

Operation Instruction



700TVL High Resolution Day / Night Weather Resistant Outdoor IR Bullet Camera EZ632e

EVERFOCUS ELECTRONICS CORPORATION

Operation Instruction

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Please read this manual first for correct installation and operation. This manual should be retained for future reference. The information in this manual was current when published. The manufacturer reserves the right to revise and improve its products. All specifications are therefore subject to change without notice.

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PRECAUTIONS

1. Do not install the camera near electric or magnetic fields.

Install the camera away from TV/radio transmitters, magnets, electric motors, transformers and audio speakers since the electromagnetic fields generated from these devices may distort the video image or otherwise interfere with camera operation.

- 2. Never disassemble the camera beyond the recommendations in this manual nor introduce materials other than those recommended herein. Improper disassembly or introduction of corrosive materials may result in equipment failure or other damage.
- 3. Try to avoid facing the camera toward the sun. In some circumstances, direct sunlight may cause permanent damage to the sensor and/or internal circuits, as well as creating unbalanced illumination beyond the capability of the camera to compensate.
- 4. Keep the power cord away from water and other liquids and never touch the power cord with wet hands. Touching a wet power cord with your hands or touching the power cord with wet hands may result in electric shock.
- 5. Never install the camera in areas exposed to oil, gas or solvents. Oil, gas or solvents may result in equipment failure, electric shock or, in extreme cases, fire.

6. Cleaning

For cameras with interchangeable lenses, do not touch the surface of the sensor directly with the hands. Use lens tissue or a cotton tipped applicator and ethanol to clean the sensor and the camera lens. Use a damp soft cloth to remove any dirt from the camera body. Please do not use complex solvents, corrosive or abrasive agents for cleaning of any part of the camera.

7. Do not operate the camera beyond the specified temperature, humidity or power source ratings. This camera is suitable for indoor and outdoor operation. Use the camera at temperatures within -40°C~50°C (-40°F~122°F) and in an IP66 compliant environment; this device is not rated as submersible. The input power source is 12VDC. The use of properly fused or Class 2 power limited type supplies is highly recommended.

8. Mounting

Use care in selecting a solid mounting surface which will support the weight of the camera plus any wind, snow, ice or other loading, and securely attach the camera to the mounting surface using screws and anchors which will properly support the camera. If necessary (e.g. when mounting to drop ceilings) use a safety wire to provide additional support for the camera.

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ATTENTION! This is a class A product which may cause radio interference in a domestic environment; in this case, the user may be urged to take adequate measures.

Federal Communication Commission Interference Statement



This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures :

•Reorient or relocate the receiving antenna.

•Increase the separation between the equipment and receiver.

•Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

•Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the users' authority to operate this equipment.

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Chapter

1. Product Overview

Amazing low light sensitivity of 0.03 lux *before* the added benefits of advanced DSP technology, delivered by a 1/3" Sony Exview HAD CCD II 960H sensor, is just the beginning with the new EverFocus EZ632e. Equip with 42 IR LEDs to get extended IR range, variable output IR control to manage illumination and conserve energy, 700TVL resolution, full motion true day/night images even with *no* ambient light without ghosting, plus Digital Wide Dynamic Range (Sony ATR technology) smoothly work with BLC, AGC, AWB functions to handle the most challenging of bright or unbalanced scene lighting conditions. Easy to mount and install, Vandal resistant, IP66, with external focal adjustment varifocal auto iris lens and a full suite of OSD Menu and DSP functions controllable at the camera. This is the camera you have been waiting for, and might be the only camera you'll ever need.

1.1 Features

- True Day/Night camera with Sony 1/3" Exview HAD CCD II 960H Sensor, 700 TVL resolution.
- Sony Effio-E platform to provide advanced camera functions.
- Vari-Focal DC Iris Lens 3.7~12mm or 9~22mm with ICR.
- High sensitivity, low smear, high anti-blooming and high S/N ratio for high performance video.
- True Day/Night with ICR module and 42 IR LEDs reach up to 40m (~130ft.) range.
- Switchable 10m / 20m / 40m IR Range for different range of requirements.
- Easy to use OSD Setup Menu.
- D-WDR functions by Sony ATR technology.
- Built-in Auto Electronic Shutter (AES), Auto Gain Control (AGC), Back Light Compensation (BLC) and Auto White Balance (AWB).
- Built-in Motion Detection, Privacy Mask advanced surveillance functions.
- Internal wire system with anti-cut bracket.
- Auto Blemish compensation up to 32 points.
- External manual focus adjustment.
- Weather Resistant IP66, Vandal Resistant and built-in heater.

1.2 Accessory Parts List

Please be careful when you unpack the box due to the electronics devices inside. Check and make sure that you have all the items listed below inside the original box:

- EXD330e camera x 1
- User Manual x 1
- Power adapter pigtail x 1
- Mounting template x 1
- Accessory kit x 1 (containing mounting screws and plastic anchors)

Please Note: If an item appears to have been damaged in shipment, replace it properly in its carton and notify the shipper. If any items are missing, notify your EverFocus Electronics Corp. Sales Representative or Customer Service. The shipping carton is the safest container in which the unit may be transported. Save it for possible future use.

Pickup Device	1/3" SONY Exview HAD CCD II (960H)
Video Format	NTSC or PAL (depends on model selected)
Picture Elements	976 x 494 (NTSC), 976 x 582 (PAL)
Horizontal Resolution	700 TVL
Sensitivity	0.03 Lux / F=1.2 ; 0 Lux (IR LED On)
S/N Ratio	Over 48dB (AGC off)
Electronic Shutter	1/60 (1/50) ~ 1/100,000s
Video Output	BNC 1.0V p-p 75Ω,
Gamma Correction	0.45
Lens Type	Vari-Focal DC Iris Lens 3.7~12mm / F1.6 with ICR Vari-Focal DC Iris Lens 9~22mm / F1.6 with ICR
Back Light Compensation	On /Off
Auto Gain Control	Yes
White Balance	Auto / Indoor / Outdoor / Manual / Push Auto
Sync. Mode	Internal
Day & Night	True Day/Night with ICR control module
OSD menu	Yes (English / Japanese / German / French / Russian / Portuguese / Spanish / Simplified Chinese)
DNR	On / Off
D-WDR (ATR)	On / Off
Mirror	On / Off
Motion Detection	On / Off for 24x16 Detection Blocks
Privacy Mask	Off/On for 8 Areas (Size Adjustable)
IR LED	42 Units IR LED
IR Configuration	10m / 20m /40m DIP Switchable
IR Wavelength	850nm
IR Range	40m max.
Power Source	12VDC
Power Consumption	12VDC: 24W max. (With Heater Operation)
Operating Temperature	-40°C~50°C ; -40°F~122°F (built-in heater)
Weather Proof	IP66 rated
Heater	Yes, built-in
Vandal Resistant	Yes
Dimensions	109mm(W) x 267mm(L) x 172mm(H) ; 4.3"(W) x 10.5"(L) x 6.8"(H)
Weight	1,080g / 2.4 lbs
Certifications	CE / FCC

1.3 Specifications

1.4 Dimensions



Chapter **2**

2. Installation and Connection

2.1 Installation of the Camera

Use the supplied screws (in the appurtenance bag), and secure the camera in position.



2.2 Adjust 2-Axis Bracket

Adjust the bracket while checking the view angle from the monitor. Loosen the X-Y screws and then adjust the 2-Axis bracket (X-Y to get the desired viewing angle).



NOTE: This product is not suitable for horizontal 360° continuous rotation.

2.3 Focus Adjustment

Focus adjustment should be done with zoom focus at the same time. Use the screwdriver to adjust the zoom/ focus ratio (from wide to tele or near to far). *NOTE: Focus adjustment position may be different depending on model type.*



2.4 Remove the Controller Cap

Use a coin to remove the controller cap and make adjustments.



The Table below shows the suggested LED brightness and IR distance adjustment:

LED Brightness	IR Distance	Focal Length
H (High)	25m~40m	9~22mm
M (Middle)	15m~25m	6~12mm
L (Low)	10m~15m	3.7~6mm

(1) Function Switch

1 Left Key 2 Up Key 3 Enter Key 4 Right Key 5 Down

(2) IR Distance Adjustment

Installer may use IR adjustment function according to installation conditions. It is suggested that the view angle should be verified before setting up the IR distance.

2.5 Install Sunshield

To install the sunshield, please follow the instruction shown below:



2.6 Connect to a Monitor

Connect the Video-out port of the camera to a monitor. As the connecting method varies depending on the instrument, therefore refer to the manual supplied with the instrument for more information.



2.7 Connect the Power

Connect to a DC 12V, 500mA adaptor or an AC 24/ DC 12V adaptor (optional).



Note: The Alarm out application cable is an optional item, the standard type does not provides it.

Chapter 3

3. OSD Menu & Configuration

Main Menu Display

	OSD Setup Menu page 1
LENS	AUTO.↓
SHUTTER /AGC	AUTO ₄
WHITE BAL	ATW
BACKLIGHT	OFF
ATR	OFF
NR	ل ه
PICT ADJUST	ل ه
NEXT≁	
EXIT ₄ SAVE	ALL

OSD Setup Menu page 2		
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

3.1 OSD Main Menu Description

3.1.1 LENS: MANUAL /AUTO selectable.

• LENS: MAUNAL

Adjustment is not required.

• LENS: AUTO

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

AUTO: Camera automatically controls the lens.

OPEN: Lens is fully open.

CLOSE: Lens is fully closed.

SPEED: Speed of the lens.

3.1.2 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

	MODE: SHUT+AGC
MANUAL	SHUTTER: 1/60, 1/100, 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.

3.1.3 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

B-GAIN: 000~255
R-GAIN: 000~255

• WHITE BAL.: MANUAL

MANUAL	LEVEL: 19~54
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• 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

It detects the Color Temperature to save it into the camera.

3.1.4 BACKLIGHT: BLC / HLC / OFF selectable.

• BACKLIGHT.: BLC

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

• BACKLIGHT.: HLC

Enable the function of High Light Compensation.

3.1.5 ATR: ON / OFF selectable.

	ATR.:	ON
--	-------	----

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

LUMINANCE: Set the extension of the luminance compression CONTRAST: Set the extension of the contrast enhancement.

NOTE: If ATR function is enabled, please avoid to enable the BACKLIGHT function at the same time.

3.1.6 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.

3.1.7 PICTADJUST: ↓

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

Adjust all camera parameters.

3.1.8 NEXT: ↓

Move to MAIN MENU.

3.1.9 EXIT: ↓

Exit OSD to choose the list.

3..1.10 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.

3.1.11 PRIVACY: ON / OFF selectable.

PRIVACY: 0	N	
AREA SEL	Max. 8	
TOP	000~244 (NTSC) / 000~288(PAL)	
BOTTOM	000~244 (NTSC) / 000~288(PAL)	
LEFT	560TVL: 000~378 (NTSC)、000~370 (PAL)	
	650TVL: 000~474 (NTSC)、000~468 (PAL)	
RIGHT	560TVL: 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
- Set the left side of the mask frame selected LEFT:
- Set the right side of the mask frame selected RIGHT:
- 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.

3.1.12 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)	
	540TVL: 000~378 (NTSC)、000~370 (PAL)	
	650TVL: 000~474 (NTSC)、 000~468 (PAL)	
RIGHT	540TVL: 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		

3.1.13 CAMERA ID: ON / OFF selectable.

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

ABCDEFGHIJKLMNOPQRSTUV WXYZ0123456789-!"#\$%&' ()_ ,¥: ; <=>?@\^*.x+/	Each User Font
$\leftarrow \to \uparrow \downarrow$	The camera ID cursor moves in the direction of the arrow when the Enter operation input is performed from the status in which \leftarrow , \rightarrow , \uparrow or \downarrow 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.

	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
POS	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.

3.1.14 LANGUAGE

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

3.1.15 CAMERA RESET

Reset Factory default setup.

3.1.16 BACK

Return to MAIN MENU, page1.

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