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

This manual applies to the model listed below.

<table>
<thead>
<tr>
<th>Type</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I</td>
<td>DS-2CE16D0T-VFIR3F</td>
</tr>
<tr>
<td></td>
<td>DS-2CE16C0T-VFIR3F</td>
</tr>
<tr>
<td>Type II</td>
<td>DS-2CE56D0T-VFIR3F</td>
</tr>
<tr>
<td></td>
<td>DS-2CE56C0T-VFIR3F</td>
</tr>
<tr>
<td>Type III</td>
<td>DS-2CE56D0T-VPIR3F</td>
</tr>
<tr>
<td></td>
<td>DS-2CE56C0T-VPIR3F</td>
</tr>
<tr>
<td>Type IV</td>
<td>DS-2CE56D0T-VFIRF</td>
</tr>
<tr>
<td></td>
<td>DS-2CE56C0T-VFIRF</td>
</tr>
</tbody>
</table>

This manual may contain several technically 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.
Regulatory Information

FCC Information

FCC compliance: This equipment has been tested and found to comply with the limits for a Class 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 user will be required to correct the interference at his 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 EMC Directive 2014/30/EU, 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.

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

Warning

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
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.

<table>
<thead>
<tr>
<th>Warnings</th>
<th>Cautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follow these safeguards to prevent serious injury or death.</td>
<td>Follow these precautions to prevent potential injury or material damage.</td>
</tr>
</tbody>
</table>

**Warnings**
- In the use of the device, you must be in strict compliance with the electrical safety regulations of the nation and region.
- Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with 12 VDC according to the IEC60950-1 standard. Refer to technical specifications for detailed information.
- Do not connect multiple devices to one power adapter to avoid over-heating or a fire hazard caused by overload.
- Make sure that the plug is firmly connected to the power socket.
- Make sure that the device is firmly fixed if wall mounting or ceiling mounting is adopted.
- If smoke, odor or noise rise from the device, turn off the power at once and unplug the power cord, and then contact the service center.
- Never attempt to disassemble the camera by unprofessional personal.

**Cautions**
- 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.
- Do not aim the camera at the sun or extra bright places.
- 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 expose the device to high electromagnetic radiation or extremely hot, cold, dusty or damp environment.
- To avoid heat accumulation, good ventilation is required for the operating environment.
- Keep the camera away from liquid while in use for non-water-proof device.
While in delivery, the camera shall be packed in its original packing, or packing of the same texture.

Chapter 1 Introduction

1.1 Product Features
The camera is applicable for both indoor and outdoor conditions, and the application scenarios include road, warehouse, parking lot, office, campus, etc..
The main features are as follows:
- High performance CMOS sensor
- 1080p/720p resolution
- Auto white balance
- Auto electronic shutter
- Auto gain control (AGC)
- Switchable TVI/AHD/CVI/CVBS video output
- IR cut filter
- 3-axis adjustment

Note:
Type IV camera is applicable for indoor condition only.

1.2 Overview

1.2.1 Type I Camera Overview

![Type I Camera Overview](image)

Note:
Press and hold the switch button for 5 seconds to switch the video output. Four kinds of video outputs are available: TVI, AHD, CVI, and CVBS.

1.2.2 Type II Camera Overview

![Type II Camera Overview](image)

Note:
Press and hold the switch button for 5 seconds to switch the video output. Four kinds of video outputs are available: TVI, AHD, CVI, and CVBS.
1.2.3 Type III Camera Overview

![Type III Camera Overview](image)

**Note:**
Press and hold the switch button for 5 seconds to switch the video output. Four kinds of video outputs are available: TVI, AHD, CVI, and CVBS.

1.2.4 Type IV Camera Overview

![Type IV Camera Overview](image)

Chapter 2 Installation

2.1 Installation Preparation

**Before you start:**
- 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 power output to avoid damage.
- Make sure the wall is strong enough to withstand three times the weight of the camera and the mounting bracket.
- If the wall is cement, insert expansion bolts before you install the camera. If the wall is wooden, use self-tapping screws to secure the camera.
- If the product does not function properly, contact your dealer or the nearest service center. Do NOT disassemble the camera for repair or maintenance by yourself.
2.2 Installation of Type I Camera

Before you start:
Both wall mounting and ceiling mounting are suitable for the bullet camera. Ceiling mounting will be taken as an example in this section. You can take the steps of ceiling mounting as a reference when adopting wall mounting.

Steps:
1. Paste the drill template (supplied) to the place where you want to fix the camera.
2. Drill the screw holes and the cable hole in the ceiling according to the drill template.

![Drill Template](image)

Note:
- The supplied screw package contains self-tapping screws, and expansion bolts.
- For cement wall, expansion bolts are required to fix the camera. For wooden wall, self-tapping screws are required.

3. Route the cables through the cable hole, or the side opening.
4. Attach the mounting base to the ceiling and secure the camera with supplied screws.

![Secure the Camera to the Ceiling](image)

Note:
- For cement wall, expansion bolts are required to fix the camera. For wooden wall, self-tapping screws are required.

5. Connect the corresponding power cord and video cable.
6. Power on the camera to check whether the image on the monitor is gotten from the optimum angle. If not, adjust the camera according to the figure below to get an optimum angle.
1. Loosen the No.1 adjusting screw to adjust the pan position [0° to 360°].
2. Tighten the No.1 adjusting screw.
3. Loosen the No.2 adjusting screw to adjust the tilting position [0° to 90°].
4. Tighten the No.2 adjusting screw.
5. Loosen the No.3 adjusting screw to adjust the rotation position [0° to 360°].
6. Tighten the No.3 adjusting screw.

2.3 Installation of Type II camera

Before you start:
Both wall mounting and ceiling mounting are suitable for the turret camera. Ceiling mounting will be taken as an example in this section. You can take the steps of ceiling mounting as a reference when adopting wall mounting.

Steps:
1. Paste the drill template (supplied) to the place where you want to fix the camera.
2. Drill the screw holes according to the drill template and the cable hole (optional) in the ceiling.
3. Press the button to take out the main body.
4. Fix the mounting base on the ceiling with supplied screws.
Fix the Mounting Base on the Ceiling

Note:
- The supplied screw package contains self-tapping screws, and expansion bolts.
- For cement wall, expansion bolts are required to fix the camera. For wooden wall, self-tapping screws are required.

5. Route the cables through the cable hole (optional), or the side opening.
6. Install the main body back to the mounting base.

Secure the Camera with Mounting Base

7. Connect the corresponding cables, such as power cord, and video cable.
8. Power on the camera to check whether the image on the monitor is gotten from the optimum angle. If not, adjust the camera according to the figure below to get an optimum angle.

3-axis Adjustment

1). Hold the camera body and rotate the enclosure to adjust the pan position [0° to 360°].
2). Move the camera body up and down to adjust the tilt position [0° to 75°].
3). Rotate the camera body to adjust the rotation position [0° to 360°].
2.4 Installation of Type III and Type IV Camera

Before you start:
Both wall mounting and ceiling mounting are suitable for the dome camera. Ceiling mounting will be taken as an example in this section. You can take the steps of ceiling mounting as a reference when adopting wall mounting.

Steps:
1. Paste the drill template to the ceiling.
2. Drill screw holes and the cable hole (optional) on the ceiling according to the supplied drill template.
3. Loosen the bubble of the dome camera to remove the bubble and the black liner.
4. Attach the back box of type III camera/base plate of type IV camera to the ceiling and secure them with supplied screws.

Note:
- The supplied screw package contains self-tapping screws, and expansion bolts.
• For cement wall, expansion bolts are required to fix the camera. For wooden wall, self-tapping screws are required.

5. Route the cables through the cable hole (optional), or the side opening.

6. Align the camera with the back box/base plate, and secure the camera with the back box/base plate.

Figure 2.11 Fix the Camera to the Ceiling

7. Connect the corresponding cables, such as power cord, and video cable.

8. Power on the camera to check whether the image on the monitor is gotten from the optimum angle. If not, adjust the camera according to the figure below to get an optimum angle.

Figure 2.12 3-axis Adjustment

9. Fit the black liner back to the camera and tighten the bubble of the dome camera to finish the installation.

Figure 2.13 Finish the Installation