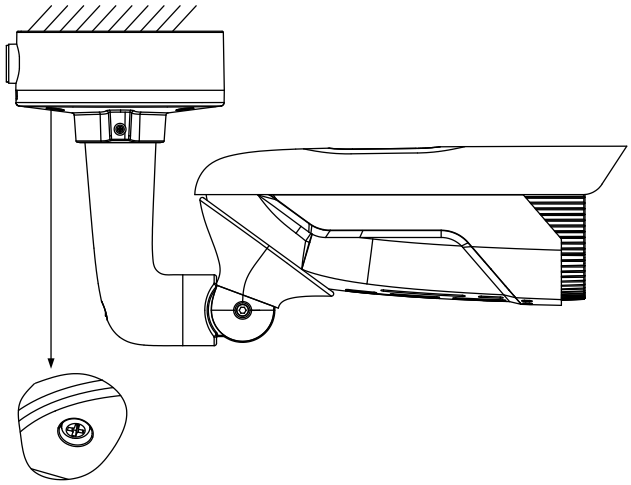


Figure 4-65 Tighten the Lock Screw

❖ Wall Mounting

1. Drill the screw hold and the cable hole according to the supplied drill template.

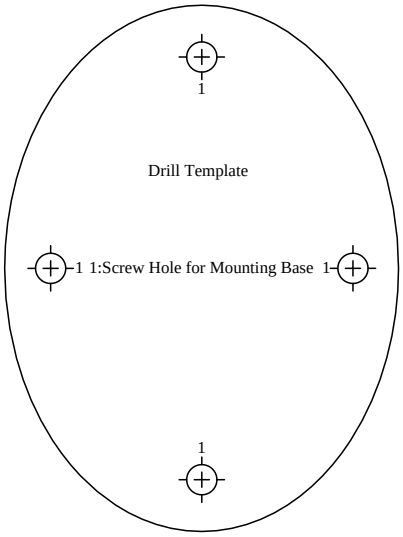


Figure 4-66 Drill Template

2. Fix the junction box to the wall with the supplied screws.

NOTE

Please insert the expansion screws first if the camera is mounted to the cement wall. And you can use the self-tapping screws directly if camera is mounted to the wooden wall.

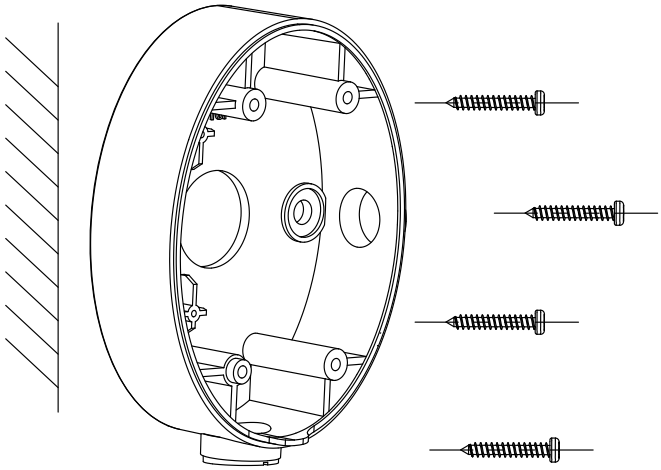


Figure 4-67 Install Junction Box

3. Route the cables.

4. Align the screw holes on the mounting base to those on the junction box, and fix the camera to the wall with screws.

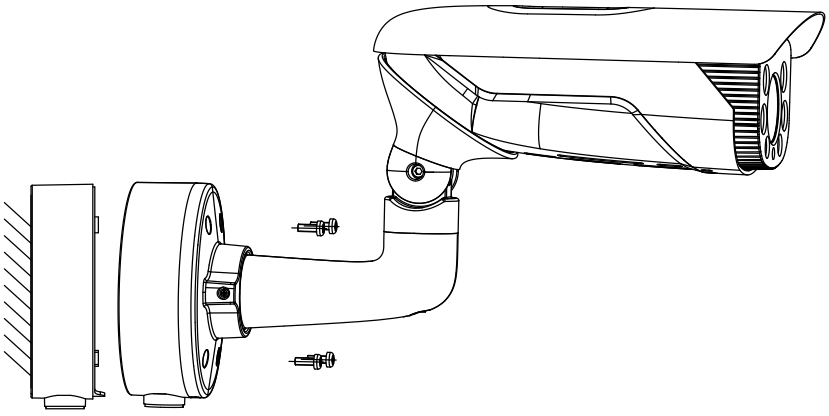


Figure 4-68 Install Camera

5. Tighten the lock screw on the camera to complete installation.

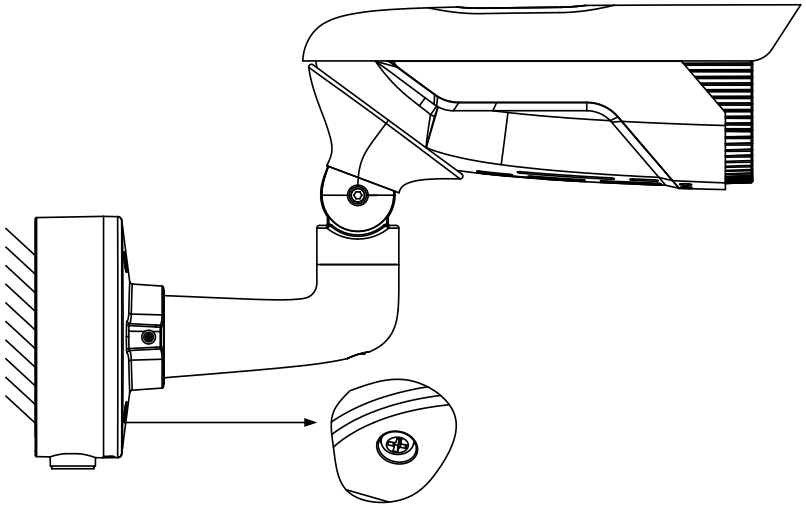


Figure 4-69 Tighten the Lock Screw

❖ 3-axis Adjustment

This series of camera supports 3-axis adjustment, and you can follow the steps below to adjust the camera to the desired surveillance angle.

Steps:

1. Loosen No.1 lock screw to adjust the pan angle [±180 °].

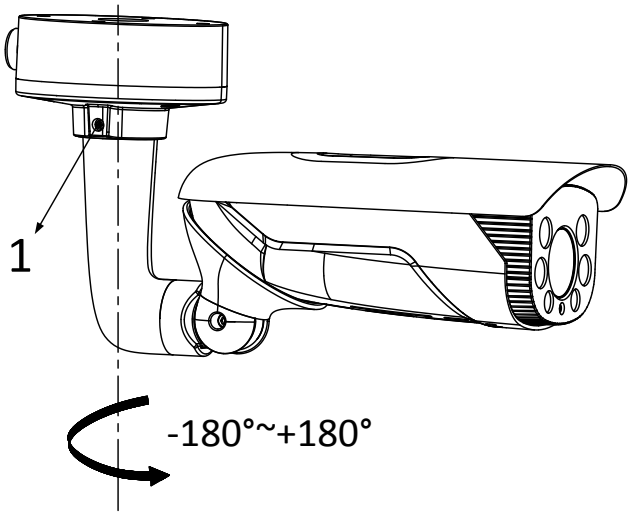


Figure 4-70 Adjust Pan Angle

2. Loosen No.2 lock screw to adjust the tilt angle [±180 ℃].

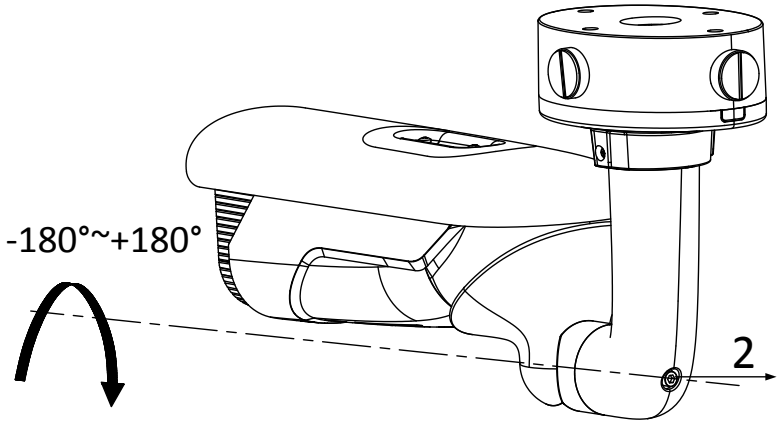


Figure 4-71 Adjust Tilt Angle

3. Loosen No.3 lock screw, and rotate the camera body [0 ~105 ℃] to adjust the camera to the desired angle of view.

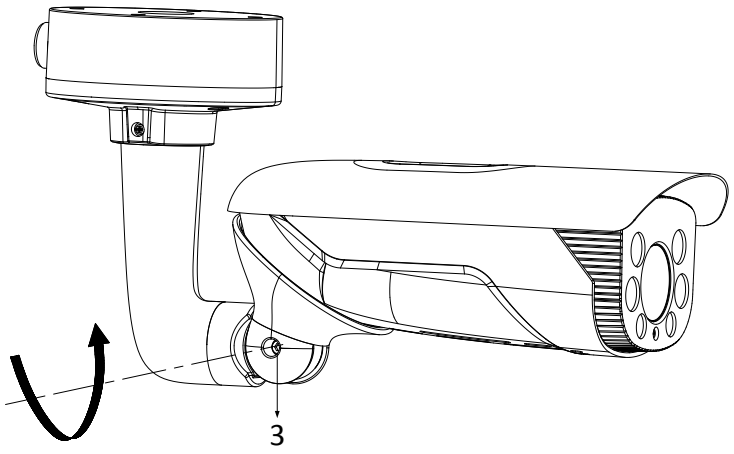


Figure 4-72 Adjust the Rotation Angle

4. Tighten the screws after the adjustment is completed.

4.10 Type X Bullet Camera

4.10.1 Camera Description

The overview of the network bullet camera is shown below.

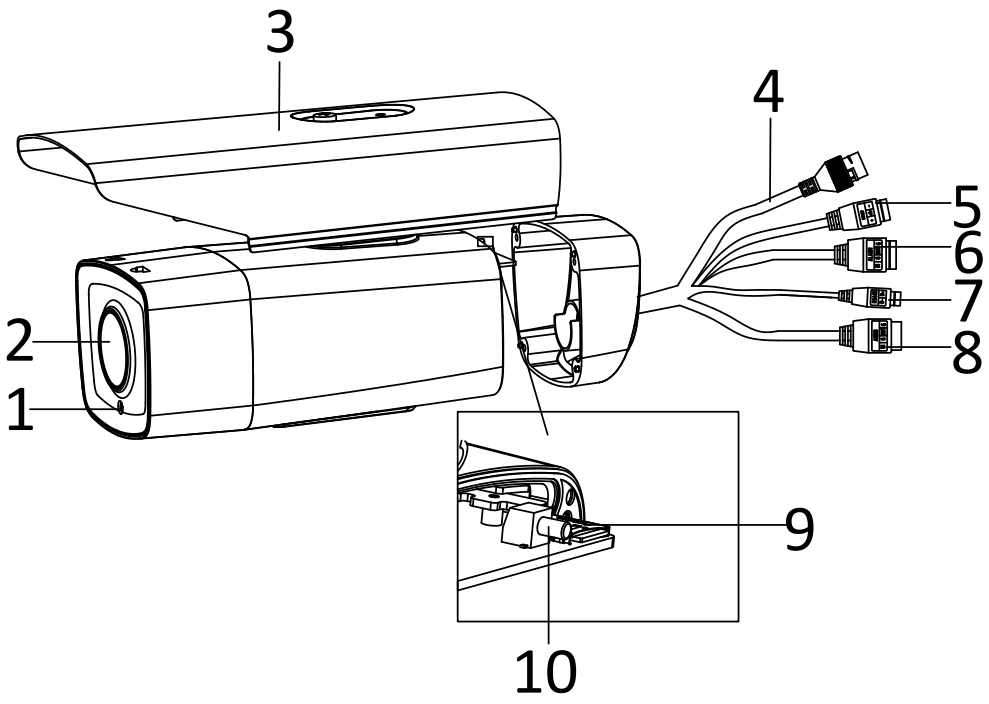


Figure 4-73 Overview

Table 4-11 Description

No.	Description
1	Photoresistor
2	Lens
3	Sun Shield
4	Network Interface
5	Power Interface
6	Alarm Input/output

7	RS-485 Interface
8	Audio In/out
9	Micro SD Card Slot
10	Reset Button

Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

4.10.2 Installation

❖ Wall Mounting

You need to purchase a wall mount separately if wall mounting is selected. And the model of the mount shown in the chapter is DS-1213ZJ.

Steps:

1. Loosen the lock screw on the mount and remove the tilt adjust table from the wall mount.

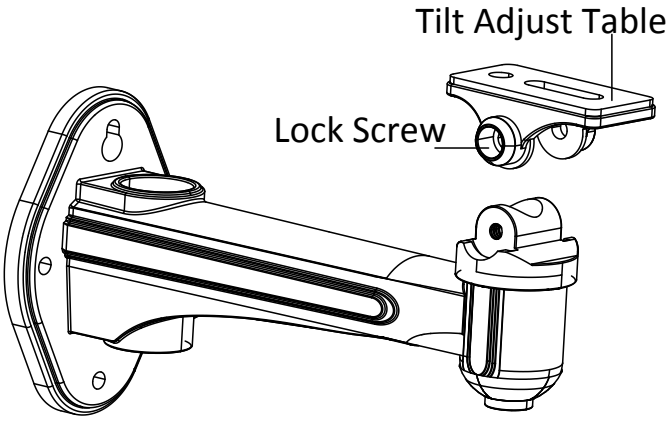


Figure 4-74 Remove the Tilt Adjust Table

2. Fix the wall mount to the wall.

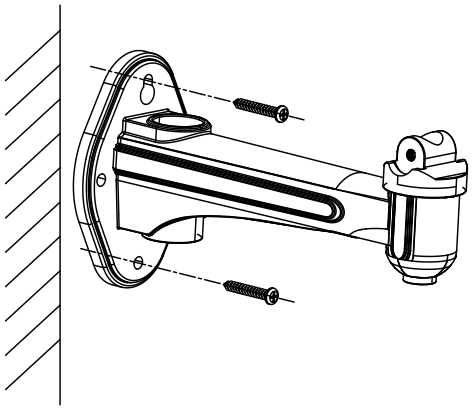


Figure 4-75 Fix the Wall Mount

3. Fit the removed tilt adjust table to the camera, and fix it with two screws.

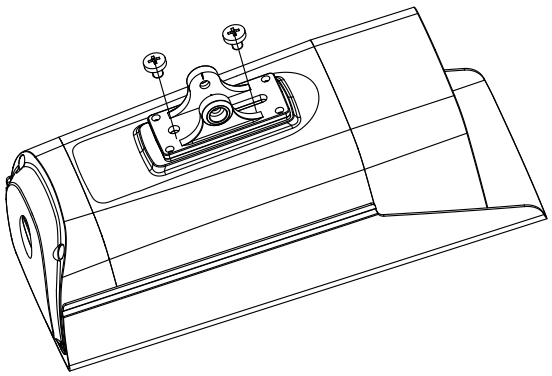


Figure 4-76 Install the Tilt Adjust Table

4. Install the camera to the wall mount and tighten the two lock screws.

5. Adjust the surveillance angle.

1). Loosen the pan adjust screw to adjust the pan angle [0 ~360].

2). Loosen the tilt adjust screw to adjust the tilt angle [0 ~±45].

3). Tighten the pan/tilt adjust screw.

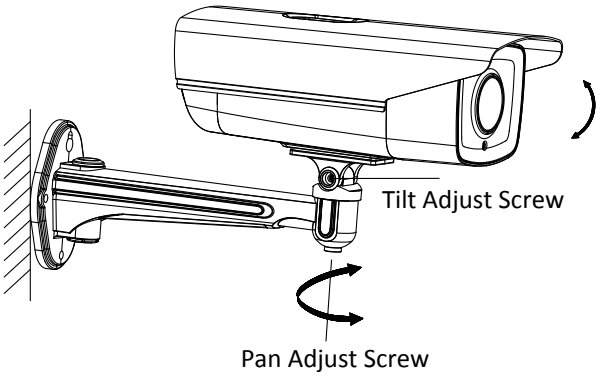


Figure 4-77 Adjust the Surveillance Angle

6. Install water-proof case of RJ-45 plug.

A water-proof case of RJ-45 plug is provided to avoid the short-circuit fault caused by water. Please install the protective case as the figure below.

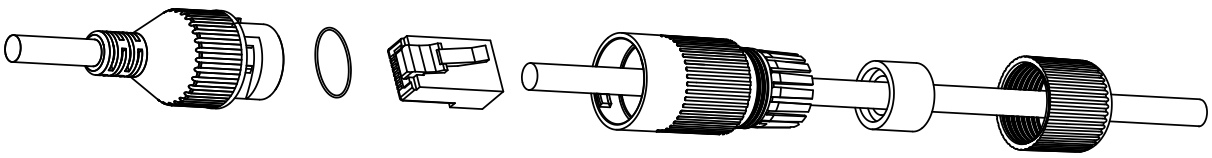


Figure 4-78 Install the Water-proof Case

❖ Micro SD Card Installation

1. Loosen the lock screw on the sun shield, and remove the sun shield.

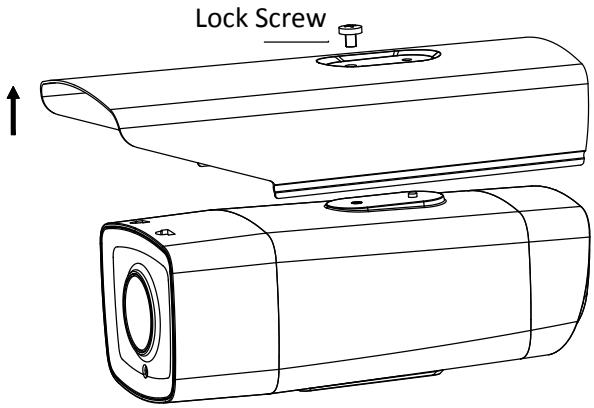


Figure 4-79 Remove the Sun Shield

2. Loosen the four screws on the back cover to remove the back cover.

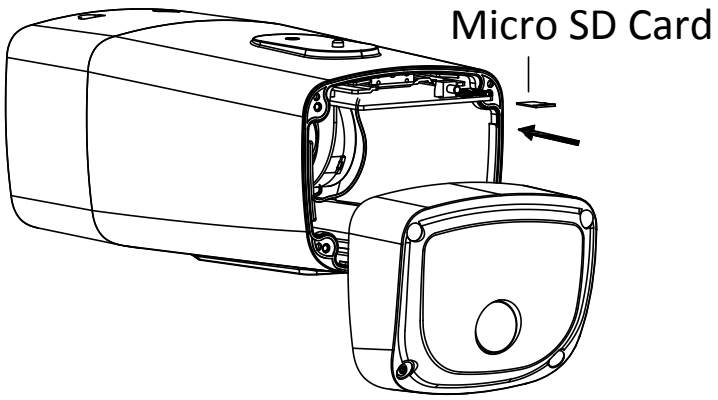


Figure 4-80 Install the Micro SD Card

3. Insert the micro SD card to the card slot.

4. (Optional) Push the inserted micro SD card slightly to get it sprung by its built-in springing to remove it.

5. Install the back cover and sun shield back.

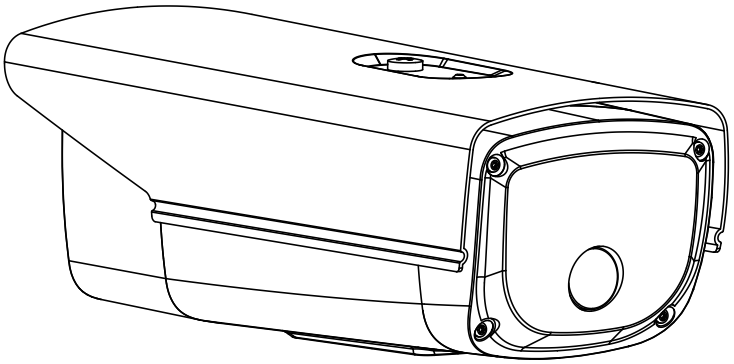


Figure 4-81 Install the Back Cover and Sun Shield

4.11 Type XI Bullet Camera

4.11.1 Camera Description

The overview of the network bullet camera is shown below.

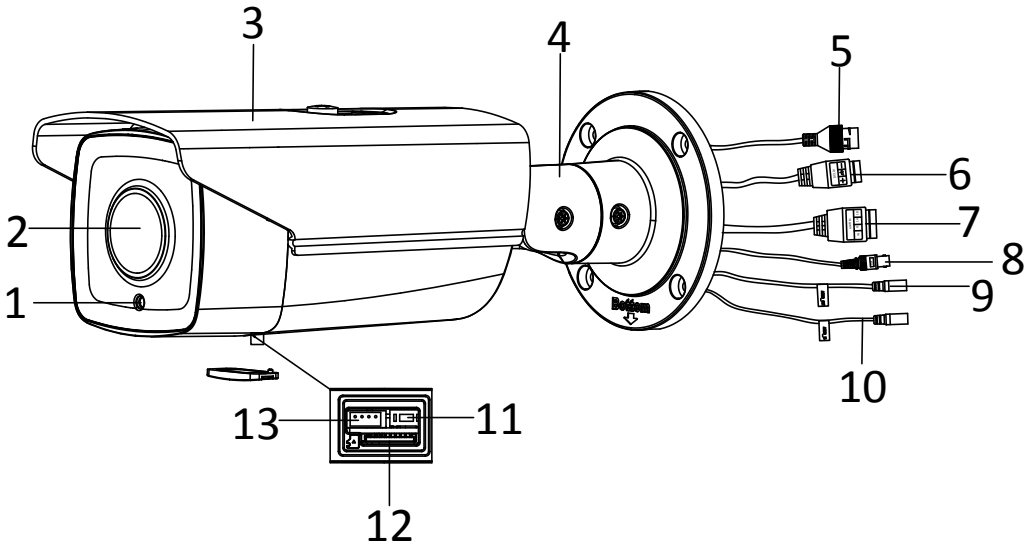


Figure 4-82 Overview

Table 4-12 Description

No.	Description
1	Photoresistor
2	Lens
3	Sun Shield
4	3-axis Bracket
5	Network Cable Interface
6	Power Cable Interface
7	Alarm Cable Interface
8	Video Cable Interface
9	Audio Out
10	Audio In
11	Reset Button
12	Micro SD Card Slot
13	Serial Port

Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

4.11.2 Installation

❖ Ceiling Mounting

Steps:

1. Drill the screw holes and the cable hole in the ceiling according to the supplied drill template.

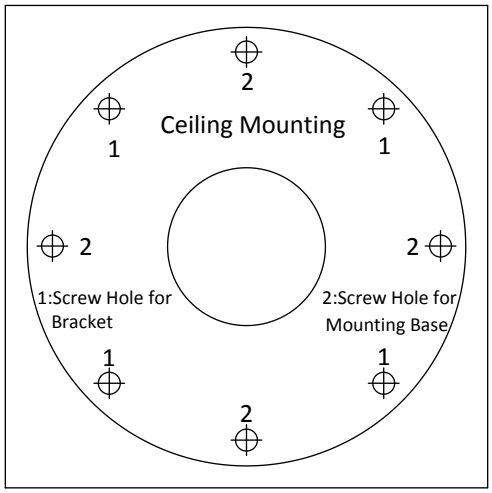


Figure 4-83 Drill Template

2. Fix the camera to the wall with the supplied screws.

NOTE

Please insert the expansion screws first if the camera is mounted to the cement ceiling. And you can use the self-tapping screws directly if camera is mounted to the wooden ceiling.

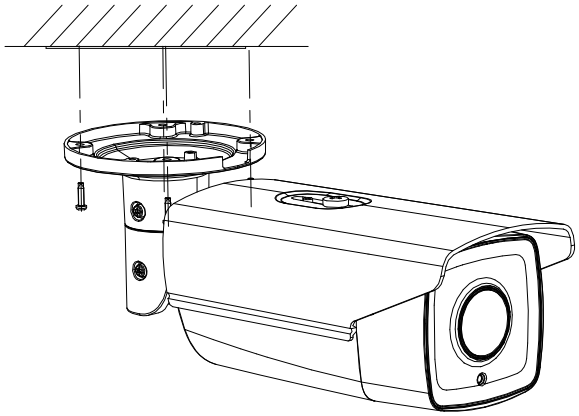


Figure 4-84 Install the Camera

3. Adjust the surveillance angle.

1). Loosen No.1 lock screw to adjust the tilt angle [0 ~100].

2). Loosen No.2 lock screw to adjust the pan angle [0 ~360].

3). Loosen No.3 lock screw to rotate the camera [0 ~360].

4). Tighten the lock screws.

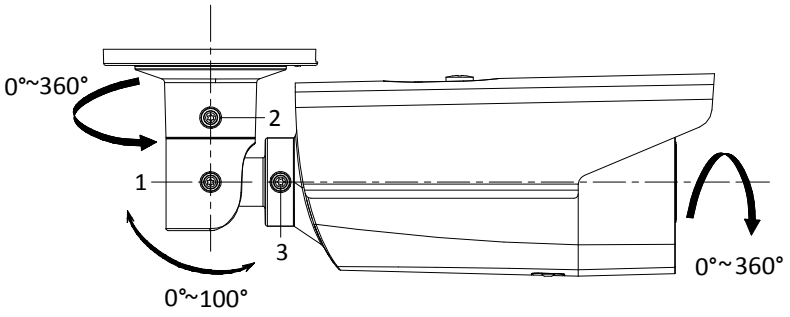


Figure 4-85 Adjust the Surveillance Angle

❖ Wall Mounting with a Junction Box

1. Drill the screw hole and cable hole according to the supplied drill template (as shown in Figure 4-90).
2. Align the screw holes of the junction box to the drill template, and fix the junction box to the wall with screws.
3. Route the cables.
4. Fix the camera to the junction box with screws.
5. Adjust the surveillance angle according to step 3 in ceiling mounting.

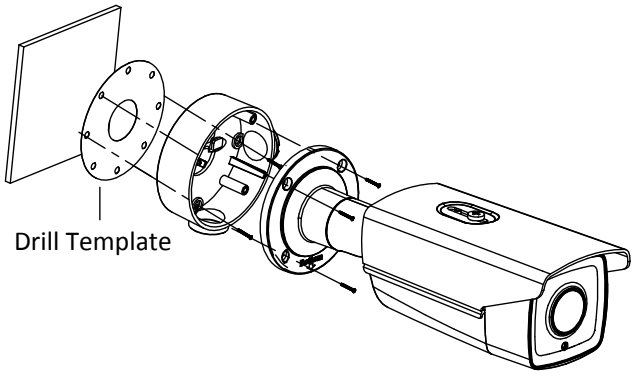


Figure 4-86 Installation with a Junction Box

❖ Wall Mounting with a Gang Box

NOTE

An adapter plate should be purchased separately if you mount the camera to a gang box.

Steps:

1. Install the adapter plate to the gang box.
2. Route the cables.
3. Fix the camera to the adapter plate with screws.
4. Adjust the surveillance angle according to step 3 in ceiling mounting.

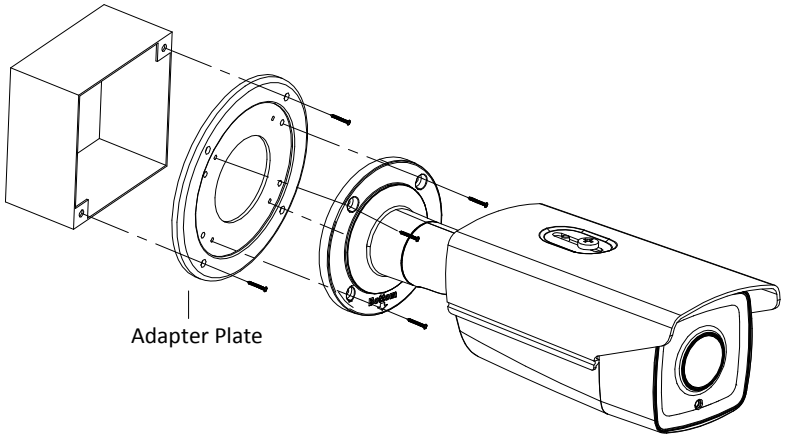


Figure 4-87 Installation with a Gang Box

4.12 Type XII Bullet Camera

4.12.1 Camera Description

Two types of network bullet cameras are shown below.

Type I: A base bracket is supplied with the Type I bullet camera.

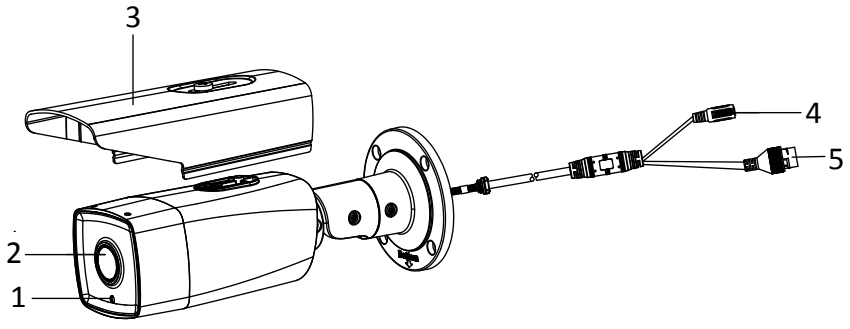


Figure 4-88 Overview-Type I

Type II: SD card storage and Wi-Fi / 4G (optional) network transmission are supported for the Type II bullet camera.

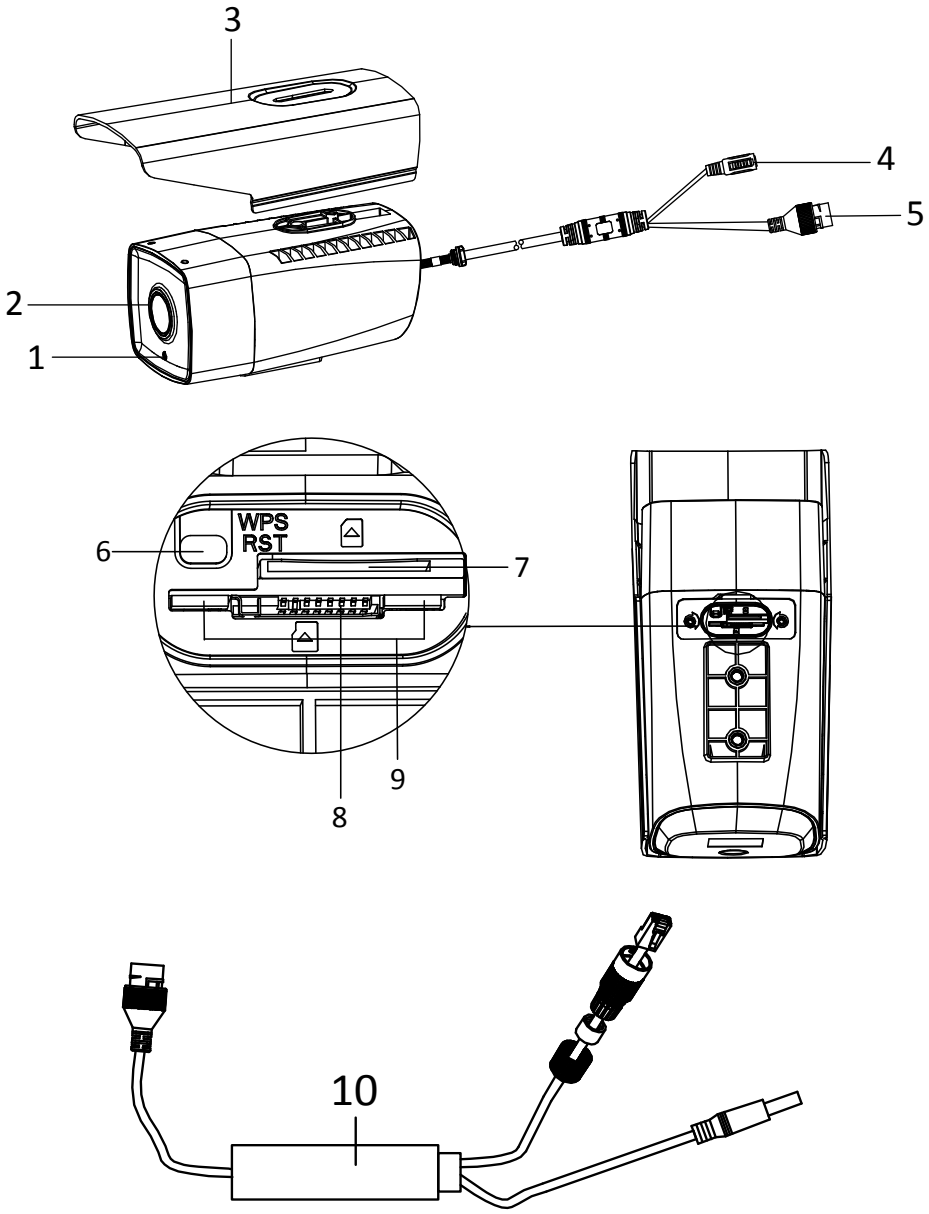


Figure 4-89 Overview-Type II

Table 4-13 Description

No.	Description
1	Photoresistor
2	Lens
3	Sun Shield
4	Power Interface
5	Network Interface
6	WPS (Wi-Fi Protected Setup) / Reset Button
7	4G Card Slot

8	SD Card Slot
9	Indicators
10	PoE (Power over Ethernet) Connection Cable, optional

NOTE

- The figures shown in this manual are for reference only. The appearance and interfaces of the camera are subject to the actual model.
- When the camera works properly, the indicators light in blue; when the SD card failure occurs, the indicators blink in blue and red; when other exception occurs, the indicators light in red.
- For the camera model not supporting PoE directly, the PoE connection cable can be adopted. Connect A side of the cable to the network interface and power interface of the camera, B side to the PoE switch or other PoE power supplies.

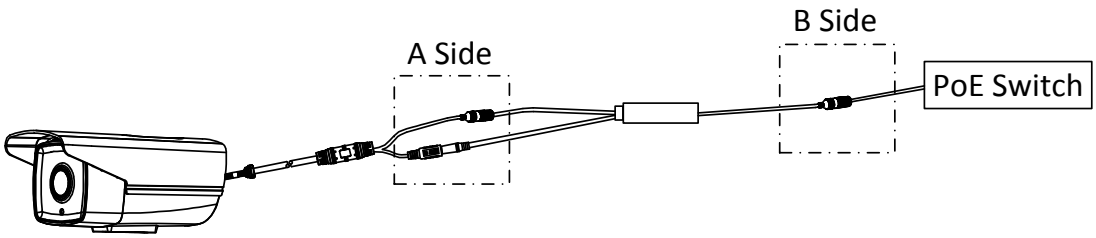


Figure 4-90 PoE Connection

4.12.2 Installations for Type I Bullet Camera

❖ Ceiling Mounting

NOTE

This section is applicable to the Type I bullet camera.

Steps:

1. Drill the screw holes and the cable hole in the ceiling according to the supplied drill template.

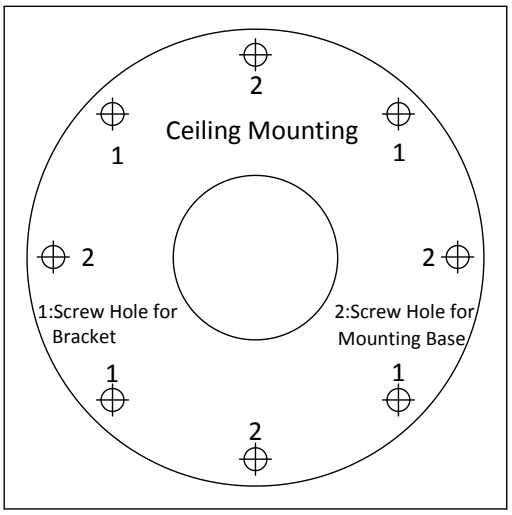


Figure 4-91 Drill Template

2. Fix the camera to the wall with the supplied screws.

NOTE

Please insert the expansion screws first if the camera is mounted to the cement ceiling. And you can use the self-tapping screws directly if camera is mounted to the wooden ceiling.

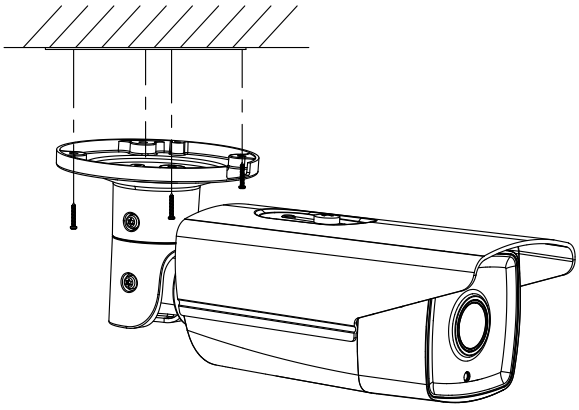


Figure 4-92 Install the Camera

3. Adjust the view angle.

1). Loosen No.1 lock screw to adjust the tilt angle [0 ~100].

2). Loosen No.2 lock screw to adjust the pan angle [0 ~360].

3). Loosen No.3 lock screw to rotate the camera [0 ~360].

4). Tighten the lock screws.

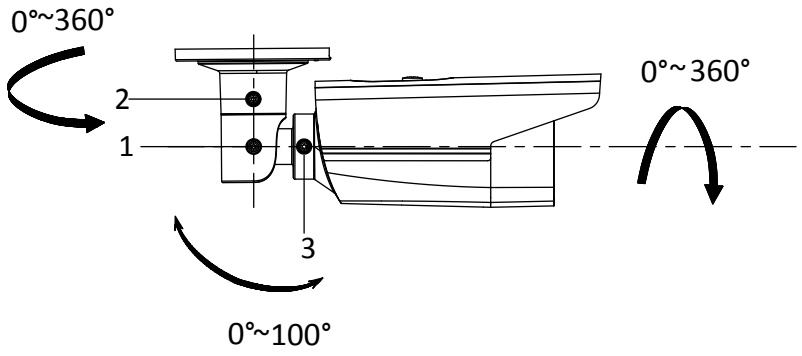


Figure 4-93 Adjust the View Angle

4. (Optional) Install the water-proof jacket for network interface.

NOTE

It is recommended to adopt the water-proof jacket (supplied) for the network interface when the camera is installed outdoor.

1). If the network cable has been settled down, cut off the plug of the network cable first.

2). Route the network cable through the following components in sequence: fix nut, water-proof ring, and the main body of the water-proof jacket, as shown in the figure.

3). Insert the water-proof ring into the main body of the water-proof jacket, to increase the sealing ability of the components.

4). Wire the plug and network cables up.

5). Fix the O-ring to the network interface of the camera, and then connect the network cables.

6). Wrap the network interface with the main body of the water-proof jacket, and then rotate the fix nut clockwise to assemble it to the main body of the water-proof jacket.

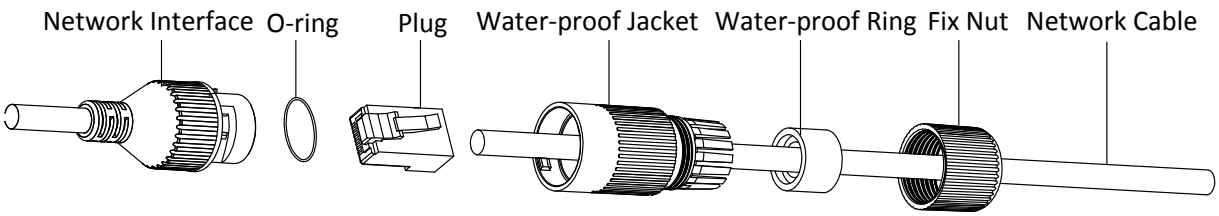


Figure 4-94 Install the Water-proof Jacket

❖ Wall Mounting with a Junction Box

NOTE

This section is applicable to the Type I bullet camera.

1. Drill the screw hole and cable hole according to the supplied drill template (shown as Figure 4-91).
2. Align the screw holes of the junction box to the drill template, and fix the junction box to the wall with screws.
3. Route the cables.
4. Fix the camera to the junction box with screws.
5. Adjust the view angle. For details, refer to Step 3 in Chapter 4.12.2.
6. (Optional) Install the water-proof jacket for network interface. For details, refer to Step 4 in Chapter 4.12.2.

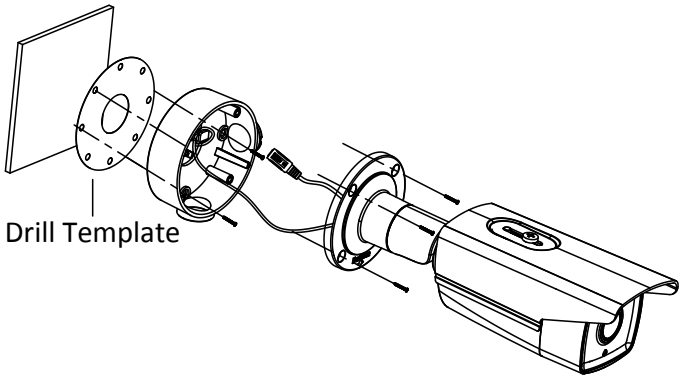


Figure 4-95 Installation with a Junction Box

❖ Wall Mounting with a Gang Box

NOTE

- This section is applicable to the Type I bullet camera.
- An adapter plate should be purchased separately if you mount the camera to a gang box.

Steps:

5. Install the adapter plate to the gang box.
6. Route the cables.

7. Fix the camera to the adapter plate with screws.

8. Adjust the view angle. For details, refer to Step 3 in Chapter 4.12.2.

9. (Optional) Install the water-proof jacket for network interface. For details, refer to Step 4 in Chapter 4.12.2.

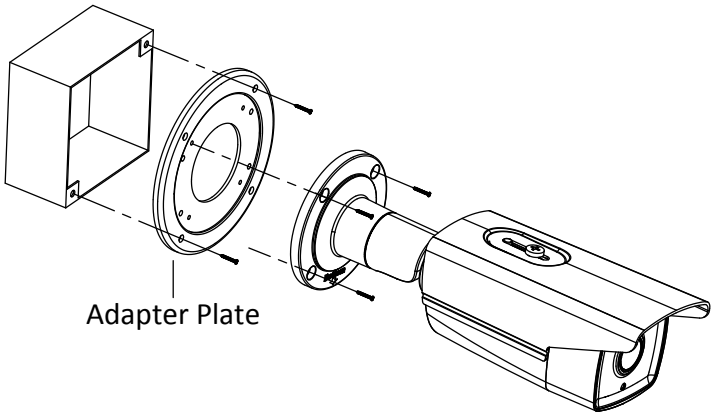


Figure 4-96 Installation with a Gang Box

4.12.3 Installations for Type II Bullet Camera

❖ Wall Mounting with a Wall Bracket

NOTE

- This section is applicable to the Type II bullet camera.
- You need to purchase a wall bracket separately if this mounting method is selected.
- Please insert the expansion screws first if the camera is mounted to the cement ceiling. And you can use the self-tapping screws directly if camera is mounted to the wooden ceiling.

Steps:

1. Loosen the tilt adjust screw on the wall bracket and then remove the tilt adjust table.

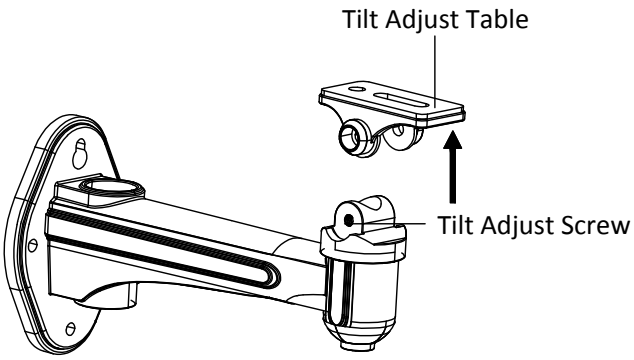


Figure 4-97 Remove the Tilt Adjust Table

2. Secure the wall bracket to the wall with the screws.

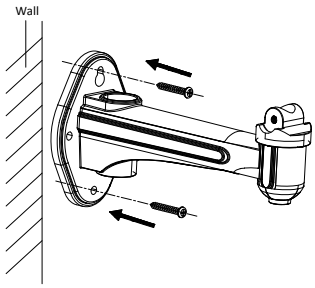


Figure 4-98 Secure the Wall Bracket

3. Fit the tilt adjust table to bottom of the bullet camera, and then fix it with two set screws.

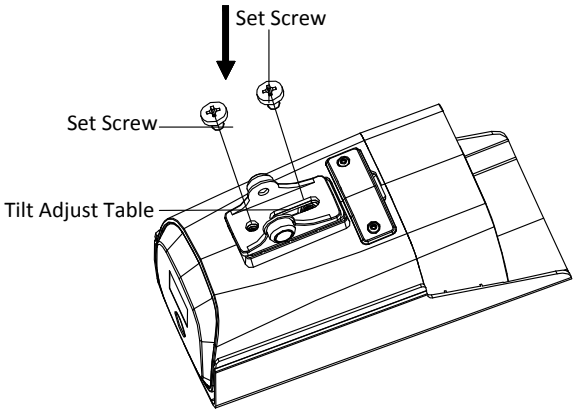


Figure 4-99 Fit the Tilt Adjust Table

4. Fix the camera body to the wall bracket with the removed tilt adjust screw.

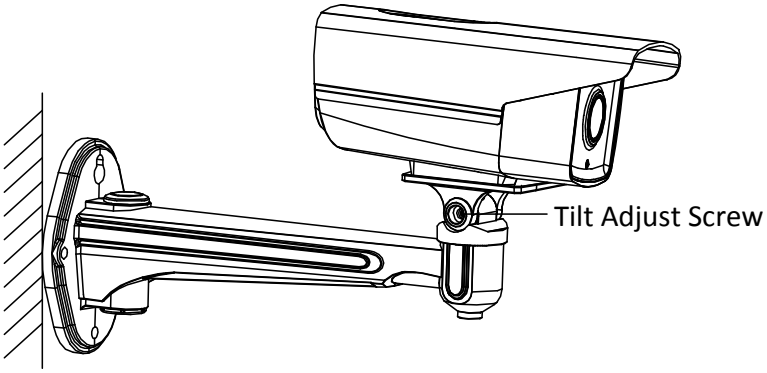


Figure 4-100 Install the Camera Body

5. Adjust the view angle.

1). Loosen the pan adjust screw to adjust the panning view angle [0 °~360 °].

2). Loosen the tilt adjust screw to adjust the tilting view angle [0 °~±45 °].

3). Tighten the pan / tilt screw to secure the camera.

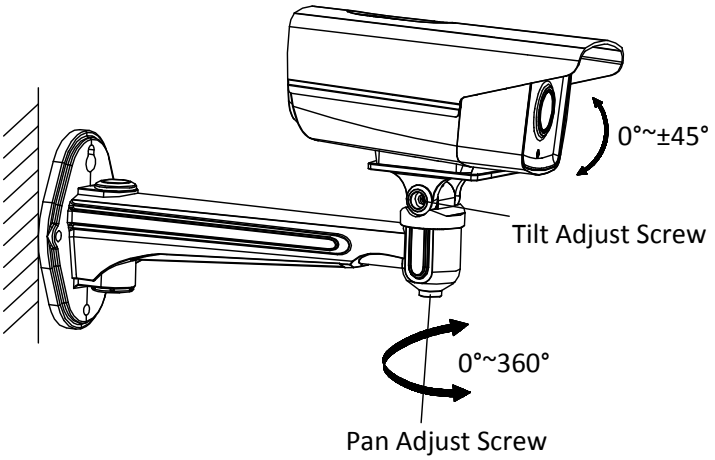


Figure 4-101 Adjust the View Angle

6. (Optional) Install the water-proof jacket for network interface. For details, refer to the Step 4 in Chapter 4.12.2.

❖ Ceiling Mounting with a Pendant Bracket

NOTE

- This section is applicable to the Type II bullet camera.
- You need to purchase a pendant bracket separately if this mounting method is selected.

Steps:

1. Fix the pendant bracket to the ceiling with the supplied screws.

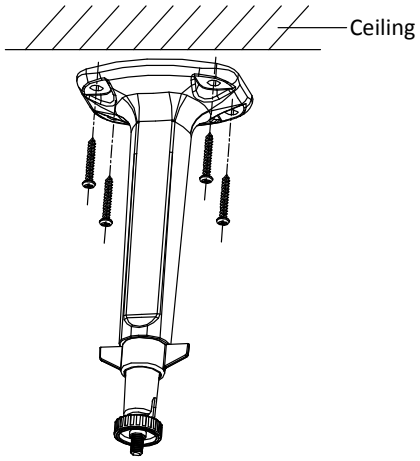


Figure 4-102 Fix the Pendant Bracket

2. Loosen and remove the set screw on the sun shield of the camera.

3. Aim the screwed hole on the camera at the top of the pendant bracket, and then rotate the camera until it is secured tightly.

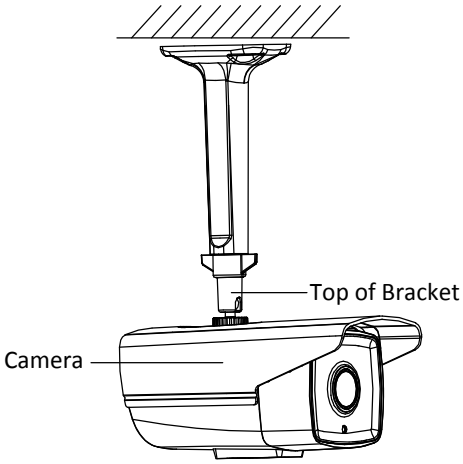


Figure 4-103 Secure the Camera

4. Loosen the knob on the bracket and adjust the camera body to get the desired surveillance view angle. Then, tighten the knob on bracket to secure the camera.

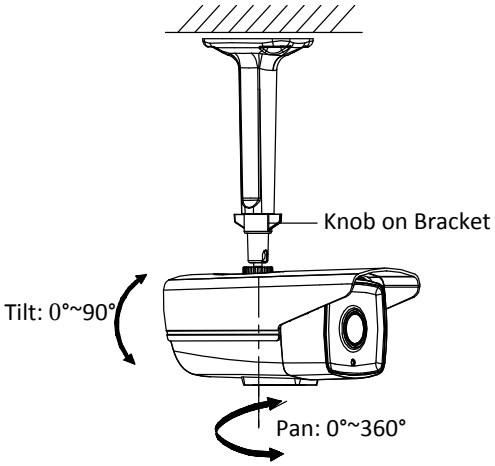


Figure 4-104 Adjust the View Angle

5. (Optional) Install the water-proof jacket for network interface. For details, refer to the Step 4 in Chapter 4.12.2

Chapter 5 Turret Camera Installation

5.1 Camera Description

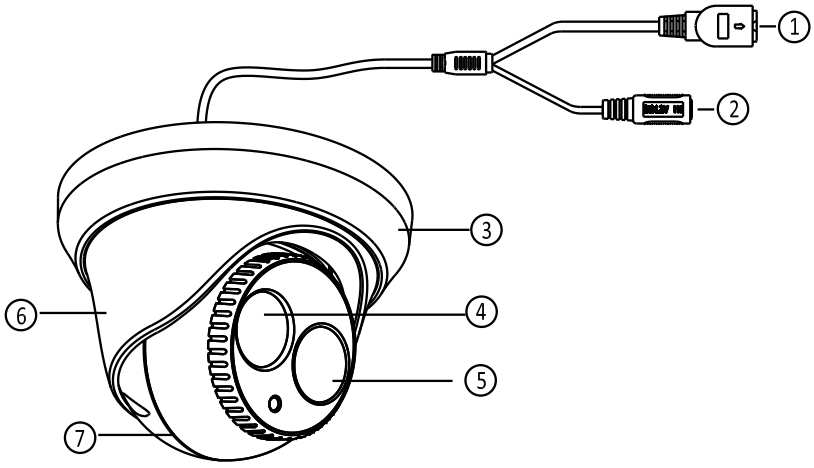


Figure 5-1 Overview

Table 5-1 Description

NO.	Description
1	10M/100M self-adaptive Ethernet interface
2	Power Cable
3	Trim Ring
4	Lens
5	IR LED
6	Enclosure
7	Dome Drive

NOTE

Please make sure that the power adapter is compatible with the camera. This series of camera supports Power over Ethernet (PoE), and the standard power supply is 12 VDC.

5.2 Installation

Steps:

1. Rotate the trim ring counterclockwise to remove it from the camera.

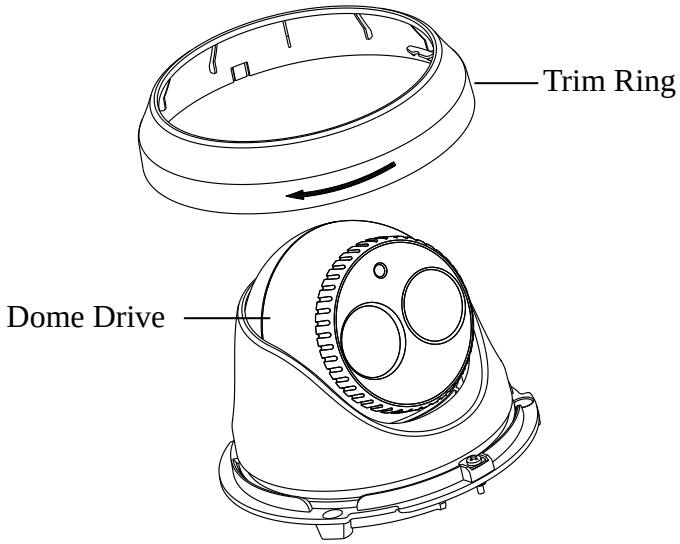


Figure 5-2 Dissemble the Camera

2. Drill the screw holes and the cable hole on the ceiling according to the drill template.

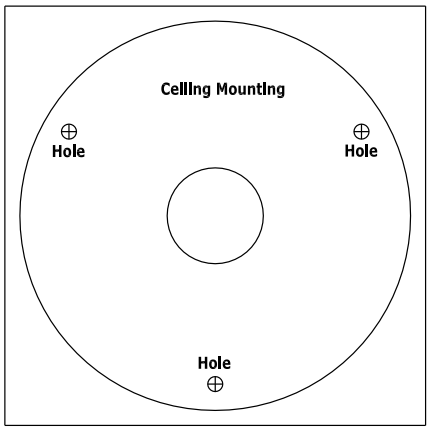


Figure 5-3 The Drill Template

There are two cable outlet methods. One is to route the cables through the cable hole, and the other is to route the cables through the side outlet shown below.

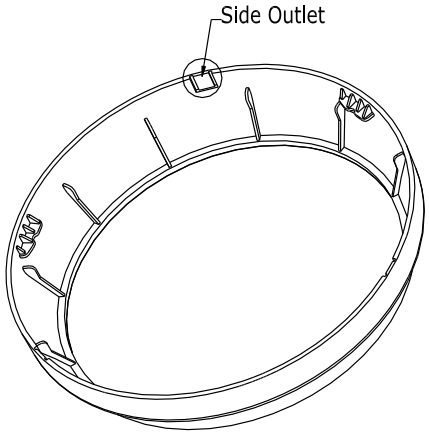


Figure 5-4 Side Outlet

Three side outlets on the enclosure are selectable, which makes routing the cables easier instead of drilling a cable hole on the ceiling. Use a plier to remove the plastic and route the cables through the hole.

3. Connect the corresponding power/network cable.
4. Fix the camera to the ceiling with the supplied expansion screws.

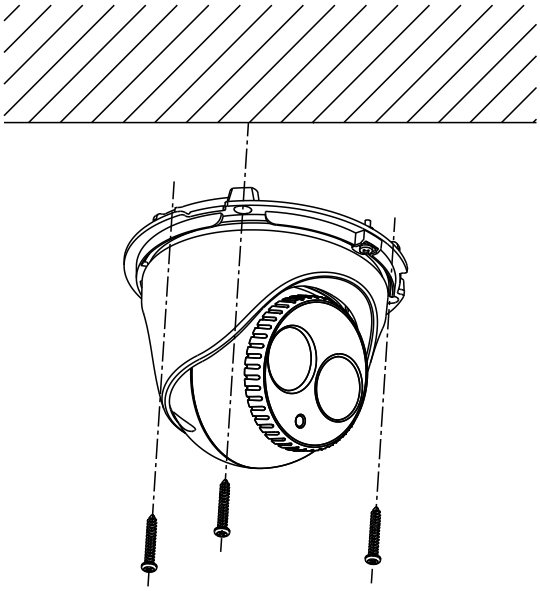


Figure 5-5 Secure the Camera to the Ceiling

5. Adjust the Lens.
   1). Loosen the lock screw.
   2). Rotate the enclosure to adjust the pan angle; rotate the camera to adjust the tilt angle.
   3). Tighten the lock screw to fix the optimum surveillance angle.

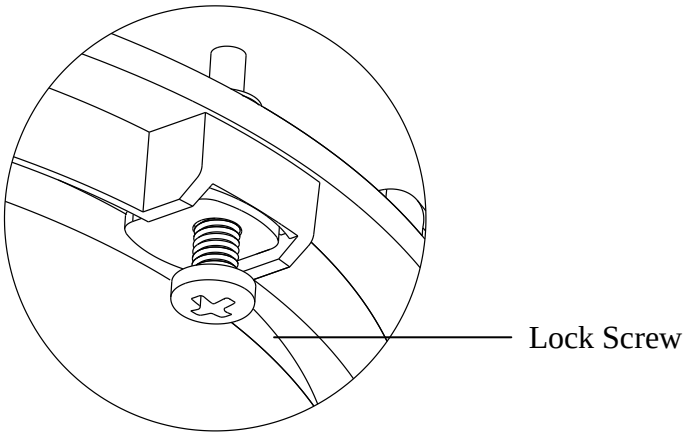


Figure 5-6 Lock Screw

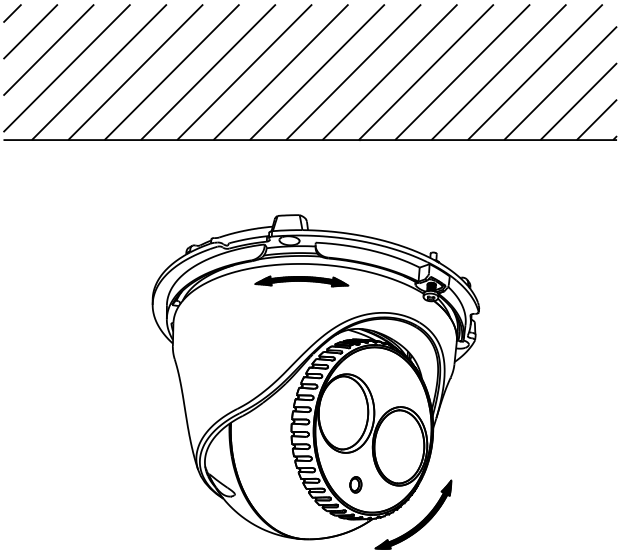


Figure 5-7 Adjust the Lens

6. Attach the trim ring to the camera and rotate the trim ring clockwise to get it secured.

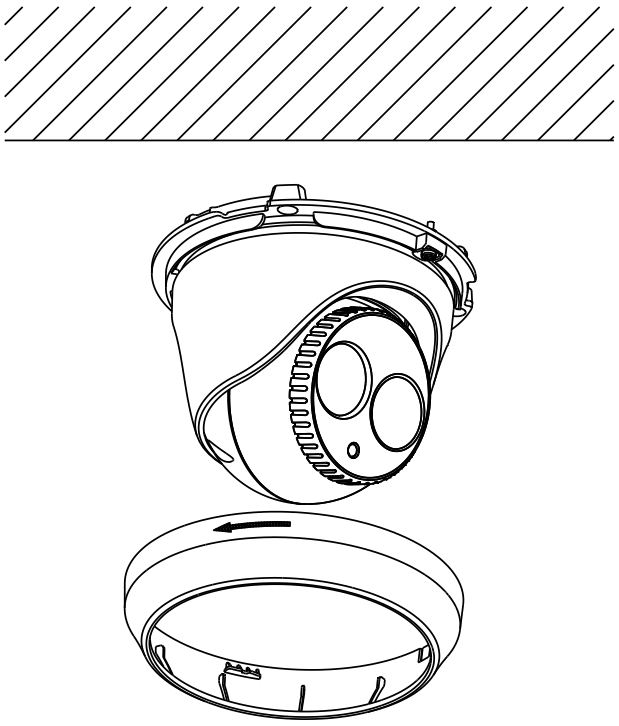


Figure 5-8 Install the Trim Ring

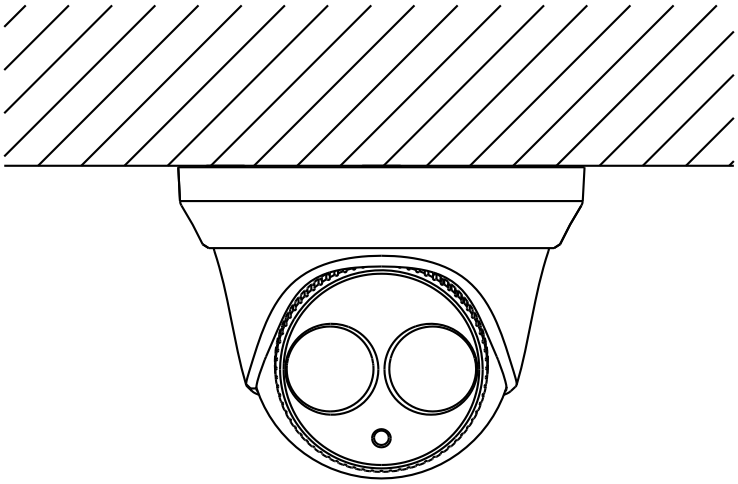


Figure 5-9 Complete the Installation

Chapter 6 Cube Camera Installation

6.1 Type I Cube Camera

6.1.1 Camera Description

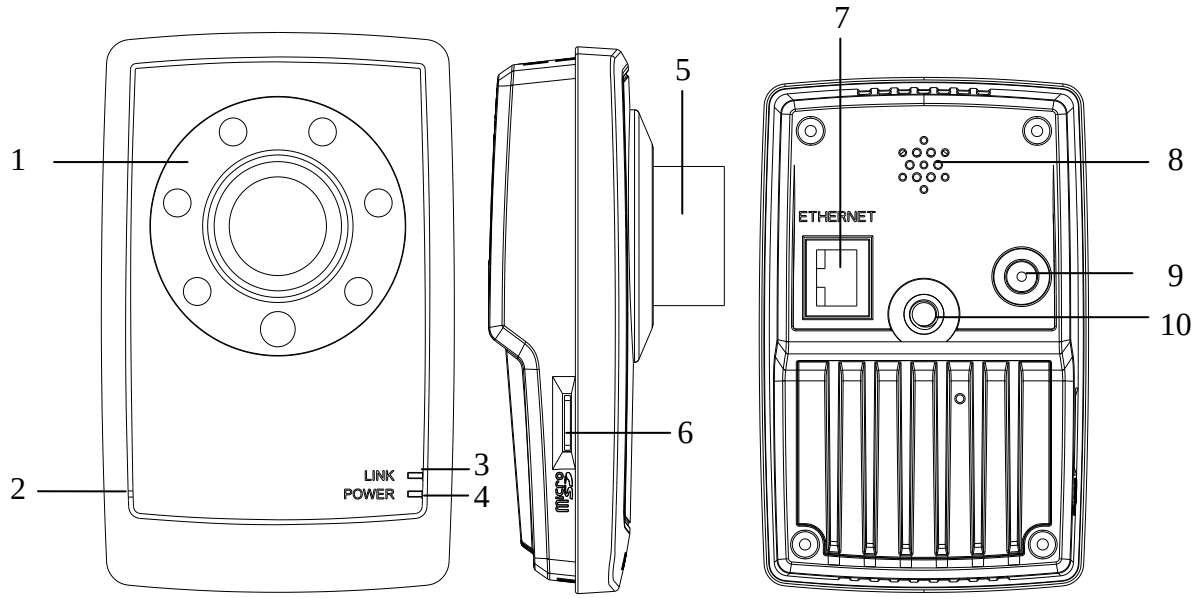


Figure 6-1 Overview

Table 6-1 Description

No.	Description
1	IR LED
2	Microphone
3	LINK: Network Status LED Indicator. LED indicator is solid yellow when network connection is functioning properly.
4	Power LED Indicator. It is solid red when power is applied to the unit.
5	Lens
6	Micro SD Card Slot
7	Ethernet: 10M / 100M self-adaptive Ethernet Interface
8	Speaker
9	Power Supply Interface
10	Screw hole, used to fix the camera to the bracket
11	Reset Button

Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

6.1.2 Installation

Steps:

1. Fix the mounting bracket to the ceiling.

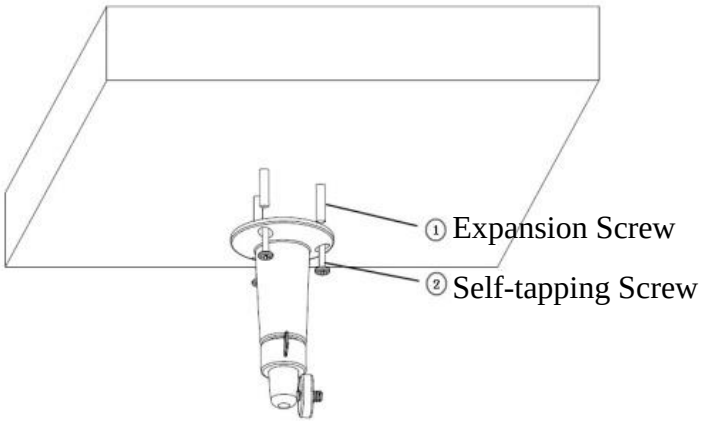


Figure 6-2 Fix the Bracket

2. Aim the screwed hole on the camera at the bracket and rotate the camera tightly.

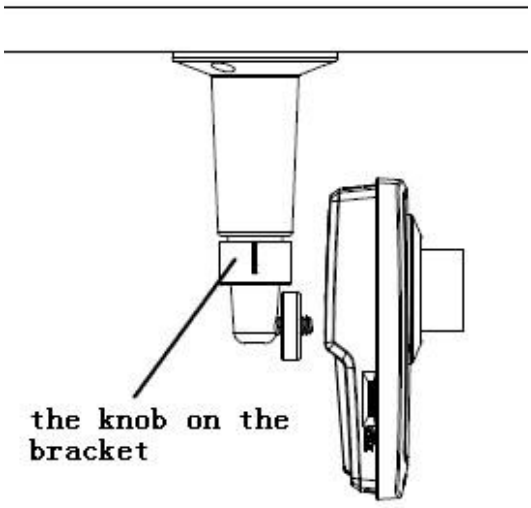


Figure 6-3 Fix the Camera

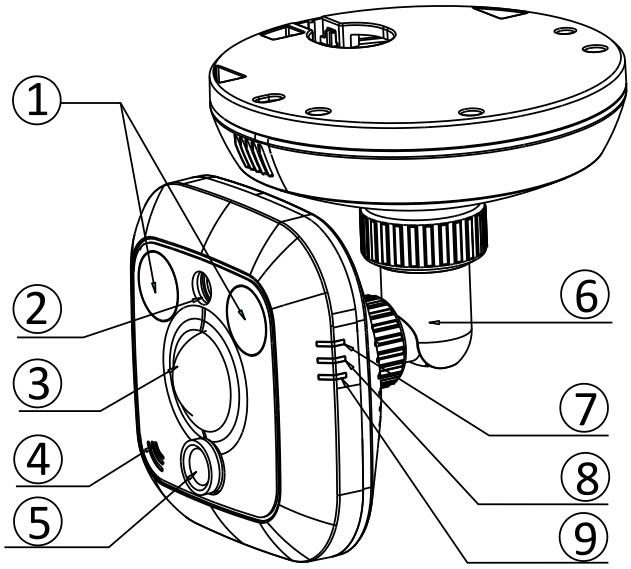
3. View the video image over the network. Loosen the knob on the bracket and adjust the camera lens to get the desired surveillance angle. Tighten the knob on bracket to secure the camera.

Figure 6-4 Installation Completes

6.2 Type II Cube Camera

6.2.1 Camera Description

The overview of the network cube camera is shown below.



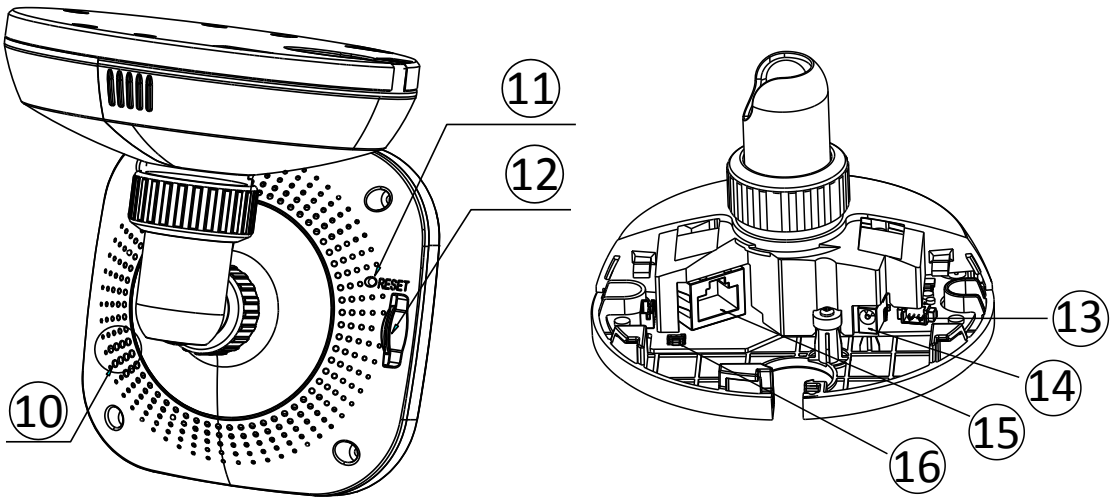


Figure 6-5 Overview

Table 6-2 Description

No.	Description
1	IR LED
2	Photosensitive Resistance
3	PIR sensor
4	Microphone
5	Lens
6	3-axis Adjustment Bracket
7	Alarm Indicator: Indicator goes solid red (camera armed) or solid blue (camera unarmed).
8	Status Indicator: Indicator flashes blue when any movement or presence is detected
9	Link Indicator: Indicator flashes orange when network connection is functioning properly.
10	Speaker
11	RESET
12	Micro SD card slot
13	Alarm In/Out, GND, Audio Out Interface (Only supported by 2C series camera.)
14	Power supply interface
15	10M / 100M self-adaptive Ethernet interface & PoE
16	WPS(Wi-Fi Protected Setup) Button (Only supported by 2C series camera.)

- Press RESET about 10s when the camera is powering on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.
- For 2C series camera, which supports WPS function, you need take steps below to enable the WPS function.

  A wireless router with the WPS function is required. Refer the steps below.

  Steps:

  1: Press the WPS button on the router.

  2: Press the WPS button (about 2s) on the camera within 120s you enable the WPS of the router to join in the wireless network.

6.2.2 Remote Control Overview

A remote control is included in the package to provide a convenient operation. Please refer to the figure below.

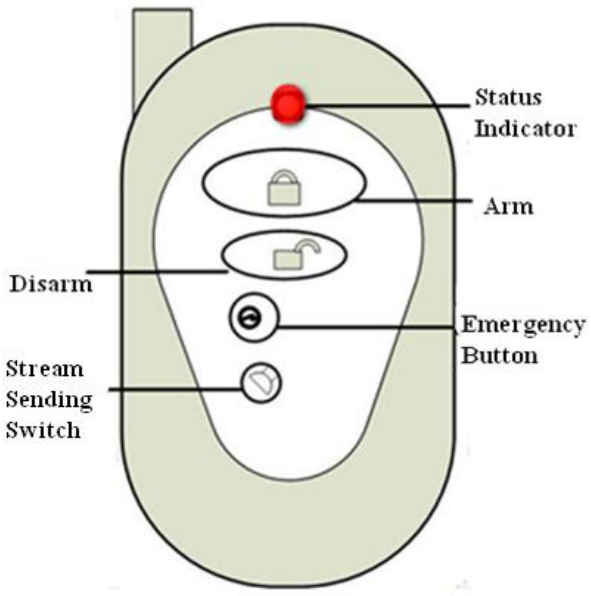


Figure 6-6 Remote Control

Table 6-3 Remote Control Button Description

Button Name	Description
Status Indicator	Indicating the status of the remote control; when you press any button, the indicator flashes red.
Arm Button	Press the button to arm the camera. In arming status, the alarm function, such as the wireless alarm and the PIR alarm is enabled.
Disarm Button	Press the button to disarm the camera. In the disarming status, the alarm linkage is disabled.
Emergency Button	Press the button to trigger the emergency alarm. The emergency alarm has the highest priority.
Stream Sending Switch	Switch for the video stream transmitting. Press the button to stop or start video stream sending. When the video stream is stopped, you can't see the live view or get the record stream on the remote client or web browser.

6.2.3 Installation

Steps:

1. Slide the right cover to remove it from the camera. Remove the fixator.

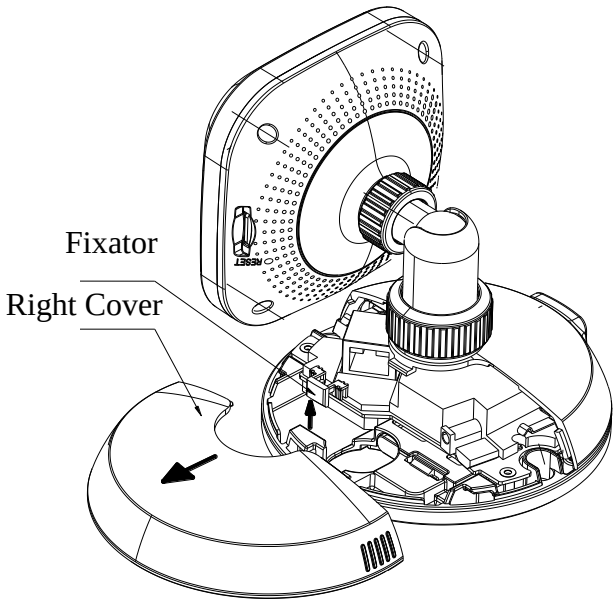


Figure 6-7 Remove the Cover and Fixator

2. Drill the screw holes and the cable hole according to the supplied drill template.

NOTE

Drill no cable hole if you intend to route the cables through the side outlet of the camera.

3. Fix the camera to the ceiling with the supplied expansion screws.

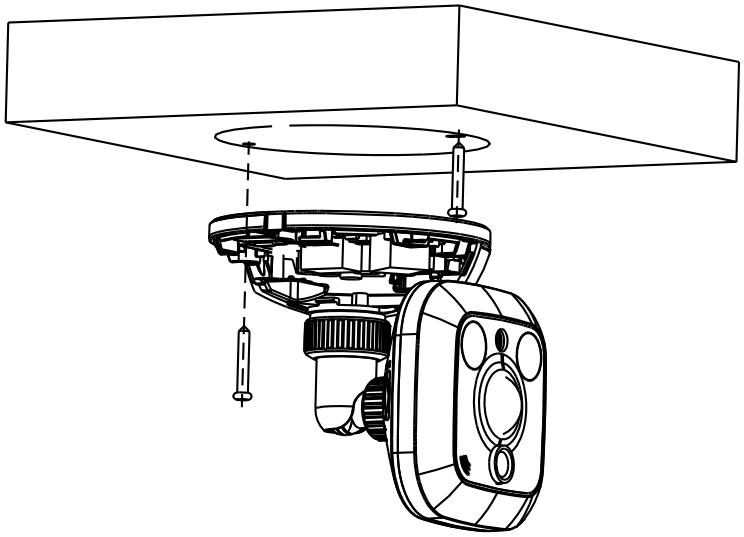


Figure 6-8 Fix the Camera

4. Connect the coresponding power cable and the network cable through the drilled cable hole. Or pull the cable through the side outlet of the camera.
5. Reinstall the right cover and fixator.

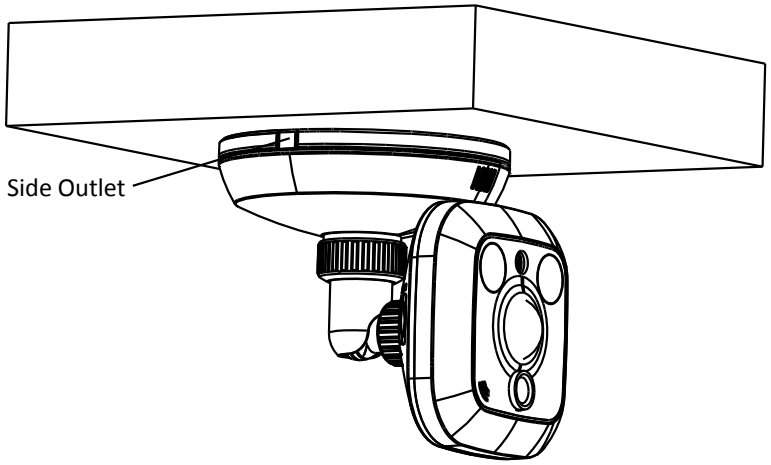


Figure 6-9 Reinstall the cover and Fixator

6. 3-axis Adjustment.
   1). View the image of the camera over the network.
   2). Loosen the lock nut 1 to adjust the panning position and tilting position.
   3). Fasten the lock nut 1.
   4). Loosen the lock nut 2 to rotate the camera.
   5). Fasten the lock nut 2.

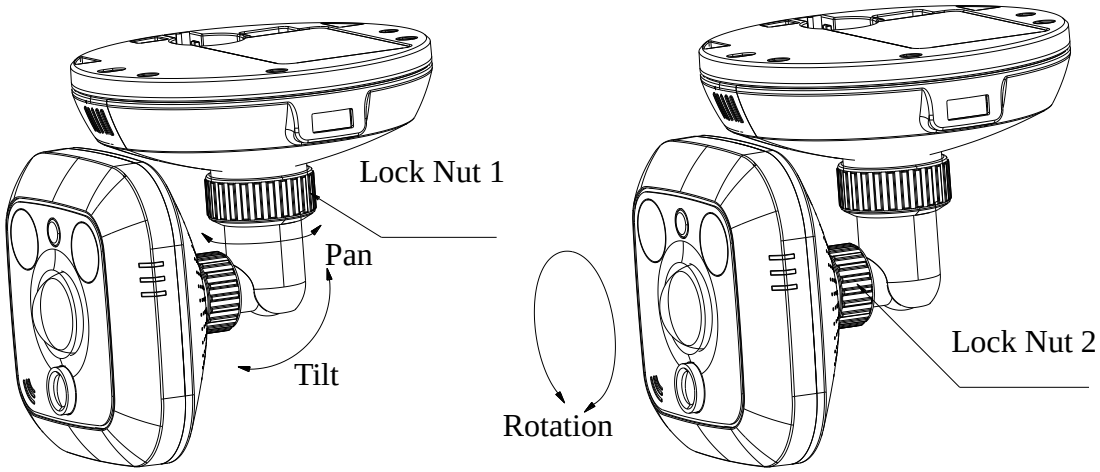


Figure 6-10 Adjust the Camera

6.3 Type III Cube Camera

6.3.1 Camera Description

There are two types of appearances for 24 series camera. Please refer to the figure below. And one appearance will be taken as an example in the chapter below.

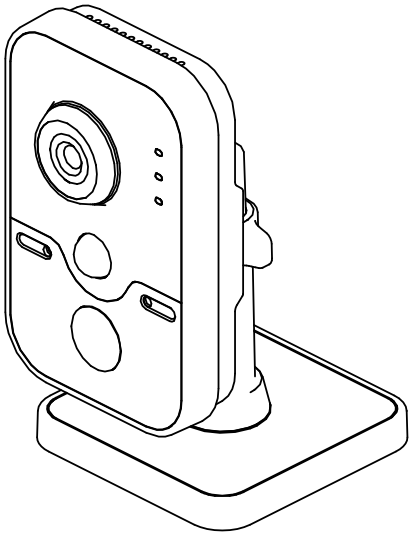


Figure 6-11 Type I Appearance

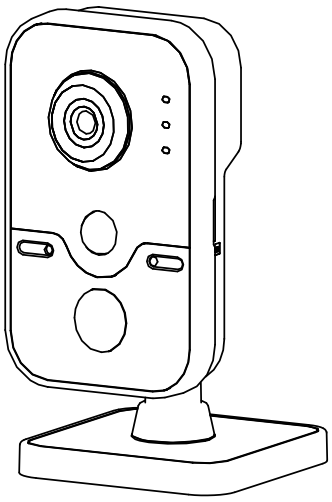
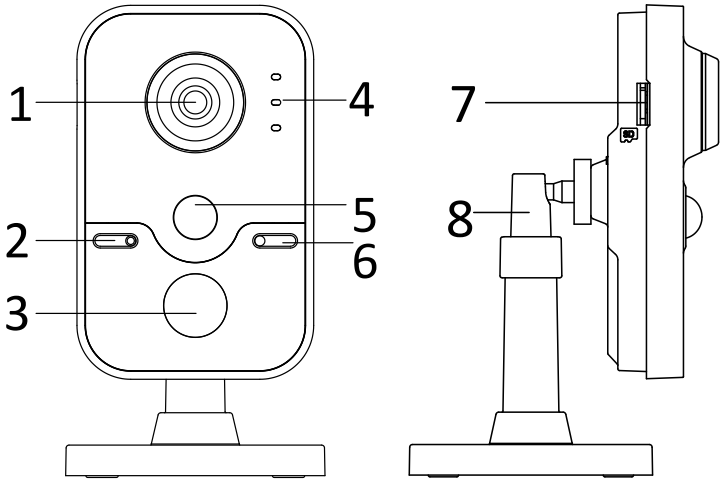


Figure 6-12 Type II Appearance



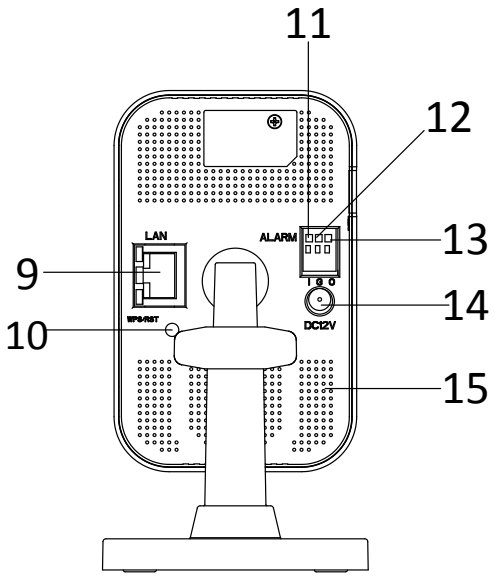


Figure 6-13 Overview

Table 6-4 Description

No.	Description	
1	Lens	
2	Microphone	
3	IR LED	
4	Indicator	Alarm: Solid red when the camera is armed; Solid blue when the camera is unarmed.
		Status: Reserved
		Link: Flashing amber when network is connected; Unlit when network is disconnected
4	PIR(Passive Infrared) sensor	
5	Light Sensing	
6	SD Card Slot	
7	3-axis Bracket	
8	10M / 100M self-adaptive Ethernet interface & PoE	
9	WPS (Wi-Fi Protected Setup)/Reset Button	
10	I: Alarm Input Interface	
11	G: Grounding	
12	O: Alarm Output Interface	
13	Power supply interface (12 VDC)	
14	Speaker	

❖ Press RESET about 10s when the camera is power on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

❖ A wireless router with the WPS function is required to enable the WPS function of the camera. Refer the steps below.

Steps:

1. Press the WPS button on the router.
2. Press the WPS button (about 2s) on the camera within 120s you enable the WPS of the router to join in the wireless network.

▪ The WPS button works as a reset button only when you press it when the camera is powering on.

- Press the WPS button on the camera, and then press the WPS button on the router will work as well, and the expire time of WPS connection on the camera is 120s.
- The link indicator blinks if the wireless connection succeeded.

6.3.2 Notice

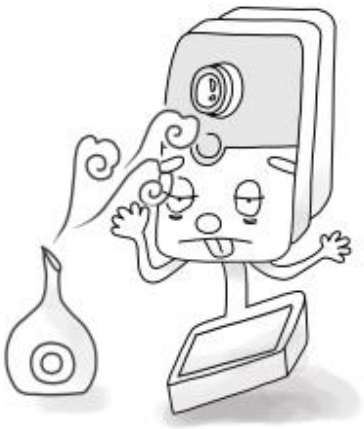
- Do not install the camera in the extreme whether condition.

- Do not touch the lens with your finger.

- Do not install the camera towards the strong light or in the unstable lightening condition.

- Do not subject the camera to vibration, shock or heavy pressure.

- High humidity may damage the camera hardware; put it in dry and well-ventilated place.
- Under no circumstances should you submerge the camera in any type of liquid.



- Electromagnetic radiation may affect the video data transmission and the image quality. Do not install the camera near

6.3.3 Installation

❖ **Stand Mounting**

Steps:

1. Assemble the 3-axis bracket.

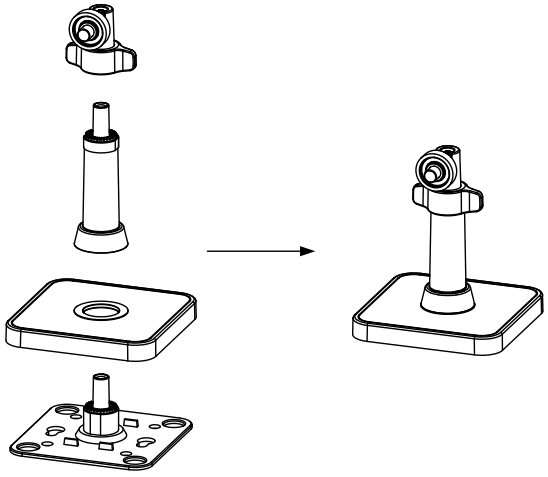


Figure 6-14 Assemble the Bracket

2. Align the camera body to the bracket, and rotate the camera body to fix it with the bracket.

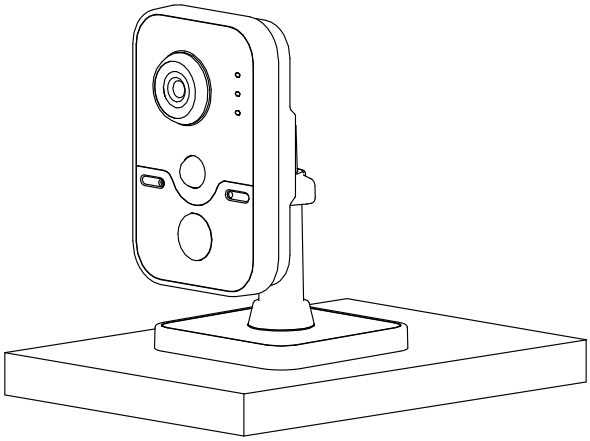


Figure 6-15 Install the Camera Body

❖ **Ceiling Mounting**

3. Drill the screw holes according to the drill template.

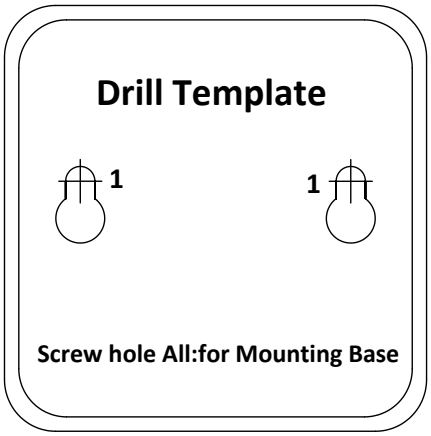


Figure 6-16 Drill Template

4. Install the fixed plate to the ceiling with the supplied screws.
5. Install the mounting base to the fixed plate.

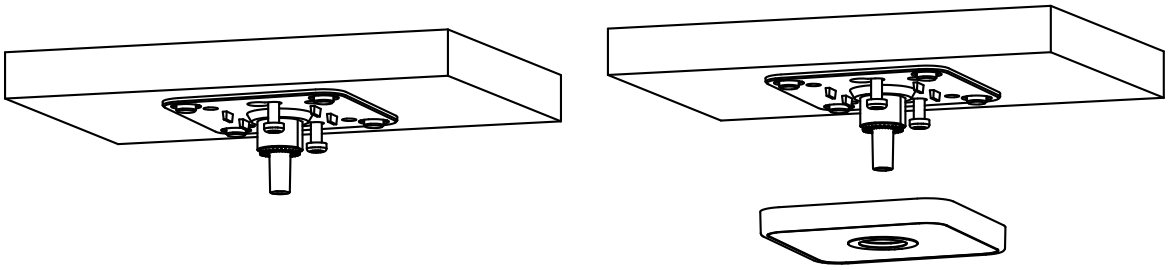


Figure 6-17 Install the Fixed Plate and Mounting Base

6. Install the camera to the bracket.

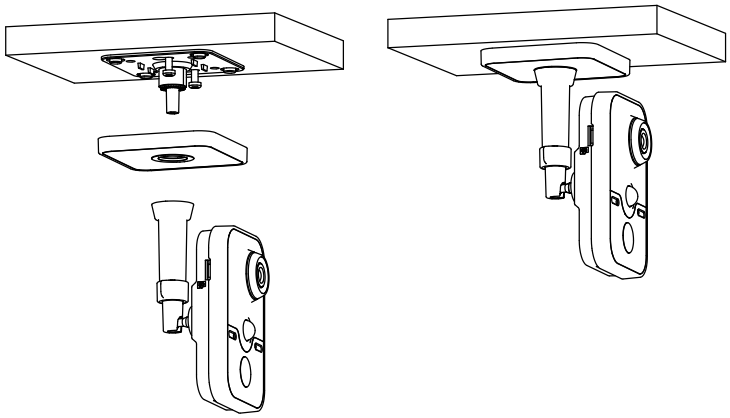


Figure 6-18 Install the Camera

7. Adjust surveillance angel

1). Loosen the knob to adjust the panning position and tilting position.

2). After adjusting the angle of the camera to the desired position, fasten the knob.

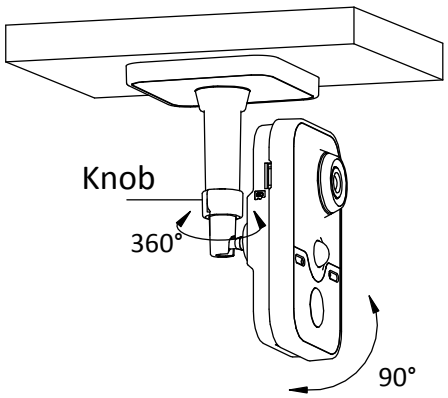


Figure 6-19 Adjust the Camera

Chapter 7 Mini Camera Installation

7.1 Camera Description

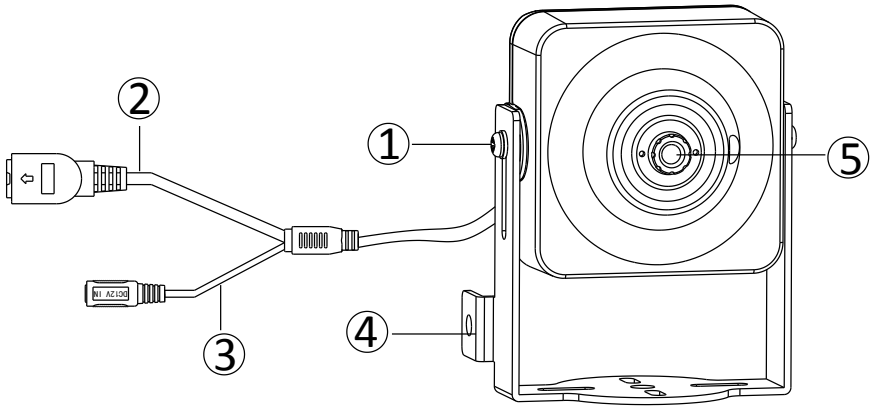


Figure 7-1 Overview (1)

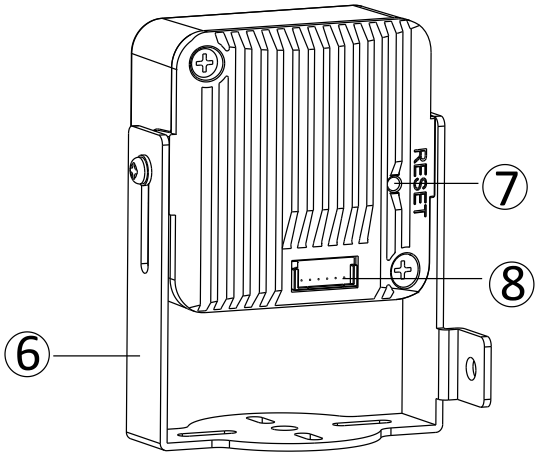


Figure 7-2 Overview (2)

Table 7-1 Description

No.	Description
1	Tilt Adjust Screw
2	10M / 100M self-adaptive Ethernet interface
3	Power Supply Interface (12 VDC)
4	Tieline buckle
5	Lens
6	Bracket
7	Reset Button
8	Network Cable and Power Cable Interface

Press RESET about 10s when the camera is power on or rebooting to restore the default settings, including the user name, password, IP address, port No., etc.

7.2 Installation

Steps:

1. Fix the camera to the mounting surface with screws.

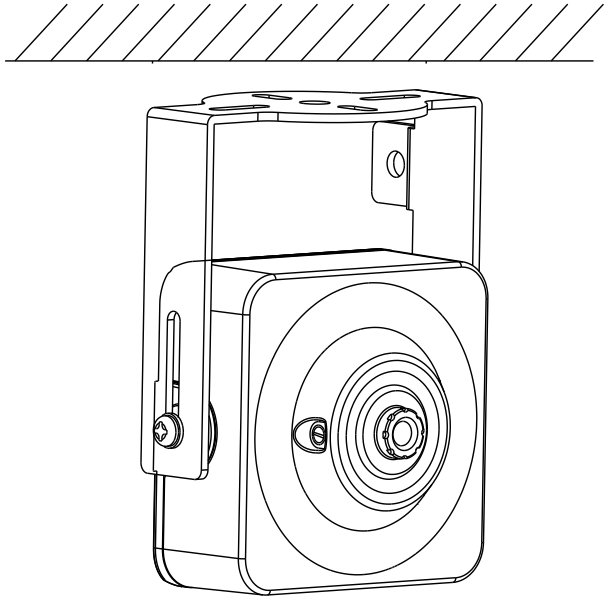


Figure 7-3 Fix the Camera

2. Adjust the camera position.

1). If you use No.1 screw hole to secure the camera, you can slightly loosen the screw to adjust the camera to right or left.

2). If you use No.2 screw hole to secure the camera, you can slightly loosen the screw to adjust the camera upwards or downwards.

3). If you use No.3 screw hole to secure the camera, you can slightly loosen the screw to rotate the camera horizontally.

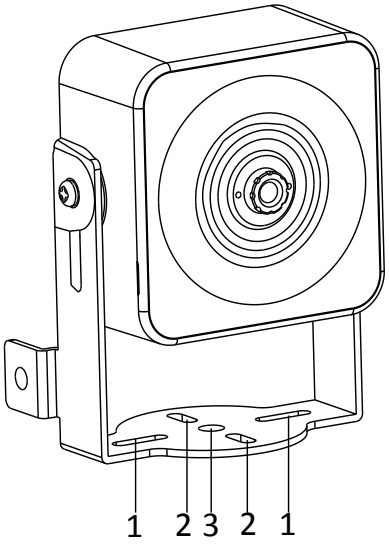


Figure 7-4 Adjust the Camera Position

3. Loosen the tilt adjust screw to adjust the camera surveillance angel, and tighten the screw if the angle-adjust is completed.

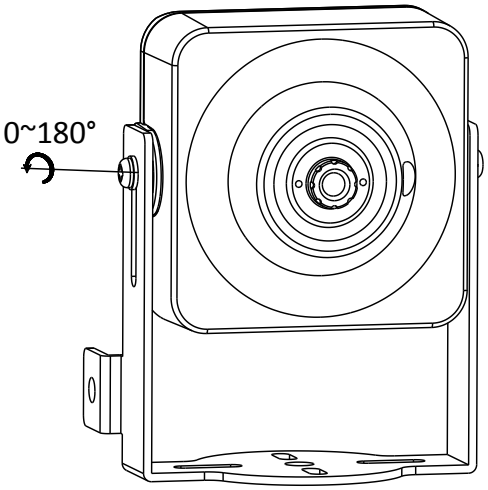


Figure 7-5 Fix the Bracket

Chapter 8 Mobile Camera

8.1 Camera Description

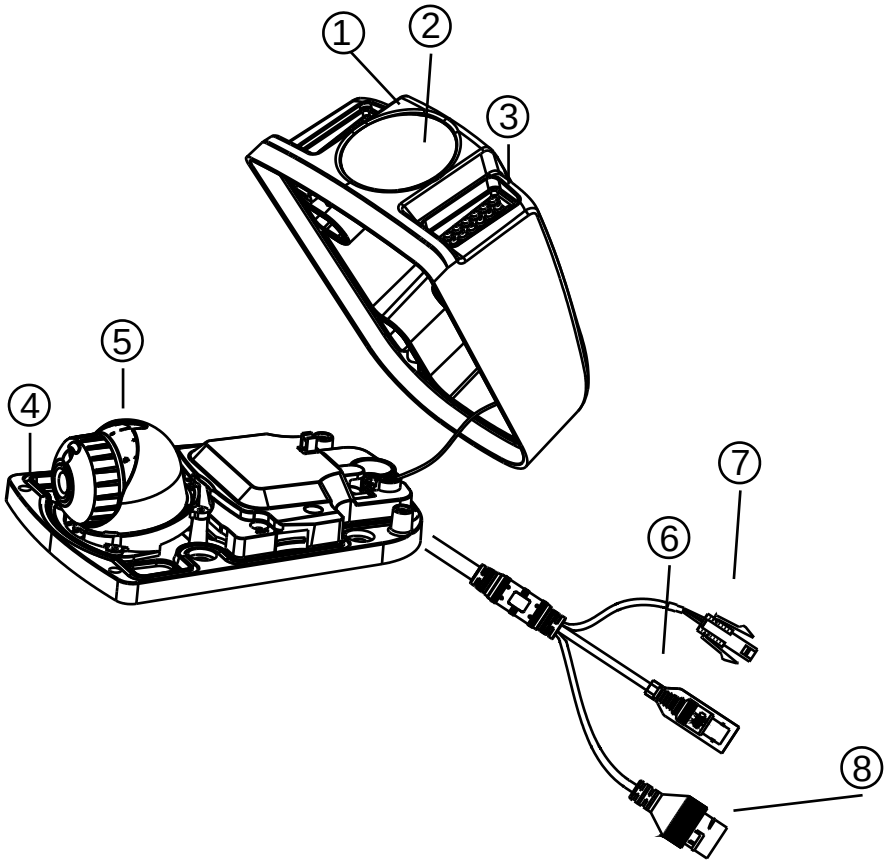


Figure 8-1 Overview of Mobile Camera

Table 8-1 Description

No.	Description	No.	Description
1	Cover	5	Dome Drive
2	Lens Shield	6	Video Cable
3	IR LED	7	Power Cable
4	Mounting Base	8	10/100M Self-adaptive Ethernet Interface

8.2 Installation

Steps:

1. Drill to pierce the screw holes and the cable hole in the vehicle shell according to the supplied drill template.

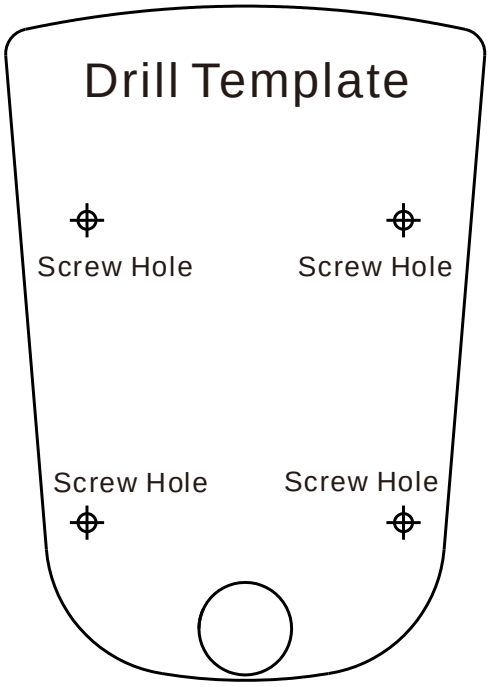


Figure 8-2 Drill Template

2. Install the mounting base to the vehicle shell.

3. Fit the supplied stainless steel spacers on the mounting screws.

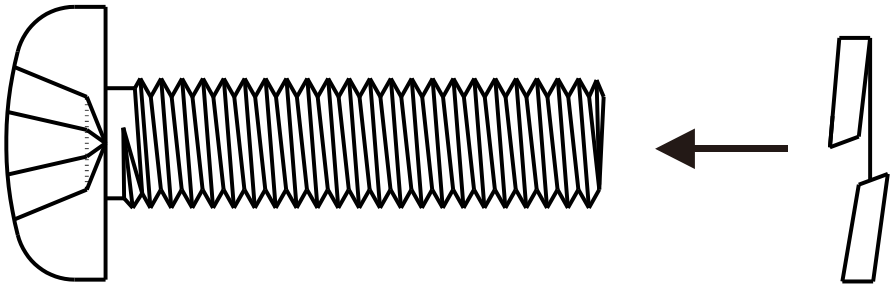


Figure 8-3 Fit the Spacer

4. Align the mounting base with the drill template. Rotate the mounting screws through the screw holes on the mounting base as well as the vehicle shell.

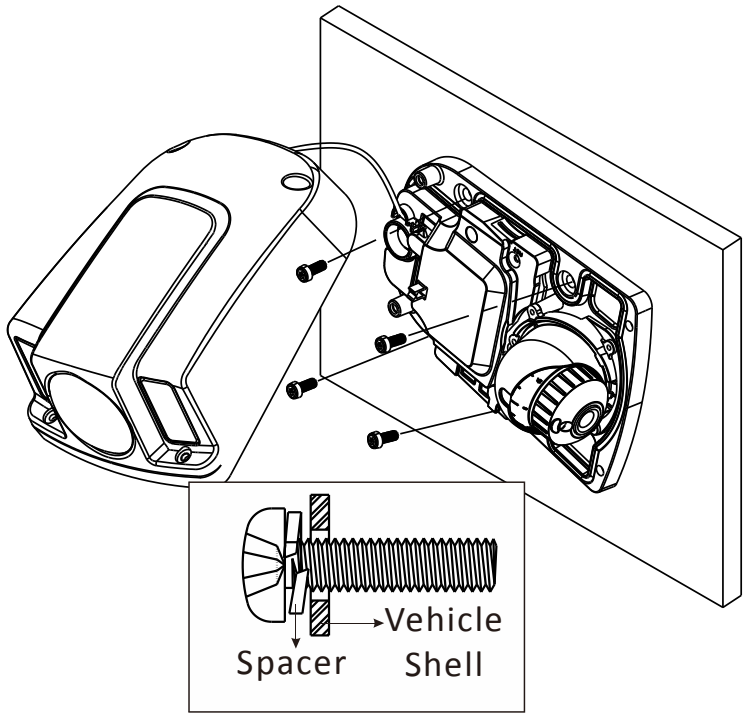


Figure 8-4 Fit the Mounting Screws

5. Screw the nuts onto the bottom of the mounting screws from the rear side of the shell.

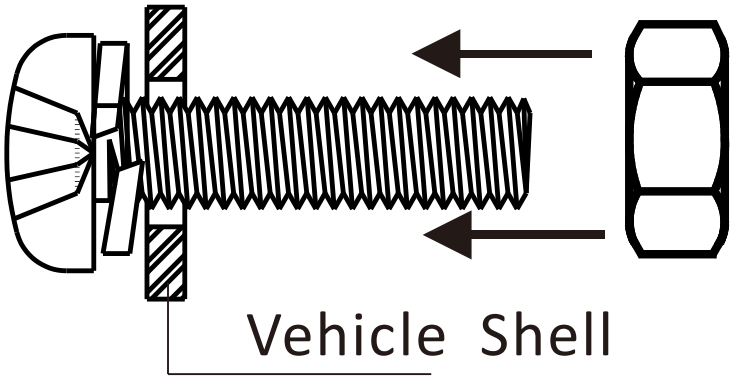


Figure 8-5 Screw the Nut

6. Tighten the nuts to secure the mounting base.

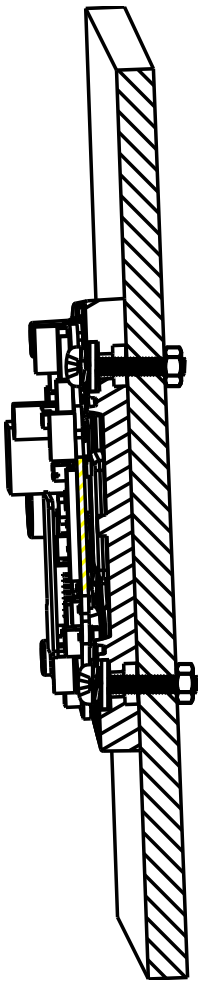


Figure 8-6 Tighten the Nuts

7. Connect the corresponding power cable, network cable, and video cable.

8. Adjust the surveillance angle.

   1). Push the lens upward to adjust the tilting angle [0 °~30 °].

   2). Loosen the P direction lock screws.

   3). Rotate the camera to adjust the panning angle [-15 °~15 °].

   4). Tighten the lock screw.

   5). Rotate the lens to adjust the R direction [0 °~360 °].

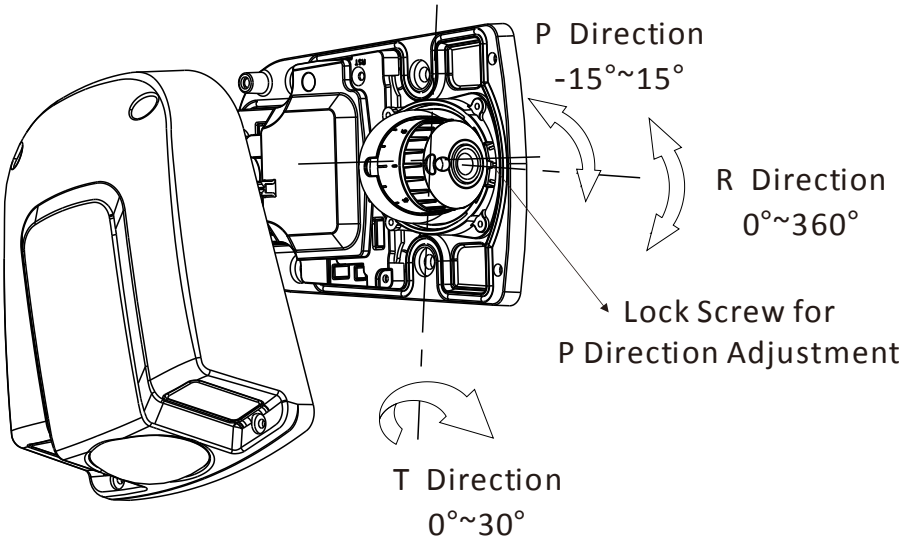


Figure 8-7 3-axis Adjustment

9. Align the cover to camera and fix it by tightening the screws which are embedded together with the cover.

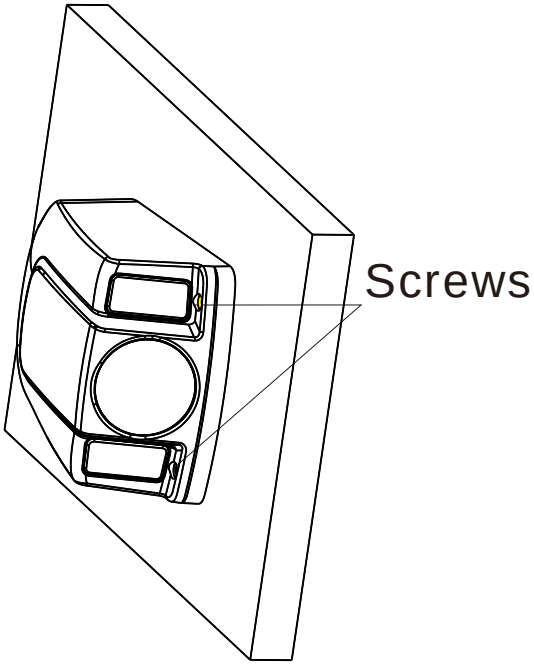


Figure 8-8 Tighten the Screws