

#### EZ600/W EZ600/B

# **HIGH PERFORMANCE BULLET CAMERA**

OPERATION MANUAL



Before attempting to connect or operate, please read and follow these instructions

CAUTIONS

## This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

This device may not cause harmful interference.
 This device must accept any interference received, including interference that may cause undesired operation.

#### Note -

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual may cause harmfu interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense."

#### WARNING -

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures

#### **Caution** -

Do not make any changes to the houseing or internal parts. This could void the FCC certification and may void the warranty.

## A CAUTION A

1. IF DC power is used regulated DC12V 500mA power supply is recommended for use with this camera for the best picture and the most stable operation

An unregulated power supply may cause damage to the camera If an unregulated power supply is used, product warranty may be void 2. It is recommended that the camera is used with a monitor that has a CCTV quality 75Ω video impedance level. If your monitor or other equipment is switched to high impedance then please adjust accordingly 3. Do not attempt to disassemble the camera to gain access to the internal components. Refer servicing to the manufacturer

4. Never face the camera towards the sun or any bright or reflective light. which may cause smear on the picture and possible damage to the CCD. 5. Do not remove the serial number sticker.

# CAUTIONS

# Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

#### (Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicate that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

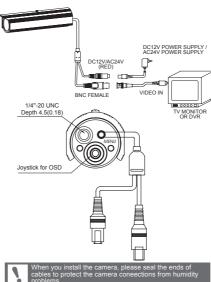
This product should not be mixed with other commercial wastes purchased this product, or their local government office, for details of where and how they can take item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. Household users should contact either the retailer where they for disposal



This symbol is intended to alert the user to the presence of important operating and maintenance(servicing) instruction in the literature accompanying the appliance.

# CONNECTION



## FEATURES

 1/3" Sony Super-HAD CCD II Minimum illumination 0.00002 Lux (F1.2, 30 IRE, Sense-up X256, AGC high ) S/N Ratio 50dB

## High Resolution 600TV Lines

This camera displays a high resolution of 600 TV Lines using sophisticated full digital image processing, 10 bit A/D serial signal processing and special algorithm technologies.

## · 3D DNR (3D Digital Noise Reduction)

The DNR technology greatly reduces noise thus delivering a crisp and clear image. This camera's DNR function utilizes an adaptive 3D Filter to reduce

noise caused by movement and the evironment.

## DAY&NIGHT

The Day & Night operation feature an 'auto' mode which switches between color and B&W modes automatically based on the level of illumination in the scene. The COLOR mode operates during bright conditions to provide optimum colors while the B&W Mode operates during dark conditions to enhance the definition of the image. Or, the camera may be set to return a color image at all light levels

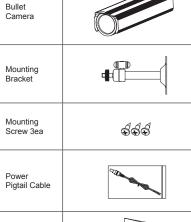
## · Privacy Mask Function

The Privacy masking feature allows for the 'blanking' of specific areas in a scene where viewing or recording is prohibited or not desired

## OSD (On Screen Display)

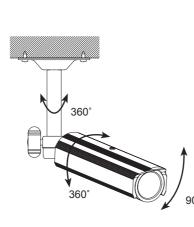
This camera is easily configured with its OSD (On Screen Display), menu. The menu can be displayed in multiple languages.

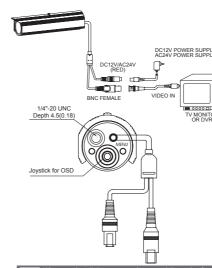
COMPONENTS



Operation Manual

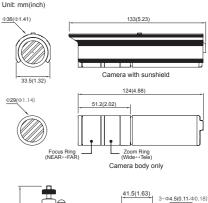
# MOUNTING POSITION

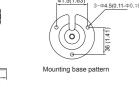




# DIMENSIONS

Φ60(Φ2.36 Mount





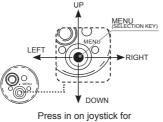
# SPECIFICATION

Signal Format	NTSC	PAL
Image Device	1/3" Sony Super HAD CCD II	
Total Pixels	811(H) x 508(V) approx.410K pixels	795(H) x 596(V) approx. 470K pixels
Effective Pixels	768(H) x 494(V) approx. 380K pixels	752(H) x 582(V) approx. 440K pixels
Inter. H/V	15,734/59.94Hz	15,625/50Hz
H.Resolution	600TV L	ines
Minimum illumination	0.00002 Lux / F1.2 ( Sense- up )	
S/N Ratio	More than 50dB (AGC Off)	
Electronic Shutter	1/60 ~ 1/100.000 sec	1/50 ~ 1/100.000 sec
Manual Shutter	1/60(50), FLK, 1/250, 1/500, 1/2K, 1/5K, 1/10K, 1/100K X2, X4, X8, X16, X32, X64, X128, X256	
Sense-up	X2, X4, X8, X16, X32, X64, X128, X256 (8X Recommended)	
AGC	Off / Low / Middle / High	
White Balance	ATW / PUSH / PUSH-LOCK / MANUAL / INDOOR / OUTDOOR	
Sync System	Internal	
Privacy Zone	8 Zone	
Flickerless	OFF/ON	
Lens	varifocal (f3.5 ~ 16.0mm)	
3DNR	Off / On (Plus Level setting)	
Motion Detection	4 Areas	
Language	English, French, Russian, German, Spanish, Dutch	
Additional DSP Functions	Mirror(H,V,H/V), Digital Zoom, Freeze,Negative Image, BLC, D-WDR	
Video Output	CVBS	
Input Power	DC12V ±10% Max 170mA AC24V ±10% Max 1.8W	

# OSD MANUAL

GENERAL STRUCTURE

SETUP MENU		
EXPOSURE	•SHUTTER •BRIGHTNESS •AGC •SENSE-UP •BLC •D-WDR	
WHITE BAL	•ATW •PUSH •PUSH-LOCK •MANUAL •INDOOR •OUTDOOR	
DAY&NIGHT	·COLOR ·B/W ·AUTO	
MAGE	•FREEZE •MIRROR •D-ZOOM •SHARPNESS •COLOR GAIN •GAMMA •NEG.IMAGE	
DNR	•LEVEL •RETURN	
SPECIAL	•CAM TITLE   •LANGUAGE  •MOTION   •PRIVACY	
RESET	•FACTORY RESET	
EXIT		



enter/select

# OSD MANUAL

#### 3 DAY&NIGHT

: Switching the output image from COLOR when in a bright environment to B&W when dark.

DAY & NIGHT AUTO				
DWELL TIME D-N LEVEL N-D LEVEL RETURN				

- AUTO : Color or B/W mode auto change

- DETECT MODE VIDEO : Select to detect mode as level of VIDEO.
- · DWELL TIME : Duration of continuous lighting condition (Bright or Dark) before
- switching mode. (0~10 SEC).

- . D>N LEVEL : The Level where the change occurs from COLOR(Day) to BW(Night). • N>D LEVEL : The Level where the change occurs from
- BW(Night) to COLOR(Day).
- B/W : Image output is fixed at B&W.
- BURST ON/OFF : Select the burst signal ON/OFF when Night condition.
- COLOR : Enables user to fix the output image in COLOR at all light levels.

## OSD MANUAL

#### 4 IMAGE

: Configurations for the following settings: FREEZE, MIRROR D-ZOOM, SHARPNESS, COLOR GAIN, GAMMA, NEGATIVE IMAGE



- FREEZE : Freezes the output image(use requires real time access to the camera controls).

- MIRROR

- MIRROR : Output image is mirrored (Left to Right).
  V-FLIP : Output image is flipped vertically (Up and Down).
  ROTATION : Output image is rotated 180-degrees.
- D-ZOOM : Digitally Zooms in on a section of the screen
- SHARPNESS : Sharpness of the output image can be adjusted.
- COLOR GAIN : RED GAIN or BLUE GAIN can be adjusted.
- GAMMA · Gamma vaule can be set
- NEG.IMAGE : Output image is coverted to a negative image

3DNR

I EVEI

RETURN

RET

### 5 3DNR

: Three-dimensional Noise Reduction

- LEVEL : The degree of noise

reduction can be set

# OSD MANUAL

## OSD FUNCTION DESCRIPTION

### 1. EXPOSURE

SHUTTER

: Enables the user to configure the following functions: SHUTTER, AGC, SENSE-UP, BLC. D-WDR

	EXPOSURE	
	SHUTTER BRIGHTNESS AGC SENSE-UP BLC D-WDR RETURN	AUTO 50 OFF AUTO BLC <sup>J</sup> OFF RET <sup>J</sup>
be set	manually.	

FIXED: Allow the shutter speed to be set manually.
 > 1/60(50), 1/250, 1/500, 1/2K, 1/5K, 1/10K, 1/100K

(NTSC: 1/100, PAL: 1/120) \* ( ) is for PAL TYPE

- BRIGHTNESS : AUTO Mode Only.

 AUTO : Exposure is controlled automatically FLK : Enable FLICKERLESS

- AGC : Low, Middle, High. \*If AGC feature is turned off, 3D-DNR & SENS-UP Features will not be available.

- SENSE-UP : Slow shutter speed control

(max of 8~16 recommended)

- BLC : Back Light Compensation. · HSBLC : Highlight Suppression BLC will darken bright parts of the image.
- D-WDR : Allows accurate display of images during high contrast lighting conditions.

## **OSD MANUAL**

#### 6 SPECIAL

: Configurations for the following settings: CAM TITLE, LANGUAGE. MOTION, PRIVACY.

SPECIAL	
CAM TITLE	OFF
LANGUAGE	ENGLISH
MOTION	ON <sup>니</sup>
PRIVACY	ON <sup>니</sup>
RETURN	RET <sup>니</sup>

- CAMERA TITLE : Displays the title editing menu - LANGUAGE : The Language to display the OSD in.

(English, Russian, Spanish, German, French, Dutch).

- MOTION : The camera will monitor the output image for motion and display a OSD Icon uppon detection. • AREA SELECT : 4 areas can be selected for motion detection.

- AREA DISPLAY : Areas of motion detection can be toggled
- on and off LEFT/RIGHT : Moves the detection area left and right
- WIDTH : The width of the detection area is set.
- TOP/BOTTOM : Moves the detection area up and down.
- · HEIGHT : he height of the detection area is set. · SENSITIVITY : Level of sensitivity for detecting motion is set.
- · MOTION VIEW : Displays the areas of motion on the screen.

# **OSD MANUAL**

## 2. WHITE BALANCE

: Enable the user to set the White Balance through controlling R.G.B I evels



· ATW : White Balance is traced automatically through a wide range of color temperatures.

(2.500K ~ 9.500K)

- · PUSH : White Balance is automatically adjusted for the current color temperature.
- · P-LOCK : White Balance is Fixed to the current state. White Balance will be readjusted everytime this function is used
- · MANUAL : Enable the manual adjustment of RED GAIN and BLUE GAIN
- · INDOOR : White Blance is automatically adjusted at 3,200K base color temperature.
- · OUTDOOR : White Blance is automatically adjusted at 5,400K base color temperature

## **OSD MANUAL**

#### - PRIVACY : Up to 8 areas of the output image can be obscured.

- · AREA SELECT : Select up to 8 areas.
- · AREA DISPLAY : Displays the masked areas.
- · LEFT/RIGHT : Moves the pricacy area rght and left. · WIDTH : The width of the privacy area is set.
- · TOP/BOTTOM : Moves the pricacy area rght and left up and

down. • HEIGHT : the height of the privacy area is set. · COLOR : Color to use for the mask is set.

## 7. RESET

: Returns the camera to its factory default.

