

Installation and Operating Instruction Manual

NIGHTVISION OUTDOOR IR BULLET CAMERA



ERN-L3665N / ERN-L3665P

Thank you for your purchase of this product. Before attempting to connect or operate this product, please read these instructions carefully. Product specifications and its contents subject to change without any prior notice. The picture is for reference, the object as the standard.

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1. General Information

► Safety Precaution

1. Read these instructions carefully before commissioning the camera in order to avoid damages caused by improper installation or use.
2. Do not harm the camera and avoid striking, shaking, etc. The camera could be damaged by improper handling or storage.
3. Use a dry cloth to clean the camera glass when dirty. When the dirt is hard to remove, use a mild detergent and wipe gently. Then wipe off the remaining detergent with a dry cloth.
4. Do not aim the camera at bright objects. Whether the camera is in use or not, never aim it at the sun or other extremely bright objects. Otherwise, blooming or smears may be caused.
5. In case of outdoor use, you have to install the camera in a suitable weather protection case incl. heating element.
6. Operate the camera with the designated voltage only.
7. Use the camera at temperatures within -10 C to +50 C and humidity below 90%.

► Package Contents

1. Outdoor Bullet Camera
2. Operating Instructions
3. Mounting Template Sticker

Caution
To Reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

2. Installation of Camera

► Camera Connections

12V DC Power Supply

Use standard 12V DC output power supply with 2.1mm standard DC power female pin. Before connect power check power supply polarity (+ and -).



Video Output Connection

Use standard 75Ω Male BNC pin terminate with Co-axial video cable then connect to camera video out BNC Female pin.

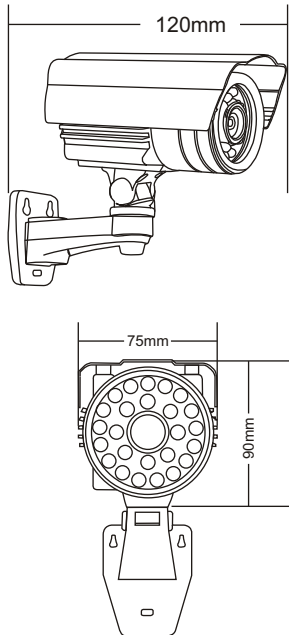
► Installation of Camera

Mounting Template Sticker: The mentioned technical drawing is for reference only. Actual size of Mounting Template Sticker is matched with Dome Base. Stick Mounting Template Sticker supplied for drilling the mounting hole on the mounting surface.

► Tips for Camera Location

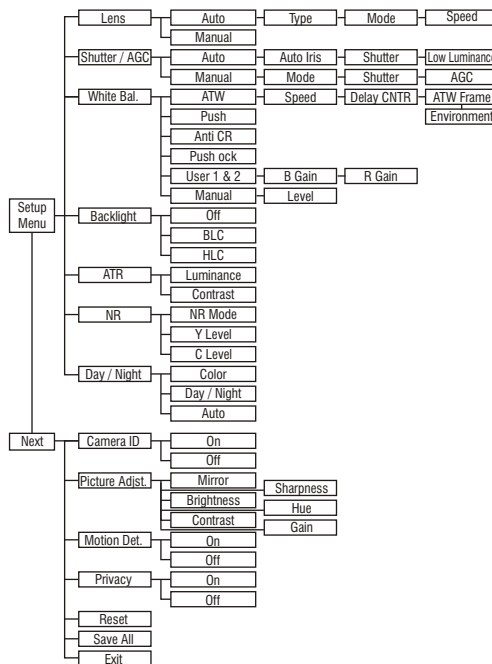
1. Never expose the camera to direct sunlight without additional camera housing. Keep sufficient distance to direct heat sources.
2. Never install the camera at humid, oily or dusty locations without using an additional housing. (Without additional housing the camera is not suitable for outdoor use)
3. Do not aim the camera towards indoor lighting, the windows, the sunlight or the sky. (To get good pictures, camera and light should be aimed towards the object)
4. Avoid peak light as background (Also caused by reflection)

► Dimension



3. Operation Guide :

► Menu Structure



Function Description

1. Lens :

- Type : Auto / Type, Mode, Speed & Manual
- TYPE : DC / VIDEO Lens selection.
- MODE : AUTO / OPEN / CLOSE
- SPEED : Adjusts the iris control speed.

2. Shutter & AGC :

2 Mode - Auto & Manual. To set Auto Exposure or Manual Exposure

AUTO : Auto Exposure mode selection.

- HIGH LUMINANCE

AUTO IRIS : In this mode, the electronic shutter value is fixed, and auto exposure control is exercised over the middle and high brightness areas using the mechanical iris. (When Lens is AUTO)

SHUT+AUTO IRIS : In this mode, auto exposure control is exercised in the middle-brightness areas using the electronic shutter and in the high-brightness areas using the mechanical iris. (When Lens is AUTO)

SHUT : In this mode, auto exposure control is exercised in the middle and high-brightness areas using the electronic shutter. Select this to control the shutter speed automatically. (When Lens is MANUAL)

BRIGHTNESS (000~255) : Convergence target position adjustment in middle- and high-brightness areas.

- LOW LUMINANCE

MODE : AGC / OFF, **BRIGHTNESS :** Convergence target position adjustment in low-brightness areas

MANUAL : The shutter speed is controlled manually.

MODE : SHUT+AGC is the only option available for the manual operation mode.

SHUTTER : Sets the shutter speed. **AGC :** Sets the AGC value [dB].

3. White Balance:

6 Mode - ATW, Push, Anti CR, Push Lock, User 1 & 2, Manual

ATW : Select when the color temperature is between 1800°K and 10500°K.

4 Level - Speed: Adjusts the pull-in speed ATW,

Delay Cntrl : Sets the time-based hysteresis of ATW.,

ATW Frame : Sets the pull-in frame magnification.,
Environment : Set the pull-in frame(Indoor / Outdoor) of ATW.

INDOOR : Select when the color temperature is between 4500°K and 8500°K.

OUTDOOR : Select when the color temperature is between 1800°K and 10500°K.

Push : This mode has no operation frame or other limitations and performs correction so that the R:G:B evaluation value is always 1:1:1

ANTI CR : This mode suppress the color rolling which arises when there are slight deviations between the blinking frequency of non inverter fluorescent lights and the drive frequency of the image sensor devices.

PUSH LOCK : To fine the optimal luminance level for the correct environment, point the camera towards a sheet of white paper and press the function setup switch.

User 1 & 2 : 2 level - B Gain & R Gain
The B and R gain values for manual WB are set on this screen. Afterwards switch to mode fine-tune the White Balance and then press the SET button.
Manual : Level up to 054

4. Backlight : 3 Mode - Off, BLC & HLC

BLC : Enables a user to directly select a desired area from a picture, and to view the area more clearly.

HLC (High Light Compensation) : If the scene contains extremely brightly light areas such as; from car headlight, the light can mask out much of the on-screen detail. Use HLC feature to remove these exceptionally brightly light areas to allow detail such as car number plates to become visible.

5. ATR : 2 Mode - Luminance, Contrast

LUMINANCE : Sets the extent of the luminance compression.

CONTRAST : Sets the extent of the contrast enhancement.

6. NR : 3 Mode - NR Mode, Y Level & C Level

Set the NR mode to 'ON' and press the SET button. The noise reduction level can now be adjusted.

7. Day/Night : 3 Mode - Color, Day/night & Auto

COLOR : The picture is displayed in color.

B/W : The picture is always displayed in black and white.

AUTO : This camera has an IR Cut-Filter and automatically changes to the appropriate mode according to lighting levels. To set up the switching time and switching speed for the AUTO mode press the SET button.

8. Camera ID : 2 Mode - On & Off, A TO Z, 0 TO 9, & etc. You can set position of ID. Up to 15 alphanumeric characters can be used.

9. Picture Adjustment :

6 Mode - Mirror, brightness, Contrast, Sharpness, Hue & Gain

10. Motion Detection :

2 Mode - OFF/ON with 4 selectable zone with sensitivity level

- DETECT SENSE (000 ~ 127) :

When the SENSITIVITY value is high, motion detection sensitivity is increased to recognize small movements.

- BLOCK DISP (ON / OFF / ENABLE) :

Controls the ON/OFF status of the motion detection block display. The display switches to the "dead baud setting" screen when the enter operation input is performed from the enable selected status.

- MONITOR AREA : Set whether the use the monitoring frames.

- AREA SEL (1/4, 2/4, 3/4, 4/4) : Selects the monitoring from to be set. Adjust the size of the area to be observed by selecting the LEFT, RIGHT, TOP or BOTTOM.

- RETURN : It return to the Second SETUP menu.

11. Privacy : 2 Mode - OFF/ON with 8 selectable zone.

12. LANGUAGE : Select the appropriate menu language.

12. Reset : Resets the camera settings to the factory defaults.

13. Save All : To save the current settings.

14. Exit : To exit the SETUP menu.

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4. Technical Specification

Model Number	ERN-L3665N	ERN-L3665P
Video		
Signal System	NTSC	PAL
CCD	1/3" Sony Effio CCD	
Lens	6.0 mm M12 Standard Lens	
Effective Pixel	976(H) x 582(V)	976(H) x 494(V)
Horizontal Resolution	650 TVL	
Min Illumination@ Day	0.5 Lux	
Min Illumination@ Night	0 Lux @ IR ON	
Scanning Frequency (H)	15.734KHz	15.625KHz
Scanning Frequency (V)	60KHz	50Hz
Gamma	Default 0.45	
S/N Ratio	52 db	
Video Output	1Vp-p, 75Ω	
Sync System	Internal	
Night Vision		
IR LED	36 IR LED	
IR Distance	25-30 Meter	
IR Wave Length	850nm	
Diameter	ø0.5	
Operational		
Lens Adjustment	Auto(Mode & Speed Adjustable) / Manual	
Shutter Speed	AUTO / Manual / Anti- Flicker	
White Balance	ATW / PUSH LOCK / USER1 / USER2 / ANTI CR / MANUAL / PUSH	
AGC	X0.25 ~ X1.00	
BLC	Off/ BLC / HLC	
ATR-EX(D-WDR)	On/Off (Luminance & Contrast Adjustable)	
Day/Night Mode	Auto / Color / B/W / Ext	
DNR	2 DNR, On/Off	
Motion Detection	ON / OFF, 4 Zone	
Privacy Masking	ON / OFF, 4 Zone	
OSD Menu	Yes	

Mirror	ON/OFF
Scanning Type	2:1 Interlace
Camera ID Name	On/Off
Electrical	
Power Supply	12V DC Standard ±10%
Current Consumption	90mA
IR Consumption	450mA
Environmental	
Operating Temperature	-20°C ~ 50°C
Humidity	95%
Protection Class	Ip66
Dimensional	
Housing	Outdoor Wall mount with Cable managed Bracket
Weight	700g
Dimension	150 (L) x 100(H) x 65(W)

5. Troubleshooting

Error	Cause
No Picture	Check supply voltage, check power cable and video cable
The picture is noisy	Insufficient light (Properly adjusted to the camera)
The picture is too bright	Too much peak light, change camera location or active back light function of the camera
The picture is not sharp	Lens focus not adjusted properly
The picture is distorted	Different GND potentials between camera and monitor (Bad connection)
Ghost Image	Wrong 75 termination, shield of video cable interrupted.

6. Cleaning and Care

- Before you start to clean the camera body, disconnect the unit from power supply.
- For reasons of electrical safety never clean the camera with water or other liquid matters and never put the camera under water.
- To clean use a soft dry cloth. Cleaning the camera inside is strictly forbidden and may only be done by your authorized dealer.
- Since all camera functions are self adjusting and the camera does not contain any parts or components that are subject to wear. We advice you not to open the camera (except for the flap for settings), unless the camera appears to be defective.

7. Maintenance and Support

1. How to request after-sale service?

Whenever you want to send repairing material back to us kindly use the same channel from where you purchased the material and must be attached with Return Material Authorization (RMA) Form. Download it from our website.
<http://www.eyerisdigital.com/RMAForm.pdf>

2. Following cases should be paid even within the warranty period.

- When defects are caused by the careless handling of the user.
- When improper or unauthorized repairs are done or when the inside is modified or damaged.
- Defects caused by natural disaster or power problem.

Technical Support: For any type of product operation, Function, Installation related queries or want to know more about our product details specification or function, Visit our website or E-mail to us.
<http://www.eyerisdigital.com/support.html>