



# TURBO HD D8T POC Series Dome Camera

## User Manual

### User Manual

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 models below:

Type	Model
<b>Type I Camera</b>	DS-2CE56D8T-VPIT3ZE
<b>Type II Camera</b>	DS-2CE5AD8T-VPIT3ZE
<b>Type III Camera</b>	DS-2CE56D8T-VPITE
<b>Type IV Camera</b>	DS-2CE56D8T-ITZE

This manual may contain 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.

## Regulatory Information

### FCC Information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**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 Low Voltage Directive 2014/35/EU, the EMC Directive 2014/30/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).

### Industry Canada ICES-003 Compliance

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



## 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.

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



### 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.

# 1 Introduction

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## 1.1 Product Features

The main features are as follows:

- High performance CMOS sensor
- IR cut filter with auto switch
- OSD menu with configurable parameters
- Auto white balance
- SMART IR
- Power over coaxial
- 3-Axis adjustment

## 1.2 Overview

### 1.2.1 Overview of Type I Camera

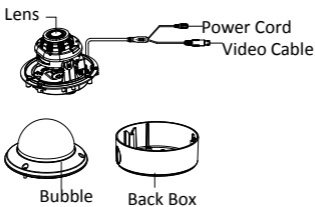


Figure 1-1 Overview of Type I Camera

### 1.2.2 Overview of Type II Camera

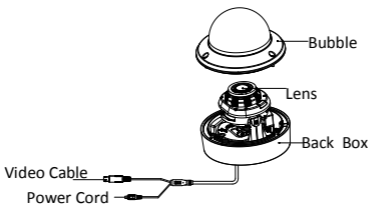


Figure 1-2 Overview of Type II Camera

### 1.2.3 Overview of Type III Camera

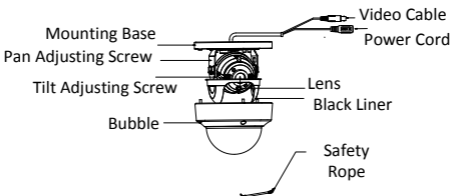


Figure 1-3 Overview of Type III Camera

## 1.2.4 Overview of Type IV Camera

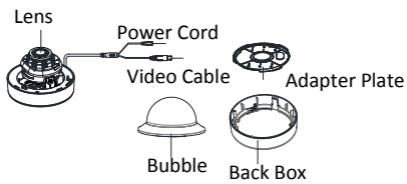


Figure 1-4 Overview of Type IV Camera

## 2 Installation

### *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 required output to avoid damage.
- Make sure the wall is strong enough to withstand three times the weight of the camera and the mounting.
- If the wall is cement, insert expansion screws before installing the camera. If the wall is wooden, use self-tapping screw 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.

### 2.1 Ceiling Mounting of Type I/Type II Camera

#### *Before you start:*

The installation steps of Type I and Type II Camera are similar and the following takes Type I as an example to describe the steps.

#### *Steps:*

1. Paste the drill template to where you want to install the camera.
2. Drill screw holes and the cable hole (optional) on the ceiling according to the drill template.



Figure 2-1 The Drill Template

#### **Note:**

Drill the cable hole (hole A) when adopting the wall outlet to route the cable.

3. Loosen the screws to remove the bubble.

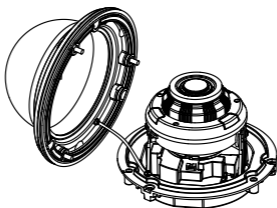


Figure 2-2 Remove the Bubble

4. Secure the back box on the ceiling with four PA4 × 25 screws.

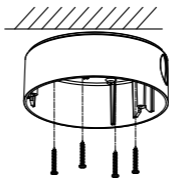


Figure 2-3 Secure the Back Box

5. Attach the camera to the back box and secure them with supplied screws.

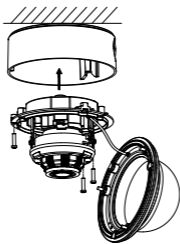


Figure 2-4 Attach the Camera

**Note:**

- The supplied screw package contains self-tapping screws, and expansion bolts.
  - For cement wall/ceiling, expansion bolts are required to install the camera. For wooden wall/ceiling, self-tapping screws are required.
6. Route the cables through the cable hole, or the side opening.
  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.

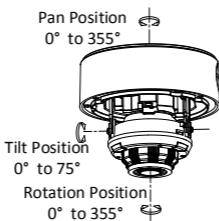


Figure 2-5 3-Axis Adjustment

9. Install the bubble back to the camera.

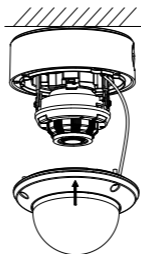


Figure 2-6 Install the Bubble Back

10. Tighten the screws on the bubble of the dome camera to finish the installation.

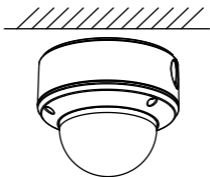


Figure 2-7 Finish the Installation

## 2.2 Ceiling Mounting of Type III Camera

### **Before you start:**

The steps of ceiling mounting and wall mounting are similar. Following takes ceiling mounting as an example to describe the steps.

### **Steps:**

1. Paste the drill template to where you want to install the camera.
2. Drill screw holes and the cable hole (optional) on the ceiling according to the drill template.

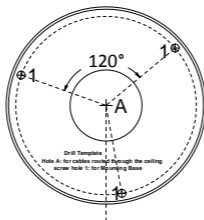


Figure 2-8 The Drill Template

### **Note:**

Drill the cable hole (hole A) when adopting the ceiling outlet to route the cable.

3. Loosen the screws to remove the bubble. The bubble and the mounting base are connected by the safety rope, be careful when you disassemble the camera.

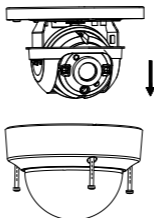


Figure 2-9 Remove the Bubble

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



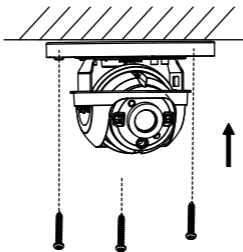


Figure 2-10 Install the Mounting Base to Ceiling

5. Route the cables through the cable hole, or the side opening.
6. Connect the corresponding cables, such as power cord, and video cable.
7. 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.

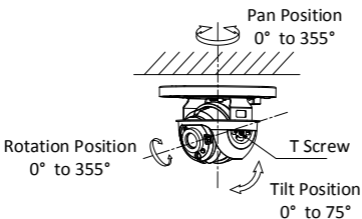


Figure 2-11 3-axis Adjustment

- 1). Loosen the tilt adjusting screw to adjust the tilt position [0° to 75°].
- 2). Hold the black liner to adjust the pan position [0° to 355°].
- 3). Hold the camera body to adjust the rotation position [0° to 355°].
8. Install the bubble back.

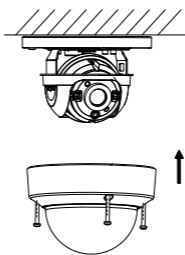


Figure 2-12 Install the Bubble Back

9. Tighten screws to finish the installation.

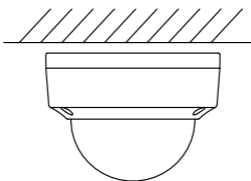


Figure 2-13 Finish the Installation

## 2.3 Ceiling Mounting of Type IV Camera

### Steps:

1. Disassemble the bubble by anti-clockwise rotating the camera.

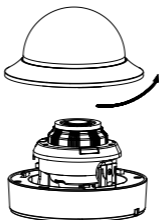


Figure 2-14 Disassemble the Camera

2. Paste the drill template to the ceiling.
3. Drill the screw holes and cable hole (optional) on the ceiling according to the drill template.

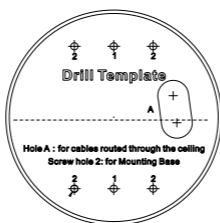


Figure 2-15 The Drill Template

### Note:

Drill the cable hole, when adopting the ceiling outlet to route cables.

4. Secure the adapter plate on the ceiling with four PA4 × 25 screws.

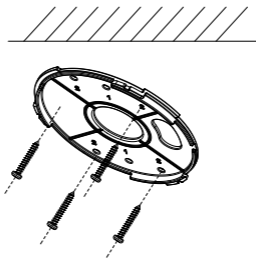


Figure 2-16 Secure the Adapter Plate

### Note:

- The supplied screw package contains self-tapping screws, and expansion bolts.
  - For cement ceiling, expansion bolts are required to install the camera. For wooden ceiling, self-tapping screws are required.
5. Route the cables through the cable hole, or the side opening.
  6. Secure the camera on the adapter plate.

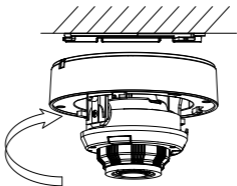


Figure 2-17 Secure the camera

7. Connect the corresponding cables.
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.

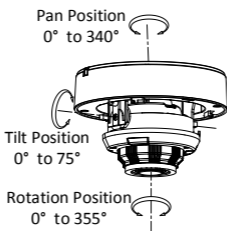


Figure 2-18 3-Axis Adjustment

- 1). Loosen the tilt adjusting screw to adjust the tilt position [0° to 75°].
  - 2). Loosen the pan adjusting screw to adjust the pan position [0° to 340°].
  - 3). Loosen the rotation adjusting screw to adjust the rotation position [0° to 355°].
9. Install the bubble back to the camera.

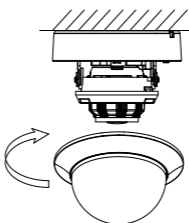


Figure 2-19 Install the Bubble Back

10. Finish the installation.

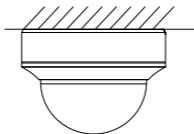


Figure 2-20 Finish the Installation

## 3 Menu Description

Follow the steps below to call the menu.

**Note:**

The actual display may vary with your camera model.

**Steps:**

1. Connect the camera with the TVI DVR, and the monitor, shown as the figure 3-1.

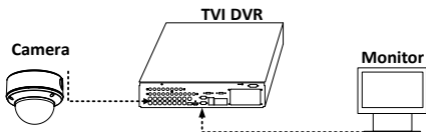



Figure 3-1 Connection

2. Power on the camera, TVI DVR, and the monitor to view the image on the monitor.
3. Click PTZ Control to enter the PTZ Control interface.
4. Call the camera menu by clicking  button, or call preset No. 95.

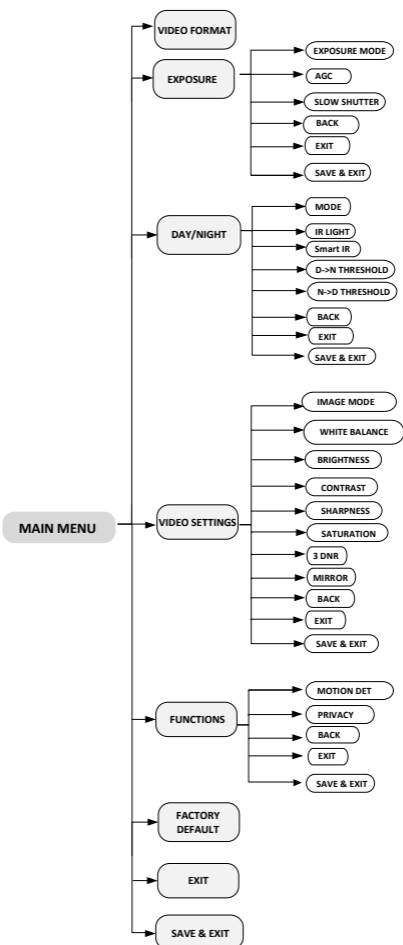


Figure 3-2 Main Menu Overview

5. Click the direction arrow to control the camera.

- (1) Click up/down direction button to select the item.
- (2) Click Iris + to confirm the selection.
- (3) Click left/right direction button to adjust the value of the selected item.

### 3.1 FORMAT

You can set the video format to 2MP@25fps or 2MP@30fps.

### 3.2 EXPOSURE

#### EXPOSURE MODE

You can set the **EXPOSURE MODE** to **GLOBAL**, **BLC**, **HLC**, or **WDR**.

- **GLOBAL**

GLOBAL refers to the normal exposure mode which adjusts lighting distribution, variations, and non-standard processing.

- **BLC (Backlight Compensation)**

BLC (Backlight Compensation) compensates light to the object in the front to make it clear, but this may cause the over-exposure of the background where the light is strong.

- **HLC (Highlight Compensation)**

HLC stands for highlight compensation. The camera detects the strong spots (the over-exposure portion of image), then reduce the brightness of the strong spots to improve the overall images.

- **WDR (Wide Dynamic Range)**

The wide dynamic range (WDR) function helps the camera provide clear images even under back light circumstances. When there are both very bright and very dark areas simultaneously in the field of view, WDR balances the brightness level of the whole image and provide clear images with details.

#### **AGC (Auto Gain Control)**

It optimizes the clarity of the image in poor light conditions. The **AGC** level can be set to **HIGH**, **MEDIUM** or **LOW**.

**Note:**

The noise will be amplified when the **AGC** is on.

#### **SLOW SHUTTER**

**SLOW SHUTTER** increases the exposure time on a single frame, which makes a camera more sensitive to the light so it can produce images even in low lux conditions.

You can set the **SLOW SHUTTER** function as OFF, x2, x4, x6, x8, x10, x12, x14, or x16 according to the different light conditions.

**Note:**

This function is not available, when adopts power over coaxial to supply power.

### 3.3 DAY/NIGHT

**COLOR**, **B&W** (Black White), and **AUTO** are selectable for DAY and NIGHT switches.

#### **COLOR**

The image is colorful in day mode all the time.

#### **B&W**

The image is black and white all the time, and it is better to turn the **IR LIGHT** on in poor light conditions.

- **IR LIGHT**

You can turn on/off the **IR LIGHT** to meet the requirements of different circumstances.

- **SMART IR**

The **Smart IR** function is used to adjust the light to its most suitable intensity, and prevent the image from over exposure. The **SMART IR** value can be adjusted from 0 to 3. The greater the value is, the more obvious effects are.

### **AUTO**

You can turn on/off the **IR LIGHT**, and set the value of **SMART IR** in this menu.

DAY/NIGHT	
MODE	◀ AUTO ▶
IR LIGHT	◀ ON ▶
SMART IR	◀ 2 ▶
D->N THRESHOLD	◀ 2 ▶
N->D THRESHOLD	◀ 7 ▶
BACK	↵
EXIT	↵
SAVE&EXIT	↵

Figure 3-3 DAY/NIGHT

- **IR LIGHT**

You can turn on/off the infrared to meet the requirements of different circumstances.

- **SMART IR**

The **Smart IR** function is used to adjust the light to its most suitable intensity, and prevent the image from over exposure. The **SMART IR** value can be adjusted from 0 to 3. The greater the value is, the more obvious effects are.

- **D→N THRESHOLD (Day to Night Threshold)**

Day to Night Threshold is used to control the sensitivity of switching the day mode to the night mode. You can set the value from 1 to 9. The larger the value is, the more sensitive the camera is.

- **N→D THRESHOLD (Night to Day Threshold)**

Night to Day Threshold is used to control the sensitivity of switching the night mode to the day mode. You can set the value from 1 to 9. The larger the value is, the more sensitive the camera is.

## **3.4 VIDEO SETTINGS**

Move the cursor to **VIDEO SETTINGS** and click Iris+ to enter the submenu. **IMAGE MODE**, **WHITE BALANCE**, **BRIGHTNESS**, **CONTRAST**, **SHARPNESS**, **SATURATION**, **3 DNR**, and **MIRROR** are adjustable.

VIDEO SETTINGS	
IMAGE MODE	◀ STD ▶
WHITE BALANCE	↵
BRIGHTNESS	◀ 5 ▶
CONTRAST	◀ 5 ▶
SHARPNESS	◀ 5 ▶
SATURATION	◀ 5 ▶
3DNR	◀ 5 ▶
MIRROR	◀ OFF ▶
BACK	↵
EXIT	↵
SAVE & EXIT	↵

Figure 3-4 VIDEO SETTINGS

## IMAGE MODE

**IMAGE MODE** is used to adjust the image saturation, and you can set it as **STD** (Standard), or **HIGH-SAT** (High Saturation).

## WHITE BALANCE

White balance, the white rendition function of the camera, is to adjust the color temperature according to the environment. It can remove unrealistic color casts in the image. You can set **WHITE BALANCE** mode as **AUTO**, or **MANUAL**.

### ● AUTO

Under **AUTO** mode, white balance is being adjusted automatically according to the color temperature of the scene illumination.

### ● MANUAL

You can set the **R-GAIN/B-GAIN** value to adjust the shades of red/blue color of the image.

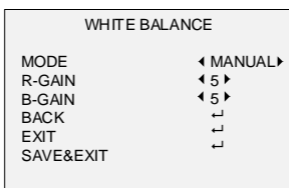


Figure 3-5 MANUAL WHITE BALANCE MODE

## BRIGHTNESS

Brightness refers to the brightness of the image. You can set the brightness value from 1 to 9 to darken or brighten the image. The greater the value is, the brighter the image is.

## CONTRAST

This feature enhances the difference in color and light between parts of an image. You can set the **CONTRAST** value from 1 to 9.

## SHARPNESS

Sharpness determines the amount of detail an imaging system can reproduce. You can set the **SHARPNESS** value from 1 to 9.

## SATURATION

Adjust this feature to change the saturation of the color. The value ranges from 1 to 9.

## 3 DNR (3D DNR)

3 DNR refers to 3D digital noise reduction. Comparing with the general 2D digital noise reduction, the 3D digital noise reduction function processes the noise between two frames besides processing the noise in one frame. The noise will be much less and the video will be clearer.

## MIRROR

**OFF**, **H**, **V**, and **HV** are selectable for mirror.

**OFF**: The mirror function is disabled.

**H**: The image flips 180° horizontally.

**V**: The image flips 180° vertically.

**HV**: The image flips 180° both horizontally and vertically.

## 3.5 FUNCTIONS

### MOTION DET

In the user-defined motion detection surveillance area, the moving object can be detected and the alarm will be triggered. Up to 4 motion detection areas can be configured.

MOTION DET	
MODE	◀ OFF ▶
AREA 0	↵
AREA 1	↵
AREA 2	↵
AREA 3	↵
COLOR	◀ RED ▶
SENSITIVITY	◀ 5 ▶
TRANSPARENCY	◀ OFF ▶
BACK	↵
EXIT	↵
SAVE & EXIT	↵

Figure 3-6 MOTION DET

Set the **MODE** to **ON**. Select a **MOTION** area, then set the X/Y position, and the size of the area according to your needs.

### PRIVACY

The privacy mask allows you to cover certain areas which you do not want to be viewed, or recorded. Up to 4 privacy areas are configurable.

PRIVACY	
MODE	◀ ON ▶
AREA 0	↵
AREA 1	↵
AREA 2	↵
AREA 3	↵
COLOR	◀ RED ▶
TRANSPARENCY	◀ OFF ▶
BACK	↵
EXIT	↵
SAVE & EXIT	↵

Figure 3-7 PRIVACY

Set the **MODE** to **ON**. Select a **PRIVACY** area, then set the X/Y position, and the size of the area according to your needs.

### 3.6 FACTORY DEFAULT

Reset all the settings to the factory default.

### 3.7 EXIT

Move the cursor to **EXIT** and click Iris+ to exit the menu.

### 3.8 SAVE & EXIT

Move the cursor to **SAVE & EXIT** and click Iris+ to save the settings, and exit the menu.