

FOR A GOOD **REASON** **GRUNDIG**

Owner's Manual



Cameras & Domes

GCA-B3323V 1/3" CCD Col/B&W Fixed Dome Camera

GCA-B3326V 1/3" CCD Col/B&W Fixed Dome Camera w/ IR LED

GCA-B3323V.42.1.09.02.2012

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1. Available Versions

These instructions apply to the following products. For the different properties of the products please refer to the table.

	Day/Night	LED	WDR
GCA-B3323V	ICR	-	-
GCA-B3326V	ICR	✓	-

2. Important Safety Instructions

Be sure to use only the standard adapter that is specified in the specification sheet. Using any other adapter could cause fire, electrical shock, or damage to the product. Incorrectly connecting the power supply or replacing battery may cause explosion, fire, electric shock, or damage to the product. Do not connect multiple products to one single adapter. Exceeding the capacity may cause abnormal heat generation or fire.

Do not place conductive objects (e.g. screwdrivers, coins or any metal items) or containers filled with water on top of the product. Doing so may cause personal injury due to fire, electric shock, or falling objects.

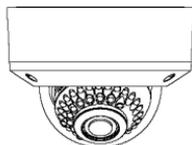
If any unusual smells or smoke comes out of the unit, stop using the product. In this case, immediately disconnect the power source and contact the service center. Continued use in such a condition may cause fire or electric shock.

If this product fails to operate normally, contact the nearest service center. Never disassemble or modify this product in any way. (GRUNDIG is not liable for problems caused by unauthorised modifications or attempted repair.)

To prevent fire or electric shock, do not expose the inside of this device to rain or moisture.

3. Package Contents

These parts are included:



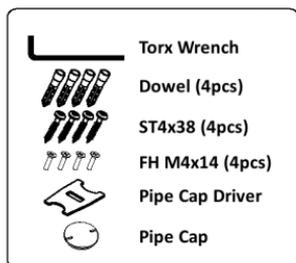
CAMERA



DRIVER



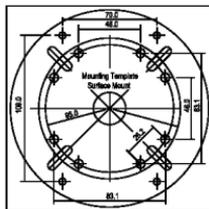
SERVICE-MONITOR AND
CONTROL CABLE



ACCESSORIES



INSTRUCTION
MANUAL



MOUNTING
TEMPLATE

- Torx Wrench: Length 90mm (1pc)
- Dowel: Length 30mm, Thickness 6mm (4pcs)
- Assembly Screws: FH M4x14 (4pcs)
- Mounting Screws: ST4x38 (4pcs)

These screws are used to mount both surface mount plate or flush mount base to a sturdy surface. If necessary, use the dowels included.

- Pipe Cap Driver: (1pc)

This is used to open/close the pipe cap of the surface mount plate.

- Service monitor and control cable:

It is possible to set up the camera through a portable monitor and adjust the OSD menu of the camera externally.

4. Installation

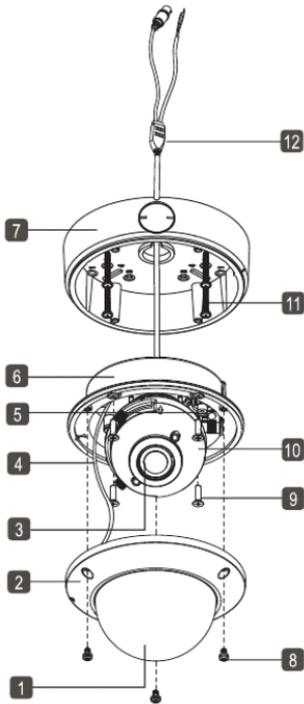
Do not install the product in a location subject to high temperature (over 50°C), low temperature (below -10°C), or high humidity. Doing so may cause fire or electric shock. Keep out of direct sunlight and heat radiation sources. This may cause fire. Avoid aiming the camera directly towards extremely bright objects such as the sun, as this may damage the image sensor.

Do not install the unit in humid, dusty or sooty locations. Doing so may cause fire or electric shock. Install it in a place with good ventilation.

When installing the unit, fasten it securely and firmly. A falling unit may cause personal injury.

If you want to relocate the already installed product, be sure to turn the power off and then move or reinstall it.

4.1. Part Names



1. Bubble
2. Dome Cover Ring
3. Lens
4. Safety Wire
5. Service Monitor Output Port
6. Flush Mount Base
7. Surface Mount Plate
8. Assembly Screws (Torx M4x8)
9. Assembly Screws (Philips M4x14)
10. Gimbal Bracket
11. Mounting Screws (St4x38)
12. Video/Power Cable

Caution:

To avoid smear, do not expose the camera directly to a strong light source such as the sun or spot light.

4.2. Base Installation

1. Remove the dome cover by loosening the 3 screws. Use the Torx wrench supplied.

2. Surface Mount :

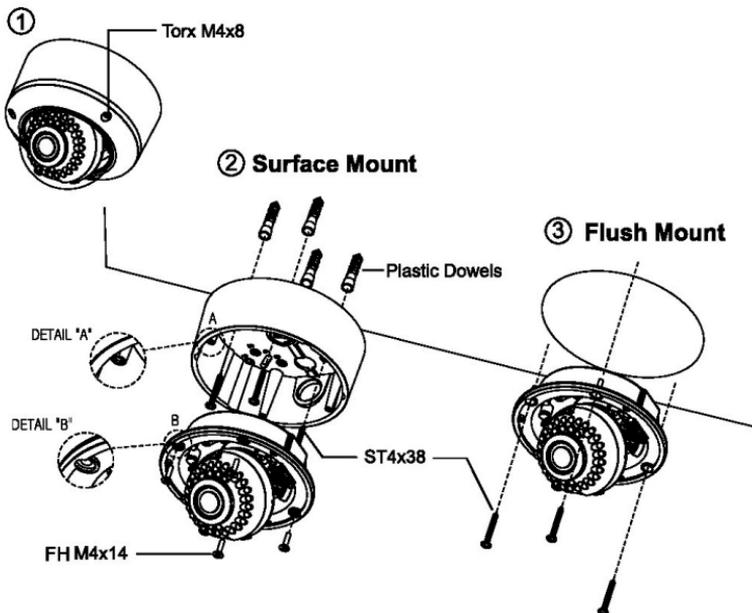
Using the four ST4x38 screws, mount the surface plate to a sturdy surface.

Using the four M4x14 screws, affix the flush mount base to a surface plate.

(For flush mount application, disregard section 2.)

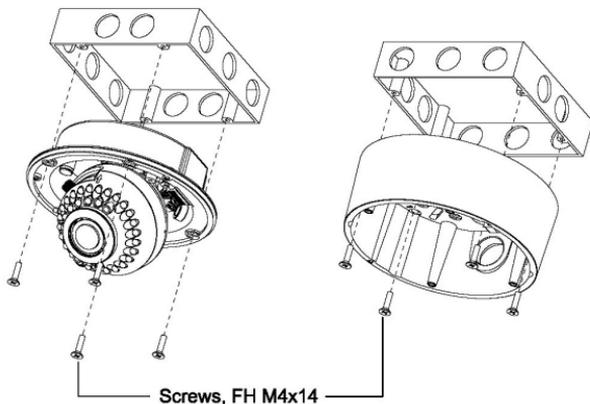
3. Flush Mount :

Using the four ST4x38 screws, affix the flush mount base to a sturdy surface.



4.3. Mounting Housings to Electrical Junction Boxes

This unit can be either flush mounted or surface mounted with Electrical Junction Boxes using the pre-drilled mounting holes. The dome housing accommodates various electrical junction boxes, making the installation easy and less time consuming.



NOTE:

The screws required for electrical junction boxes are not supplied with the Dome. These screws are readily available at local electrical supply stores.

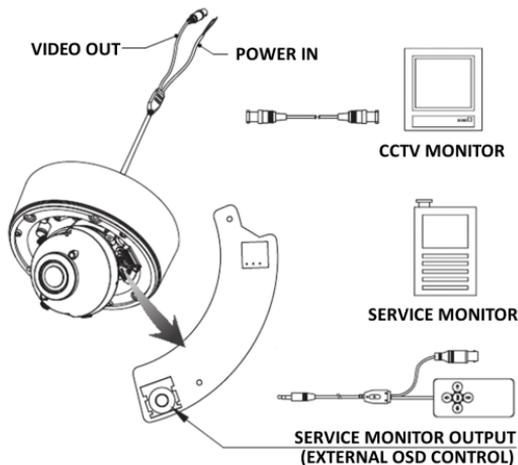
4.4. Connections

- Power connection: Requires a DC 12V or AC 24V input depending on the camera model.

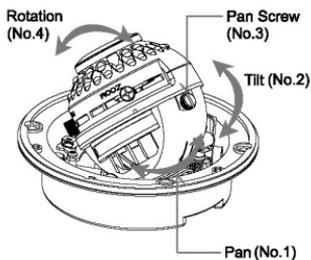
- All camera models are supplied with a service monitor output on the camera module. A control cable is included in the package.

Note:

To set up the OSD menu externally, a control cable is required.



4.5. 3-Axis Gimbal Adjustment

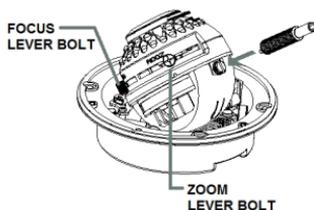


1. Pan: Adjust the first pan angle by turning the gimbal 360° degrees (see figure No.1).

2. Tilt: Adjust the tilt angle by moving the gimbal up and down (see figure No.2).

3. Rotation: Loosen the pan screw (No.3) to adjust the pan to a desired angle (see figure No.4) and fix the screw.

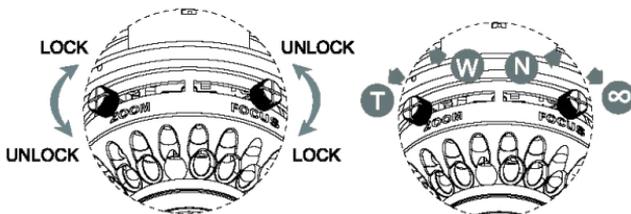
4.6. Zoom & Focus Adjustment



If you need to make viewing angle/focus adjustments, loosen the lever bolts and make the necessary adjustments as shown.

- Field of View: Telephoto (T) to Wide (W)
- Focus: Near (N) to Infinity (∞)

After the adjustments are completed, tighten the Zoom/Focus levers.



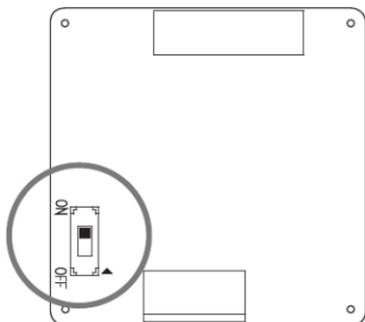
Caution:

Focus and Zoom Lever Bolts MUST be pushed back in properly. If they touch the inside of the dome bubble, they will cause scratches. This may affect the view of the camera.

4.7. IR-LED On/Off Switch

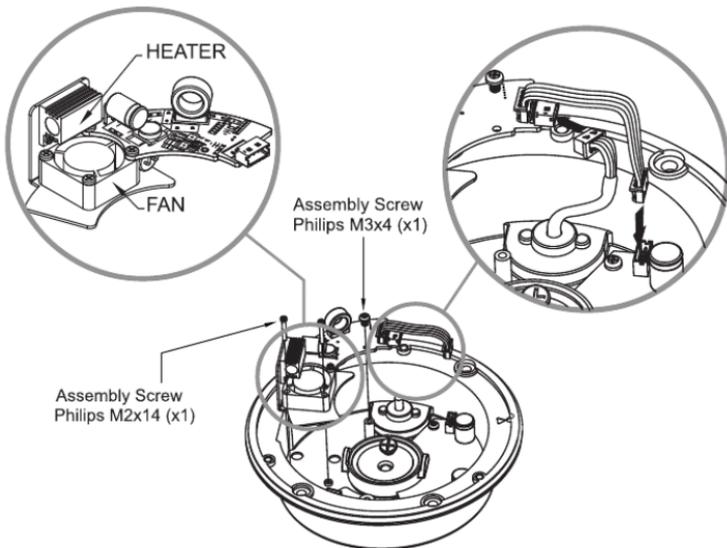
For the cameras with IR-LEDs, it is possible to switch off the LEDs. Please turn the switch to ON or OFF according to your needs.

- OFF: Select OFF if the subject in the picture has an extreme IR-LED reflection.
- ON: Select ON if the subject has no IR-LED reflection.

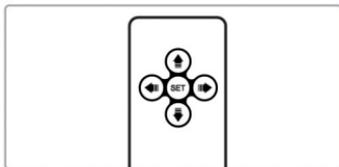


4.8. Fan & Heater (optional)

For Fan & Heater operation, AC24V power is required. Cameras that operate with 12V cannot support the Fan & Heater function.



5. OSD Control Keys



- SET key: Accesses the menu mode or confirms the setting.
- UP (Λ) / DOWN (V): Chooses the desired menu.
- LEFT (<) / RIGHT (>): Sets up the value of the selected menu.

6. OSD Menu

1. Press the SET key and hold it for a while to access the menu mode.
2. Select the desired feature by using the UP/DOWN keys (Λ V) on the control.
3. If there is a setting for this feature on the the right side of the screen, use the LEFT/RIGHT keys to switch between the settings and confirm your choice by pressing the SET key. If an ENTER arrow (↵) is displayed, press SET to access the according submenu.
4. When the settings are completed, go to SAVE ALL and press the SET key to save the settings. If you have not done this and the power is turned off, the changes in the settings will not be kept.
5. In the sub-menus, please press with the SET key on RETURN to return to the previous menu.
6. To exit the menu, please press with the SET key on EXIT in the main menu.

SETUP MENU	
LENS	AUTO↵
SHUTTER/AGC	AUTO↵
WHITE BAL	ATW↵
PICT ADJUST	↵
NR	↵
ATR	OFF
BACKLIGHT	OFF
NEXT↵	
EXIT↵	SAVE ALL

LENS: Here you can configure the lens setting.

SHUTTER/AGC: This function is used to control the light exposure.

WHITE BAL: You can control the white balance under different lighting conditions here.

PICT ADJUST: You can set different picture related settings like mirroring, brightness, contrast, hue and gain.

NR: This noise reduction function is to decrease the noise which can be generated under low light conditions.

ATR: This function is used to improve the contrast of the image (similar to WDR).

BACKLIGHT: You can control the backlight compensation here.

NEXT: Choose this option to view the second menu page.

6.2. SHUTTER/ AGC

This function is used to control the light exposure. You can either select AUTO for the auto iris lens (here you can set the shutter value and the brightness level depending on the lighting conditions) or you can choose MANUAL for the manual iris lens (here you can set up the electronic shutter speed and the AGC value manually).

AUTO SETUP	
HIGH LUMINANCE	
MODE	SHUT+AUTO IRIS
BRIGHTNESS	 037
LOW LUMINANCE	
MODE	AGC
BRIGHTNESS	x0.50
RETURN \uparrow	

AUTO:

Here you can set the auto exposure mode in two different lighting conditions (HIGH LUMINANCE for middle/high-bright lighting conditions and LOW LUMINANCE for low-bright lighting conditions).

HIGH LUMINANCE

- MODE [AUTO IRIS, SHUT+AUTO IRIS] :

When choosing AUTO IRIS, the electronic shutter is fixed, and the exposure is controlled using the mechanical iris. When choosing SHUT+AUTO IRIS, the auto exposure is controlled by using the electronic shutter in middle-bright light conditions, and using the mechanical iris in high-bright conditions.

- BRIGHTNESS [000~255] :

Sets the value of auto exposure operations. As the value increases, the screen gets brighter.

LOW LUMINANCE

- MODE [AGC, OFF] :

When choosing AGC, the auto exposure is controlled by using AGC.

- BRIGHTNESS [x0.25, x0.50, x0.75, x1.00] :

Sets the value of auto exposure operations. As the value increases, the screen gets brighter.

MANUAL SETUP	
MODE	SHUT+AGC
SHUTTER	1/50
AGC	6.00
RETURN [Ⓜ]	

MANUAL:

Here you can set the SHUTTER value and the AGC value.

- MODE [SHUTTER+AGC] : The mode is fixed to SHUTTER+AGC.

- SHUTTER [NTSC: 1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000; PAL: 1/50, 1/120, 1/250 ~ 1/100000] :

Choose the desired value.

- AGC [6.00, 12.00, 18.00, 24.00, 30.00, 36.00, 42.00, 44.80] : As the AGC value increases, the overall screen gets brighter but the level of noise is also increasing.

6.3. WHITE BAL (White Balance)

This function is used to control the white balance under different lighting conditions. Adjusting the setting calibrates the camera for correct and natural colour rendering. Adjust the functions PUSH, ANTI CR, PUSH LOCK or select a submenu (MANUAL, ATW, USER1, USER2).

ATW	
SPEED	 249
DELAY CNT	 008
ATW FRAME	x1.00
ENVIRONMENT	INDOOR
RETURN [Ⓜ]	

ATW:

In this mode, the camera automatically tracks changes in the colour temperature, and adjusts the white balance according to the ambient conditions.

- SPEED [000~255] : Sets the speed of searching for White Balance when the colour temperature changed.

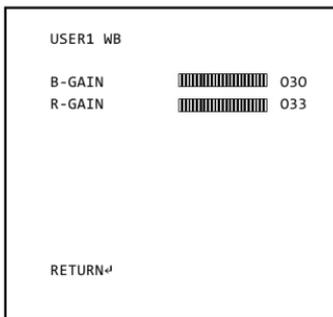
- DELAY CNT [00~255] : This sets the delay time of searching for White Balance, when the colour temperature changed.

- ATW FRAME [x0.5, x1.0, x1.5, x2.0] : Adjust ATW by increasing or decreasing the colour temperature is possible.

- ENVIRONMENT [INDOOR, OUTDOOR] : Choose INDOOR when the camera is installed indoors (this is mainly for sodium vapor lamps or indoor lighting conditions, it means ATW is set to Low Colour Temperature/warm) or choose OUTDOOR when the camera is installed outdoors (this is mainly for sunlight conditions, it means ATW is set to High Colour Temperature/cool).

PUSH:

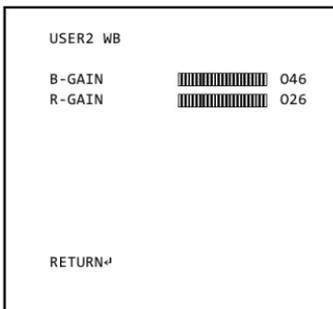
Adjusts the white balance regardless of the conditions.



USER1:

This mode is the fixed outdoor gain mode and is fitted for outdoor lighting conditions.

- B-GAIN: Adjusts the White Balance for the colour Blue.
- R-GAIN: Adjusts the White Balance for the colour Red.



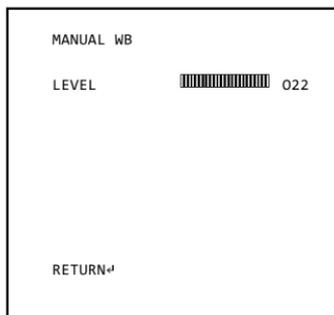
USER2:

This mode is the fixed fluorescent light gain mode and is fitted for indoor lighting conditions.

- B-GAIN: Adjusts the White Balance for the colour Blue.
- R-GAIN: Adjusts the White Balance for the colour Red.

ANTI CR:

With this function you can minimise the problems related to colour rolling caused by the flickering of fluorescent lights.



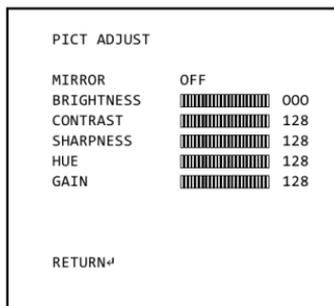
MANUAL:

This function allows the white balance to be adjusted manually. An increased level produces a strong blue tone on the screen and a decreased level produces a strong red tone on the screen.

PUSH LOCK:

This mode is set to the current white balance conditions and keeps its value. Select this mode and then press the SET key. If there is a change in location or light source, please repeat this procedure.

6.4. PICT ADJUST (Picture Adjustment)



MIRROR [ON, OFF] :

This function is used to inverse the camera picture.

BRIGHTNESS [000~255] :

This function is used to adjust the brightness of the camera picture.

CONTRAST [000~255] :

This function is used to adjust the contrast of the image (the difference between light and dark areas on the screen).

SHARPNESS [000~255] :

This function is used to adjust the sharpness of the displayed image.

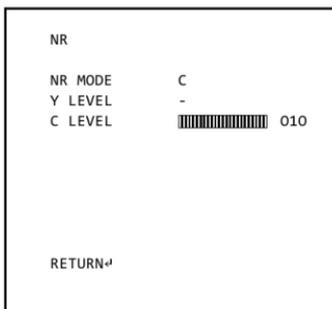
HUE [000~255] :

This function is used to adjust the colour tone of the displayed image.

GAIN [000~255] :

This function is used to adjust the saturation of the displayed image.

6.5. NR (Noise Reduction)

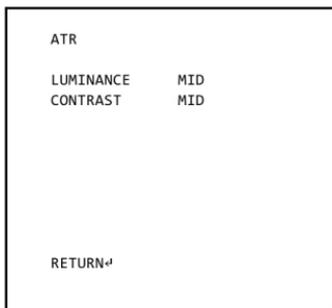


NR MODE [OFF, Y, C, Y/C] :

This function is used to improve the picture quality by filtering the noise which is generated under low bright light conditions. You can set up Y (luminance), C (chroma) and Y/C mode as well as adjust the the filtering level/s for each mode.

6.6. ATR (Adaptive Tone-Curve Reproduction)

When both low-luminance and high-luminance areas exist in the same picture, this function can improve the visibility of the entire picture by providing a tone-curve correction (similar to WDR). When selecting ON, the following submenu will appear.



LUMINANCE [LOW, MID, HIGH] :

This improves the visibility of bright areas.

CONTRAST [LOW, MIDLOW, MID,
MIDHIGH, HIGH] :

This improves the visibility of dark areas.

6.7. BACKLIGHT

This function is used for backlight compensation. Please choose from OFF, BLC and HLC.

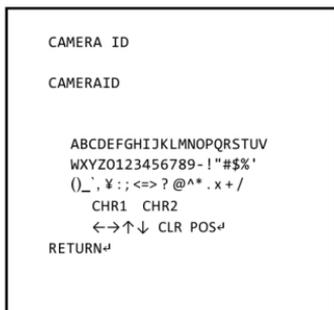
BLC (Back Light Compensation):

This function is used to counterbalance the screen image by increasing the brightness so that a subject which appears dark due to a strong backlight can be displayed in more detail.

HLC (High Light Compensation):

This function is used to suppress or mask a strong light source (for example, headlights of cars during night-time) so that other subjects can be seen in more detail.

6.8. CAMERA ID



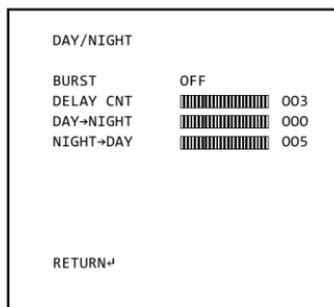
This menu is used to assign a unique name to a camera. You can enter up to 52 alphanumeric or special characters for the CAMERA ID. Select POS and press the SET key to be able to move the display position of the CAMERA ID.

Programming the Camera ID:

1. Turn on the CAMERA ID mode and enter the submenu.
2. Using the four direction keys, switch between the characters. Press the SET key to make a desired figure.
3. Press CLR if you need to delete letters.

6.9. DAY/NIGHT

This function is used to improve the camera's sensitivity at night or when the brightness level of the ambient environment is low.



AUTO [BURST, DELAY CNT,
DAY→NIGHT, NIGHT→DAY] :

This mode automatically switches the video signals between COLOR and B/W when the according ambient illumination/brightness is reached.

- BURST: Set this option to ON to output a burst signal in B/W mode.
- DELAY CNT: Sets the delay time for switching between COLOR and B/W mode.
- DAY→NIGHT: Sets the brightness level for switching from COLOR to B/W mode.
- NIGHT→DAY: Sets the brightness level for switching from B/W to COLOR mode.

COLOR:

If set to COLOR, the camera will be fixed to COLOR mode regardless of the ambient conditions.

MOTION DET			
DETECT SENSE			111
BLOCK DISP	OFF		
MONITOR AREA	OFF		
AREA SEL	1/4		
TOP			020
BOTTOM			134
LEFT			020
RIGHT			224
RETURN↵			

DETECT SENSE [000~127] :

Sets the motion detection sensitivity.

BLOCK DISP [OFF, ON, ENABLE] :

Controls the ON/OFF status of the motion detection block display.

- ON, OFF: Turns the block display on/off.

- ENABLE: If the BLOCK DISPLAY is set to ON, you can choose in this setting with the SET key areas where the motion detection (in block format) should not be displayed. Using this option is only possible when MONITOR AREA is set to ON. To exit this setting, press the SET key and hold it for a while.

MONITOR AREA [OFF, ON] :

If you choose ON, the areas for motion detection monitoring will be shown on the screen.

AREA SEL [1/4 ~ 4/4] :

Here you can select the setting for each monitoring area.

- TOP: Sets the top side of the selected monitoring area.
- BOTTOM: Sets the bottom side of the selected monitoring area.
- LEFT: Sets the left side of the selected monitoring area.
- RIGHT: Sets the right side of the selected monitoring area.

6.11. PRIVACY

PRIVACY			
AREA SEL	1/4		
TOP			000
BOTTOM			128
LEFT			128
RIGHT			128
COLOR	1		
TRANSP	1.00		
MOSAIC	OFF		
RETURN↵			

When selecting ON, a submenu will appear where you can set the privacy masks and their colours. This function is used to mask specific areas within the frame of the camera.

AREA SEL [1/8 ~ 8/8] :

Here you can select the setting for each of the 8 mask areas. If MONITOR AREA in the MOTION DET menu has been set to ON, four areas will be selected.

- TOP: Sets the top side of the selected mask area.
- BOTTOM: Sets the bottom side of the selected mask area.
- LEFT: Sets the left side of the selected mask area.
- RIGHT: Sets the right side of the selected mask area.

COLOR [1~8] :

Choose one of 8 colours for the mask areas.

TRANSP [0.00, 0.5, 0.75, 1.0] :

Choose one of 4 transparency levels for the mask areas.

MOSAIC [OFF, ON] :

Set the mosaic function for the mask areas to OFF or ON. The mosaic will be shown in the mask areas when TRANSP is set to lower than 1.00.

6.12. SYNC

This camera model is set to fixed INT (Internal Synchronisation).

6.13. LANGUAGE

The camera supports 7 different languages. Select your preferred language from the list.

6.14. CAMERA RESET

All the settings will be restored to factory default.

6.15. NEXT / BACK

When you select NEXT, the second main menu page will be shown. When you select BACK, the first main menu page will be shown.

6.16. EXIT

Exits the menu without saving any changes in the settings.

6.17. SAVE ALL

Saves the changes in the settings.

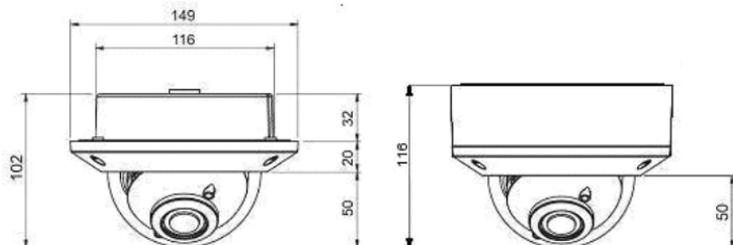
Specifications GCA-B3323V

Image Sensor	1/3" CCD Sony 960H Ex-view HAD II
Scanning System	PAL, 50Hz, 625L (V), 2:1 Inter Line Transfer
Pixels - Effective	976(H) x 582(V)
Resolution	700 (H) lines colour, 750 (H) lines b&w
Col/B&W	Auto, IR-cut filter removable (ICR)
Sensitivity Colour	0.1 Lux (50IRE) @ F1.2
Sensitivity B&W	0.01 lux (50IRE) @ F1.2
S/N Ratio	>52dB (AGC off)
Lens Drive Type	Auto iris (DC)
Lens Focal Length	2.8 ~ 11 mm
Number of Privacy Zones	4
High Speed Shutter	1/50 ~ 1/100.000 sec, auto
BLC	BLC / HLC / off
AGC	Off, On (x0.25/x0.5/x0.75/x1)
Digital Noise Reduction (DNR)	Off, On 2D
Additional Features	H Reverse, High Light Compensation
Motion Detection	On/Off
OSD	Yes (DE,EN,ES,FR,RU,PT,JP)
Camera ID	52 character, 2 lines
White Balance	ATW/PUSH/Anti CR/Manual/User 1/User 2
Protection Rating	IP66
Video Outputs	1 CVBS 1 Vpp (BNC) & 1 test monitor out
Humidity	less than 90%
Operating Temperature	-10°C ~ +50°C
Supply Voltage	12 VDC/24 VAC
Power Consumption	2.4 W
Weight	1.1 kg
Dimensions (wxhxd)	Ø 152 x 116 mm

Specifications GCA-B3326V

Sensitivity B&W	0 Lux LED IR on
IR LED	36 pcs.
Optical Wavelength	850 nm
Max. IR Distance	15/30 m (according to scene reflexion)
Power Consumption	2.4 (5.8 LED on) W
Weight	1.1 kg
Dimensions (wxhxd)	Ø 152 x 116 mm

Dimensions



EC Declaration of Conformity

GCA-B3323V 1/3" CCD Col/B&W Fixed Dome Camera

GCA-B3326V 1/3" CCD Col/B&W Fixed Dome Camera w/ IR LED

It is hereby certified that the products meet the standards in the following relevant provisions:

EC EMC Directive 2004/108/EC
Low Voltage Directive 2006/95/EC

Applied harmonised standards and technical specifications:

EN 55022: 2006 + A1: 2007
EN 50130-4: 1995 + A1:1998 + A2: 2003

ASP AG

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42897 Remscheid
Germany

Remscheid, 09.02.2012



Ludwig Bergschneider
CEO