ENFORCER®

4-in-1 HD Cameras with WDR

On-Screen Display Manual

EV-Y2501-AMWWQ shown

Model	Lens	Resolution	Voltage	Style	Color
EV-Y2501-A2WWQ	2.8mm	5MP	12VDC	Turret	White
EV-Y2501-AMWWQ	2.8~12 mm				
EV-Y1501-A2WWQ	2.8mm			Bullet	
EV-Y1501-AMWWQ	2.8~12 mm				

SECO-LARM®

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Programmable Features

- **True Wide Dynamic Range (WDR) –** Provides clear images even under circumstances where backlight illumination can vary
- **Multiple Output Formats** – Can select between multiple different formats: AHD, CVI, TVI, and CVBS
- **Exposure** – Adjustable exposure settings, including brightness, and exposure modes.
- **Back Light Compensation (BLC) –** Adjusts the exposure to properly display the subject in front of bright light sources
- **White Balance –** Adjusts the picture's color temperature/image color
- **Day & Night** – Adjusts the level of ambient light that triggers the camera to switch between color and B/W modes
- **Digital Noise Reduction (DNR) –** Adjusts for less interference on the screen in an area with low illumination

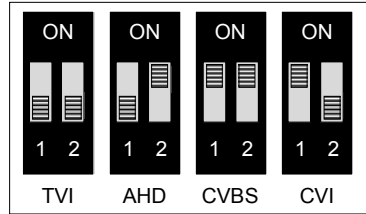WDR Off   WDR On

BLC Off   BLC On

DNR Off   DNR On

NOTE: All screen images in this manual are simulated.

OSD DIP Switch

Set the Format via the OSD DIP Switch (located on the camera), move the DIP Switches to the following combinations. The format selected will determine the settings shown on the On-Screen Display Menu.

Format	Dip Switch 1	DIP Switch 2
TVI (Default)	OFF	OFF
AHD	OFF	ON
CVBS (Analog)	ON	ON
CVI	ON	OFF

Main Menu

```
MAIN
  AE                          ↵
  AWB                         ↵
  DAY/NIGHT                   ↵
  IMAGE ENHANCE               ↵
  VIDEO SETTING               ↵
  LANGUAGE               ◄ENGLISH►
  WDR                     ◄OFF►
  FUNC                        ↵
  RESET
  SAVE&EXIT
  EXIT
```

NOTE: An ↵ indicates that a submenu is available.

Menu Diagram

Main Menu	Setting		Setting Options
AE	**Brightness**		1~100 (Default: 36)
	BLC		0~7 (Default: 4)
	Global		—
AWB	**Mode**	**Pro**	R Gain: 0~100 (Default: 50)
			B Gain: 0~100 (Default: 50)
		Grayworld	R Gain: 0~100 (Default: 50)
			B Gain: 0~100 (Default: 50)
Day Night	**Ext**		—
	B/W		—
	Color		—
Image Enhance	**Contrast**		Auto, Manual: 0~20 (Default:6)
	Sharpness		Auto, Manual: 0~20 (Default:3)
	Saturate		Auto, Manual: 0~20 (Default:10)
	3DNR		Auto, Manual: 0~20 (Default:6)
	2DNR		Auto, Manual: 0~20 (Default:19)
	Flip		On, Off (Default Off)
	Mirror		On, Off (Default Off)
Video Setting	**TVI**		5MP 20FPS, 4MP 30FPS, 4MP 25FPS, 1080P 30FPS, 1080P 25FPS
	CVBS		NTSC, PAL
	AHD		5MP 20FPS, 4MP 30FPS, 4MP 25FPS, 1080P 30FPS, 1080P 25FPS
	CVI		4MP 30FPS, 4MP 25FPS, 1080P 30FPS, 1080P 25FPS
Language			ENG/ CH1/CH2/ ITA/ RUS/ POR/ POL/ JAP/ KOR/ FRE
WDR			On, Off (Default Off)
Func > Privacy	**Mode**		On, Off (Default Off)
	Arena 0~3		Set privacy zone
	Color		Black, red, green, blue
	Transparency		On, Off (default Off)
Reset			
Save & Exit			
Exit			

Exposure

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

1. Select Auto Exposure "AE" on the Main Menu screen.
2. Select the desired Exposure operation.

- **BRIGHTNESS –** Adjust the camera's brightness from 1~100 (Default: 36).
- **Exposure Mode:**
  - o **GLOBAL –** Choose to automatically adjust light level based on environment.
  - o **BACKLIGHT (BLC) –** Choose to allow the camera to automatically 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 the menu to adjust settings.
    - ▪ **LEVEL –** Adjust the BLC level from 0~7 (Default: 4).
- **RETURN –** Return to the MAIN MENU screen.

```
E X P O S U R E
  B R I G H T N E S S          ◀ 3 6 ▶
  E X P O S U R E M O D E      ◀ GLOBAL ▶
  R E T U R N
```

```
E X P O S U R E
  B R I G H T N E S S          ◀ 3 6 ▶
  E X P O S U R E M O D E      ◀ B L C ▶
  B L C                        ◀ 4 ▶
  R E T U R N
```
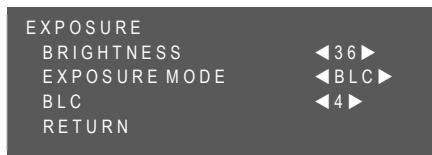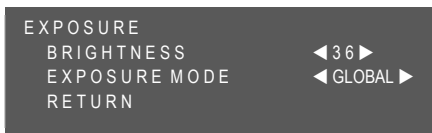
BLC Off   BLC On

Auto White Balance (AWB)

This function is used to adjust the color temperature and image color of the picture.

```
A W B
  M O D E          ◀ G R A Y  W O R L D ▶
  R G A I N        ◀ 5 0 ▶
  B G A I N        ◀ 5 0 ▶
  R E T U R N
```

1. Select AWB on the Main Menu screen.
2. Select the desired White Balance operation.
3. Adjust the settings.

- **Mode:**
  - o **PRO –** Select MANUAL to manually adjust the blue and red color temperature values for the area.
    - ▪ **RGAIN –** Set the red gain value. Adjust from 0~100 (Default: 50).
    - ▪ **BGAIN –** Set the blue gain value. Adjust from 0~100 (Default: 50).
  - o **GRAY WORLD –** This function adjusts the white balance to gray rather than white resulting in better exposure based on the environment.
    - ▪ **RGAIN –** Set the red gain value. Adjust from 0~100 (Default: 50).
    - ▪ **BGAIN –** Set the blue gain value. Adjust from 0~100 (Default: 50).
- **RETURN –** Return to the MAIN MENU screen.

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.

```
DAY NIGHT
MODE          ◄EXT►
RETURN
```

2. Select the desired mode.

- **Mode**
  - ○ **EXT –** Select External (EXT) mode to automatically switch between Color and B/W modes by using the integrated IR CDS sensor.
  - ○ **COLOR –** Select COLOR to force the camera to display in color mode at all times.
  - ○ **B/W –** Select B/W to force the camera to display in B/W mode at all times.
- **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 to enhance functions such as contrast, sharpness, saturation, 3DNR, 2DNR, flip, and mirror.

1. Select IMAGE ENHANCE on the Main Menu screen.
2. Select the desired menu operation.
3. Adjust the settings.

- **CONTRAST –** Adjust the difference between the lightest and darkest parts of an image or video stream.
  - ○ **AUTO**
  - ○ **MANUAL –** 0~20 (Default: 6).
- **SHARPNESS –** Adjust to increase the contrast of edges in a video or image.
  - ○ **AUTO**
  - ○ **MANUAL –** 0~20 (Default: 3).

```
IMAGE ENHANCE
    CONTRAST        ◄AUTO►
    SHARPNESS       ◄AUTO►
    SATURATE        ◄AUTO►
    3DNR            ◄AUTO►
    2DNR            ◄AUTO►
    FLIP            ◄OFF►
    MIRROR      ◄OFF►
    RETURN
```
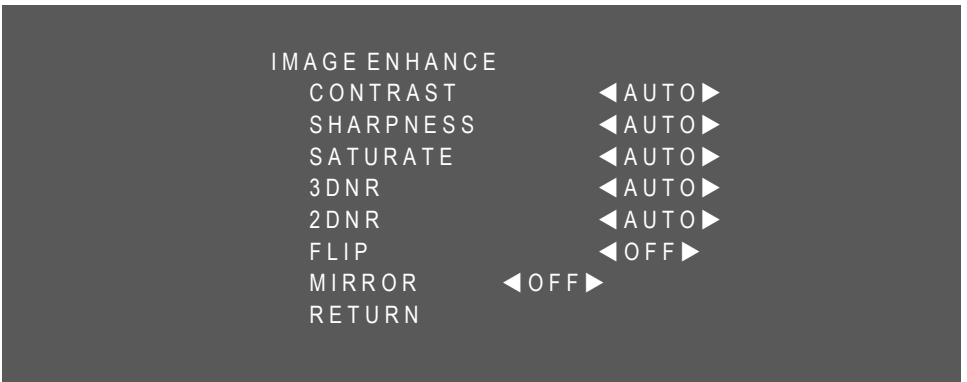
Image Enhance (Continued)

- **SATURATE –** This function is used to increase or decrease the amount of color hue within the frame.
  - ○ **AUTO**
  - ○ **Manual –** Adjust from 0~20 (Default: 10).
- **3DNR –** Select 3D Digital Noise Reduction (3DNR) for general lighting conditions. Higher levels of DNR will decrease the noise in the image but also potentially affect the sharpness.
  - ○ **AUTO**
  - ○ **MANUAL:** Adjust from 0~20 (Default: 6).

DNR Off

- **2DNR –** Select 2D Digital Noise Reduction (2DNR) for low lighting conditions. Higher levels of DNR will decrease the noise in the image but also potentially increase after images.
  - ○ **AUTO**
  - ○ **MANUAL:** Adjust from 0~20 (Default: 19).

DNR On

- **FLIP –** Select ON (Default: OFF) to flip the display vertically.
- **MIRROR –** Select ON (Default: OFF) to flip the display horizontally.
- **RETURN –** Return to the MAIN MENU screen.

Video Setting

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

1. Select VIDEO SETTING on the Main Menu screen.
2. Select the desired operation.
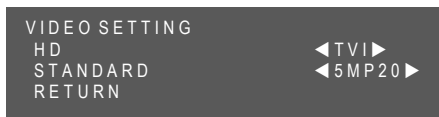
- **HD**
  - ○ **TVI**
    - ▪ **STANDARD –** 5MP 20FPS. 4MP 30/25FPS,1080p 30/25FPS (Default: 5MP 20FPS)
  - ○ **AHD**
    - ▪ **STANDARD –** 5MP 20FPS. 4MP 30/25FPS, 1080p 30/25FPS (Default: 5MP 20FPS)
  - ○ **CVI**
    - ▪ **STANDARD –** 4MP 30/25FPS, 1080p 30/25FPS (Default: 4MP 30FPS)
  - ○ **CVBS**
    - ▪ **STANDARD –** NTSC, PAL (Default: NTSC)

Language

Set the desired OSD menu language. Select from English, Chinese1 (Simplified), Chinese2 (Traditional), Russian, Spanish, French, Polish, Italian, Portuguese, Japanese, or Korean.

WDR

WDR provides clear images even under circumstances where backlight illumination can vary.

- **WDR –** ON/OFF (Default: ON)

WDR Off   WDR On

Privacy

This function is used to create privacy zones on the display.

1. Select **FUNC** on the Main Menu screen.
2. Select **PRIVACY**.
3. Select the desired operation.

```
FUNC
 PRIVACY                        ↵
 RETURN
```

```
PRIVACY
 MODE                      ◄OFF►
 AREA0                        ↵
 AREA1                        ↵
 AREA2                        ↵
 AREA3                        ↵
 COLOR                   ◄BLACK►
 TRANSPARENCY             ◄OFF►
 RETURN
```

- **MODE –** Select ON/OFF.
- **AREA (0~3) –** Can activate up to 4 zones on the display.
  - **DISPLAY–** ON/OFF (Default: OFF)
  - **XPOSITION START –** 0~100 (Default: 0)
  - **YPOSITION START –** 0~100 (Default: 0)
  - **WIDTH –** 0~100 (Default: 28)
  - **HEIGHT–** 0~100 (Default: 39)
- **COLOR –** Choose between Black, Red, Green, or Blue (Default: Black).
- **TRANSPARENCY –** Select ON/OFF (Default: OFF).
- **RETURN –** Return to MAIN MENU screen.

Exit

- **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.

SECO-LARM ® U.S.A., Inc.

16842 Millikan Avenue, Irvine, CA 92606
Phone: (949) 261-2999 | (800) 662-0800

Website: www.seco-larm.com
Email: sales@seco-larm.com

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