ENFORCER®

4-in-1 HD TVI, CVI, AHD, Analog Cameras
On-Screen Display Manual

EV-Y2501-A2WQ shown

Model #	Lens	Resolution	Voltage	Style	Color
EV-Y1501-A2WQ	2.8mm	5MP	12VDC	Bullet	White
EV-Y1501-AMWQ	2.8~12mm	5MP	12VDC	Bullet	White
EV-Y2251-A2WQ	2.8mm	2MP	12VDC	Turret	White
EV-Y2251-AMWQ	2.8~12mm	2MP	12VDC	Turret	White
EV-Y2501-A2WQ	2.8mm	5MP	12VDC	Turret	White
EV-Y2501-A2GQ	2.8mm	5MP	12VDC	Turret	Gray
EV-Y2501-AMWQ	2.8~12mm	5MP	12VDC	Turret	White
EV-Y2501-AMGQ	2.8~12mm	5MP	12VDC	Turret	Gray
EV-Y2501-AMWAQ	2.8~12mm	5MP	12VDC	Dome	White

SECO-LARM® SLI

FC CE RoHS

ENFORCER 4-in-1 HD Cameras (TVI, CVI, AHD, Analog)

Table of Contents:

Programmable Features:

- **Digital Wide Dynamic Range (D-WDR)**
  Provide clear images even under circumstances where backlight illumination can vary

D-WDR OFF   **D-WDR ON**

- **Multiple Output Formats**
  Select between multiple different formats: AHD, CVI, TVI, and CVBS

- **Exposure**
  Adjust the exposure settings, including brightness, and exposure modes.

- **Back Light Compensation (BLC)**
  Adjust the exposure to properly display the subject in front of bright light sources
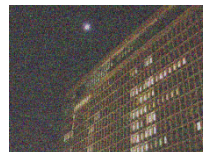

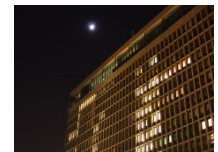**BLC OFF**   **BLC ON**

- **White Balance**
  Adjust the picture's color temperature/image color

- **Day & Night**
  Adjust the level of ambient light that triggers the camera to switch between color and B/W modes

- **Noise Reduction (DNR)**
  Adjust for less interference on the screen in an area with low illumination
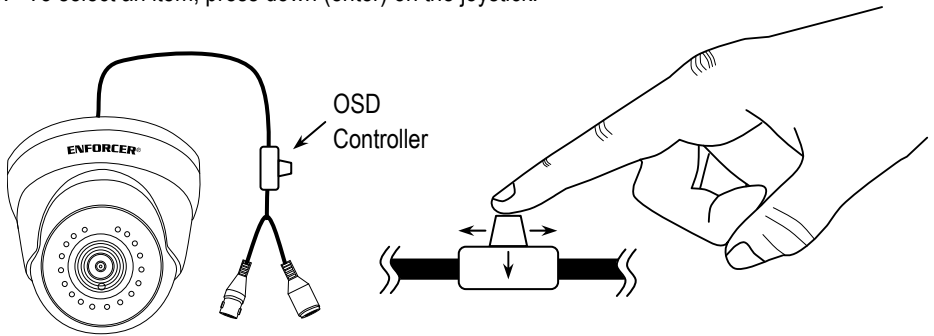

DNR OFF   **DNR ON**

Note: All screen images in this manual are simulated.

SECO-LARM U.S.A., Inc.

How to use the OSD Controller:

1. Press down on the joystick to open the on-screen display (OSD) menu.
2. Use the joystick to navigate the OSD menu.
3. To select an item, press down (enter) on the joystick.

OSD Controller

Switching between HD Analog Outputs:

To set format via the OSD controller, press the controller in the direction of the desired setting, hold for 5 seconds, and release when the camera restarts. See chart below.

Direction	Format Setting
Up	AHD
Down	CVBS/Analog
Left	TVI
Right	CVI

BNC Connector

Camera
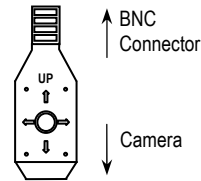
Navigating the OSD:

1. Press down (enter) on the joystick.
   The Main Menu will be displayed on the monitor.
2. Move to and highlight the required function by moving the joystick up and down.
3. Select the required function by pressing enter on the joystick.
4. Change the menu setting by moving the joystick left or right.

```
MAIN MENU
  AE                    ↵
  AWB                   ↵
  DAY - NIGHT           ↵
  IMAGE ENHANCE         ↵
  VIDEO OUTPUT          ↵
  LANGUAGE        ◄ ENGLISH ►
  RESET
  SAVE - EXIT
  EXIT
```

5. After choosing the settings, move the cursor to select the option to RESET, SAVE & END, or EXIT.
6. Press enter on the joystick to make the selection and leave the OSD menu.

NOTE: A submenu is available where the menu displays ↵.

Menu Diagram:

MAIN MENU	SETTING	SETTING OPTIONS	
AUTO EXPOSURE	BRIGHTNESS	1~20 (DEFAULT: 6), 1~100 (DEFAULT 41)*	
	BLC	1~9 (DEFAULT: 1), 0~7 (DEFAULT: 4)*	
	GLOBE		
	FLC*		
	CENTER*		
AUTO WHITE BAL	ATW		
	MANUAL	RED: 1~127 (DEFAULT: 40), 0~63 (DEFAULT: 0)*	
		BLUE: 1~127 (DEFAULT: 30), 0~63 (DEFAULT: 0)*	
	GRAY WORLD*		
DAY & NIGHT	EXT		
	B/W		
	COLOR		
	AUTO†		
IMAGE ENHANCE	CONTRAST	1~16 (DEFAULT: 5)	
		AUTO, MANUAL: 0~20 (DEFAULT:10)*	
	SHARPNESS	1~16 (DEFAULT: 5)	
	SATURATE*	AUTO, MANUAL: 0~20 (DEFAULT:10)	
	COLOR GAIN†	1~16 (DEFAULT: 4)	
	DNR†	1~16 (DEFAULT: 7)	
	2DNR*	AUTO, MANUAL: 0~20 (DEFAULT: 0)	
	3DNR*	AUTO, MANUAL: 0~20 (DEFAULT: 0)	
	MIRROR†	DEFAULT,H,V,HV	
	D-WDR†	ON, OFF (DEFAULT OFF)	
VIDEO OUTPUT	TVI	5MP 20FPS	
		1080P 30FPS, 1080P 25FPS*	
	CVBS	NTSC, PAL	
	AHD	5MP 20FPS	
		1080P 30FPS, 1080P 25FPS*	
	CVI	4MP 30/25 FPS	
		1080P 30FPS, 1080P 25FPS*	
LANGUAGE	ENG / CHN1 / CHN2 / ITA / RUS / POR		
	ENG/ CH1/CH2/ ITA/ RUS/ POR/ POL/ JAP/ KOR/ GRK*		
EXIT	RESET		
	SAVE-EXIT		
	EXIT		

Exposure:

This function is used to select the camera's exposure settings, including brightness, and exposure modes: Globe and BLC.

1. Select Auto Exposure "AE" on the Main Menu screen.
2. Select the desired Exposure operation by moving the joystick up or down, and select the desired setting by moving the joystick left or right and pressing enter to enter the sub-menu (if applicable).

```
EXPOSURE
  BRIGHTNESS       ◄ 6 ►
  EXPOSURE MODE    ◄ GLOBE ►
  RETURN
```

- **BRIGHTNESS**: Adjust the camera's brightness from 1~20 (Default: 6), 1~100 (Default: 41)*

*Settings for EV-Y2251 series only
† Settings for EV-Y1501, EV-Y2501 series only

Exposure (Continued):

EXPOSURE MODE:
- **GLOBE:** Automatically adjusts light level based on environment.

- **BACKLIGHT (BLC)**: This function is used to control the light level to overcome strong backlight conditions. Select Back Light Compensation (BLC) to correct the exposure of the subjects that are in front of a strong backlight. Enter menu to adjust settings.
    - o LEVEL: Adjust the BLC level from 1~9 (Default: 1).
    - o LEVEL: Adjust the BLC level from 0~7 (Default 4)*

- **FLC*:** This function is used to control the light level to overcome strong front light conditions.

- **CENTER*:** This function samples the center of the image to determine the exposure for the entire field of view.

- **RETURN:** Return to the MAIN MENU screen.


```
EXPOSURE
  BRIGHTNESS        ◄ 6 ►
  EXPOSURE MODE     ◄ BLC ►
  LEVELS            ◄ 1 ►
  RETURN
```


BLC ON

BLC OFF

Auto White Balance (AWB):

This function is used to adjust the color temperature and image color of the picture.
1. Select AWB on the Main Menu screen.
2. Select the desired White Balance operation by moving the joystick to the left or right and pressing enter to enter the sub-menu (if applicable).
3. Use the joystick to adjust the settings.

- **ATW**: Select Automatic Tracking White Balance (ATW) to automatically adjust the white balance color temperature range from 3,200°K~9,200°K when the image color temperature changes.

```
WB
  MODE              ◄ ATW ►
  RETURN
```

- **MANUAL**: Select MANUAL to manually adjust the blue and red color temperature values for the area.
    - o RED: Set the red gain value. Adjust from 0~127 (Default: 40). 0~63 (Default: 0)*
    - o BLUE: Set the blue gain value. Adjust from 0~127 (Default: 30). 0~63 (Default: 0)*

```
WB
  MODE              ◄ MWB ►
  RGAIN             ◄ 40 ►
  BGAIN             ◄ 30 ►
  RETURN
```

- **GRAY WORLD*:** This function adjusts the white balance to gray rather than white resulting in better exposure based on the environment.

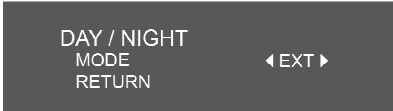- **RETURN:** Return to the MAIN MENU screen.
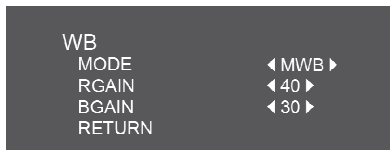
*Settings for EV-Y2251 series only

Day and Night:

This function is used to adjust the transition between color and black & white modes automatically based on the current lighting conditions.

1. Select DAY & NIGHT on the Main Menu screen.
2. Select the desired Day & Night operation by moving the joystick to the left or right.
3. Use the joystick to adjust the settings.

- **EXT**: Select External (EXT) mode to automatically switch between Color and B/W modes by using the integrated IR CDS sensor.

```
DAY / NIGHT
   MODE            ◀ EXT ▶
   RETURN
```

- **B/W**: Select B/W to force the camera to display in B/W mode at all times.

- **COLOR**: Select COLOR to force the camera to display in color mode at all times.

- **AUTO†**: Select AUTO mode to automatically switch between Color and B/W modes by using AGC values set by the camera.

- **RETURN:** Return to the MAIN MENU screen.

NOTE: If DAY & NIGHT is set to B/W then WHITE BAL is not available.

Image Enhance:

This function accesses the video image enhances functions such as sharpness, contrast, color gain, DNR, mirror, and D-WDR.

1. Select Image Enhance (IE) on the Main Menu screen.
2. Select the desired menu operation by moving the joystick to the left or right and pressing enter to enter the sub-menu (if applicable).
3. Use the joystick to adjust the settings.

- **CONTRAST**: The difference between the lightest and darkest parts of an image or video stream.
  - o LEVEL: Higher values will result in increased difference of light and dark. Adjust from 0~16 (Default: 5). AUTO, Manual: 0~20 (Default: 10)*
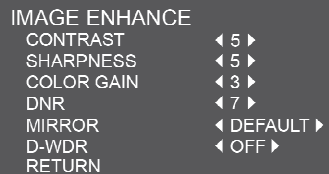
```
IMAGE ENHANCE
   CONTRAST       ◀ 5 ▶
   SHARPNESS      ◀ 5 ▶
   COLOR GAIN     ◀ 3 ▶
   DNR            ◀ 7 ▶
   MIRROR       ◀ DEFAULT ▶
   D-WDR         ◀ OFF ▶
   RETURN
```

- **SHARPNESS**: Adjust to increase the contrast of edges in a video or image.
  - o LEVEL: Higher values will result in increased edge contrast detection. Adjust from 0~16 (Default: 5). AUTO, Manual: 0~20 (Default: 8)*

- **COLOR GAIN†:** This function is used to reduce or increase the color saturation intensity.
  - o Select the desired COLOR GAIN setting by moving the joystick left or right.
  - o LEVEL: Higher values increase the Color Gain effect. Adjust from 1~16 (Default: 4).
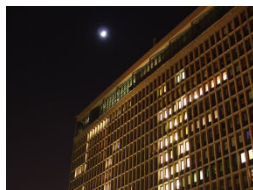
*Settings for EV-Y2251 series only
† Settings for EV-Y1501, EV-Y2501 series only

Image Enhance (Continued):

- **SATURATE*:** This function is used to increase and decrease the amount of color hue within the frame.
  AUTO: Automatically adjusts color saturation
  MANUAL: Select the desired setting by moving the joystick left or right.
  - o LEVEL: Adjust from 0~20 (Default 10)

- **2DNR*:** Select the 2D Digital Noise Reduction (2DNR) for general lighting conditions. Higher levels of DNR will decrease the noise in the image but also potentially affect the sharpness.
  - o AUTO
  - o LEVEL: Adjust from 0~20 (Default 0)

- **3DNR*:** Select the 3D Digital Noise Reduction (3DNR) for low lighting conditions. Higher levels of DNR will decrease the noise in the image but also potentially increase after images.
  - o AUTO
  - o LEVEL: Adjust from 0~20 (Default 0)

- **DIGITAL NOISE REDUCTION (DNR)†:** This function is used to control the reduction of digital noise in low-light conditions.
  - o Select the desired setting by moving the joystick left or right.
  - o LEVEL: Higher values increase the DNR effect. Adjust from 1~16 (Default: 7).

- **MIRROR†:** Adjust the camera's mirror settings to change the viewing orientation of the camera.
  - o H: Flip the video orientation horizontally.
  - o V: Flip the video orientation vertically.
  - o HV: Flip the video orientation horizontally and vertically.

- **D-WDR†:** Adjust the camera's digital wide dynamic range (D-WDR) settings to provide clear images even under intense back light conditions.
  - o OFF: Turn D-WDR off (Default OFF).
  - o ON: Turn D-WDR on.
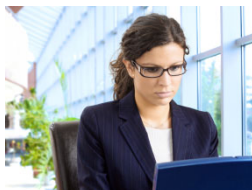
- **RETURN:** Return to the MAIN MENU screen.
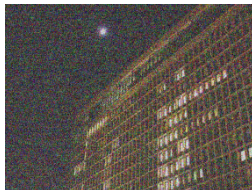
DNR OFF

DNR ON

D-WDR OFF

D-WDR ON

*Settings for EV-Y2251 series only
† Settings for EV-Y1501, EV-Y2501 series only

Video Output:

This function is used to change the Video Output and Video Standards.

1. Select VIDEO OUTPUT on the Main Menu screen.
2. Select the desired operation by moving the joystick to the left or right and pressing enter.

    HD: **TVI**: 5MP 20FPS. 1080p / 25/30 FPS*
         CVBS: NTSC, PAL
         AHD: 5MP 20FPS. 1080p / 25/30 FPS*
         CVI: 4MP 25/30FPS. 1080p / 25/30 FPS*

```
      VIDEO OUTPUT
      HD                 ◄ CVI ►
      VIDEO STANDARD     ◄ 4 MP 30 ►
      RETURN
```

- **RETURN:** Return to the MAIN MENU screen

- **LANGUAGE**: Set the desired OSD menu language. Select from English, Chinese1 (Simplified), Chinese2 (Traditional), Italian, Russian, Portuguese, Japanese*, Polish*, French*, Korean*, Greek*.

*Settings for EV-Y2251 series only

Exit:

This function is used to save all OSD changes and exit the menu screen, reset all values to their factory defaults, or exit the menu screen without saving any changes.

1. Select EXIT on the Main Menu screen.
2. Select the desired operation by moving the joystick to the left or right and pressing enter.

- **RESET**: Restore all OSD settings to factory defaults and exit the OSD menu.
- **SAVE & END**: Save all OSD changes and exit the OSD menu.
- **EXIT**: Exit the OSD menu without saving any changes.

IMPORTANT: Users and installers of this product are responsible for ensuring this product complies with all national, state, and local laws and statutes related to monitoring and recording audio and video signals. SECO-LARM will not be held responsible for the use of this product in violation of any current laws or statutes.

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