



5M Universal Bullet Camera

User's Manual_install Part Ver. 1.1 / 2022.05

Before installing and using the camera, please read this manual carefully.
Be sure to keep it handy for future reference.

Contents

INTRODUCTION

- 03 Safety Information
- 08 Product & Accessories
- 09 Part Name
- 10 Dimension

INSTALLATION

- 11 Installation
- 13 Connecting to Monitors
- 15 Adjusting the Camera angle

APPENDIX

- 16 Troubleshooting

SPECIFICATION

- 17 Spec.
- 19 Features

Safety Information



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 indicates that dangerous voltage consisting a risk of electric shock is present within this unit.



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

WARNING

To prevent damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.

WARNING

1. Be sure to use only the standard adapter that is specified in the specification sheet. Using any other adapter could cause fire, electrical shock, or damage to the product.
2. Incorrectly connecting the power supply or replacing battery may cause explosion, fire, electric shock, or damage to the product.
3. Do not connect multiple cameras to a single adapter. Exceeding the capacity may cause abnormal heat generation or fire.
4. Securely plug the power cord into the power receptacle. Insecure connection may cause fire.
5. When installing the camera, fasten it securely and firmly. A falling camera may cause personal injury.
6. Do not place conductive objects (e.g. screw drivers, coins, metal things, etc.) or containers filled with water on top of the camera. Doing so may cause personal injury due to fire, electric shock, or falling objects.

Safety Information

7. Do not install the unit in humid, dusty, or sooty locations.
Doing so may cause fire or electric shock.
8. If any unusual smells or smoke come from the unit, stop using the product.
In such case, immediately disconnect the power source and contact the service center.
Continued use in such a condition may cause fire or electric shock.
9. If this product fails to operate normally, contact the nearest service center.
Never disassemble or modify this product in any way.
10. When cleaning, do not spray water directly onto parts of the product.
Doing so may cause fire or electric shock.

PRECAUTION

Operating

- Before using, make sure power supply and all other parts are properly connected.
- While operating, if any abnormal condition or malfunction is observed, stop using the camera immediately and contact your dealer.

Handling

- Do not disassemble or tamper with parts inside the camera.
- Do not drop the camera or subject it to shock or vibration as this can damage the camera.
- Clean the clear Lens cover with extra care. Scratches and dust can ruin the quality of the camera image.

Installation and Storage

- Do not install the camera in areas of extreme temperature, exceeding the allowed range.
- Avoid installing in humid or dusty environments.
- Avoid installing in places where radiation is present.
- Avoid installing in places where there are strong magnetic fields and electric signals.
- Avoid installing in places where the camera would be subject to strong vibrations.
- Never expose the camera to rain or water.

Important Safety Instructions

1. Read these instructions.
 - All these safety and operating instructions should be read before the product is installed or 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 device 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 over-heating. The openings should never be blocked by placing the product on 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, 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.

Important Safety Instructions

11. Only use attachments/accessories specified by the manufacturer.

12. Use only with 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.

Disposal of Old Appliances



1. When this crossed-out wheel 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 in accordance to laws designated 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 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.

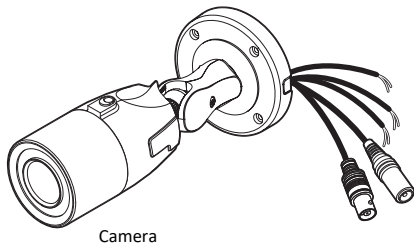
These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

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.

Product & Accessories

☒ Please check if all the camera and accessories are included in the package.



Torx Wrench



DC Plug Cable



Test Video Cable



Sunshield cover &
Adjusting screws



Template Sheet



Manual



Screw &
Plastic Anchor-4pcs



Moisture absorber &
Absorber Guide

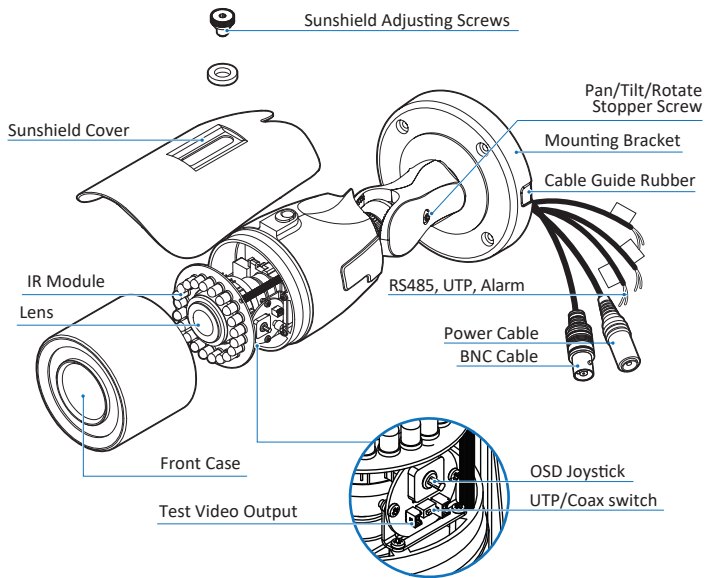
☒ NOTE : The 'Test Video Cable' is used to test the camera by connecting to a portable display.

Part name

RS 485
BK D+
WH D-

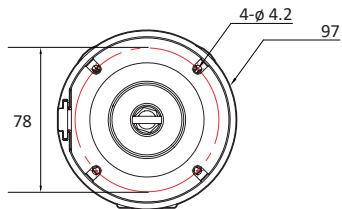
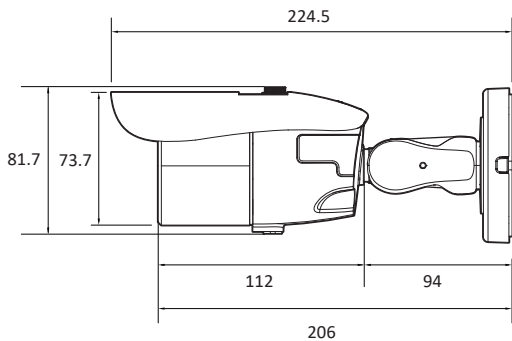
UTP
BLUE +
WHITE -

ALARM



Dimension

Unit : mm



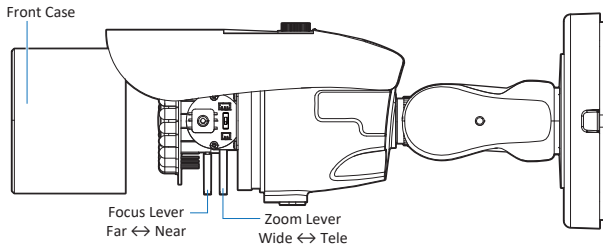
Installation - Disassemble the camera

Before installing your camera, you have to read the following cautions.

1. You have to check whether the location can bear five times of the weight of your camera.
2. Don't let the cable to be caught in improper place or the electric line cover to be damaged. Otherwise it may cause a breakdown or fire.
3. When installing your camera, don't allow any person to approach the installation site. If you have any valuable things under the place, move them away.

Adjust the Lens's Zoom and Focus

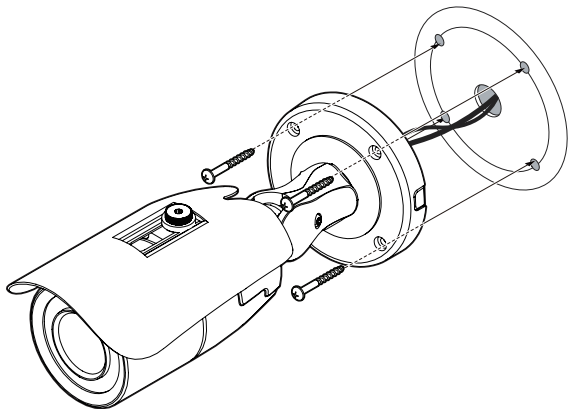
1. Remove the front cover from the camera by turning it counterwise.
2. Unlock the Zoom or Focus lever before adjusting the lens.
3. Adjust the zoom & focus by moving the lever.
4. After adjustment, tighten the zoom or focus levers, taking care not to adjust the zoom/focus position.
5. Please, close and tighten the front cover.
6. Replace the sunshield.



- ❗ **NOTE** : If the front cover is cross threaded or not correctly tightened the camera housing will not be weatherproof.

Installation - Instructions

- 1 Using the mounting template or your own camera, mark and drill the necessary holes to mount the bracket to a wall or ceiling.
- 2 Pull a necessary wires through and make the proper connections.
- 3 Use the four mounting screws to install the camera on the wall or ceiling.



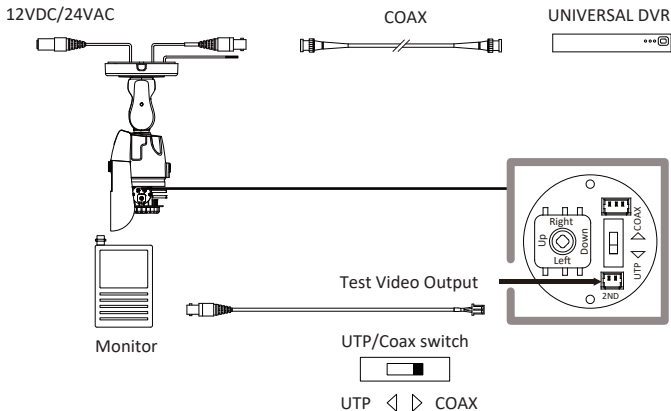
⚠ **NOTE** : Electrical junction box and required screws sold separately.

⚠ **Cable Guide Rubber** :

Depending on the installation environment, remove the cable guide rubber and place the cable in the removed part.

Connecting to Monitors (Coax)

Use the diagram below to connect to an Universal DVR or CRT Monitor properly.
Coax Video Output Mode (Default Mode)

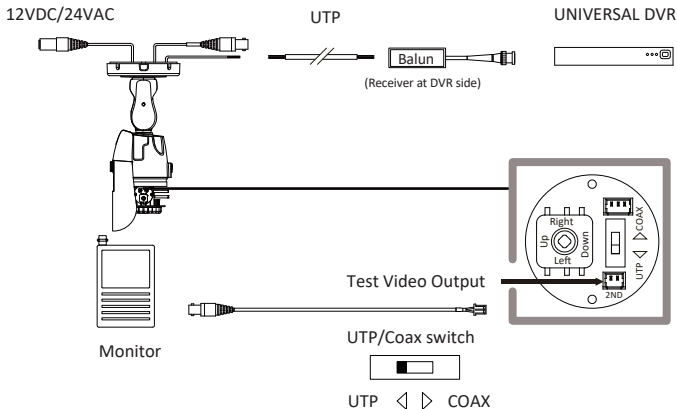


- Power Connection - 12VDC/24VAC Dual Voltage
(Auto Polarity Detection and Protection)
- All cameras are equipped with a test video output for on-site configuration.

NOTE : When switching to UTP/Coax switch to Coax, the image will not be output when switched to UTP.

Connecting to Monitors (UTP)

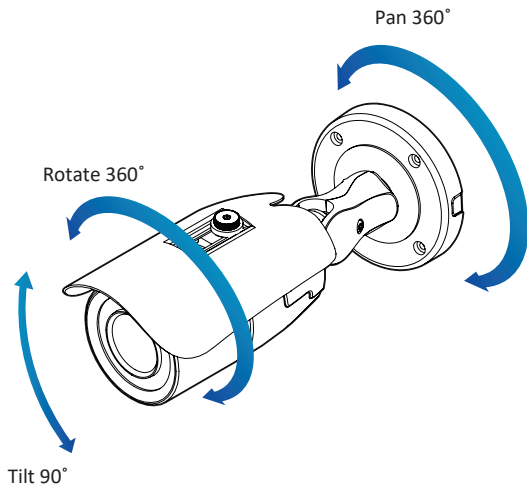
Use the diagram below to connect to an Universal DVR or CRT Monitor properly.
UTP Video Output Mode



- Power Connection - 12VDC/24VAC Dual Voltage
(Auto Polarity Detection and Protection)
- All cameras are equipped with a test video output for on-site configuration.

⚠ **NOTE** : When switching to UTP/Coax switch to UTP, the image will not be output when switched to Coax.

Adjusting the Camera angle



⚠ Warning:

- Do not rotate more than 360 °
- Do not unnecessarily twist too many times.

Troubleshooting

Before sending your camera for repair, check the following or contact our technical specialist.

FOR NO VIDEO

Check the coaxial cable and make sure it is connected securely.

Check the power supply and make sure the camera has the proper voltage and current.

Check UTP/COAX switch inside the camera's housing and confirm the switch's position matches the signal connection type.

FOR OUT-OF-FOCUS VIDEO

Check the Front case cover and the lens for dirt or fingerprints.

Use a soft cloth and gently clean.

The use of a field test monitor is recommended.

Specifications

VIDEO	
Image Sensor	1/2.8" CMOS Sensors
Active Pixels	2608(H) x 1960(V)
Scanning System	Progressive scan
Frequency	60Hz / 50Hz
Signal Technology	Max 5.0 Megapixel Universal
Synchronization	Internal
Resolution	2592x1944 (1944p(12.5/20fps) (CVI Max 1440p)/1440p30(25)fps/ 1080p30(25)fps/720p30(25)fps)
Minimum Scene Illumination	F1.4 (30IRE): 0.08 Lux (Color)
	F1.4 (30IRE): 0 Lux (B&W)
Video Output	BNC/UTP (Universal : HD-A/HD-TVI/HD-CVI/CVBS)
LENS	
Focal Length & Lens Type	2.7~13.5mm, P-Iris Vari-Focal
IR Distance	100ft
OPERATIONAL	
Alarm Output	1 Alarm Output
Shutter Speed	1/30(25) - 1/30,000
Backlight	OFF/HME/BLC/WDR
Sens-up	OFF, x2 - x32
Wide Dynamic Range(WDR)	LOW/MIDDLE/HIGH

Specifications

OPERATIONAL (CONT.)		
Digital Noise Reduction	OFF / LOW / MIDDLE / HIGH	
White Balance	AUTO / AUTOext / PRESET / MANUAL	
Day and Night	AUTO / COLOR / BW	
Auto Gain Control	0 ~ 10	
Motion Detection	ON/OFF (4 Zones)	
Privacy Zones	ON/OFF (Box 16 Zones / Polygon 8 Zones)	
Sharpness	0 ~ 10	
Gamma	0.45 ~ 0.75	
Remote Control	RS485 / Coaxial (UTC)	
ENVIRONMENTAL		
Operating Temperature	-20°C ~ 50°C (-4°F ~ 122°F)	
Operating Humidity	No more than 90% (Non-Condensing)	
IP Rating	IP66	
Other Certifications	FCC, CE, ROHS	
ELECTRICAL		
Power Requirements	DC12V / AC24V Dual Voltage	
Power Consumption	DC12V	3.3W, 275mA, LED On : 5W, 420mA
	AC24V	2.86W, 220mA, LED On : 4.4W, 310mA
MECHANICAL		
Housing Material and Dimensions	Aluminum, 224.5 x 96.7Ømm (8.84 x 3.81Ø in)	
Weight	1.43 lbs	

Features

- Analog High Definition Universal over Coax Technology
- Analog High Definition Universal over UTP Technology
- Sens-up Super Low Light Technology
- 1/2.8" CMOS Sensor
- Max 1944P Resolution at 12.5/20fps
- Wide Dynamic Range (WDR)
 - ※ ROI (Region Of Interest)
To have more efficient scene result, up to 4 regions are able to be selected for WDR effect to maintain the most suitable color appearances.
- Varifocal P-Iris Lens from 2.7~13.5mm
- Smart IR™ with Intelligent Camera Sync. 100ft Range
- Smart DNR™ 3D Digital Noise Reduction
- Highlight Masking Exposure (HME)
- True Day/Night Mechanical IR Cut Filter
- Test Video-BNC Output
- Easy Icon Driven OSD Menu with Built-in Joystick
- Programmable Privacy Zones
- Auto Gain Control (AGC)
- Back Light Compensation (BLC)
- Dynamic Range Compressor (DRC) Reveals Low Light Detail
- Auto White Balance (AWB)
- IP66 Certified (Weather Resistant)
- OSD Control via Coax Cable using UTC
- RS485