

HD-TVI Dome Camera User Guide



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GD-CT-AP2837V

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UG-GD-CT-AP2837V-2019-03-29-V3-EN ©ABETECHS GMBH, DÜSSELDORF, GERMANY

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Introduction

Please read these instructions carefully and keep them for future reference. You must heed all the warnings and cautions as well as follow all the safety and installation instructions. The appearance of the products, functions and firmware or software upgrade may differ from this manual.

GRUNDIG reserves the right to perform needed changes without prior notice.

Safety Instructions

Make sure that you only use the power adapter that is specified in the specifications sheet of the product. If you use any other adapter or connect the power supply incorrectly, this may cause explosion, fire, electric shocks or damage the product.

Do not connect several devices to one power adapter as this may cause an adapter overload and can lead to over-heating and fire. Make sure that the plug of the power adapter is firmly connected to the power socket.

Do not place containers with liquids on the product. Do not place conducting items like tools, screws, coins or other

metal items on the product. These may fall from the product or can cause fire or electric shocks or other physical injuries.

Do not push or insert any sharp items or any objects into the device as this may cause damage to the product, fire, electric shocks and/or physical injuries.

Do not block any ventilation openings, if there are any. Ensure that the product is well ventilated to prevent any over-heating. Do not subject the device to physical shock or drop the product.

If the product uses batteries, please use a battery type that is recommended by the manufacturer. Improper use or replacement of the battery may result in the hazard of explosion.

Do not use any accessories that are not recommended by GRUNDIG. Do not modify the product in any way.

If the product starts to smell or smoke comes out of the device, immediately stop using the product and disconnect it from the power supply to prevent fire or electric shocks. Then contact your dealer or the nearest service center.

If the product does not work correctly, contact your dealer or nearest service center. Never open, disassemble or alter the product yourself. GRUNDIG cannot accept any liability or responsibility for problems caused by attempted and unauthorized repair and maintenance.

Installation Instructions

It is necessary to fix the device firmly if the product is installed on a wall or ceiling.

Do not install the product on surfaces or in places that are vibrating.

Do not install the product near radiation sources.

Do not install the product near heat sources, like radiators or other equipment that produces some heat.

If the product is not classified by any IP class, do not install the product in very cold or hot temperatures (please refer to the working temperature specified in the specification sheet of the product), dusty, dirty or damp environment.

If the product is classified by any IP class, never touch the product cover directly with your fingers, because the acidic sweat of the fingers may damage the surface coating of the product cover. To clean the inside and outside of the product cover, use a soft and dry cloth. In any case, do not use alkaline detergents. The correct configuration of all passwords and other security settings is the sole responsibility of the installer and/or end-user (this applies especially to IP Cameras and Recorders).

Special Installation Instructions for Cameras

Do not touch the sensor module with your fingers.

Do not aim the camera or camera lens at a strong light such as the sun or a bright lamp. Irreversible damage to the camera can be caused by a strong light.

Do not expose the sensor of the product to laser beams as this may damage the sensor. If the product supports IR, you need to take some precautions to prevent IR reflection. Do not install the product close to reflective surfaces of objects as this may cause reflection. If the product has a dome cover, please remove the protection film only after installation to prevent dust or grease on the camera which can cause 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 the

camera body so that the foam ring and the dome cover are attached seamlessly. For cleaning use a clean cloth with a bit of ethanol and wipe it carefully and gently. In any case do not use alkaline detergents. If a glove is provided in the package, please use it to open the product cover. Never touch the product cover directly with fingers, because the acidic sweat of the fingers may damage the surface coating of the product cover.

1 INTRODUCTION

The camera is applicable 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
- Low illumination, 0.005 Lux @ (F1.8, AGC ON), 0 Lux with IR
- IR cut filter with auto switch
- OSD menu with configurable parameters
- Auto white balance
- Internal synchronization
- SMART IR mode
- PoC (with -E)
- 3-axis adjustment

1.2 Overview

Before you start:

The cables of device vary according to different models. The cables of each type are shown in the figures below, refer to the actual sample. You can debug the camera by connecting an auxiliary HD TVI cable to the auxiliary video output.

1.2.1 Overview of Type I Camera

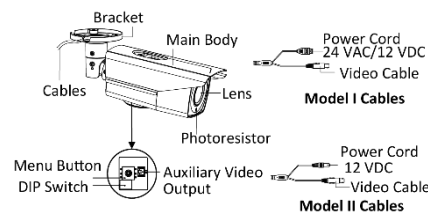


Figure 1-1 Overview of Type I Camera

1.2.2 Overview of Type II Camera

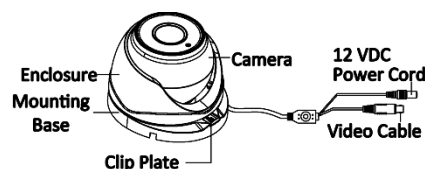


Figure 1-2 Overview of Type II Camera

2 INSTALLATION

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 power 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 made of cement, you need to insert expansion screws before you install the camera.

If it is a 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 Installation of Type I Camera

2.1.1 Ceiling/Wall Mounting without Junction Box

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. And you can take steps of ceiling mounting as a reference for wall mounting.

Steps:

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

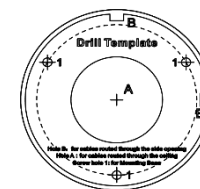


Figure 2-1 Drill Template

NOTE

- Drill the cable hole, when adopting ceiling outlet to route the cable.
3. Route the cables through the cable hole, or the side opening.
 4. Fix the camera to the ceiling with supplied screws.

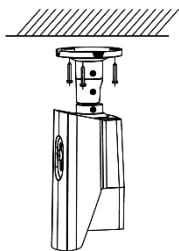


Figure 2-2 Fix the Camera to the Ceiling

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. 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 surveillance angle.

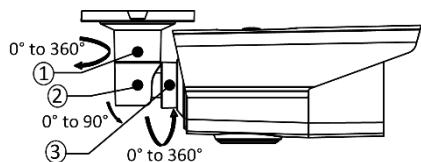


Figure 2-3 3-axis Adjustment

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 90°]. 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.

2.1.2 Ceiling/Wall Mounting with Junction Box

Before you start:

You need to purchase a junction box separately.

Steps:

1. Paste the junction box's 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.

NOTE

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

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

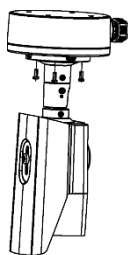


Figure 2-4 Fix the Camera with the Gang Box

5. Attach the junction box's body to the ceiling/wall by aligning the screw holes of the junction box.

6. Secure the junction box's body with supplied screws on the ceiling/wall.

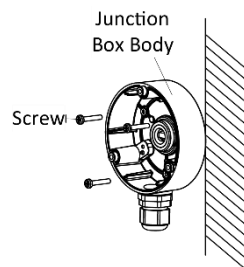


Figure 2-5 Fix the Camera to the Ceiling

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

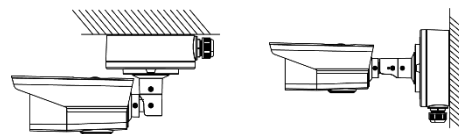


Figure 2-6 Fix the Junction Box Cover back to its Body

9. Refer to step 6 of 2.1.1 Ceiling/Wall Mounting without Junction Box to complete the installation.

2.2 Installation of Type II Camera

2.2.1 Ceiling/Wall Mounting without Junction Box

Steps:

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

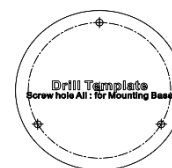


Figure 2-7 Drill Template

NOTE

- Drill the cable hole, when adopting the ceiling outlet to route the cable.
3. Loosen screws to remove the clip plate, and take out the main body.

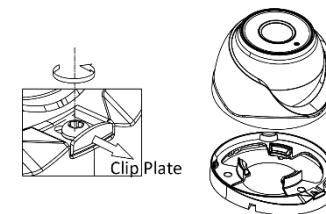


Figure 2-8 Remove the Clip Plate

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

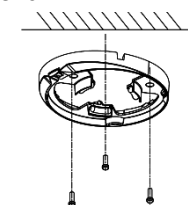


Figure 2-9 Fix the Mounting Base on the Ceiling

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, or the side opening.
 6. Install the main body to the mounting base and insert the clip plate.

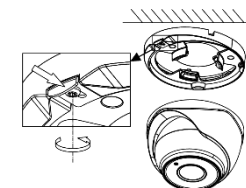


Figure 2-10 Install the Turret Camera

7. Tighten the screws with the screw driver.
8. Connect the corresponding cables, such as power cord, and video cable.

9. 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.

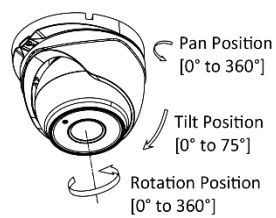


Figure 2-11 3-axis Adjustment

- 1). 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°].

2.2.2 Ceiling/Wall Mounting with Junction Box

Before you start:

You need to purchase a junction box separately.

Steps:

- 1. Paste the junction box's 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 2-12 Drill Template of the Junction Box

NOTE

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

- 3. Refer to step 3 of 2.2.1 Ceiling/Wall Mounting without Junction Box to take out the camera's main body.
- 4. Take apart the junction box, and align the screw holes of the camera with those on the junction box's cover.
- 5. Fix the camera's mounting base on the junction box's cover with three PM4 × 10 screws.

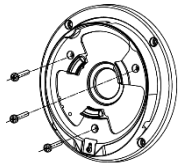


Figure 2-13 Secure Screws on Junction Box's Cover

- 6. Secure the junction box's body on the ceiling/wall with four PA4 × 25 screws.

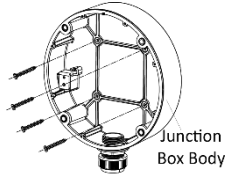


Figure 2-14 Secure the Junction Box's Body on Wall /Ceiling

- 7. Combine the junction box cover with its body by tightening four screws on junction box's cover.

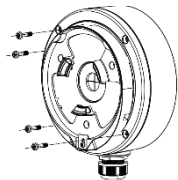


Figure 2-15 Fix the Gang Box

- 8. Repeat steps 5 to 9 of 2.2.1 Ceiling/Wall Mounting without Junction Box to complete the installation.

3 MENU DESCRIPTION

Purpose:

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

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 analog 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.

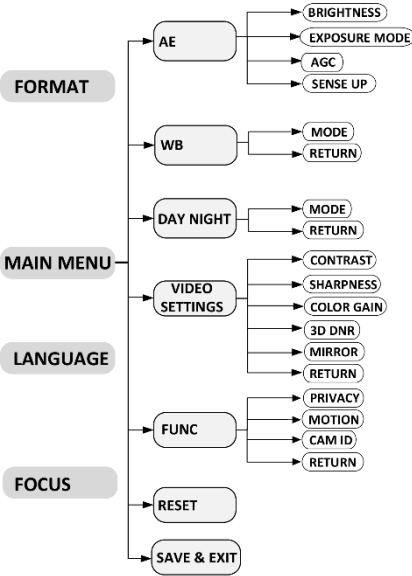


Figure 3-2 Main Menu Overview

- 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

PAL (Phase Alternating Lines)

PAL is a color encoding system for analog television used in broadcast television systems in most countries.

NTSC: (National Television System Committee)

NTSC is the analog television system that is used in most of North America, parts of South America, Myanmar, South Korea, etc.

3.2 LANGUAGE

Supports English, and Chinese.

3.3 FOCUS

Move the cursor to **FOCUS**, and press the **Iris+** to enter the submenu. Click **FOCUS+**, **FOCUS-**, **ZOOM+**, and **ZOOM-** to adjust the focus

3.4 MAIN MENU

3.4.1 AE (AUTO EXPOSURE)

Auto Exposure describes the brightness-related parameters, which can be adjusted by **BRIGHTNESS**, **EXPOSURE MODE**, **AGC**, and **SENSE UP**.

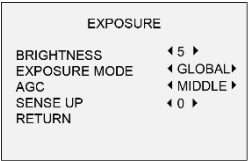


Figure 3-3 AE

BRIGHTNESS

Brightness refers to the brightness of the image.

You can set the brightness value from 1 to 10 to darken or brighten the image. The higher the value, the brighter the image is.

EXPOSURE MODE

You can set the **EXPOSURE MODE** as **GLOBAL**, **BLC**, and **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. When BLC is selected as the exposure mode, the BLC level can be adjusted from 0 to 8.

• WDR (Wide Dynamic Range)

The wide dynamic range helps the camera provide clear images even under backlight circumstances. WDR balances the brightness level of the whole image and provides clear images with details.

AGC (Auto Gain Control)

It optimizes the clarity of the image in poor light conditions. The **GAIN** level can be set as **HIGH**, **MIDDLE**, or **LOW**. Select **OFF** to disable the **GAIN** function.

NOTE

The noise will be amplified when the GAIN is on.

SENSE UP

Sense up increases the exposure on a signal frame, which makes a camera more sensitive to light so it can produce images even in low lux conditions. You can set the SENS-UP as OFF or AUTO according to different light conditions. The SENS-UP function will atomically adjust itself to x2, x4, x6, x8, x10, x12, x14, and x16 according to the different light conditions.

3.4.2 WB (White Balance)

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

ATW (Aoto Tracking White Balance)

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

MWB (Manual White Balance)

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

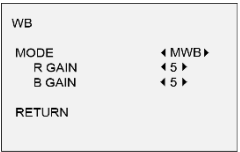


Figure 3-4 MWB MODE

3.4.3 DAY NIGHT

Color, **BW** (Black White), and **AUTO** are selectable for DAY and NIGHT switches.

COLOR

The image is colored in day mode all the time.

B/W

The image is black and white all the time, and the IR LED turns on in the low-light conditions.

AUTO

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

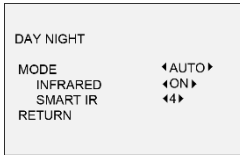


Figure 3-5 DAY NIGHT

• INFRARED

You can turn on/off the IR LED 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 1 to 8. The higher the value the more obvious effects are.

3.4.4 VIDEO SETTING

Move the cursor to **VIDEO SETTING** and click **Iris+** to enter the submenu. **CONTRAST**, **SHARPNESS**, **COLOR GAIN**, **3D DNR**, and **MIRROR** are adjustable.

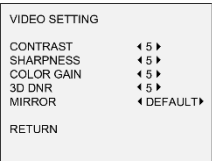


Figure 3-6 VIDEO SETTING

CONTRAST

This feature enhances the difference in color and light between parts of an image. You can set the **CONTRAST** value from 1 to 10.

SHARPNESS

Sharpness determines the amount of detail an imaging system can reproduce. You can set the **SHARPNESS** value from 1 to 10.

COLOR GAIN

Adjust this feature to change the saturation of the color. The value ranges from 1 to 10.

3D DNR (Digital Noise Reduction)

The 3D DNR function can decrease the noise effect, especially when capturing moving images in low light conditions and delivering more accurate and sharp image quality. You can set the **DNR** value from 1 to 10.

MIRROR

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

DEFAULT: 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.

3.4.5 FUNC (Functions)

In the FUNC sub-menu, you can set the privacy mask, the motion detection, and camera ID of the camera.

PRIVACY

The privacy mask allows you to cover certain areas which you don't want to be viewed or

recorded. Up to 4 privacy areas are configurable.

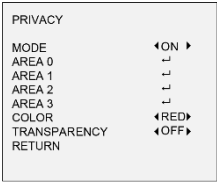


Figure 3-7 PRIVACY

Select a PRIVACY area. Set the DISPLAY status as ON. Click up/down/left/down button to define the position and size of the area.

MOTION

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.

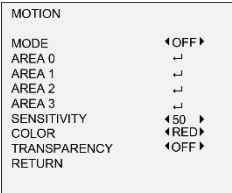


Figure 3-8 MOTION

Select a MOTION area. Set the DISPLAY status as ON. Click the up/down/left/right button to define the position and size of the area.

Set the SENSITIVITY from 0 to 100.

CAMERA ID

Edit the camera ID on this section.

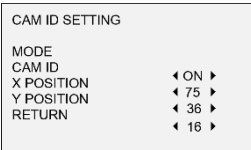


Figure 3-9 CAM ID SETTING

Set the MODE as on. Click up/down left/right button to choose the camera ID and the position.

3.4.6 RESET

Reset all the settings to the default.

3.4.7 SAVE & EXIT

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

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