HIKVISION TurboHD H0T Series Bullet and Dome Camera User Manual

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TurboHD H0T Series Bullet and Dome Camera

TurboHD
HOT Series
Bullet and Dome Camera
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*** DS-2CE16HOT-ITF**
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*** DS-2CE16HOT-ITSF**
*** DS-2CE56HOT-VPITF**

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
Type I Camera	DS-2CE16HOT-ITF
Type II Camera	DS-2CE16HOT-IT3F
	DS-2CE16HOT-ITSF
Type III Camera	DS-2CES6HOT-VPITF

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Preface

1.1 Regulatory Information

111 FCCInformation

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.

112 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 mustaccept any interference received, including interference that may cause undesired operation.

1.13 EU Conformity Statement

CE 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

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.recyelethis.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, retum the battery to your supplier ortoa designated collection point. For more information see: **www.recyclethis.info**.

1.14 Industry Canada ICES-003 Compliance This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

115 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 occur if any of the warnings are neglected.

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

	
Warnings Follow these safeguards to prevent seri ous injury or death.	Cautions Follow these precautions to prevent potential injur y or material damage.

1.1.6  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 [EC60950-1 standard.
- Refer to technical specifications for detailed information.
- The camera is powered by the external DC power supply (12 VDC, 1 A) that complies with the LPS, and the output current of this external DC power supply must be no more than 6 A.
- 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.

117 A Cautions

- Do not drop the camera or subject it to physical shock.
- Do not touch senor modules with fingers.
- Do ot place the camera in extremely hot, cold (the operating temperature shall be -40° o 60° C), dusty or damp

locations, and do not expose it to high electromagnetic radiation.

- If cleaning is necessary, use a 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 sensor surface will not be exposed to the laser beam.
- Do not expose the device to high electromagnetic radiation or extremely hot, cold, dusty, or damp environments.
- To avoid heat accumulation, good ventilation is required for the operating environment.
- Keep the camera away from liquid while in use for non-waterproof devices.
- While in delivery, the camera shall be packed n its original packing, or packing of the same material.

1.1.8 MarkDescription

Table 0-1 Mark Description

Mark	Description
⎓	bCVoltage

Introduction

2.1 Product Features

The camera s applichle for both indoor and outdoor conditions, and the application scenarios include road, warehouse, underground parking lot, bar, etc.
The main features are as follows:

- High performance CMOS sensor
- IR cut filter with auto switch
- OSD menu with configurable parameters
- Auto white balance
- internal synchronization
- SMART IR mode
- 3-axis adjustment

2.2 Overview

22.1 Overview of Type | Camera

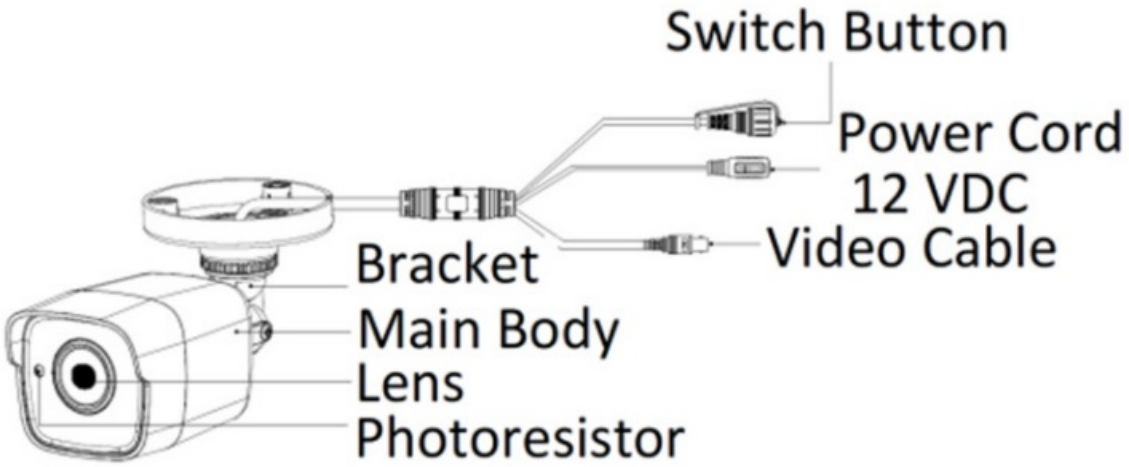


Figure 1 Overview of Type I Camera

Note:
To switch the video output, press and hold the switch button until the image tums black, then release.
Cycle through available types to return to the default HD-TVI output. Four kinds of video outputs are available: TVI, AHD, CVI, and CVBS.

222 Overview of Type II Camera

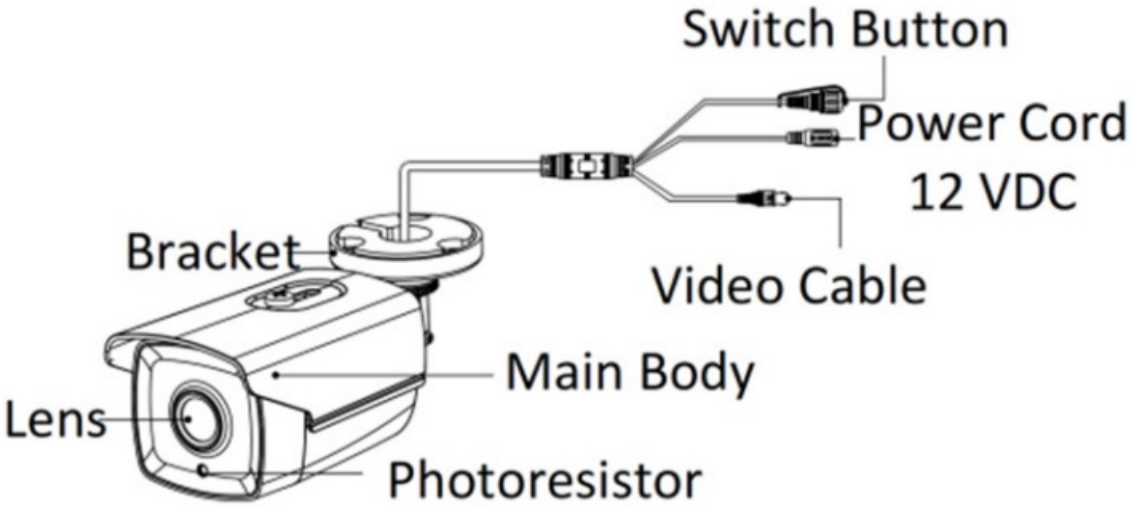


Figure 2 Overview of Type II Camera

Note:
To switch the video output, press and hold the switch button until the image tums black, then release.
Cycle through available types to return to the default HD-TVI output. Four kinds of video outputs are available: TVI, AHD, CVI, and CVBS.

223 Overview of Type III Camera

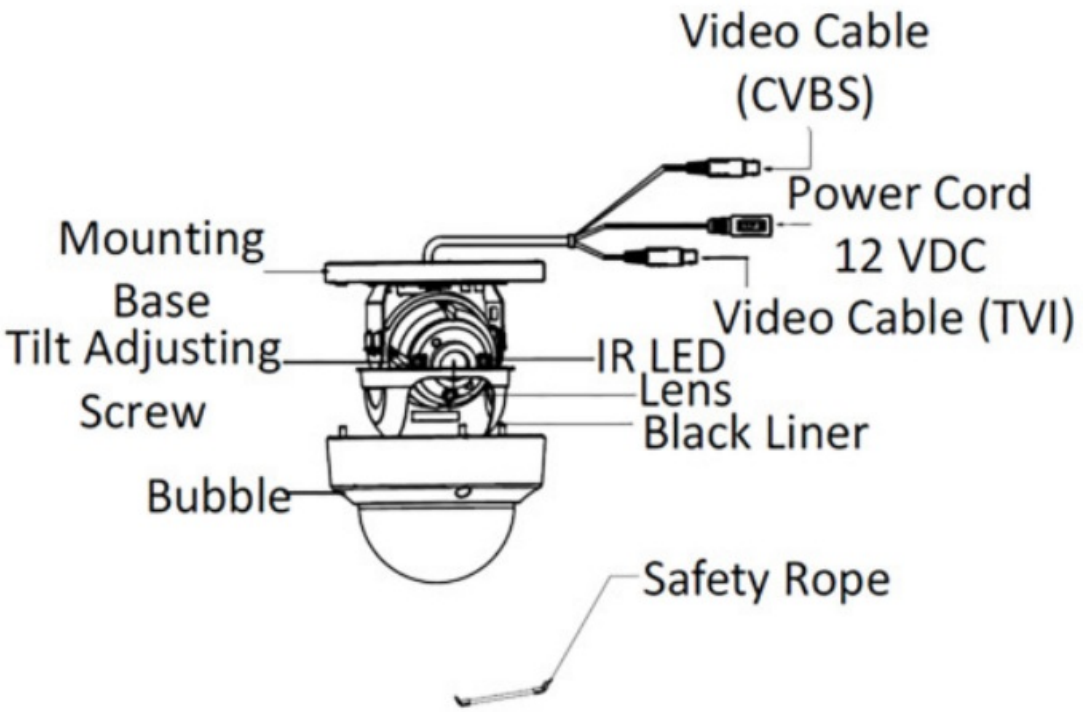


Figure 3 Overview of Type III Camera

Note:
To switch the video output, press and hold the switch button until the image tums black, then release.
Cycle through available types to return to the default HD-TVI output. Four kinds of video outputs are available: TVI, AHD, CVI, and CVBS.

Installation

Before you start:

- Make sure that the device in the package is in good condition and all the assembly parts areincluded.
- Make sure that all the related equipment is powered 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 the damage.
- Make sure the wall i strong enough to withstand three times the weight of the camera and the mount.
- If the wall is cement, insert expansion bolts before installing 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.

3.1 Installation of Type | Camera
311 Ceiling/Wall Mounting without Junction Box Steps:

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

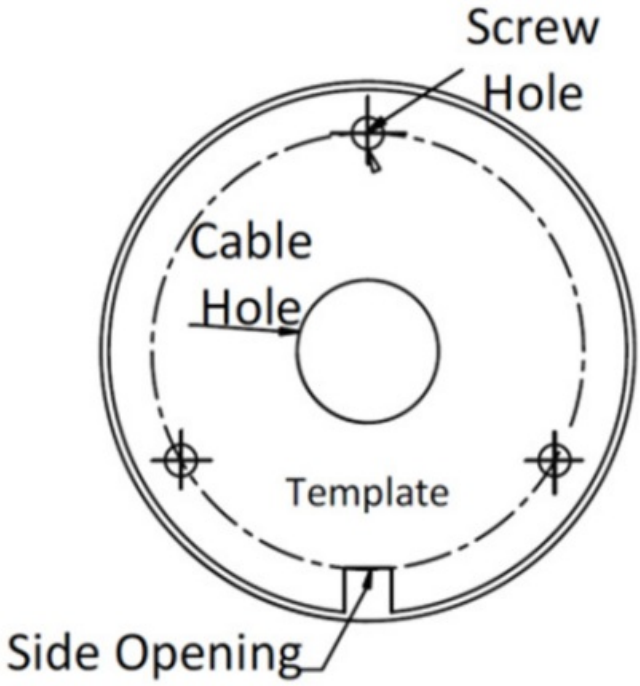


Figure 4 Drill Template

Note:

Drill the cable hole when using the ceiling outlet to route the cable.

3. Attach the bracket to the ceiling/wall and secure the camera with supplied screws.

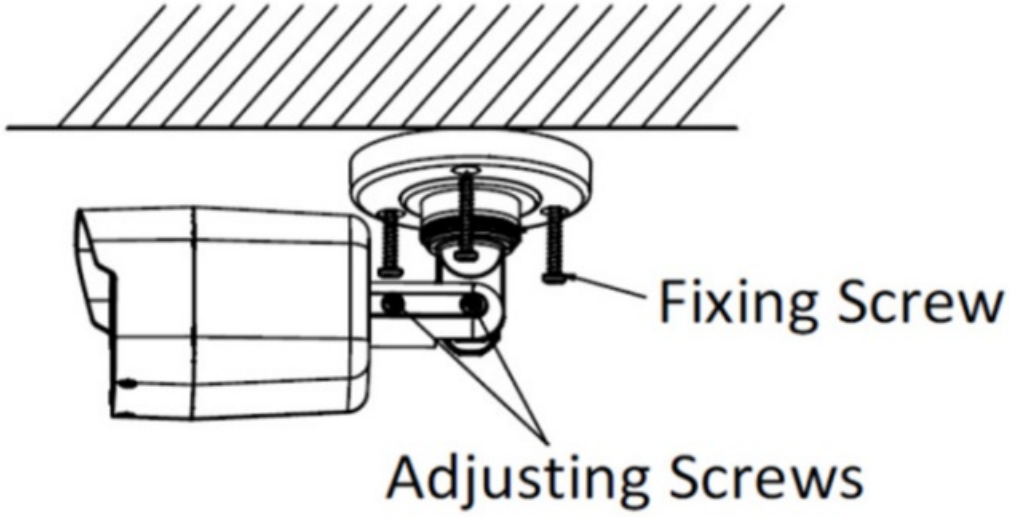


Figure 5 Fix the Camera to the Ceiling

Note:

The supplied screw package contains self-tapping screws and expansion bolts.

For a cement wall/ceiling, expansion bolts are required to fix the camera. For a wooden wall/ceiling, self-tapping screws are required.

4. Route the cables through the cable hole or the side opening.
5. Connect the corresponding power cord and video cable.
6. Power on the camera to checkif the image onthe monitor is at an optimum angle. If not, adjust the camera according to the figure below to get an optimum angle.

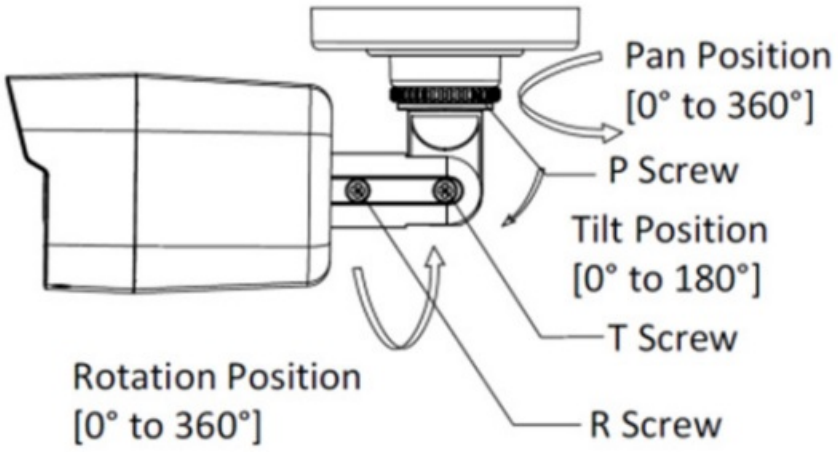


Figure 6 3-axis Adjustment

1). Loosen the P screw to adjust the pan position [0° to 360°]. Tighten the screw after completing the adjustment.

2). Loosen the T screw to adjust the tit position [0° to 180°]. Tighten the screw after completing the adjustment.

3). Loosen the R screw to rotate the camera [0° t0360°]. Tighten the screw after completing the adjustment.

312 Ceiling/Wall Mounting with Junction Box Before you start:

You need to purchase a junction box separately.
Steps:

1. Paste the drill template on the ceiling/wall.
2. Drillscrew holes and the cable hole in the ceiling/wall according to the holes of the drill template.

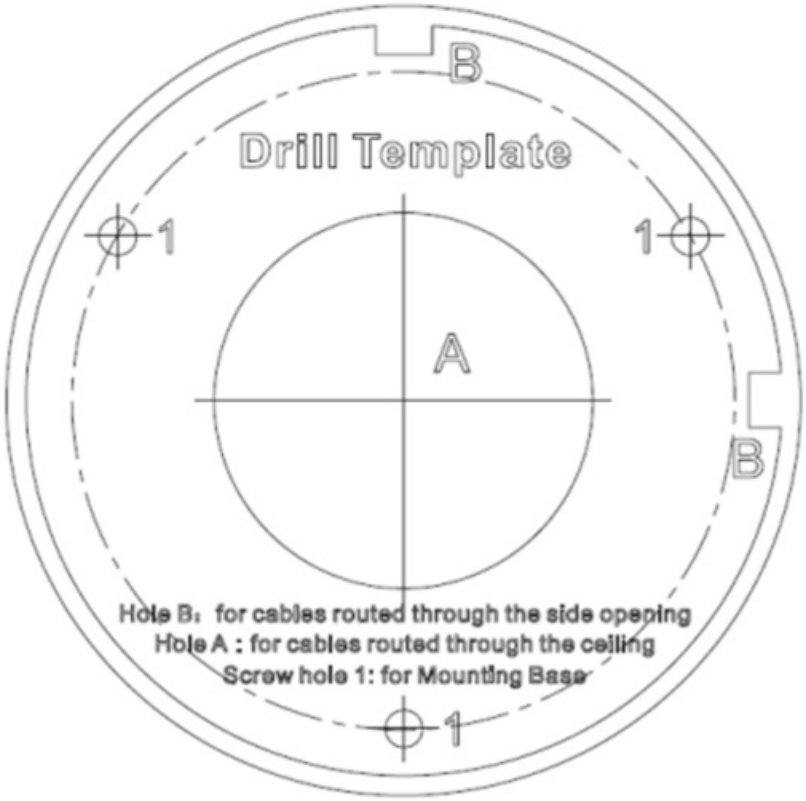


Figure 7 Junction Box Drill Template

3. Take apart the junction box, and align the screw holes of the bullet camera with those on the junction box cover.

4. Fixthe camera onto the junction box cover with supplied screws.

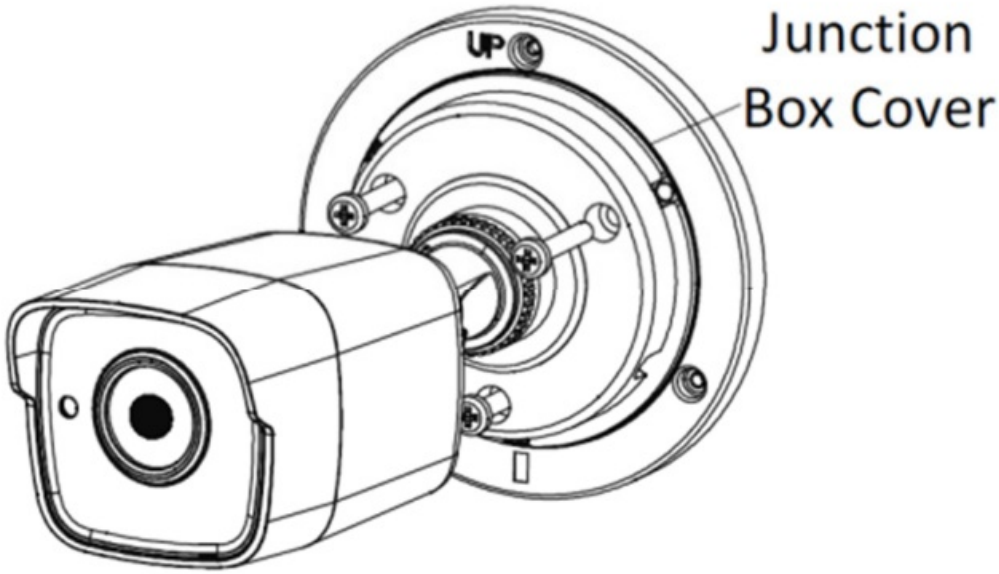
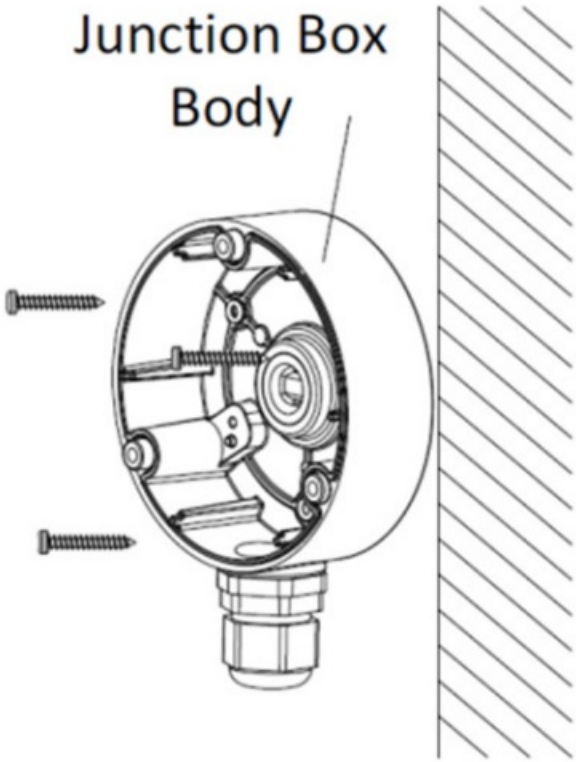


Figure 8 Fix the Camera on the Junction Box Cover

5. Align the junction box body to the ceiling/wall by using the junction box screw holes.
6. Securethe junction box body to the ceiling/wall with supplied screws.



7. Route the cables through the bottom cable hole or the side cable hole of the junction box.
8. Combine the junction box cover with its body.

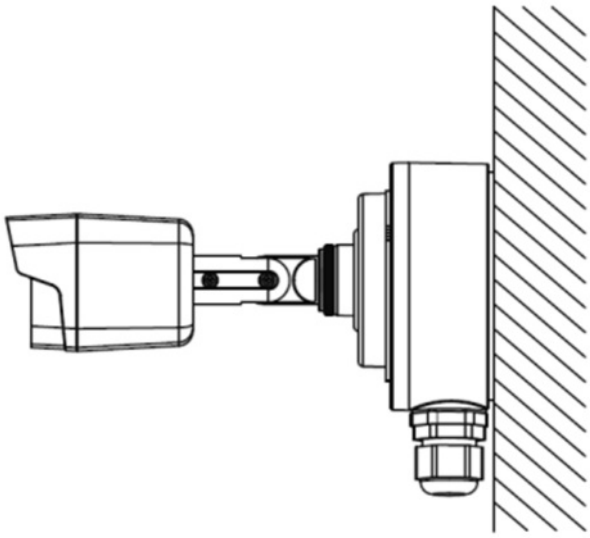


Figure 10 Fix Junction Box Cover to its Body

9. Repeatstep 5 and 6 of 2.1.1 Ceiling/Wall Mounting without Junction Box to complete the installation.

3.2 Installatn of Type II Camera
3.21 Ceiling/Wall Mounting without Junction Box
Steps:

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

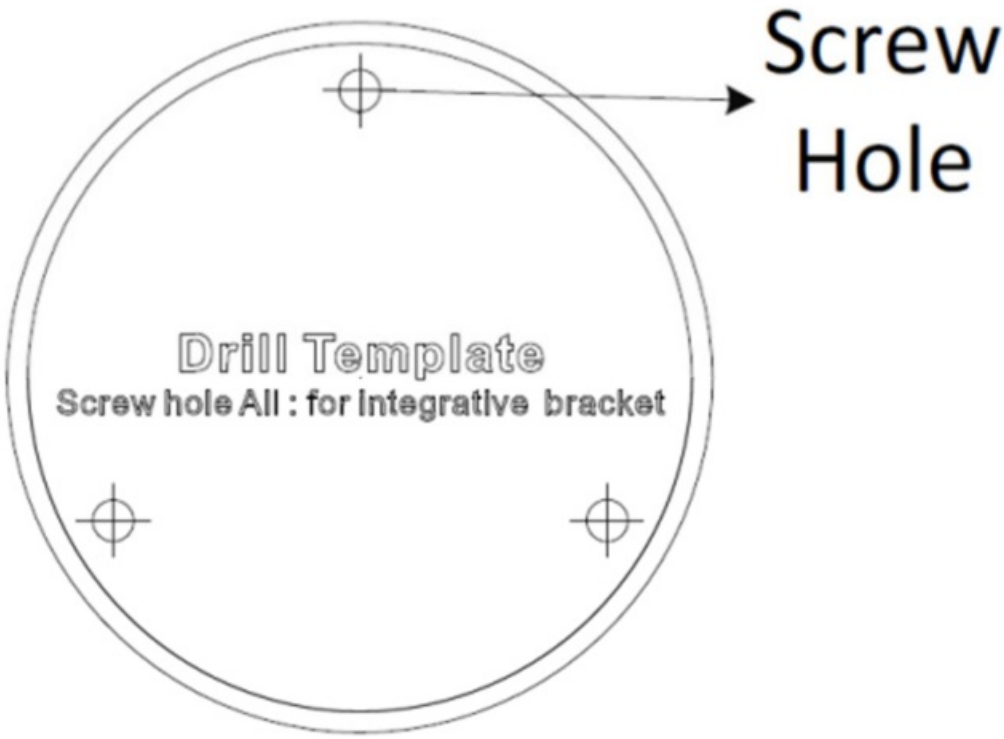


Figure 11 Drill Template

Note:

Drill the cable hole in the center of the drill template when using ceiling outlet to route the cable.

3. Route the cables through the cable hole (optional) or the side opening.
4. Fixthe camera to the ceiling with supplied screws.

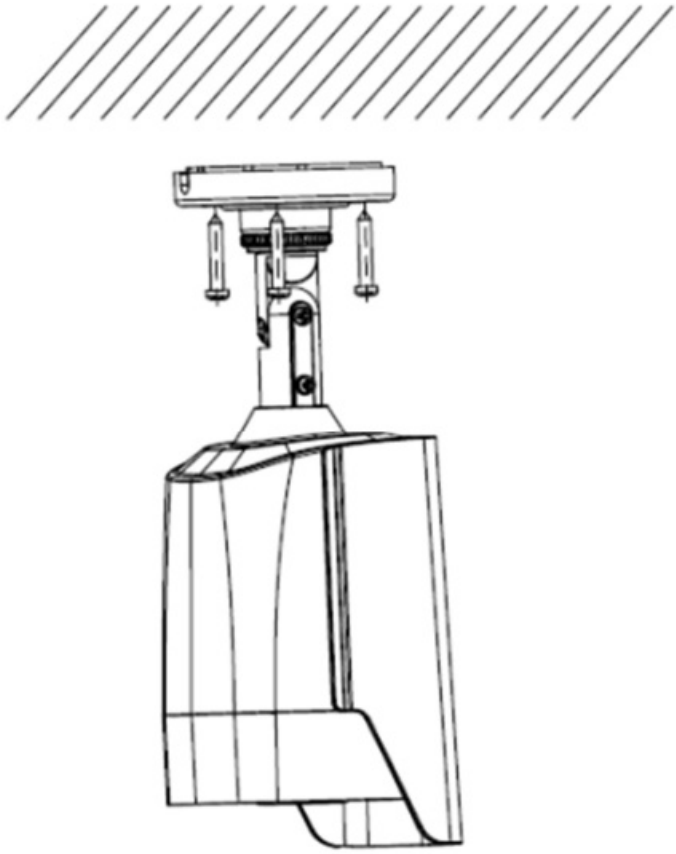


Figure 12 Fix the Camera to the Ceiling

Note:

The supplied screw package contains self-tapping screws, and expansion bolts.

For a cement wall/ceiling, expansion bolts are required to fix the camera. For a wooden wall/ceiling, self-tapping screws are required.

5. Connect the corresponding power cord and video cable.
6. Power on the camera to checkif the image on the monitor is at an optimum angle. If not, adjust the surveillance angle.

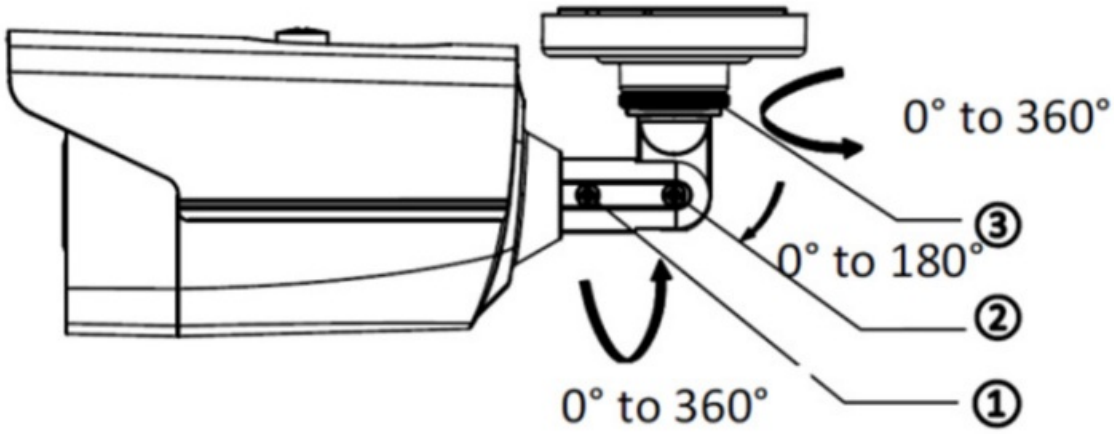


Figure 13 3-Axis Adjustment

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

2). Loosen the No.2 adjusting screw to adjust the tilting position [0° to 180°]. Tighten the.

No. 2 adjusting screw.

3). Loosen the No.3 adjusting screw to adjust the rotation position [0° to 360°]. Tighten the No.3 adjusting

screw.

3.2.2 Ceiling/Wall Mounting with Junction Box Before you start:
You need to purchase a junction box separately.
Steps:

1. Paste the drill template on the ceiling/wall.
2. Drill screw holes and the cable hole (optional) in the ceiling/wall according to the holes of the drill template.

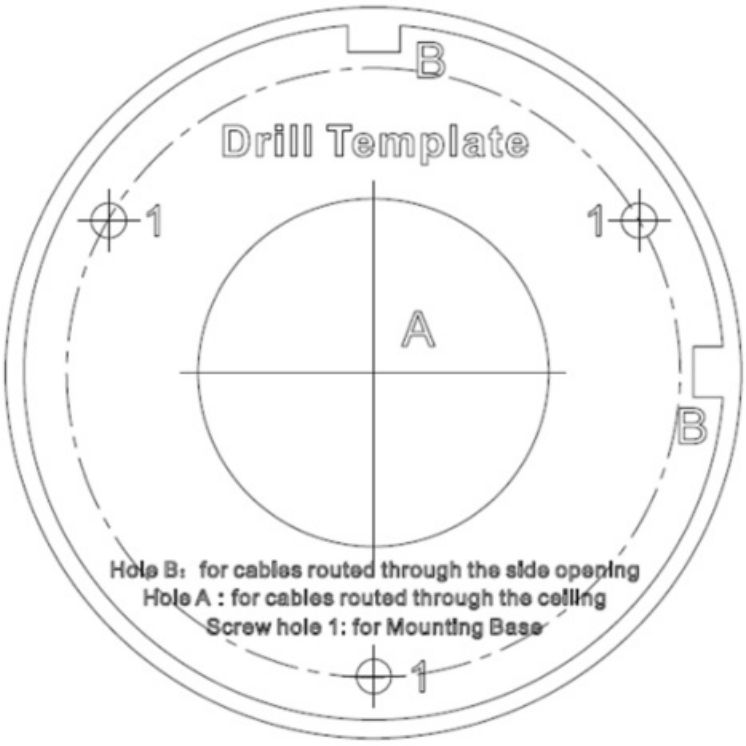


Figure 14 Drill Template

Note:

Drill the cable hole when using ceiling outlet to route the cable.

3. Takeapart the junction box, and align the screw holes of the bullet camera with those on the Junction box cover.
4. Fix the camera on the junction box cover with three supplied screws.
5. Secure the junction box body to the ceiling/wall with supplied screws.

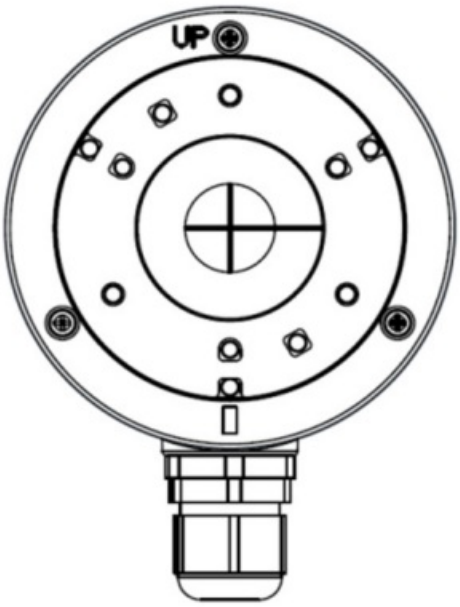


Figure 15 Install the Junction Box

6. Route the cables through the bottom cable hole or the side cable hole of the junction box.
7. Combine the junction box cover with its body with supplied screws on the junction box's cover.

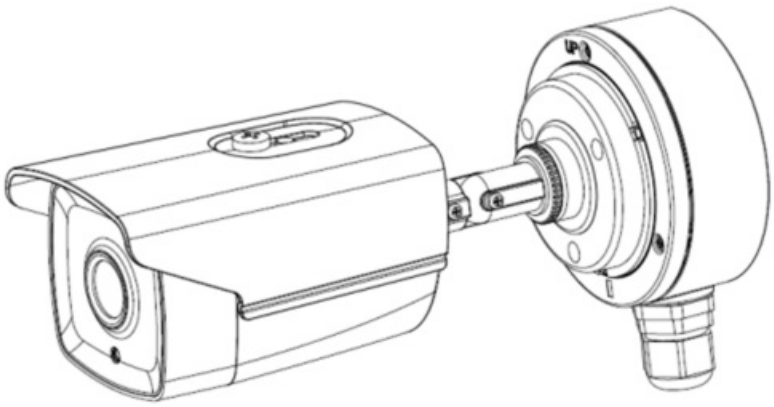


Figure 16 Attach the Junction Box Cover and Body

8. Repeat the steps 5 to 6 of 2.2.1 Ceiling/Wall Mounting without Junction Box to complete the installation.

3.3 Ceiling Mounting of Type III Camera
Steps:

1. Paste the dill template to the ceiling.
2. Drill the screw holes and cable hole (optional) in the ceiling according to the drill template.

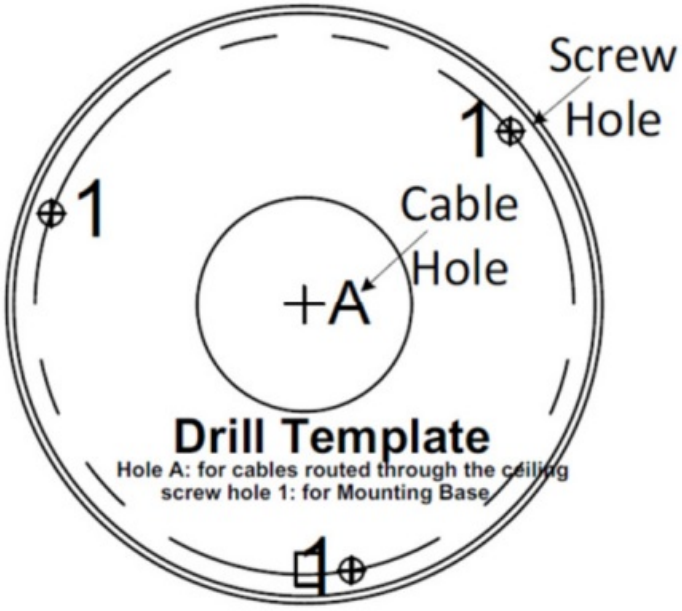


Figure 17 Drill Template

Note: Cable hole is required when using the ceiling outlet to route cables.

3. Loosen the set screws with a hex wrench (supplied) toremove the bubble.

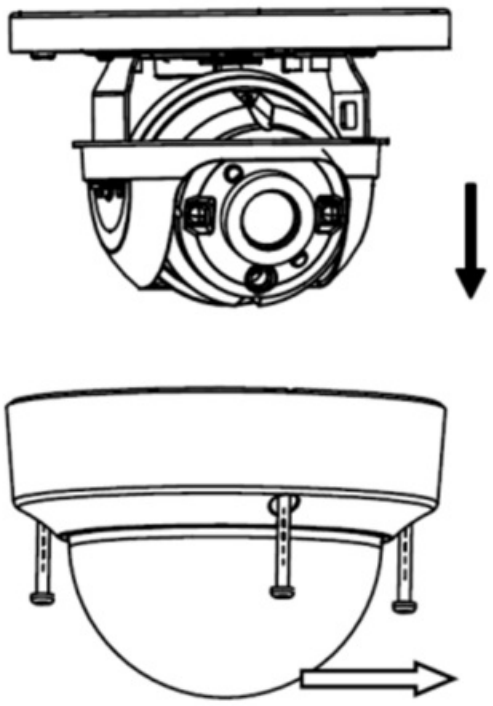


Figure 18 Remove the Bubble

4. Fix the mounting base on the ceiling with supplied screws.

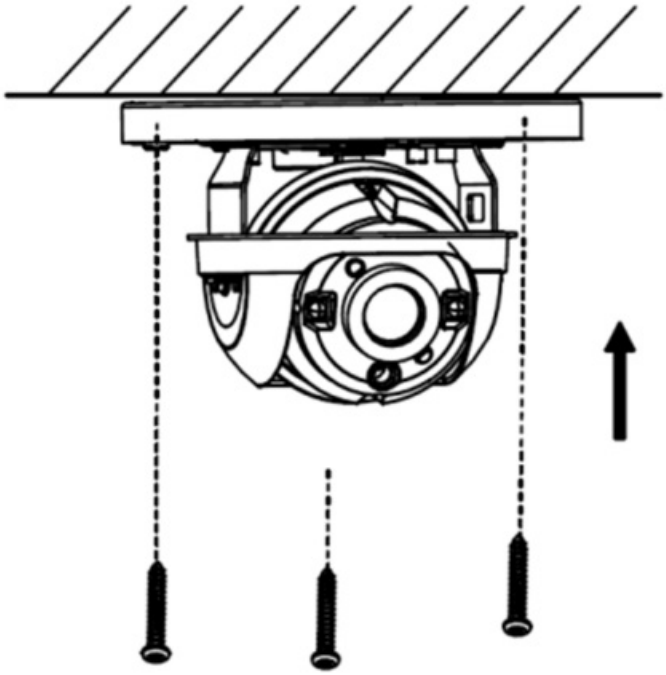


Figure 19 Fix the Mounting Base

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 checkif the image on the monitor is at an optimum angle. If not, adjust the camera according to the figure below o get an optimum angle.

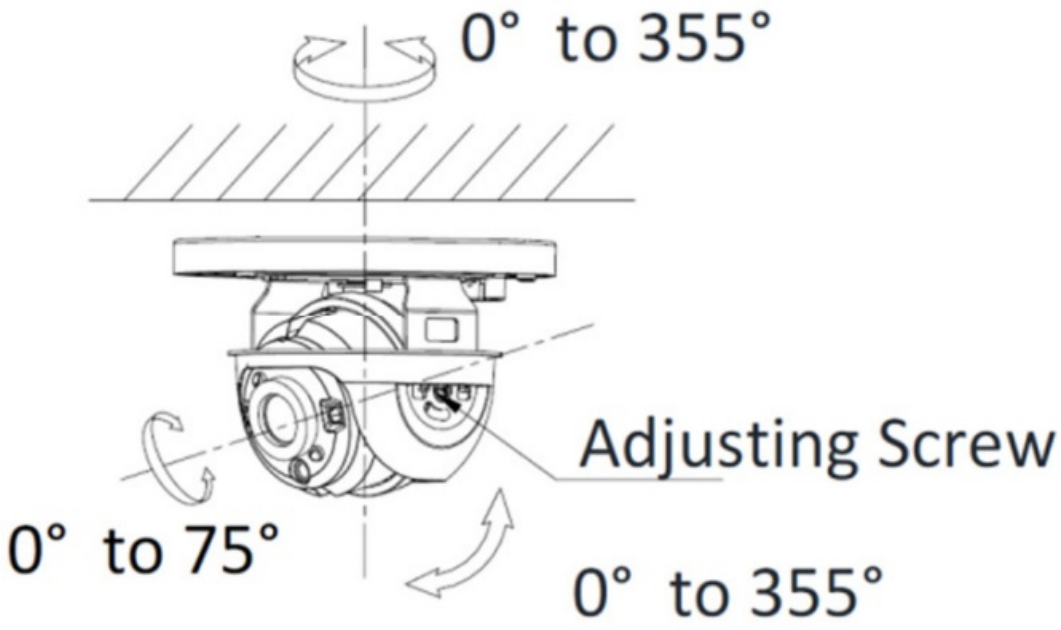


Figure 20 Type I Camera 2-Axis Adjustment

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. Reinstall the bubble, and tighten the screws.

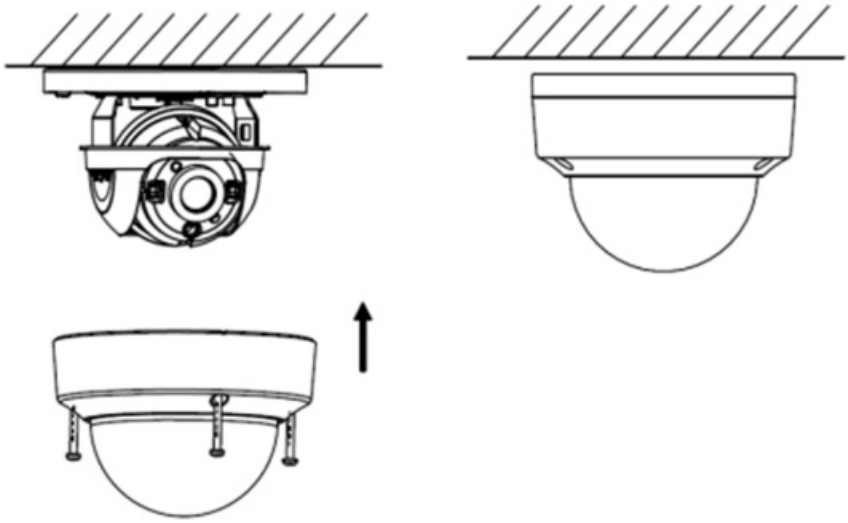


Figure 21 Bubble Reinstallation

Menu Description

Purpose:

Call the menu by clicking button on the PTZ Control interface, or call preset No.95.

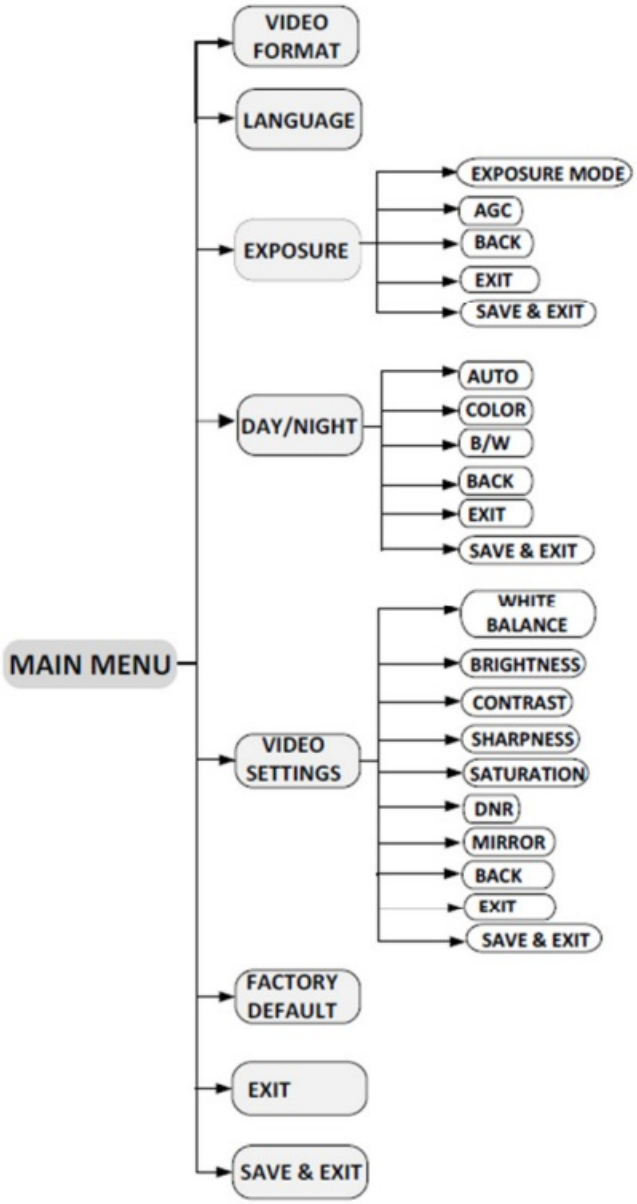


Figure 22 Main Menu Overview

Steps:

1. Connect the camera to the TVI DVR and the monitor, as shown below.

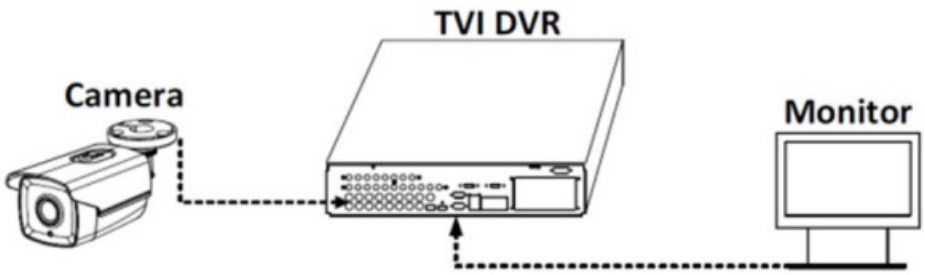


Figure 23 Connection

2. Power on the analog camera, TVI DVR, and 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 the [button, or call preset No. 95.
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.

4.1 VIDEO FORMAT

You can set the video format as 5 MP @ 20 fps, 4 MP @ 25 fps, 4 MP @ 30fps, 2 MP @ 25 fps, or 2 MP @ 30ps.

4.2 LANGUAGE

Supports English.

4.3 EXPOSURE

Exposure describes the brightness-related parameters, which can be adjusted by EXPOSURE MODE, and AGC.

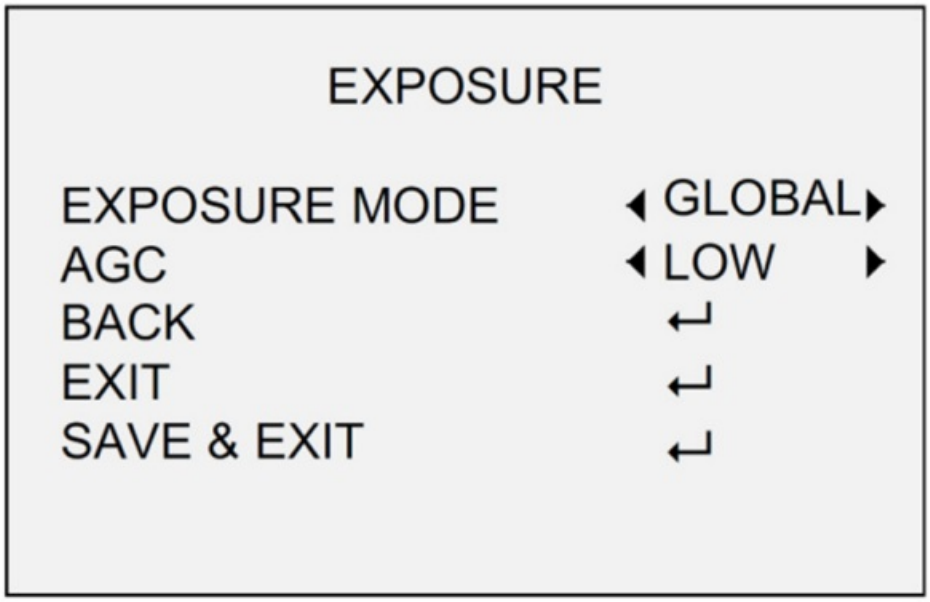


Figure 24 EXPOSURE

- EXPOSURE MODE

  You can set the EXPOSURE MODE as GLOBAL, BLC, and DWDR.

  – GLOBAL

  GLOBAL refers to the normal exposure mode, which performs exposure according to the whole image brightness.

  – BLC (Backlight Compensation)

  BLC (Backlight Compensation) compensates light for the front object to make it clear, but may cause overexposure of the background, where the light is strong.

  – DWDR (Digital Wide Dynamic Range)

  DWDR helps the camera provide clear images even under backlight circumstances. When both very bright and very dark areas simultaneously exist in the image, DWDR balances the brightness level of the whole image to provide clear images with details.

- AGC (Automatic Gain Control)

  Optimizes image clarity in poor light conditions.

  The AGC level can be set as HIGH, MEDIUM, or LOW. Select OFF to disable the AGC function.

  Note:

  The noise will be amplified when the AGCis ON.

  4.4 DAY/NIGHT

  COLOR, BW (Black White), and AUTO are selectable for DAY/NIGHT switch.

  COLOR

The image is colored in day mode all the time.

- B & W (Black and White)

  The image is black and white all the time, and the IR LIGHT turns on in the poor light conditions.

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

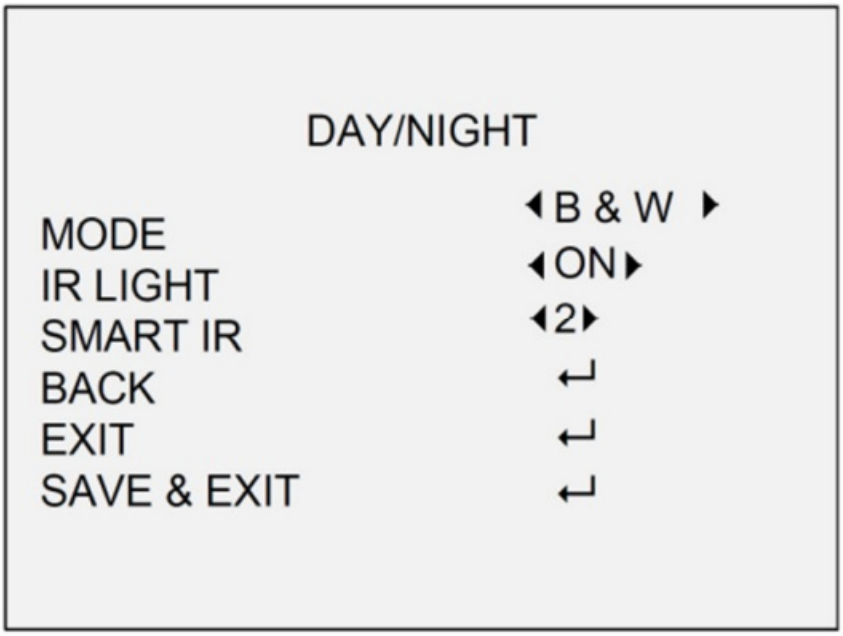


Figure 25 B&W

– IRLIGHT

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

– SMARTIR

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 1 to 3. The higher the value is, the more obvious effects are.

- AUTO

  Automatically switch Color, or BW (Black and White) according to actual scene brightness.

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

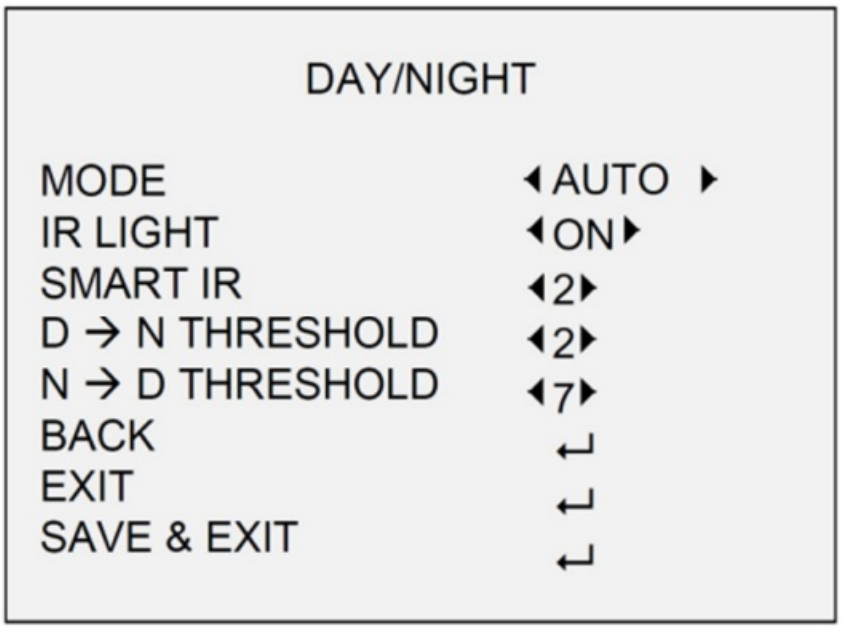


Figure 26 AUTO

– IRLIGHT

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

SMARTIR

The Smart IR function adjusts the light to its most suitable intensity and prevents the image from overexposure.

The SMART IR value can be adjusted from 1 to 3. The higher the value, the more obvious effects.

D→ NThreshold (Day to Night Threshold) Day to Night Threshold controls the sensitivity of switching the day mode to the night mode.

You can setthe value from 1 to 9. The larger the value, the more sensitive the camera.

N→ D Threshold (Night to Day Threshold) Night to Day Threshold controls the sensitivity of switching the night mode to the day mode.

You can setthe value from 1 to 9. The larger the value, the more sensitive the camera.

4.5 VIDEO SETTINGS

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

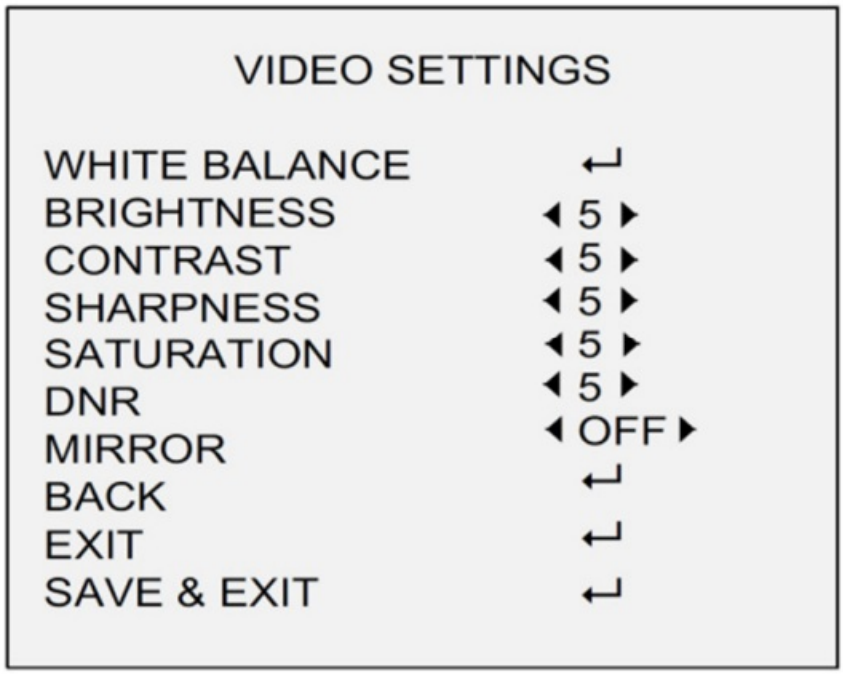


Figure 27 VIDEO SETTINGS

45.1 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 the mode as AUTO or MANUAL.

- AUTO

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

  You can set the R GAIN/B GAIN value from 1to 255 to adjust the image’s red/blue shades.

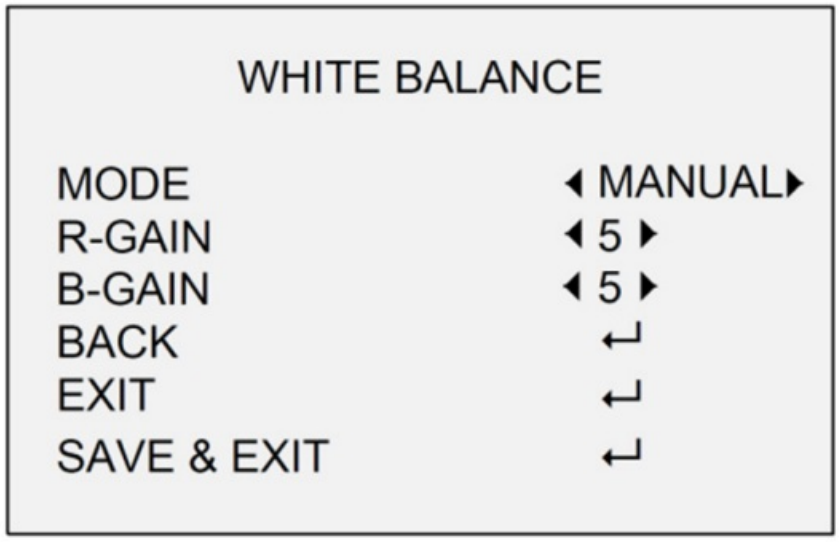
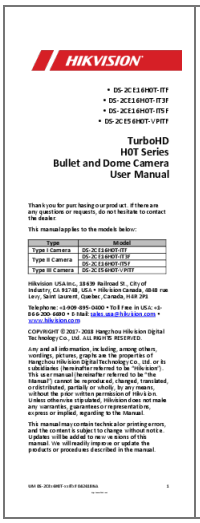


Figure 28 MANUAL MODE

4.5.2 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 higher the value, the brighter the image.
453 CONTRAST
This feature enhances the difference in color and light between parts of an image. You can set the CONTRAST value from 1t 9.
454 SHARPNESS
Determines the amount of detail the imaging system can reproduce. You can set the SHARPNESS value from1to9.

45.5 SATURATION
Adjust this feature to change the color saturation.
The value ranges from 1t0 9.
456 DNR (Digital Noise Reduction)
The DNR function can decrease the noise effect, especially when capturing moving images in poor light conditions and deliver more accurate and sharp images. You can set the DNR value from 1 to 9.
457 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.
45.8 FACTORY DEFAULT
Move the cursor to FACTORY DEFAULT and click lIris+ toresetall the settings to the factory default.
459 EXIT
Move the cursor to EXIT and click Ifis+ to exit the menu without saving.
4.5.10 SAVE & EXIT
Move the cursor to SAVE & EXIT and click Iris+ to save the settings, and exit the menu.

Documents / Resources



HIKVISION

- DS-2CE16H0T-ITF
- DS-2CE16H0T-IT3F
- DS-2CE16H0T-IT5F
- DS-2CE56H0T-VPITF

TurboHD
H0T Series
Bullet and Dome Camera
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
Type I Camera	DS-2CE16H0T-ITF
Type II Camera	DS-2CE16H0T-IT3F
	DS-2CE16H0T-IT5F
Type III Camera	DS-2CE56H0T-VPITF

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

[HIKVISION TurboHD H0T Series Bullet and Dome Camera] [pdf] User Manual
DS-2CE16H0T-ITF, DS-2CE16H0T-IT3F, DS-2CE16H0T-IT5F, DS-2CE56H0T-VPITF, TurboHD H0T Series Bullet and Dome Camera, TurboHD H0T Series, Bullet and Dome Camera, Dome Camera, Camera

References

- Hikvision USA - Leading the future of AIoT
- HOME
- Manual-Hub.com - Free PDF manuals!
- User Manual