

M107-N501-001



HIGH PERFORMANCE  
**Super Night Vision Camera**  
OPERATION MANUAL



Thank you for choosing our high quality camera. Before attempting to connect operate this unit, please read and follow these instructions.

## **CAUTION**

**These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.**

**In USA and Canada, Use Class 2 Power Supply Only**

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# 1. CAUTIONS

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

1. This device may not cause harmful interference.
2. 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 harmful 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

Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### CAUTION

1. A regulated DC12V 1A power supply is recommended for use with this camera for the best picture and the most stable operation.  
**An unregulated power supply can cause damage to the camera.**  
**When unregulated power supply is applied, product warranty will be out of subject.**
2. It is recommended that the camera is used with a monitor that has a CCTV quality 75 video impedance level.  
If your monitor is switched to high impedance then please adjust accordingly.
3. Do not attempt to disassemble the camera to gain access to the internal componets. Refer servicing to your dealer.
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 sticker for the warranty service.**

# 1. 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.



### CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN



CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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

## 2. IMPORTANT SAFETY INSTRUCTION

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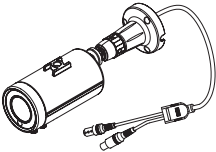




- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



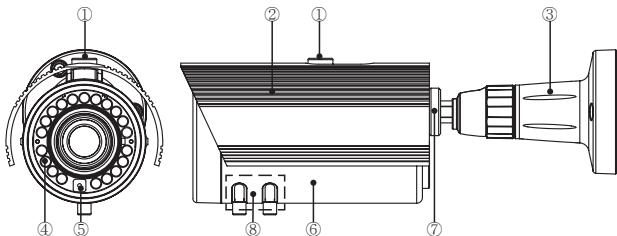
### 3. FEATURES

- 1/3"960H SONY EXview HAD CCD II
- High Resolution of 700TV Lines
- OSD Function
- Multi Language  
(ENGLISH / JAPANESE / GERMAN / FRENCH / RUSSIAN / PORTUGUESE / SPANISH / CHINESE)
- 2DNR
- Privacy Zone / Motion Detect
- Invisible IR
- DC12V / AC24V Dual Voltage
- ATR(Adaptive Tone-curve Reproduction / Digital WDR)  
The function provides gradation compensation to improve the contrast of subjects both low-luminance areas and high luminance areas exist in the same picture

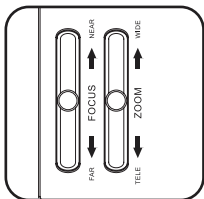
### 4. COMPONENTS

<b>SUPER NIGHT VISION CAMERA</b>	
<b>SUNSHIELD</b>	
<b>VIDEO OUTPUT TEST CABLE</b>	
<b>L-WRENCH / SCREW - 3ea / SUNSHIELD FIXING BOLT</b>	
<b>OPERATION MANUAL</b>	

## 5. NAME AND FUNCTION



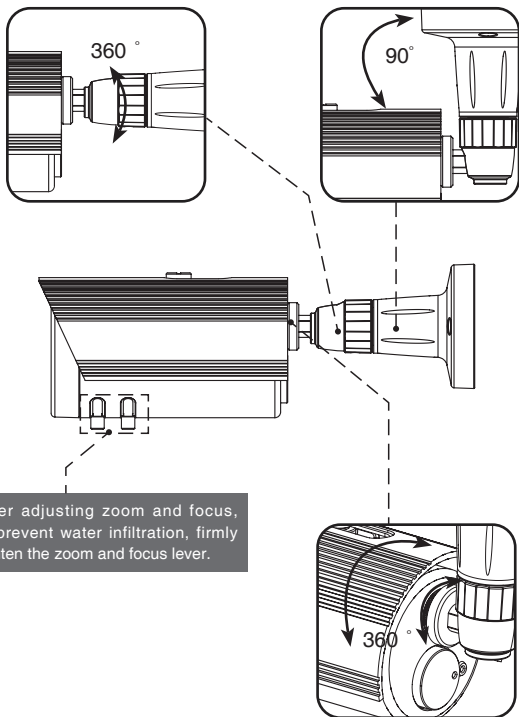
- ① Sunshield Fixing Bolt
- ② Sunshield
- ③ Mounting Bracket
- ④ LED : 20ea
- ⑤ Photo cell
- ⑥ Body
- ⑦ Body Fixing Ring
- ⑧ External Zoom and Focus adjustment





## 6. INSTALLATION

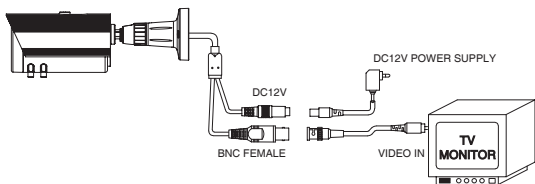
### • MOUNTING POSITION



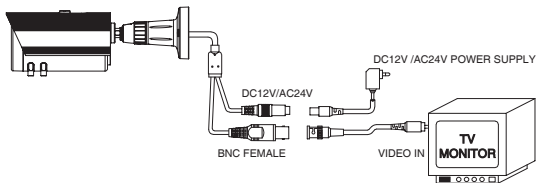
## 6. INSTALLATION

### • MONITOR CONNECTION

#### (1) DC12V

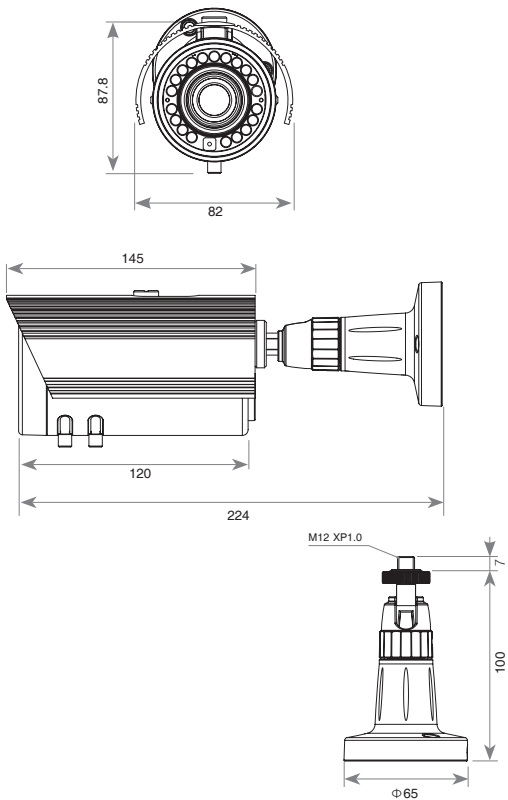


#### (2) DUAL(DC12V/AC24V)



When you install the camera, please glue up the end of cable to keep it stable in order to protect the camera from the humidity problems.

## 7. DIMENSIONS



## 8. SPECIFICATION

Signal Format	NTSC	PAL
Image Device	1/3"960H SONY EXview HAD CCD II	
Scanning System	2 : 1 Interlace	
Scanning Frequency	15.734KHz(H), 59.94Hz(V)	15.625KHz(H), 50Hz(V)
Total Pixels	1020(H) X 508(V)	1020(H) X 596(V)
Effective Pixels	976(H) X 494(V)	976(H) X 582(V)
Electronic Shutter Speed	1/60 sec	1/50 sec
H.Resolution	750TV Lines	
S/N Ratio	More than 50dB(AGC OFF)	
Min.Illumination	LED Off : COLOR (0.05Lux / F1.2), BW (0.02 Lux / F1.2) LED On : 0 Lux	
Sync System	Internal	
Gamma	r= 0.45	
Video Output Level	1.0 Vp-p Composite(75Ω)	
OSD	Built in (Inner Key / Joystick)	
BLC	OFF/BLC/HLC	
2DNR	OFF/ON(Level adjustable)	
ATR	OFF/ON(Level adjustable)	
Function	ATW / PUSH / USER1 / USER2 / ANTI CR / MANUAL / PUSH-LOCK	
White Balance	ATW / PUSH / USER1 / USER2 / ANTI CR / MANUAL / PUSH-LOCK	
Privacy Masking	4 Zones	
Motion Detection	4 Zones	
Day & Night(ICR)	AUTO	
Language	ENGLISH / JAPANESE / GERMAN / FRENCH / RUSSIAN / PORTUGUESE / SPANISH / CHINESE	
IP Rating	IP66 (Weatherproof)	
IR LED	940nm, 20ea	
IR LED Distance	Up to 25M	
Operating Temperature	14°F~122°F(-10°C~+50°C)	
Storage Temperature	-4°F~140°F(-20°C~+60°C)	
Humidity	Less than 80%	
Power Consumption	DC12V Only : DC12V (±10%), Max.270mA Dual : DC12V (±10%) Max.360mA , AC24V (±10%) Max.4.9W	
Lens	Varifocal Lens	
Dimension	82.0(W) x 79.3(H) x 145(D)	
Weight	Approx. 900g	

Specifications and designs are subject to change for improving the functionality of this product without notice.

# 9. OSD MENU STRUCTURE

MAIN MENU	1st Sub MENU	2nd Sub MENU	3rd Sub MENU	4th Sub MENU
LENS	MANUAL			
	AUTO	TYPE	DC	
		MODE	AUTO, OPEN, CLOSE	
		SPEED	(000 - 255)	
	RETURN			
SHUTTER / AGC	AUTO	HIGH LUMINANCE	MODE	SHUT, AUTO IRIS, SHUT+AUTO IRIS
			BRIGHTNESS	(000 - 255)
		LOW LUMINANCE	MODE	AGC, OFF
			BRIGHTNESS	x0.25, x0.50, x0.75, x1.00
		RETURN		
	MANUAL	MODE	SHUT+AGC	
		SHUTTER	1/50(PAL), 1/100(NTSC) 1/60(NTSC), 1/120(PAL) 1/250, 1/500, 1/1000 1/2000, 1/4000, 1/10000	
		AGC	6, 12, 18, 24, 30, 36, 42, 44, 8	
RETURN				
WHITE BAL	ATW	SPEED	(000 - 255)	
		DELAY CNT	(000 - 255)	
		ATW FRAME	x0.50, x1.00, x1.50, x2.00	
		ENVIRONMENT	INDOOR, OUTDOOR	
		RETURN		
	PUSH			
	USER1	B-GAIN	(000 - 255)	
		R-GAIN	(000 - 255)	
		RETURN		
	USER2	B-GAIN	(000 - 255)	
		R-GAIN	(000 - 255)	
		RETURN		
	ANTI CR			
	MANUAL	LEVEL	24 - 103	
RETURN				
PUSH LOCK				
BACK LIGHT	OFF, BLC, HLC			
PIC ADJUST	MIRROR	OFF, ON		
	BRIGHTNESS	(000 - 255)		
	CONTRAST	(000 - 255)		
	SHARPNESS	(000 - 255)		
	HUE	(000 - 255)		
	GAIN	(000 - 255)		
	RETURN			
ATR	ON	LUMINANCE	LOW, MID, HIGH	
		CONTRAST	LOW, MID, LOW, MID, MIDHIGH, HIGH	
		RETURN		
	OFF			

\*SHUT+IRIS: Both the Shutter and the Mechanical Iris are automatically adjusted according to brightness.

\*Auto Iris(Default): The Shutter stays at the manually selected value and only the Mechanical Iris adjusts to brightness.

## 9. OSD MENU STRUCTURE

MAIN MENU	1st Sub MENU	2nd Sub MENU	3rd Sub MENU	4th Sub MENU	
MOTION DET	ON	DETECT SENSE	(000 - 255)		
		BLOCK DISP	OFF,ON,ENABLE (CONTROLLER)		
		MONITOR AREA	ON,OFF		
		AREA SEL	1/4, 2/4, 3/4, 4/4		
			TOP		NTSC:(000 - 244) / PAL: (000 - 288)
			BOTTOM		NTSC:(000 - 244) / PAL: (000 - 288)
			LEFT		NTSC:(000 - 474) / PAL: (000 - 468)
		RIGHT		NTSC:(000 - 474) / PAL: (000 - 468)	
		RETURN			
	OFF				
NEXT					
EXIT					
SAVE ALL					
PRIVACY	ON	AREA SEL	1/4, 2/4, 3/4, 4/4		
			TOP		NTSC:(000 - 244) / PAL: (000 - 288)
			BOTTOM		NTSC:(000 - 244) / PAL: (000 - 288)
			LEFT		NTSC:(000 - 474) / PAL: (000 - 468)
			RIGHT		NTSC:(000 - 474) / PAL: (000 - 468)
		COLOR	(1 - 8)		
		TRANSP	0.00, 0.50, 0.75, 1.00		
		MOSAIC	OFF,ON		
	RETURN				
OFF					
NR	NR MODE	OFF,Y,C,Y/C			
	C LEVEL	(000 ~ 015)			
	Y LEVEL	(000 ~ 015)			
	RETURN				
CAMERA ID	ON	EDIT MODE			
		RETURN			
	OFF				
LANGUAGE	ENGLISH, 日本語, DEUTSCH, FRANCAIS, Русский, PORTUGUÉS, ESPAÑOL, 中文				
CAMERA RESET					
BACK					
EXIT					
SAVE ALL					

### \*Important Note :

- Any changes made to the camera settings must be saved prior to exiting the OSD menu. Else all changes will be discarded.
- By changing the lens option in the OSD from MANUAL to AUTO will automatically change the SHUTTER/AGC setting from AUTO IRIS to SHUT+AUTO IRIS. (Default:AUTO IRIS)