



## Instruction Manual

# 162-3010

## AHD IR Bullet Camera (1080P)

EN



**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 lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence or uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

**FCC WARNING:** This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

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.

\* Caution: Danger of explosion if battery is incorrectly replaced. Replaced only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

\* Holes in metal, through which insulated wires pass, shall have smooth well rounded surfaces or shall be provided with bushings.

**WARNING:** Do not install this equipment in a confined space such as a bookcase or similar unit.

**WARNING:** Wiring method shall be accordance with the National Electric Code, ANSI/NFPA 70

**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.

**WARNING:** To reduce a risk of fire or electric shock, do not expose this product to rain or moisture.

**Caution:** This installation should be made by a qualified service person and should conform to all local codes.

**Caution:** To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

**Caution:** The apparatus should not be exposed to water (dripping or splashing) and no objects filled with liquids, such as vases, should be placed on the apparatus.

### Disposal of your old appliance



1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.



This product is in compliance with the essential requirements and other relevant provisions of Directive 2004/108/EC and 2011/65/EU.

To disconnect power from the mains, pull out the mains cord plug. When install the product, ensure that the plug is easily accessible.

### Important Safety Instructions

1. **Read these instructions.** - All these safety and operating instructions should be read before the product is operated.
2. **Keep these instructions.** - The safety, operating and use instructions should be retained for future reference.
3. **Heed all warnings.** - All warnings on the product and in the operating instructions should be adhered to.
4. **Follow all instructions.** - All operating and use instructions should be followed.
5. Do not use this apparatus near water. - For example: near a bath tub, wash bowl, kitchen sink, laundry tub, in a wet basement; near a swimming pool; etc.
6. Clean only with dry cloth. - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. - Slots and openings in the cabinet are provided for ventilation, to ensure reliable operation of the product, and to protect it from overheating. The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and the manufacturer's instructions have been adhered to.
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, at 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 tipping 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 damage), liquid has been spilled or object has fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.





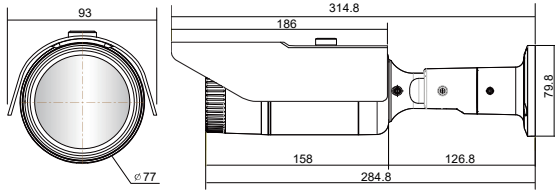
**CAUTION**

- Do not open or strike this equipment. Sensitive electronics inside are vulnerable to excessive shock.
  - Do not install the equipment near any naked flames or heat sources. Excessive heat could damage this unit.
  - Do not cover with a cloth or to install this unit in a poorly ventilated place. This may lead to overheating.
  - Do not continue to operate if there appears to be fault.
- If the unit ceases to function, contact qualified service personnel for help.
- Do not touch the power connection with wet hands as this increases the risk of short circuit or electric shock.
  - Do not damage the power cord as this increases the risk of fire or short circuit.



**FEATURE**

- 1/2.9", 2.12Mp Sony Exmor Sensor
- AHD(1080P)\_1100TVL
- CVBS(1280H)\_1000TVL
- Video Output : AHD / CVBS convertible
- Min. Ill. : 0.008 Lux / Color : 0.008Lux, B/W  
0.008 Lux / Color : 0.0008Lux, B/W
- 3D-DNR, D-WDR, Sens-up
- Mega f=2.8~12mm DC IRIS ICR Lens
- 40IR LEDs, IR Range Max. 40m
- Built-in OSD Key



Please connect AHD camera with "1080p AHD DVR" or "Hybrid DVR" to be available 1080p AHD image.

**Specifications**

Device	1/2.9 inch, 2.12 Megapixel Sony Exmor CMOS		
Total Pixels	2001(H) x 1121(V)		
Active Pixels	1936(H) x 1097(V)		
Scanning System	Progressive		
Resolution	CVBS(1280H)_950TVL AHD2.0 (1080P)_1100TVL		
S/N	More than 52dB		
Video Output	AHD2.0 & CVBS		
Min. Illumination	COLOR : 0.08Lux / BW : 0.008Lux Color Sen-up :0.008Lux / BW Sen-up :0.0008Lux Mega f=2.8~12mm DC IRIS ICR Lens		
LENS	ATW/ AWC-SET / INDOOR / OUTDOOR / MANUAL / AWB		
OSD Functions	White Balance	ATW/ AWC-SET / INDOOR / OUTDOOR / MANUAL / AWB	
	Exposure	DC / MANUAL	
	Shutter Speed	AHD	AUTO / FLK
		CVBS	NTSC :1/30 ~1/50,000sec / PAL :1/25 ~1/50,000sec
	SENS-UP	AUTO(x6) / x2,x4,x6,x8,x10,x15,x20,x25,x30	
	Backlight Compensation	OFF/BLC / HSBLC	
	Privacy Masking	4 Zone	
	Day & Night	AUTO / COLOR / BW / EXT	
	Motion Detection	OFF / ON	
	3DNR	AHD	OFF / LOW / MIDDLE / HIGH
		CVBS	
	Digital Effect	OFF / MIRROR / V-FLIP / ROTATE & FREEZE	
	Sharpness	Adjustable	
	Image Enhancement	D-WDR	
	DEFOG	ON / OFF	
Communication	Coaxial Comm..		
OSD	Built-in ( 5 direction Key)		
LANGUAGE	ENG/GER/FRA/ITA/SPA/POL/RUS/POR/NED /TUR/KOR/JPN/HEB/ARB		
POWER Input / Consumption	DC 12V ± 30% / 120mA(IR Off), 240mA(IR On)		
Operation Temperature	-10°C - +50°C		
Storage Temperature	-20°C - +60°C		
Dimension	φ77 X 186 mm		

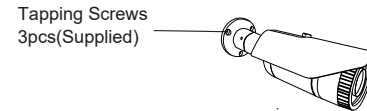
**How to use AHD IR Bullet Camera**

**Before using or Installing.**

Please do not make any attempt to disassemble this this camera.  
To avoid any electrical shock, please do not remove the camera cover and screw.  
Use a dry towel to wipe the camera and a weak cleaning detergent to remove any stains.  
please operate the camera within the temperature range -10°C and 50°C.  
Please do not operate the camera if there is a lot of smoke or gas, and under direct sunlight.  
Do not aim the camera directly at bright objects.  
Please handle the camera with care, and try not to hit or shake.  
Children should not handle or operate the camera.  
Use of 12Vdc. (Please use adapter 500mA for 12Vdc)  
Do not use the camera in a humid or wet area.  
Do not install the camera where there is a lot of vibration.  
Do not attempt to open the camera after installation and image adjustment.

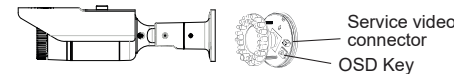
**Installing the camera**

1. Station Bracket on the wall or ceiling with screw gives to your desire area.
2. Loosen up the joint on the bracket using a wrench and set the bracket to the direction you want to monitor and tighten the joint.
3. Fix Sunshield on this camera.



**How to adjust OSD Key for OSD menu**

1. Open camera case at half portion of housing.
2. You can use Service video connector with portable monitor to configure the setting easily.
3. Adjust OSD menu to use OSD Key in the board.



**Lens Focus adjustment**

Manually turn the lever behind camera and set camera view to close range or distanced range, as well as setting up the camera focus.  
- For Zoom-out turn the knob to "W" direction  
- o Zoom-in turn the knob to "T" direction  
\* Until the camera focus is clear turn the focus lever to "N"(Close range) or "F"(Distanced range)  
\* After configuration close the case tightly to prevent any water smear.

Use the On Screen User manual to help operate the camera.

MAIN	SUB MENU	
LENS	MANUAL	
	DC ✓	MODE-INDOOR/OUTDOOR
		IRIS SPEED
EXPOSURE ✓	SHUTTER(AUTO, 1/30(25)~1/50000)/AGC(0~15) /SENS-UP(X2 ~ X30) /BRIGHTNESS(1~100) /D-WDR(AUTO/ON/OFF)/DEFOG(AUTO/OFF)	
BACKLIGHT	OFF / BLC / HSBLC	
WHITE BAL	ATW/AWC->SET/INDOOR/OUTDOOR /MANUAL/AWB	
DAY&NIGHT	AUTO ✓ (D/N : AGC, DELAY) / COLOR / BW ✓ (BURST/IR SMART/IR PWM) / EXT ✓ (DAY/NIGHT : DELAY)	
NR ✓	2DNR	OFF / LOW / MIDDLE / HIGH
	3DNR	OFF / LOW / MIDDLE / HIGH
SPECIAL ✓	CAM TITLE	ON ✓ / OFF
	D-EFFECT ✓	FREEZE / MIRROR / NEG.IMAGE
	MOTION	OFF/ON ✓ -AREA 1~4,COLOR...
	PRIVACY	OFF/ON ✓ -AREA 1~4,COLOR...
	LANGUAGE	ENG/GER/FRA/ITA/SPA/POL/RUS/ POR/NED/TUR/KOR/JPN/HEB/ARB
ADJUST	DEFECT ✓	LIVE DPC/WHITE DPC/BLACK DPC
	SHARPNESS	OFF / AUTO ✓
	MONITOR	CRT ✓ / LCD ✓
	LSC	OFF / ON
EXT	VIDEO.OUT	NTSC / PAL
	RESET ✓ / NOT SAVE ✓ / SAVE	

This camera uses an On Screen user MENU.  
To set items on the menu, select UP, DOWN, LEFT, RIGHT or SET options.

**Trouble Shooting**

If you are not able to view anything on your screen :

- \* Check the power, video, strength of signal, and monitor input / output.
- \* Check the camera connection without monitor.

**FOR FUZZY SCREEN**

- \* Check camera lens for dust or dirt. If present, wipe away with dry cloth or fine brush.
- \* Check the camera does not have direct exposure to sunlight.
- \* Ensure the camera protection film is removed before use.

**FOR DARK SCREEN**

- \* Check your monitor brightness.
- \* Adjust the camera position or angle of lens. If the problem remains, please contact technical support.