

***HIKVISION***



## Dome Camera

User Manual

[www.hikvision.com](http://www.hikvision.com)

Thank you for purchasing our product. If there are any questions, or requests, please do not hesitate to contact the dealer.

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.

## Regulatory Information

### FCC Information

**FCC compliance:** This equipment has been tested and found to comply with the limits for a digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the users will be required to correct the interference at their own expense.

### FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation

### EU Conformity Statement



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the Low Voltage Directive 2006/95/EC, the EMC Directive 2004/108/EC, the RoHS Directive 2011/65/EU.



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information, see:

[www.recyclethis.info](http://www.recyclethis.info).



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information, see: [www.recyclethis.info](http://www.recyclethis.info).



## Safety Instruction

These instructions are intended to ensure that 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 occur if any of the warnings are neglected.

**Cautions:** Injury or equipment damage may occur if any of the cautions are neglected.

	
<p><b>Warnings</b> Follow these safeguards to prevent serious injury or death.</p>	<p><b>Cautions</b> Follow these precautions to prevent potential injury or material damage.</p>



### Warnings

- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.
- Please refer to technical specifications for detailed information.
- Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with AC 24V or DC 12V according to

the IEC60950-1 standard. Please refer to technical specifications for detailed information.

- Do not connect several devices to one power adapter as adapter overload may cause over-heating or a fire hazard.
- Please make sure that the plug is firmly connected to the power socket.
- When the product is mounted on wall or ceiling, the device shall be firmly fixed.
- If smoke, odor or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.
- 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 clean cloth with a bit of ethanol and wipe it gently. If the camera will not be used for an extended period, please replace the lens cap to protect the sensor from dirt.

- Do not aim the camera at the sun or extra bright places. Blooming or smearing may occur otherwise (which is not a malfunction), and affect the endurance of sensor at the same time.
- The sensor may be burned out by a laser beam, so when any laser equipment is in using, make sure that the surface of sensor will not be exposed to the laser beam.
- Do not place the camera in extremely hot, cold (the operating temperature shall be  $(-40^{\circ}\text{C}\sim+60^{\circ}\text{C})$ ), dusty or damp locations, and do not expose it to high electromagnetic radiation.
- To avoid heat accumulation, good ventilation is required for operating environment.
- Keep the camera away from liquid while in use.
- While in delivery, the camera shall be packed in its original packing, or packing of the same texture.
- Improper use or replacement of the battery may result in hazard of explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.

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# 1 Introduction

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## 1.1 Product Features

This camera adopts high performance DIS and advanced print circuit board design technology. It possesses of high resolution, low distortion, and low noise features, etc. It is extremely suitable for supervisory system and image process system.

- High-resolution for the clear and bright image;
- IR Cut Filter for auto day/night switching;
- Easy to get high quality pictures and video with SNR (Signal to Noise Ratio);
- Auto electronic shutter control to adapt to various surveillance environments;
- Auto-Gain Control for surveillance in low illumination scenario and the self-adaptive to different lightening environments;
- High color rendition with Auto White Balance function;
- Dome camera adopts patent 3-axis adjustable structure providing convenient adjustment and high reliability.

## 1.2 Overview of the Dome Camera

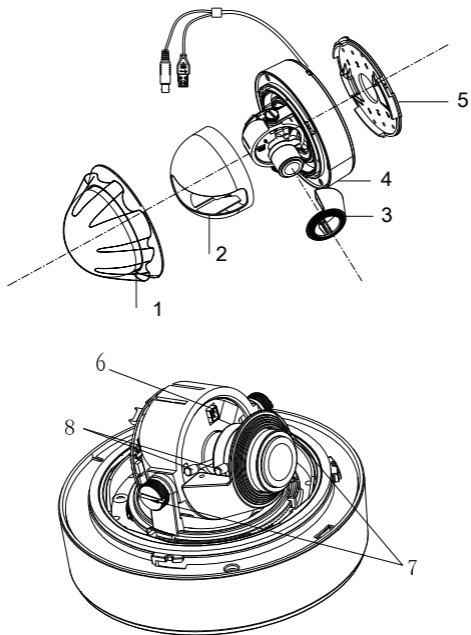


Figure 1-1 Overview of the Dome Camera

Table 1-1 Description

No.	Description	No.	Description
1	Lower Dome	6	AUX Interface
2	Black Liner	7	Len Adjust Lever
3	Lens Cover	8	Tilt Lock Screw
4	Camera		
5	Base Plate		

## 2 Installation

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### *Before you start:*

- Please make sure that the device in the package is in good condition and all the assembly parts are included.
- Make sure that all the related equipment is power-off during the installation.
- Check the specification of the products for the installation environment.
- Check whether the power supply is matched with your required output to avoid damage.
- Please make sure the wall is strong enough to withstand three times the weight of the camera and the mounting.
- If the wall is the cement wall, you need to insert expansion screws before you install the camera. If the wall is the wooden wall, you can use self-tapping screw to secure the camera.
- 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.

### 2.1 Ceiling Mounting

#### *Steps:*

1. Attach the drill template (supplied) to the place where you want to fix the camera.
2. Drill four screws holes according to the number 2 circles on the drill template as shown in Figure 2-1.

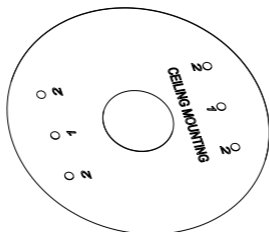


Figure 2-1 The Drill Template

3. Drill a hole in the ceiling according to the circle in the center of the template if you want to route the cables through the ceiling. Skip this step if you want to route the cables on the surface of the ceiling.
4. Rotate the lower dome of the camera anticlockwise to take it down from the camera and remove the black liner.

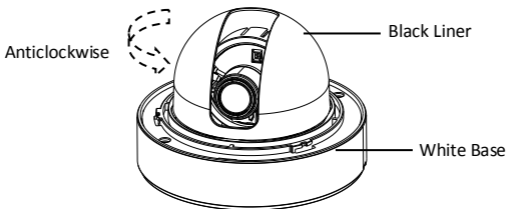


Figure 2-2 Black Liner Disassembling

- Attach the base plate to the ceiling and secure it with the supplied 4 self-tapping screws as shown in Figure 2-3.

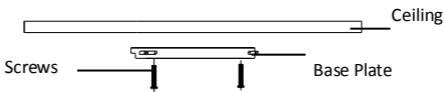


Figure 2-3 Mounting the Base Plate

- Route the cables through the cable hole.
- Align the camera with the base plate. Rotate the camera clockwise into the base plate.
- Tighten the lock screw to secure the camera with the base plate as shown in Figure 2-4.

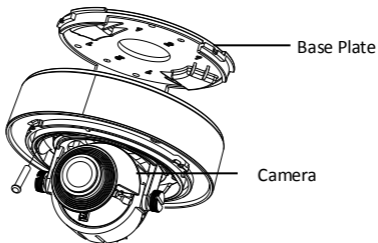


Figure 2-4 Securing the Camera

- Connect the video output connector to the monitor. Connect the power connector to the power supply.
- Three-axis adjustment.

- 1). View the camera image via the monitor.
- 2). Rotate the panning table to adjust the panning position of the camera. The adjusting range is from 0 degree to 355 degrees.
- 3). Loosen the tilting lock screw.
- 4). Rotate the tilting table to adjust the tilting position of the camera. The adjusting range is from 0 degree to 180 degrees.
- 5). Tighten the tilting lock screw.
- 6). Rotate the lens to adjust the azimuth angle of the image. The adjusting range is from 0 degree to 355 degrees.

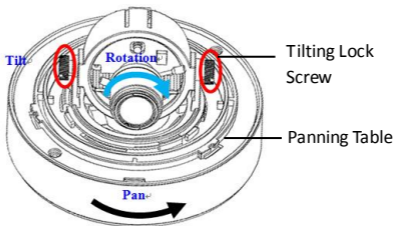


Figure 2-5 Lens Adjustment

11. Attach the black liner to the camera.
12. Rotate the lower dome clockwise to the camera.
13. Remove the protection film softly to complete the installation.

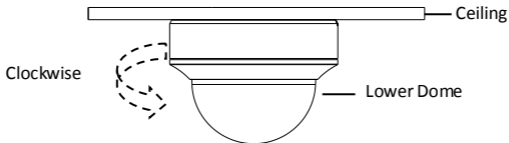


Figure 2-6 Lower Dome Installation



Remove the protection film softly before using the camera. In case of the scrape on the bubble during the project.

## 2.2 In-ceiling Mounting Without Gang Box



You need to purchase an in-ceiling mount separately if you adopt in-ceiling mounting.

### **Steps:**

1. Rotate the lower dome anticlockwise to remove it.
2. Remove the black liner.
3. Loosen the two screws as shown in Figure 2-7.
4. Remove the white base together with the base plate.



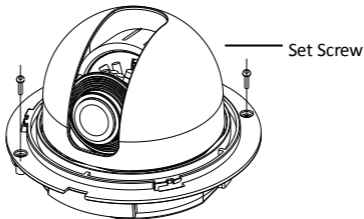


Figure 2-7 Disassembling

5. Attach the drill template (supplied) to the place where you want to fix the camera.
6. Drill two screw holes according to the two circles on the drill template as shown in Figure 2-8.
7. Drill a hole in the ceiling according to the circle in the center of the template. It is for in-ceiling mounting.

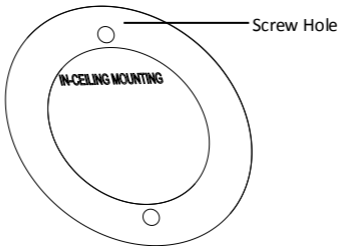


Figure 2-8 The Drill Template

8. Rotate the two screws clockwise to the number 2 holes of the in-ceiling mount.
9. Attach the in-ceiling mount to the ceiling.
10. Push the two toggle bolts through the two screw holes on the ceiling.
11. Rotate the bolt till the toggle holds the ceiling tightly so that the in-ceiling mount is fixed to the ceiling.

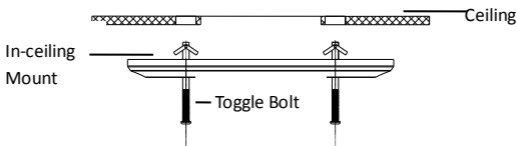


Figure 2-9 In-ceiling Mount

12. Route the cables through the hole in the center of the in-ceiling mount.
13. Secure the camera with two screws as shown in Figure 2-10.

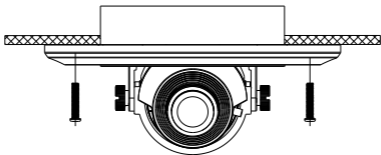


Figure 2-10 Securing the Camera

14. Connect the video output connector to the monitor. Connect the power connector to the power supply.
15. Three-axis adjustment.
  - 1). View the camera image using the monitor.
  - 2). Rotate the panning table to adjust the panning position of the camera. The adjusting range is from 0 degree to 355 degrees.
  - 3). Loosen the tilting lock screw.
  - 4). Rotate the tilting table to adjust the tilting position of the camera. The adjusting range is from 0 degree to 180 degrees.
  - 5). Tighten the tilting lock screw.
  - 6). Rotate the lens to adjust the azimuth angle of the image. The adjusting range is from 0 degree to 355 degrees.

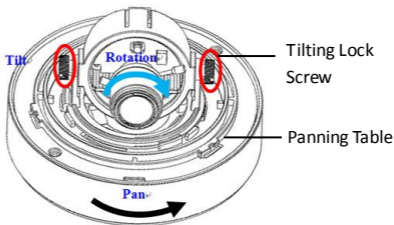


Figure 2-11 Lens Adjustment

16. Attach the black liner to the camera.
17. Rotate the lower dome clockwise back to the camera.

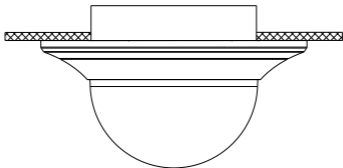


Figure 2-12 Lower Dome Installation



Remove the protection film softly before using the camera. In case of the scrape on the bubble during the project.

## 2.3 Wiring

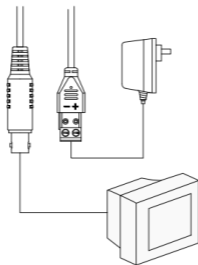


Figure 2-13 The Power and the Video cable

