

Full HD Dome Camera



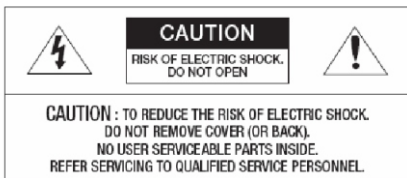
*Please read this manual thoroughly before use, and keep it handy for future reference.
Design and specifications are subject to change without notice.*

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECT THROUGH THE VENTILATION GRILLS OR OTHER OPENINGS ON THE EQUIPMENT.

Apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

CAUTION



EXPLANATION OF GRAPHICAL SYMBOLS



The lightning flash with arrowhead symbol, within an equilateral triangle, 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.



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 appliance.

FCC COMPLIANCE STATEMENT

INFORMATION TO THE USER: 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.

CAUTION: CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS A DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.

CET APPAREIL NUMÉRIQUE DE LA CLASSE A EST CONFORME À LA NORME NMB-003 DU CANADA.

CE COMPLIANCE STATEMENT

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

**RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS**

IMPORTANT SAFETY INSTRUCTIONS

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.
15. **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.**
16. Use satisfy clause 2.5 of IEC60950-1/UL60950-1 or Certified/Listed Class 2 power source only.
17. ITE is to be connected only to PoE networks without routing to the outside plant.



Precautions

- Do not install under extreme temperature conditions.
- Use only under temperature conditions between -10 and +50. Provide good ventilation when using in high temperature conditions.
- Do not install in high humidity environment.
- May lower image quality.
- Do not install under unstable lighting conditions.
- Severe lighting changes or flickering may hinder normal camera operation.
- Avoid touching the camera lens.
- The lens is the most important component of the camera. Be careful not to smear it with fingerprints.
- Do not drop the camera or subject it to physical shock.
- May cause a product malfunction.
- Never keep the camera face to strong light directly.
- May damage the CCD.
- Do not expose the camera to radioactivity.
- Radioactivity exposure may damage the CCD.

Notes:

Exposure to a spotlight or an object emitting strong light may cause smear or blooming. Ensure that the power source complies with normal specifications before supplying it to the camera. In case of IR LED has been lighted, do not let lights shine directly into your eye..

Introduction

The 1/2.9" 2.24M HD CMOS camera, especially for closed circuit television CCTV and security surveillance application.

Features:

- High performance SONY 1/2.9" Exmor CMOS™
- 1.0 lux(COLOR), 0 lux(BW, IR LED ON)
- Auto electronic shutter [1/60(1/50) ~ 1/50,000] and manual electronic shutter modes
- 25/30 fps @ 1080p
- BLC (Back-light compensation)
- Auto and manual white balance modes
- Day & Night (ICR) : EXT / Auto / Color / BW
- OSD (on screen display)
- 3 DNR (Digital Slow Shutter)
- DWDR
- Smart IR
- 24 EA, 850nm IR LED
- IR Range distance up to 25M
- Privacy mask Function (4zone)
- Motion Detection
- Defog
- HSBLC
- Operates in DC12V \pm 10%



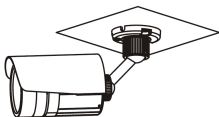
IMPORTANT : The user of this camera is responsible for checking and complying with local, state, and federal laws and statutes concerning the recording and monitoring of audio signals.

Installation

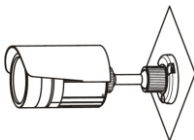
Attention:

The following Installation guide is only for reference for waterproof cameras.

Attaching to Ceiling



Attaching to the Wall



Attaching to the ceiling or wall

This section explains how to install the unit where cables are running through the interior of the ceiling or wall.

Drilling holes in the ceiling or wall:

Use the template included to mark out the position on the ceiling or wall where you want to install the unit.

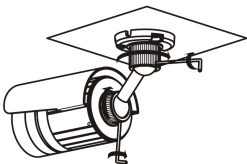
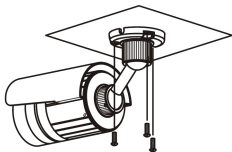
When running cables through the interior of the ceiling or wall, use the template, and drill three holes for screws used to attach the camera body and one hole for the cables(Cables).

CAUTIONS

Attached screws are not necessarily suitable for all applications. Ensure to check if the screws are suitable for the intended applications.

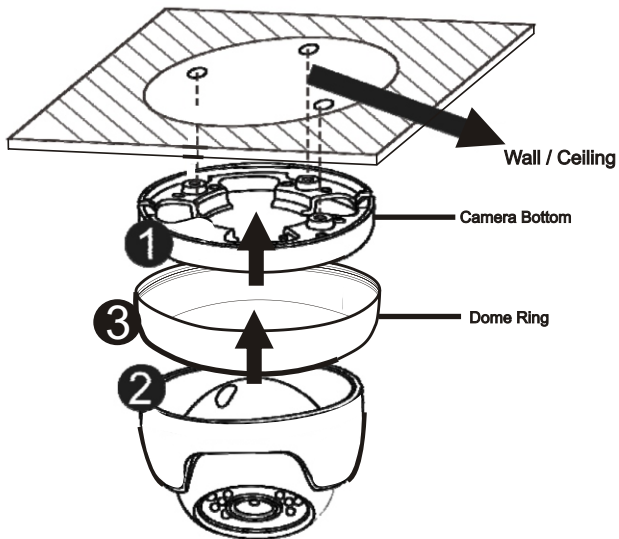
Adjusting the camera direction

This camera can be easily adjusted for viewing in all directions. After attaching the camera on the wall or ceiling, adjust camera for the desired direction. Then tighten each locking ring and lock rings with a hexagon wrench as shown in the picture below.



Carefully remove the contents from the box, and verify that nothing was damaged in shipment.

- 1) Disassemble the camera by removing the dome cover.
- 2) mount the camera assembly using the anchor(x3) and screws (x3) to the surface of the ceiling or wall.
- 3) Fix turn the dome ring to the camera



Wiring

- Please make sure that the power adapter can match with that of the camera
- The standard power supply of the camera is 12V DC.
- Please plug the power adapter not too far away because the transmission distance of DC is limited.

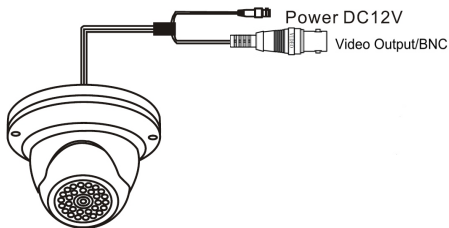
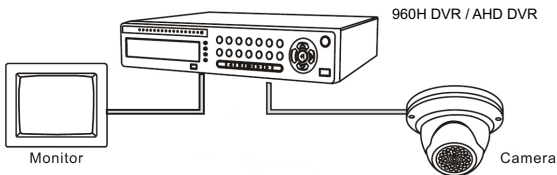


Figure 3.1 Connections

4.1 Connecting to Monitor

Please connect the video output terminal located on the back of the camera to the DVR, and connect the DVR to the monitor by VGA/HDMI cable.



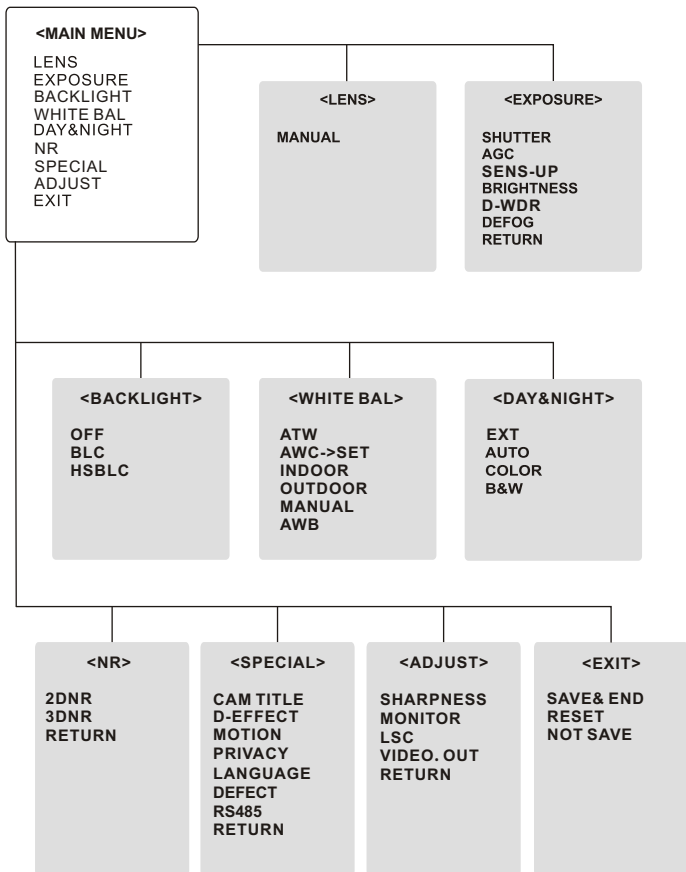
The connection method varied depending on the type of monitor and accessories.

Please check the power of the camera before the power supply.

Please turn off the power when connecting.

Notes: 960H DVR is also suitable for SD(D1, 960H) analog camera.

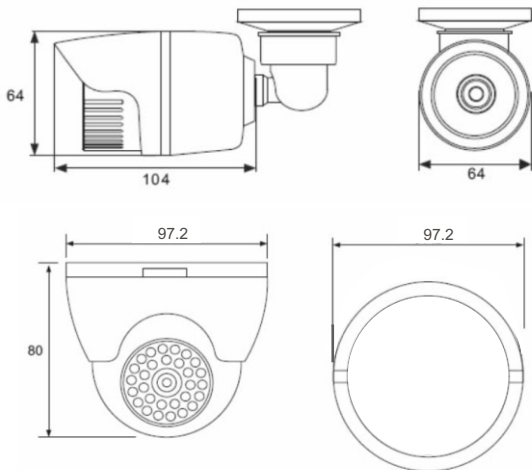
Structure of the setup menu



Specifications

MODEL		IR Turret Camera	IR Bullet Camera	
Power	Power Source	DC 12V ± 10%		
	Power Consumption	MAX 3.5 Watts (290mA)		
General	Image sensor	1/2.9" 2.24M Sony CMOS		
	Total Pixels	2000(H) x 1121(V)		
	Active Pixels	1920(H) x 1080(V)		
	Scanning system	Progressive		
	Sync. System	Internal		
	Video Frame Rate	1920x1080@25fps ; 1920x1080@30fps		
	Min. illumination	1.0 lux(COLOR), 0 lux(BW, IR LED ON)		
	IR	IR LED	24 IR LED(850nm)	
		Distance	25M	
	Camera Control	OSD (UTC control)		
S/N Ratio	More than 50dB (AGC off)			
Function	Lens	MANUAL		
	Exposure	Shutter	AUTO, 1/30, 1/60, FLK ~ 1/50,000 sec, x2/x4/x6x8/x10/x15/x20/x25/x30	
		AGC	1 ~ 15	
		SENS-UP	OFF / AUTO (x2, x4, x6, x8, x10, x15, x20, x25, x30)	
		Brightness	1 ~ 100	
		D-WDR	OFF / ON / AUTO	
		Defog	OFF / AUTO	
	Backlight	OFF / BLC / HSBL		
	White Balance	ATW / AWC / INDOOR / OUTDOOR / MANUAL / AWB		
	Day & Night	EXT / AUTO / COLOR / B&W		
	NR	2DNR	OFF / LOW / MIDDLE / HIGH	
		3DNR	OFF / LOW / MIDDLE / HIGH	
	S P E C I A L	Camera Title	OFF / ON	
		D-Effect	OFF / FREEZE / MIRROR / NEG.IMAGE	
		Motion	OFF / ON (4 zone)	
		Privacy	OFF / ON (4 zone)	
		Language	ENG / CHN1 / CHN2 / GER / FRA / ITA / SPA / POL / RUS / POR / NED / TUR	
		Defect	LIVE DPC / WHITE DPC / BLACK DPC	
		Sharpness	OFF / AUTO (0 ~ 10)	
		Monitor	CRT / LCD	
		LSC (Shading)	OFF / ON	
		Video mode	NTSC / PAL	
	Exit	OFF / ON		
	Exit	SAVE & EXIT / NO SAVE / RESET		
	Connector & etc.	Power input	DC Jack	
		Video out	BNC Connector - AHD	
		Transmission Distance	Over 300m via 75-3 coaxial cable	
Lens mount		Fixed mount		
Lens		f=3.6mm F2.0 Fixed Lens, ICR (D&N)		
Operating temperature		-4°F ~ 140°F (-20°C ~ +60°C)		
Operating humidity		0 ~ 96% (non-condensing)		
External dimension		97.2x 80mm(H)	∅64.5x 170mm(H)	
Weight		Vandal proof	IP66	

Dimension



Dimensions Unit: mm

Troubleshooting

If you have trouble operating your camera, refer to the following table.

If the guidelines do not enable you to solve the problem, contact an authorized technician.

Nothing appears on the screen.

Check that the power cord and line connection between the camera and monitor are fixed properly.

Check that you have properly connected the VIDEO cable to the camera VIDEO output jack.

The image on the screen is dim.

Is lens stained with dirt? Clean your lens with soft, clean cloth.

Set the monitor to proper condition.

If the camera is exposed to too strong light, change the camera position.

The image on the screen is dark.

Adjust the contrast feature of the monitor.

If you have an intermediate device, set the 75 Ω /Hi-z properly.

The camera is not working properly, and the surface of the camera is hot.

Check that you have properly connected the camera to an appropriate power source.

Bright background, dark foreground.

Use a camera with backlight compensations or reposition camera to avoid bright background and/or illuminate foreground to even lighting of scene.

The Motion Detection function does not work.

Check that MOTION DET of SPECIAL SETUP menu is 'OFF'.

The screen flickers continually.

Check that direction of camera turns toward the Sun.

When coaxial communication is not available:

Make sure that the camera and monitor are installed within the recommended distance.

Use a video amplifier to coaxial if the recommended installation distance is exceeded.

IR-LED isn't lighted

Is the Day/Night function set to the color mode?

Please change to the Auto or B/W mode.

The video was of poor quality.

Check that the power supply has enough current.

Change to a high quality power supply and connect with camera again.