epcom®

EFFIO-E ON SCREEN DISPLAY INFRARED DOME CAMERA

U S E R   M A N U A L

IMPORTANTE:
La limpieza de la cubierta del domo debe realizarse con una franela sueva humedecida con agua, el uso de solventes o limpiadores agresivos pueden raspar/dañar la cubierta pudiendo afectar la calidad de la imagen.

IMPORTANT:
The cleaning of the dome cover should be done with a damp cloth, use of solvents or abrasive cleaners can scratch / damage the housing and can affect image quality.

R040687B-SYS

Contents

The author assumes no responsibility for any errors or omissions that may appear in this document nor does the author make a commitment to update the information herein.

1. SAFETY PRECAUTIONS

	CAUTION	
⚡	RISK OF ELECTRIC SHOCK. DO NOT OPEN!	⚠

CAUTION :
TO REDUCE THE RISK OF ELECTRICAL SHOCK,
DO NOT OPEN COVERS (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED
SERVICE PERSONNEL.
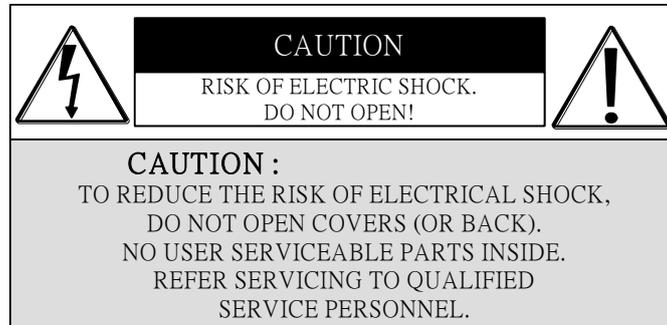
It is advised to read the Safety Precaution Guide through carefully before operating the product, to prevent any possible danger.

⚠ **WARNING:** Alert the user to the presence of un-insulated "dangerous voltage".

⚠ **CAUTION:** Alert the user the presence of important operating and maintenance (Servicing)

instructions in the literature accompanying the appliance.

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems).
This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Please be extra careful not to shake the product.

Please avoid places where frequent vibrations or shocks.

Do not install the product in extreme temperature conditions.
Only use the camera under conditions where temperatures are between -10℃ and +50℃. Be especially careful to provide ventilation when operating under high temperatures.

Do not install the product in an environment where the humidity is high.
Unless the product is waterproof or weatherproof, otherwise it can cause the image quality to be poor.

Never keep the product to direct strong light or sunlight.
It can damage the product.

Do not spill liquid of any kind on the product.
If it gets wet, wipe it dry immediately. Alcohol or beverage can contain minerals that corrode the electronic components.

When any abnormal occurs, make sure to unplug the unit, and contact your local dealer.

2. INTRODUCTION

Clear image quality has been achieved by employing a 1/3" Hi-Res. CCD, which provides a horizontal resolution of 700 TV lines. The camera can be by External Light Sensor; it provides Color image in full light condition (Day) and provides B/W image in low light condition (Night) to reach the best effect. High performance: providing unique ATR (Adaptive Tone Reproduction) , DNR (Digital Noise Reduction), HLC (High Light Compensation), CRS (Color Rolling Support), Privacy function, Mirror function, as well as manually adjusting picture quality functions (Such as Contrast/Sharpness/Color etc.).

3. FEATURES

High Resolution

CCD Sensor provides high resolution reaching 650~700 TVL with advanced and clear picture quality.

Excellent Sensitivity

High sensitivity, low smear, high anti-blooming and high S/N ratio.

Adaptive Tone Reproduction (ATR)

ATR is the Single Scan WDR function; it has the other name with Digital WDR, Software WDR. perfectly shows the image details between dark and light. Newly added environment dynamic detection switch, enhancing WDR image efficiency.

Digital Noise Reduction (DNR)

With 2DNR enable, it can reduce the noise to produce extremely clear picture quality even under low light condition.

Day & Night

Mechanic IR Cut-Filter driving unit with Light Sensor.

High Light Compensation (HLC)

By setting mask are, the user will experience better operation convenience see a clearer image.

Privacy Mask

Privacy image masking with free position, support up to 8 areas of privacy masking zone.

Motion Detection

Camera-site takes the initiative in providing motion detection alert for a more comprehensive monitoring and careful editing of motion detection area. When there are changes within the detection area, the camera immediately issues a warning.

Lens (External manual focus)

Built-in DC-type Vari-Focal lens with ICR / Without ICR.

OSD

OSD (On Screen Display) Setup Menu. Camera tile setup of up to 16 alphanumeric letters.

Mechanism

Weatherproofing Housing Design.

Application

All function can be operated from OSD: AES (Automatic Electronic Shutter), AI (Auto Iris), GC (Gain Control), WB (White Balance), BLC (Back Light compensation), positive/ negative and Horizontal Mirror.

4. PACKING LIST

Check to make sure all of the items shown below are included in your product package. If something is missing, contact your dealer as soon as possible.

Item Description	Item Picture	QTY
Camera & Bracket		1
Appurtenances		1
Fix retaining screw		4
Countersunk Head Screws for Camera Protection		1
Instruction Manual	EFFIO-E ON SCREEN DISPLAY INFRARED DOME CAMERA USER MANUAL	1
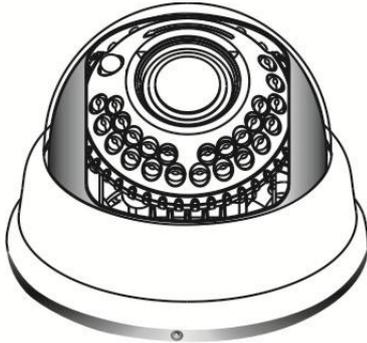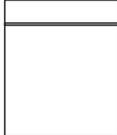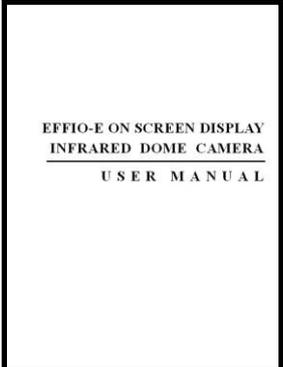
5. NAME and FUNCTION of EACH PART

Camera Lens
Transparent Dome Cover
Black Plastic Inner Liner (with cutout slot for viewing)
Main Body (Camera)
Camera Lock

DOWN LEFT ENTER UP RIGHT
OSD Adjustment
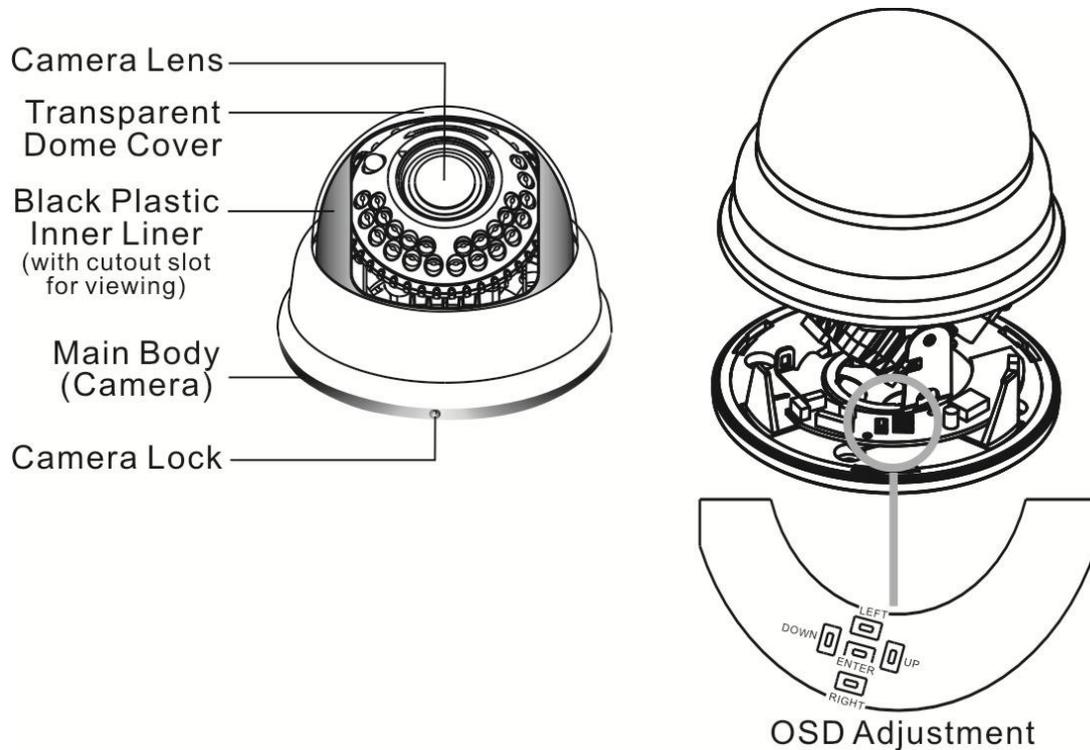
To adjust the OSD, remove the dome cover from the main body by gently turning the cover counter-clockwise to unlock and pull free from the main body. The OSD buttons are can be found on the main body of the dome camera.

1~3.OSD Button (Menu):

No.	Name	Function
1	LEFT	LEFT
2	ENTER	Get in MENU and ENTER
3	DOWN	DOWN
4	RIGHT	RIGHT
5	UP	UP

6. INSTALLATION

6.1 Camera Installation & Operation

1. **Removing the Dome Cover**

    Remove the dome cover from the main body by gently turning the cover counter-clockwise to unlock and pull free from the main body.

2. **Camera Image Adjustment**

    - You can adjust camera to any direction by using Pan, Tilt, and Rotate mechanism.
    - Pan Base moves by 60° to each side direction and 120° on the whole.
    - Tilt Base covers total 120° angle (60° to each side).
    - Angle range of Rotate Base is 360°.
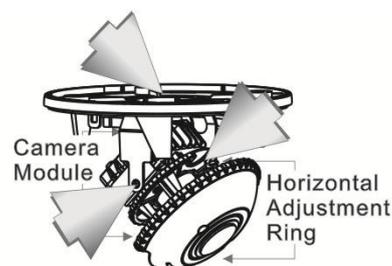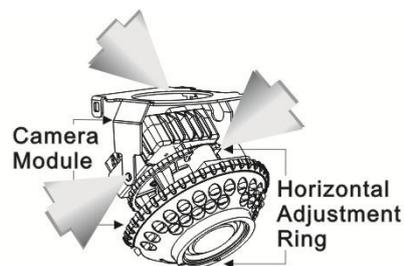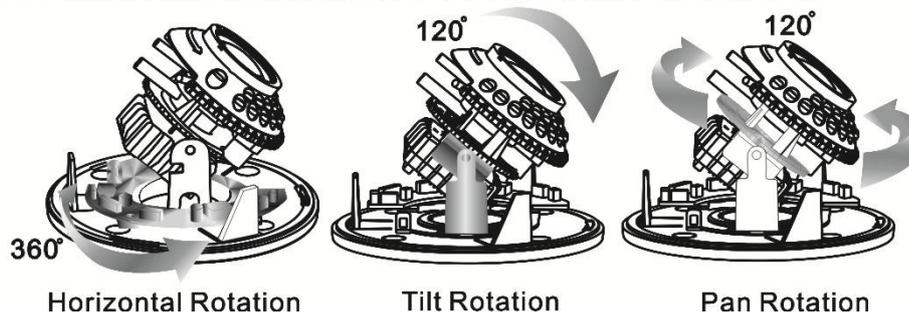
3. Adjusting the Vari-Focal Lens

- Loosen the Zoom lever counter-clockwise a little, and then rotate the Zoom lever to obtain the best image view.
- Loosen the Focus lever counter-clockwise a little, and then rotate the Focus lever to obtain the optimum picture quality.
- Re-tighten the Zoom lever and Focus lever after adjustment.
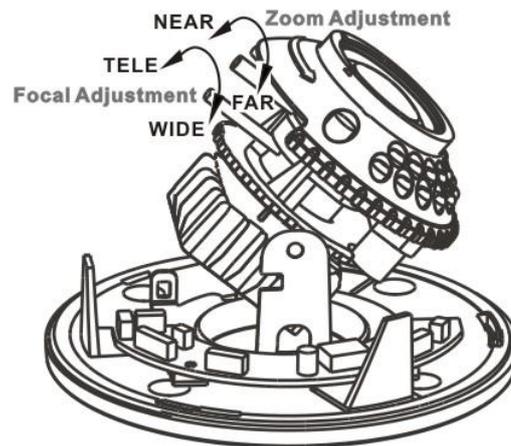
4. Adjusting the Function Control Board
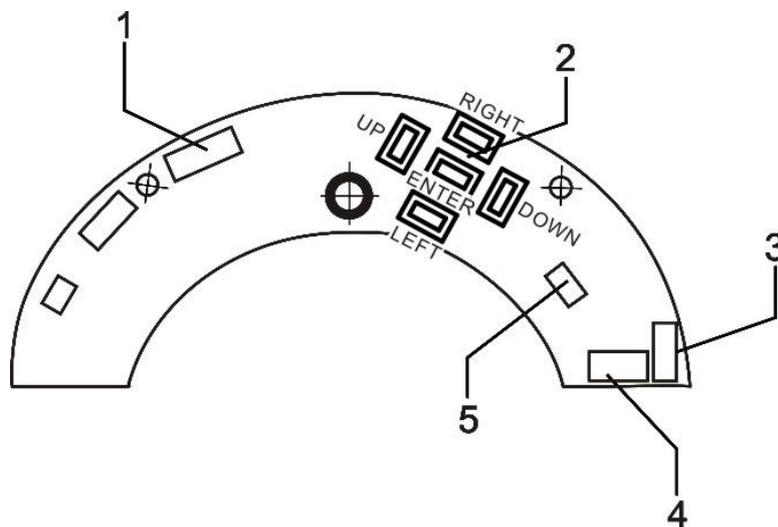
1	IR BOARD WEFER	3	POWER/VIDEO (CAMERA)	5	DAY IN
2	OSD KEY	4	POWER/VIDEO (DC/BNC)		

5. Attaching the Dome Cover

- After all necessary adjustment has been made reinstall the dome cover to the main body.

Main Body (Camera)

The black plastic inner liner has a cutout slot for viewing.

Black Plastic Inner liner

Transparent Dome Cover
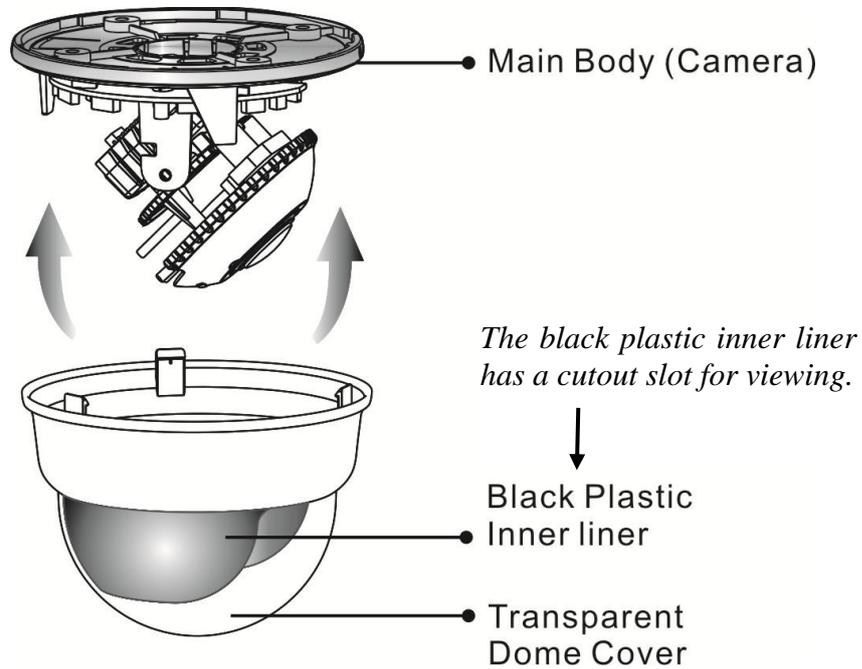
- Reinstall the dome cover and the main body by turning the dome clockwise until it locks in place.
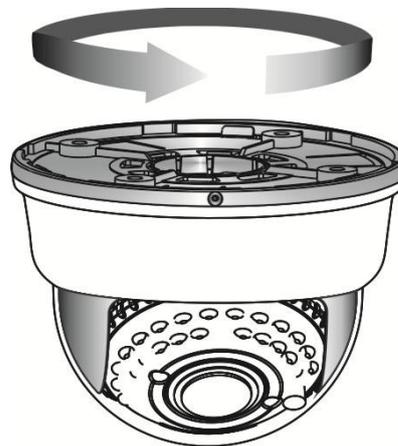
● The dome comes with a black plastic inner liner placed within the dome cover. Therefore, after replacing the dome cover rotate the liner so that the cutout slot (hole for viewing) is in the correct position and not blocking the camera lens.
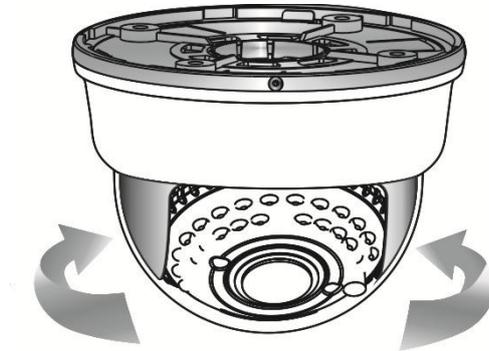
6. Camera Protection

To prevent unpredictable damage and burglary, lock-up the dome by using the countersunk head screw.
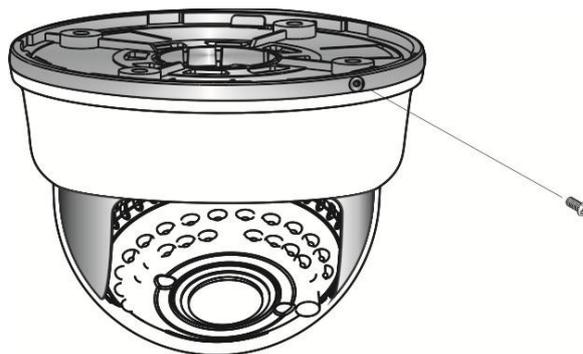
7. Wiring Instructions

Connect the video output to the monitor or other video device through a 75 Ohms type coaxial cable and the DC-Jack or AC/ DC-Terminator to the power source.
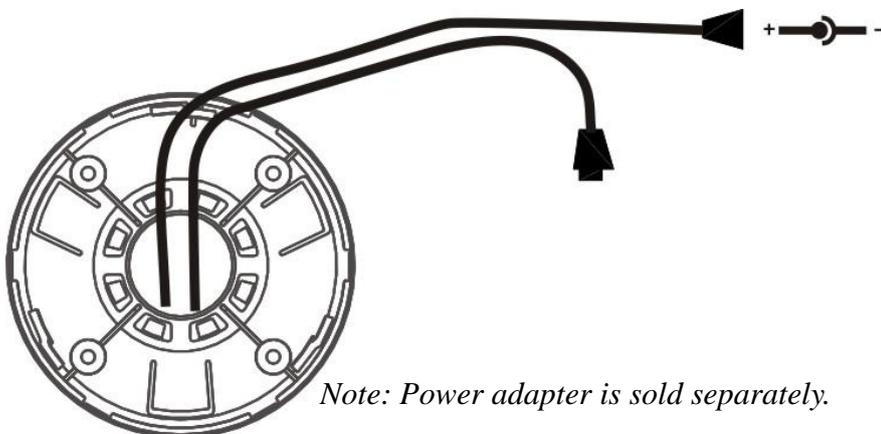
Note: Power adapter is sold separately.

7. OPERATION

7.1 OSD Framework

Main Menu Display

OSD Setup Menu page 1	
LENS	AUTO↵
SHUTTER/ AGC	AUTO↵
WHITE BAL	ATW
BACKLIGHT	OFF
ATR	OFF
NR	↵
PICT ADJUST	↵
NEXT↵	
EXIT↵ SAVE ALL	

OSD Setup Menu page 2	
DAY/ NIGHT	AUTO*
PRIVACY	OFF
MOTION DET	OFF
CAMERA ID	OFF
LANGUAGE	ENGLISH
CAMERA RESET	
BACK↵	
EXIT↵ SAVE ALL	

Main Menu Setup

- In order to display the setup menu on the screen, set the menu command or press the button panel.
- Use UP/ DOWN control buttons to select each item.
- Use LEFT/ RIGHT control buttons to change the data.
- Use MENU control button to ENTER/ EXIT the menu display.
- ↵=ENTER

*NOTE: Item function DAY/ NIGHT of the IR LED dome having D/N external Sync functions is auto disabled from the OSD display.

7.2 OSD Main Menu Description

7.2.1 LENS: MANUAL /AUTO selectable.

- **LENS:** MAUNAL

  Not adjustment

- **LENS:** AUTO

AUTO	TYPE：DC
	MODE：AUTO/ OPEN /CLOSE
	SPEED：000~255

AUTO: Camera automatically controls the lens.
OPEN: Lens fully open.
CLOSE: Lens fully closed.
SPEED: Speed of the lens.

7.2.2 SHUTTER/AGC: AUTO / MANUAL selectable.

- **SHUTTER/AGC:** AUTO

AUTO	HIGH LUMINANCE
	MODE：SHUT+AUTO IRIS / AUTO IRIS / SHUT
	BRIGHTNESS：000~255
	LOW LUMINANCE
	MODE：AGC / OFF
	BRIGHTNESS：x0.25、x0.50、x0.75、x1.00

HIGH LUMINANCE
 When LENS is setup to AUTO mode
SHUT+AUTO IRIS: Exposure is controlled by auto electronic shutter combined with auto iris.

AUTO IRIS: Exposure controlled by auto iris.

When LENS is setup to Manual mode
SHUT: Exposure controlled by electronic shutter.

LOW LUMINANCE

Setup low lux environment, minimum AGC level.

- **SHUTTER/AGC:** MANUAL

MANUAL	MODE：SHUT+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, 1/500, 1/1000, 1/2000, 1/4000, 1/10000
	AGC：6.00、12.00、18.00、24.00、30.00、36.00、42.00、44.80

SHUTTER: Fixed electronic shutter speed.
AGC: Fixed AGC gain control.

7.2.3 WHITE BAL
ATW / PUSH / USER1 / USER2 / ANTI CR / MANUAL / PUSH LOCK selectable.
- **WHITE BAL.:** ATW

ATW	SPEED：000~255
	DELAY CNT：000~255
	ATW FRAME：x0.50、x1.00、x1.50、x2.00
	ENVIRONMENT：INDOOR、OUTDOOR

SPEED：ATW Speed
DELAY CNT： ATW Delay Time
ATW FRAME： ATW Frame Range Setup
ENVIRONMENT： ATW Environment Range Setup

- **WHITE BAL.:** PUSH
  The function will keep detecting the Color Temperature, and then it will keep saving the parameter to camera.

- **WHITE BAL.:** USER1

USER1	B-GAIN：000~255
	R-GAIN：000~255

- **WHITE BAL.:** USER2

USER2	B-GAIN：000~255
	R-GAIN：000~255

- **WHITE BAL.:** MANUAL

MANUAL	LEVEL：19~54

- **WHITE BAL.:** ANTI CR
  The function can reduce the color rolling issue, and it is the same with CRS (Color Rolling Support) function.

- **WHITE BAL.:** PUSH LOCK
  The function will detect the Color Temperature to save into the camera.

7.2.4 BACKLIGHT: BLC / HLC / OFF selectable.

- **BACKLIGHT.:** BLC

  Enable the function of Back Light Compensation, and the detection method is the BLC Smart.

- **BACKLIGHT.:** HLC

  Enable the function of High Light Compensation.

7.2.5 ATR: ON / OFF selectable.

- **ATR.:** ON

LUMINANCE	LOW、MID、HIGH
CONTRAST	LOW、MIDLOW、MID、MIDHIGH、HIGH

LUMINANCE： Set the extent of the luminance compression

CONTRAST： Set the extent of the contrast enhancement.

NOTE: If you enable the ATR funciton, please avoid to enable the BACKLIGHT function in the same time.

7.2.6 NR: ↵

NR MODE	Y/C、Y、C、OFF
Y LEVEL	000~015
C LEVEL	000~015

NR MODE： Set the DNR mode of Y/C, Y and C.

Y LEVEL： Set the Y filter strength.

C LEVEL： Set the C filter strength.

NOTE: The Y/C mode is the automanic DNR mode.

7.2.7 PICT ADJUST: ↵

MIRROR	ON / OFF
BRIGHTNESS	000~255
CONTRAST	000~255
SHARPNESS	000~255
HUE	000~255
GAIN	000~255

Adjust all camera parameters here.

7.2.8 NEXT: ↵

Move to MAIN MENU, page 2

7.2.9 EXIT: ↵

Exit OSD to choose the list.

7.2.10 SAVE ALL:

When you change the OSD menu settings, before leaving the OSD item option SAVE ALL. Press ENTER key to change the memory settings for the OSD.

7.2.11 DAY/NIGHT：AUTO / DAY / B/W selectable.

● DAY/NIGHT: AUTO

AUTO	BURST：ON/OFF
	DELAY CNT：000~255
	DAY→ NIGHT：000~255
	NIGHT → DAY：000~255

BURST：Selects whether to output the burst signal when the Night status

DELAY CNT：Set the Night/ Day identification transfer time.

DAY→ NIGHT：Set the threshold for identifying the Night status from the Day status.

NIGHT → DAY：Set the threshold for identifying the Day status from the Night status.

● DAY/NIGHT: DAY
Day mode forcibly

● DAY/NIGHT: NIGHT
Night mode forcibly

| Night | BURST：ON/OFF |

BURST：Selects whether to output the burst signal

7.2.12 PRIVACY: ON / OFF selectable.
- **PRIVACY:** ON

AREA SEL	Max. 8
TOP	000~244 (NTSC) / 000~288(PAL)
BOTTOM	000~244 (NTSC) / 000~288(PAL)
LEFT	550TVL：000~378 (NTSC)、000~370 (PAL) 650TVL：000~474 (NTSC)、000~468 (PAL)
RIGHT	550TVL：000~378 (NTSC)、000~370 (PAL) 650TVL：000~474 (NTSC)、000~468 (PAL)
COLOR	1~8
TRANSP	0.00 / 0.50 / 0.75 / 1.00
MOSAIC	ON / OFF

AREA SEL：   Select the mask frame to be adjusted.

NOTE: When the MONITOR AREA has been set to ON by the MOTION DET setting, only 4 PRIVACY AREA SEL are selectable (1／4, 2／4, 3／4, 4／4).

TOP：   Set the top side of the mask frame selected
BOTTOM：   Set the bottom side of the mask frame selected
LEFT：   Set the left side of the mask frame selected
RIGHT：   Set the right side of the mask frame selected
COLOR：   Set the colors of the mask frames.
TRANSP：   Set the transparency ratio of the mask frames.
MOSAIC：   Set the mask frame mosaic function to ON or OFF.

7.2.13 MOTION: ON / OFF selectable.

● **MOTION DET:** ON

DETECT SENSE	000~127
BLOCK DISP	ON / OFF / ENABLE
MONITOR AREA	ON / OFF
AREA SEL	1~4
TOP	000~244 (NTSC) / 000~288(PAL)
BOTTOM	000~244 (NTSC) / 000~288(PAL)
LEFT	550TVL：000~378 (NTSC)、000~370 (PAL) 650TVL：000~474 (NTSC)、000~468 (PAL)
RIGHT	550TVL：000~378 (NTSC)、000~370 (PAL) 650TVL：000~474 (NTSC)、000~468 (PAL)

DETECT SENSE: Set the motion detection sensitivity.

BLOCK DISP: Control the ON/ OFF status of the motion detection block display.

MONITOR AREA: Set whether to use the monitoring frames.

AREA SEL: Select the monitoring frame to be set.

TOP: Set the top side of the monitoring frame selected

BOTTOM: Set the bottom side of the monitoring frame selected

LEFT: Set the left side of the monitoring frame selected

RIGHT: Set the right side of the monitoring frame selected

7.2.14 CAMERA ID: ON / OFF selectable.

```
ABCDEFGHIJKLMNOPQRSTUV
WXYZ0123456789-!"#$%&'
()_` ,¥ : ; < = >?@\ ^*.x+/
        CHR1
    ← → ↑ ↓ CLR POS
```

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z 0 1 2 3 4 5 6 7 8 9 - ! " # $ % & ' ( ) _ ` , ¥ : ; < = > ? @ \ ^ * . x + /	Each User Font
← → ↑ ↓	The camera ID cursor moves in the direction of the arrow when the Enter operation input is performed from the status in which ←, →, ↑ or ↓ has been selected using the character selection cursor.
CLR	The character selected by the camera ID cursor is cleared when the Enter operation input is performed from the status in which CLR has been selected using the character selection cursor.
POS	The display switches to the camera ID display position setting screen when the Enter operation input is performed from the status in which POS has been selected using the character selection cursor. On the camera ID display position setting screen, the camera ID display position is changed in real time in response to the left, right, up or down operation input. When the Enter operation input is performed, the display position is entered, and the display returns to the camera ID setting screen.

7.2.15 LANGUAGE

There are 8 kind of language: English / Japanese / German / French / Russian / Portuguese / Spanish / Simplified Chinese selectable.

7.2.16 CAMERA RESET

Reset Factory default setup.

7.2.17 BACK

Return to MAIN MENU, page1.

8. SPECIFICATION

Model no.			EYD105VDR
Image Device			1/3" Color CCD Ex-View HAD II (Sony Chipset)
Effective Picture Elements			NTSC: 976x494 PAL: 976x582
Horizontal Resolution			700TVL
Minimum Illumination			0.01ux/ F1.2
Day to Night Illumination			Under 5 Lux
S/N Ratio			More than 48dB (AGC OFF)
Shutter Speed Control			NTSC:1/60~1/100,000, PAL:1/50~1/100,000
Lens Furnished			Vari-Focal Lens with ICR
Auto Iris Control			DC Driver
Gain Control			Auto/ Manual
White Balance			ATW / PUSH / USER1 / USER2 / ANTI CR / Manual / PUSH LOCK
ATR			ON/ OFF
DNR			ON/ OFF
Back Light Compensation			ON/ OFF
High Light Compensation			ON/ OFF
IR Optimizer			ON/ OFF
PRIVACY			Maximum 8 Areas
MOTION DET			4 Areas
Camera ID			Up to 52 Characters
Mirror			ON/ OFF
Positive/ Negative			ON/OFF
Video Output			1Vp-p/ 75 Ohms
Power Supply			DC 12V±10%
Power Consumption	**Vari-Focal Lens+IR**	**IR On**	370mA max.
		IR Off	120mA max.
Operating Temp.			-10℃ ~ 50 ℃ (14 to 122℉)
Gamma Characteristic			0.45
Synchronous System			INT
Dimensions (WxD)			32 mm x32 mm (Camera board) 37 mm x35 mm (OSD board)

Note: Design and specifications are subject to change without prior notice.

MEMO