



User Guide

GD-CT-AC2105B

EN

grundig-security.com

GRUNDIG

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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

1.1 Product Features

The main features are as follows:

- High performance CMOS sensor
- IR cut filter with auto switch;
- OSD menu, parameters are configurable;
- Auto gain control
- true WDR
- Control over coaxial

1.2 Overview

1.2.1 Overview of Camera

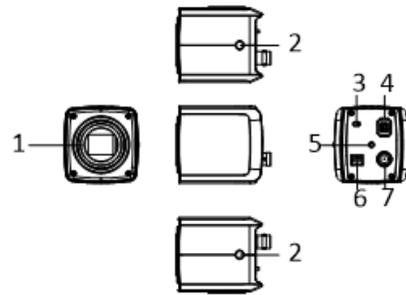


Figure 1-1 Overview of the Camera

Table 1-1 Box Camera Description

No.	Description	No.	Description
1	Lens Interface	2	Lock Screw
3	Dial Switch	4	Lens Socket
5	GND	6	Power Interface
7	Video Interface		

2 Installation

2.1 Installing the lens

Before you start:

You should purchase a lens first.

Steps:

1. Rotate the lens clockwise onto the camera module tightly.

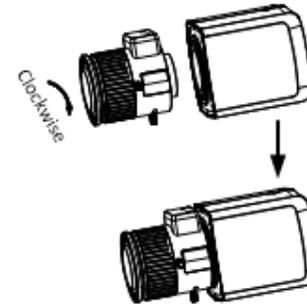


Figure 2.1 Installing the lens

2. Insert the cable attached on the lens to the lens socket to finish the lens installation.
3. Connect the corresponding power cord and video cable.
4. Power on the camera to view the image on the monitor.

Note:

Do not pull out the cable attached on the lens when the power is on.

3 Menu Description

Follow the steps below to call the menu.

Steps:

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

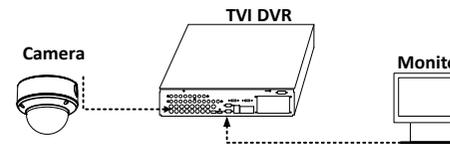


Figure 3-1 Connection

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. The PTZ-protocol must be set to "GRUNDIG-C".
4. Call the camera menu by clicking the  button, or call the preset No. 95.

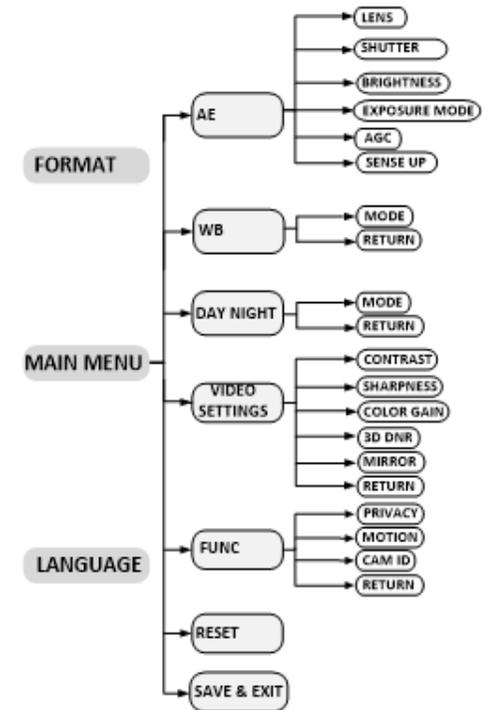


Figure 3-2 Main Menu Overview

5. Click the direction arrow to control the camera.

(1) Click the up/down direction button to select the item.

(2) Click Iris + to confirm the selection.

(3) Click the left/right direction button to adjust the value of the selected item.

3.1 FORMAT

Set the format to PAL or NTSC.

3.2 Main Menu

3.2.1 AE (Auto Exposure)

Auto Exposure describes the brightness-related parameters, which can be adjusted by **LENS**,

SHUTTER, BRIGHTNESS, EXPOSURE MODE, AGC, and SENSE UP.

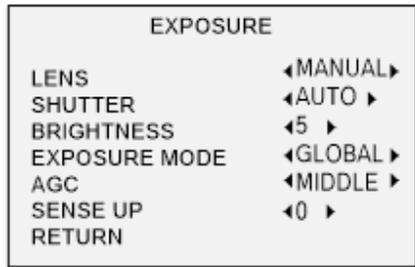


Figure 3-3 AE

LENS

MANUAL and **DC** modes are selectable. **MANUAL**: You can control iris manually. **DC**: Iris is automatically controlled.

SHUTTER

Shutter denotes the speed of the shutter. Under the **MANUAL** mode of **LENS**, only **AUTO** is available, which means the shutter speed is controlled automatically.

PAL: Under the **DC** mode of **LENS**, 1/25 s, 1/50 s, FLK 1/200 s 1/400 s, 1/1K s, 1/2K s, 1/10K s, and 1/50K s are available.

NTSC: Under the **DC** mode of **LENS**, 1/30 s, 1/60 s, FLK, 1/240s, 1/480 s, 1/1K s, 1/2K s, 1/10K s, and 1/50K s.

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 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 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 provides 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.

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 automatically adjust itself to x2, x4, x6, x8, x10, x12, x14, and x16 according to the different light conditions.

3.2.2 WB (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 **WB** mode as **ATW**, or **MWB**.

• **ATW (Auto 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.

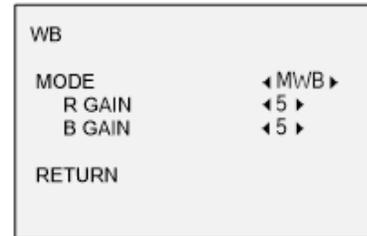


Figure 3-4 MWB Mode

3.2.3 Day Night

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



Figure 3-5 Day Night

COLOR

The image is colorful in day mode all the time.

B&W

The image is black and white all the time.

AUTO

Automatically switch **Color**, or **B&W** (Black and White) according to actual scene brightness.

3.2.4 VIDEO SETTINGS

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

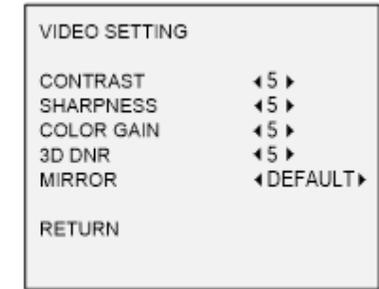


Figure 3-6 Video Setting

CONTRAST

This feature enhances the difference in color and light between parts of an image.

SHARPNESS

Sharpness determines the amount of detail an imaging system can reproduce.

COLOR GAIN

Adjust this feature to change the saturation of the color.

3D DNR

The **3D DNR** function can decrease the noise effect, especially when capturing moving images in poor light conditions and is delivering a more accurate and sharper image.

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.

3.2.5 FUNCTIONS

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

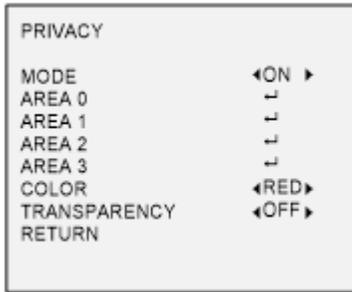


Figure 3-7 Privacy

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.

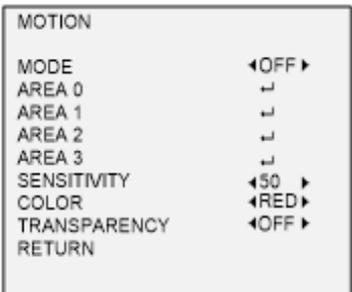


Figure 3-8 Motion

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.

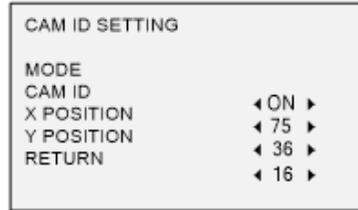


Figure 3-9 Cam ID Setting

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

DPC (Defective Pixel Correction)

Defective pixels are pixels in a CMOS image sensor fail to sense light levels correctly. This series of camera supports defective pixel correction.

Set the mode as **ON** to enable this function, and **OFF** to disable the function.

3.3 RESET

Reset all the settings to factory default.

3.4 SAVE & EXIT

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