Genie
C C T V

W70SBIR, W70MBIR & W70LBIR

Vandal Resistant IR Bullet Camera

User Manual

Safety Precautions

DO NOT ATTEMPT TO DISASSEMBLE THE CAMERA.

⚡	**Risk of Electric Shock, Do Not Open**	⚠
	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER NO USER SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSON	

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 operation and maintenance instructions in the literature accompanying the appliance.

Warning

1. This product is patented for configuration, appearance and design; copying is not permitted.

2. If this product fails to operate normally contact your authorised distributor or service centre. Never disassemble or modify the product in any way. Problems caused by disassembly, modification or repair invalidates the product warranty.

3. Electromagnetic fields at specific frequencies may cause image interference.

4. Only use a standard regulated power adapter. Using any other adapter could result in fire, electric shock or damage to the product.

5. Incorrectly connecting the power supply may result in fire, electric shock or damage to the product.

6. Do not connect multiple cameras to a single adapter. Exceeding the capacity may cause abnormal heat generation or fire.

7. Securely plug the power cord into the power receptacle. A loose connection may result in fire.

8. When installing the camera on a wall or ceiling, fasten it safely and securely. A falling camera may cause personal injury.

9. Do not place conductive objects (e.g. screwdrivers, coins etc.) on top of the camera.

10. Do not install the unit in humid, dusty locations.

11. If any unusual smell or smoke comes from the unit, please stop using the product. In such cases, please immediately disconnect the power source and contact your local authorised distributor or service centre.

Cautions

1. Do not drop objects on the products or apply strong shocks to it. Keep it away from locations subject to excessive vibration or magnetic-field interference.

2. Do not install in a location subject to high temperatures (over 122°F or +50°C), low temperatures (below 14°F or -20°C) it may cause a fire.

3. If want to relocate the installed product, turn off the power before moving or reinstalling it.

4. Remove the power plug from the outlet if there is a lightning storm. Neglecting to do so may cause fire or damage to the product.

5. Avoid a location which is exposed to direct sunlight, or near heat sources. Neglecting to do so may cause fire.

6. Install in a well-ventilated location.

7. Avoid aiming the camera directly towards extremely bright objects such as the sun, as this may damage the image sensor.

Important Safety Instructions

1. Read these instructions

2. Keep these instructions for later use.

3. Pay attention to all warnings and adhere to them.

4. Follow all instructions.

5. Do not immerse this product in water.

6. Clean only with a lint free dry cloth.

7. Do not block any ventilation openings.

8. Do not install near any heat sources such as radiations, heat registers, or other products (including amplifiers) that produce heat.

9. Protect the power cord from being walked on or being pinched, especially at power receptacles, and the point where they exit from the camera.

10. Only use accessories specified by the manufacturer.

11. For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the power.

12. Refer all servicing to qualified service personnel. Servicing is required when the product has been damaged in any way, such as power supply cord or plug is damaged, it does not operate normally, or has been dropped.

13. Do not operate the camera beyond its temperature, humidity or power source ratings. Operating temperature: 14F-122F (-20°C-50°C), Humidity >85%

14. Do not point the camera towards the sun, spotlights or reflective surfaces.

15. Laser beams will damage the image sensor. Do not project laser beam directly into the lens of the camera.

Vandal Resistant IR Bullet Camera

Contents

Chapter 1 - W70SBIR Overview

Specification

Model Number	W70SBIR
Image Sensor	CMOS
Video Format	PAL
Effective Pixels	720 (H) x 576 (V)
Horizontal Resolution	700 TVL
Minimum Illumination	0.1Lux @ (F1.2, AGC ON), 0 Lux with IR
Shutter Time	Auto
Day & Night	IR Cut Filter with Auto Switching
Sync System	Internal
Video Output	1Vp-p Composite Output (75Ω/BNC)
S/N Ratio	> 50dB
BLC	On
Lens	3.6mm IR 1.3MP
Angle of View	70°
Mount	M12
IR Light	2 Piece LED Array (2W Each)
IR Range	15m in Ideal Conditions
Weatherproof	IP66
Power Supply	DC12V
Power Consumption	Max. 2W (Max. 6W with IR LED's ON)
Operating Temperature	- 20°C ~ 50°C
Bracket	3-Axis Cable Managed Bracket
Dimensions	117.5mm × 56mm × 65.8mm
Weight	337.6g

*Design and Specifications are subject to change without notice.
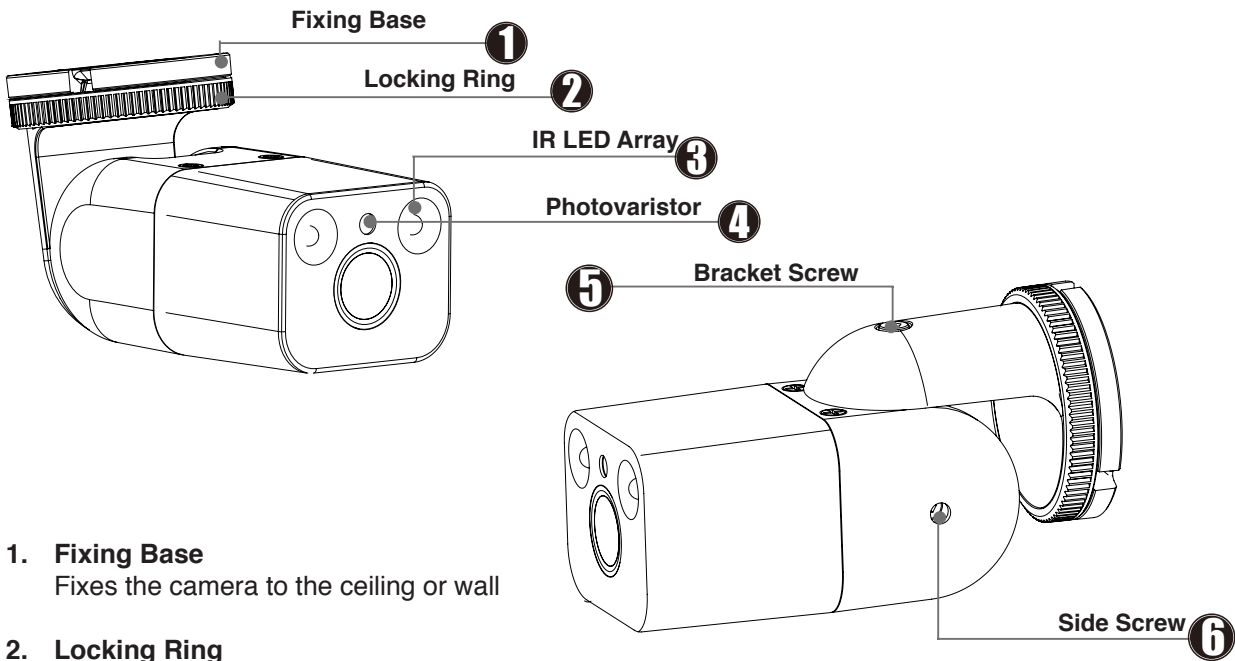
Features

- Built-in 3.6mm 1/3" IR 1.3 Megapixel Lens
- Built-in ICR
- 2 Piece IR LED Array, Total Power 4W
- Visible Range of up to 15m in Ideal Conditions
- 3-Axis Vertical / Horizontal / Rotational
- Vandal Resistant
- Water Resistant IP66

Package

Check the contents of the package. The following items are included:

- 1x User Manual
- 1x IR Dome Camera
- 3x Fixed Screws with Dielectric Covers
- 1x Dielectric Paper
- 1x L-Type Screw Driver

Vandal Resistant IR Bullet Camera

Product Parts

Fixing Base ❶

Locking Ring ❷

IR LED Array ❸

Photovaristor ❹

❺ **Bracket Screw**

Side Screw ❻

1. **Fixing Base**
   Fixes the camera to the ceiling or wall

2. **Locking Ring**
   Locks the Camera Body to the Base

3. **IR LED Array**
   Provides light source at night time

4. **Photovaristor**
   Photocell to turn on or turn off the IR LED's

5. **Bracket Screw**
   Adjust and fix the horizontal angle of view

6. **Side Screw**
   Adjust and fix the vertical angle of view

Operating Instructions

Connection

1. Connect one end of the BNC Cable to the terminals of a monitor or recording device.

2. Connect the other end of the BNC Cable to the camera VIDEO OUT terminal.

3. Then, plug the power adapter into the power receptacle. The image will be displayed when the monitor is on.

Installation

Before Installation

Read the cautions before installation:
1. Make sure the installation location can support 5 times the total weight of the bullet camera.

2. Make sure the cable doesn't get jammed inappropriately or allow the cable insulation to get damaged during installation. This may result in a malfunction or a fire hazard.

3. Make sure that nobody is beneath the installation location.

Installing the Camera
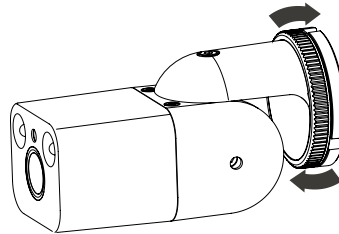
The installation process is described below:

Step 1
Place the dielectric paper on the wall / ceiling (this is to protect the camera from damage by conducted currents). Then, fix the camera base to the wall / ceiling with the 3 screws provided.
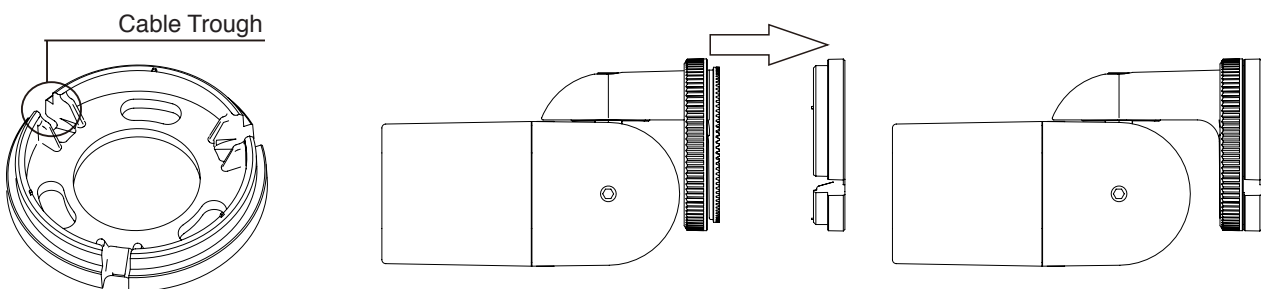*Pay attention to the cable trough. Point it in the direction of the power supply if cables exit there.

*Step 2*
Attach the camera body to the fixing base.

Step 3
Fasten the camera body tightly using the gearing on the locking ring. The installation is complete.

Cable Trough

Cautions for Installation:
1. Allow the cable to pass through the hole in the middle before mounting the camera to the base.

2. If passing through the side, the cable must be put in the cable trough first before the camera is mounted.
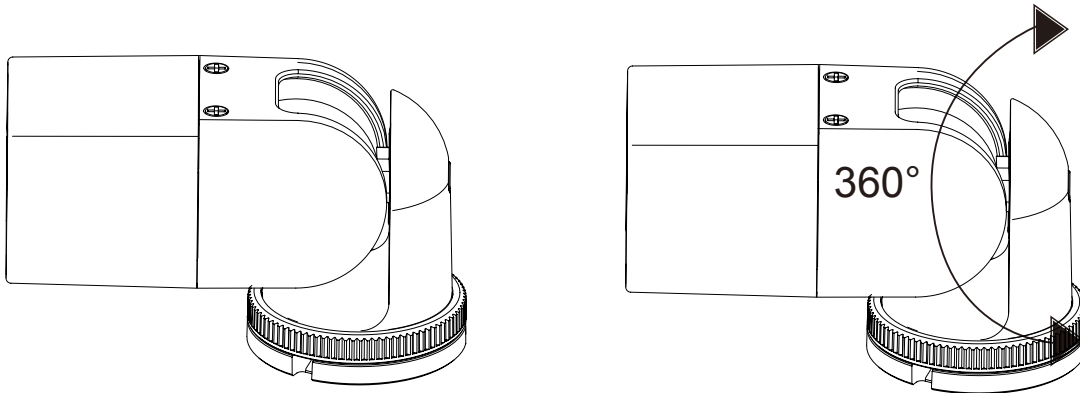
Vandal Resistant IR Bullet Camera

Adjusting the Monitoring Direction
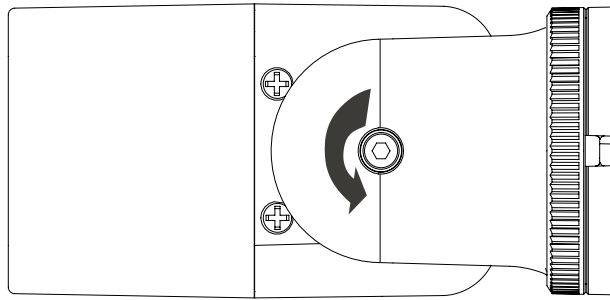
1. Loosening the bracket screw allows you to rotate the camera body and bracket 180° in a horizontal direction.
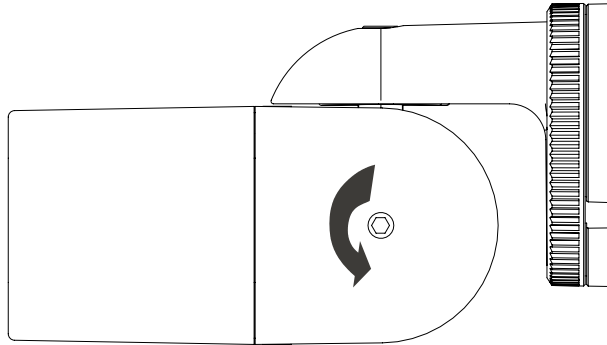
2. Loosening the side screw allows you to rotate the camera body or bracket in a vertical direction.

3. By rotating the camera body or bracket downward 90° in a vertical direction (as above left picture), the camera body or bracket can be rotated 360°.

   Note: The camera body or bracket can be rotated 360° only when in the position indicated in the above left photo

Chapter 2 - W70MBIR Overview

Specification

Model Number	W70MBIR
Image Sensor	Sony 1/3" Super HAD II CCD
Video Format	PAL
Effective Pixel	976 (H) × 494 (V)
Scanning System	2:1 Interlace
Sync System	Internal / External
Resolution	650TVL (Colour), 700 TVL (B&W)
Video Output	BNC 1.0Vp-p 75Ω
Burst Level	0.286Vp-p
S/N Ratio	>52dB
Minimum Illumination	0.01Lux @ F1.2 (Colour), 0.001Lux @ F1.2 (B&W)
Electronic Shutter	Auto / Manual
Exposure Control	AES / DC Drive Auto Iris / Video Drive Auto Iris Auto / Manual / AIS
White Balance	ATW / Push / USER1 / User2 / Manual / Push Lock
AGC	Auto / Manual
OSD	Yes (Adjustment Inside Cover)
D/N Switch	Auto / Colour / Black & White / EXT1/ EXT2
IR	Smart IR
BLC	OFF / BLC / HLC
Image	Mirror / Lightness / Contrast / Sharpness / Colour / Gain
Digital WDR	OFF / ON 128 x WDR (52dB)
Motion Detection	OFF / ON
Privacy Masking	OFF / ON
Mirror	ON / OFF (Left / Right)
DNR	2 DNR
Sharpness	1 - 255 Adjustable
Menu Language	Chinese / English / Japanese / German / French / Russian / Portuguese / Spanish
Lens	2.8-12mm 2MP IR Corrective
Angle of View	92° ~ 27.2°
Lens Mount	φ14
Iris	Fixed
IR Light	2 Piece LED Array (2.5W Each)
IR Range	Up to 20m in Ideal Conditions
Weatherproof	IP66
Power Supply	DC12V
Power Consumption	Max. 2W @ DC12V (Max. 7 W with IR LED's ON)
Operating Temperature	-20°C~+50°C RH 85%
Bracket	3-Axis Cable Managed Bracket
Dimensions	178.2 x 64.5 x 76.5 mm
Weight	530g

*Design and Specifications are subject to change without notice.

Features

- Built-in 2.8-12mm IR Corrective Lens
- Built-in ICR
- Easy Adjustment of Lens Focal Length
- 2 Piece IR LED Array
- Visible Range up to 25m in Ideal Conditions
- 3-Axis Vertical / Horizontal / Rotational
- Vandal Resistant
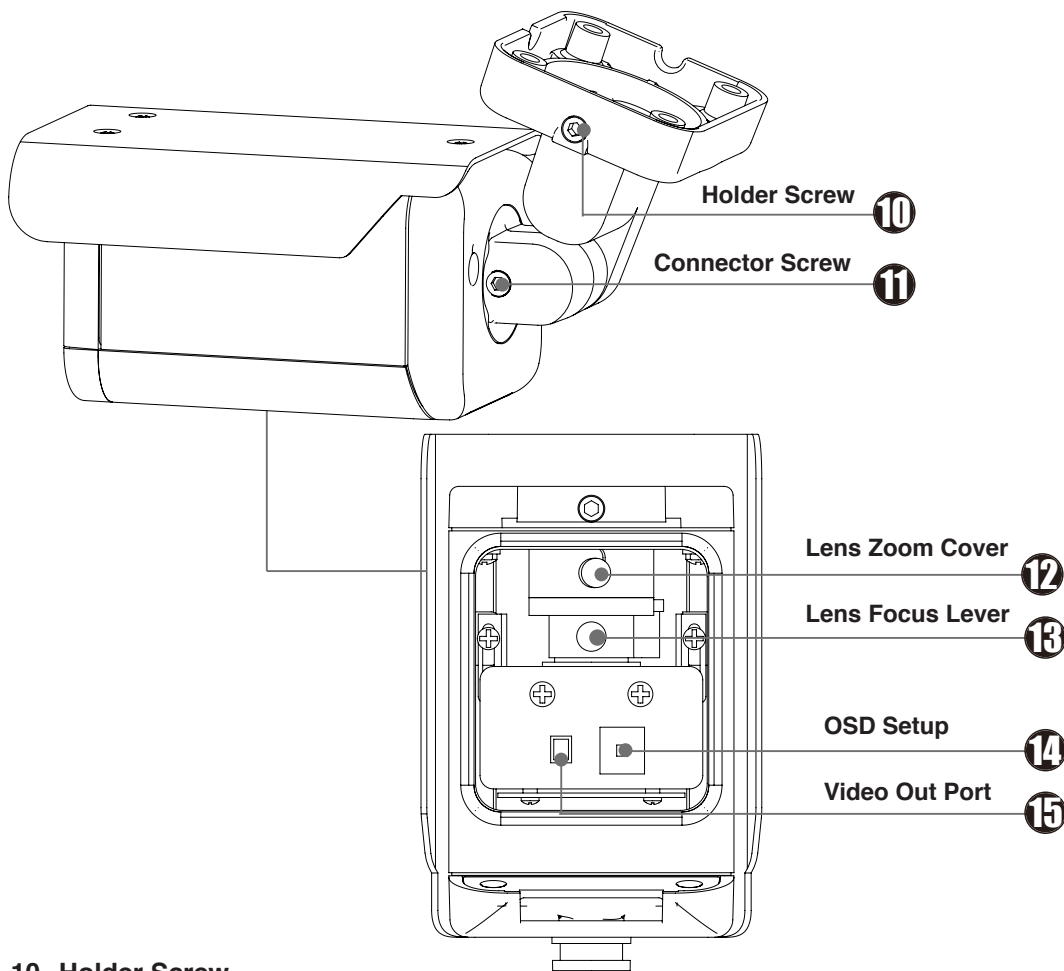- Weatherproof IP66

Package

Check the contents of the package. The following items are included:

- 1x User Manual
- 1x IR Bullet Camera
- 4x Fixing Screws with Dielectric Covers
- 1x Dielectric Paper
- 1x L-type Screwdriver

Product Parts
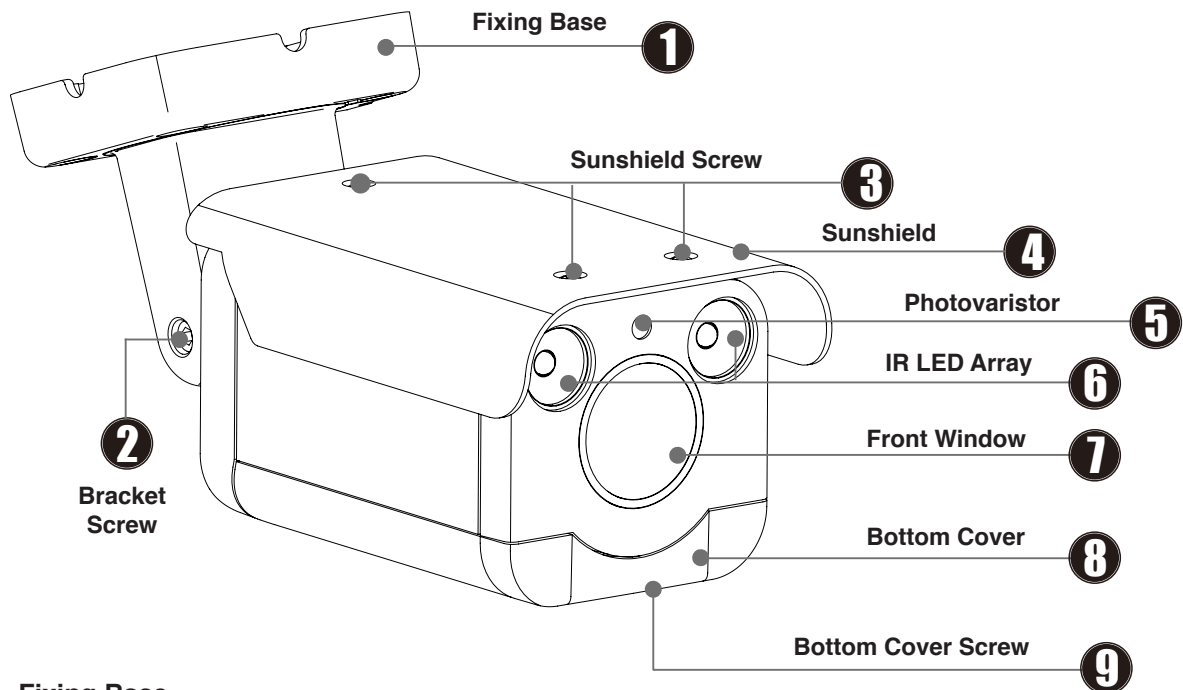
1. **Fixing Base**
   Fixes the Camera to the ceiling or the wall

2. **Bracket Screw**
   Adjusts and sets the monitoring direction

3. **Sunshield Screw**
   Fixes the Sunshield to the Camera Body

4. **Sunshield**
   Protects the Camera Body

5. **Photovaristor**
   Photocell to switch the IR LED's On and Off

6. **IR LED Array**
   Provides a light source at night time

7. **Front Window**
   Environmental protection for the Lens

8. **Bottom Cover**
   Seals and protects the Focus and OSD controls

9. **Bottom Cover Screw**
   Locks the Focus and OSD cover

Holder Screw ⑩

Connector Screw ⑪

Lens Zoom Cover ⑫

Lens Focus Lever ⑬

OSD Setup ⑭

Video Out Port ⑮

10. **Holder Screw**
    Adjusts and sets the monitoring direction

11. **Connector Screw**
    Adjusts and sets the monitoring direction

12. **Lens Zoom Lever**
    Adjusts the zoom ratio of the Lens

13. **Lens Focus Lever**
    Adjusts the focal length of the Lens

14. **OSD Setup**
    Sets the available OSD functions

15. **Video Out Port**
    Test Monitor connector for checking the image locally

Operating Instructions

Connection

1. Connect one end of the BNC Cable to the terminals of a monitor or recording device.

2. Connect the other end of the BNC Cable to the camera VIDEO OUT terminal.

3. Then, plug the power adapter into the power receptacle. The image will be displayed when the monitor is on.

Installation

Before Installation

Read the cautions before installation:
1. Make sure the installation location can support 5 times the total weight of the bullet camera.

2. Make sure the cable doesn't get jammed inappropriately or allow the cable insulation to get damaged during installation. This may result in a malfunction or a fire hazard.

3. Make sure that nobody is beneath the installation location.

Installing the Camera

The installation process is described below:

Step 1
Place the dielectric paper on the wall / ceiling (this is to protect the camera from damage by conducted currents). Then, fix the camera base to the wall/ceiling with the four screws provided.
*Pay attention to the cable trough. Point it in the direction of the power supply if cables exit there.
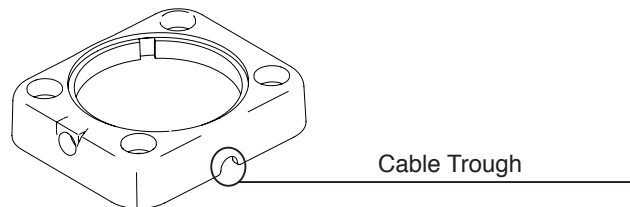
Cable Trough

Step 2
Attach the camera body to the fixing base.
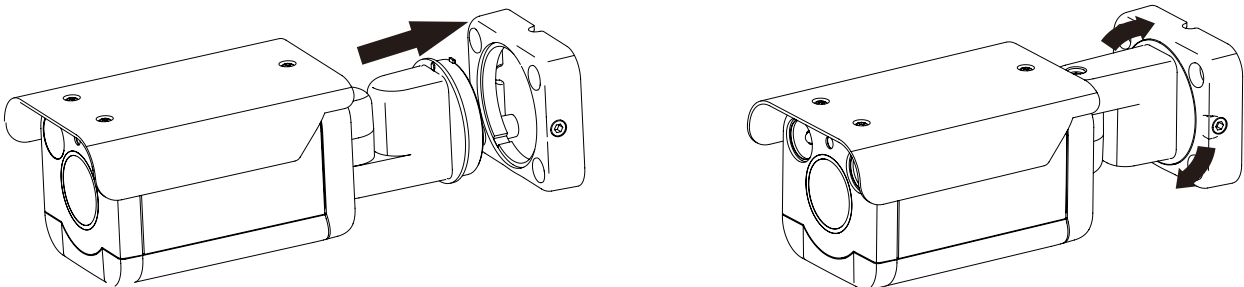
Step 3
Fasten the camera body to the fixing base. The installation is now complete.

Cautions for Installation:
1. Allow the cable to pass through the hole in the middle before mounting the camera to the base.

2. If passing through the side, the cable must be put in the cable trough first before the camera is mounted.

Adjusting the Monitoring Direction
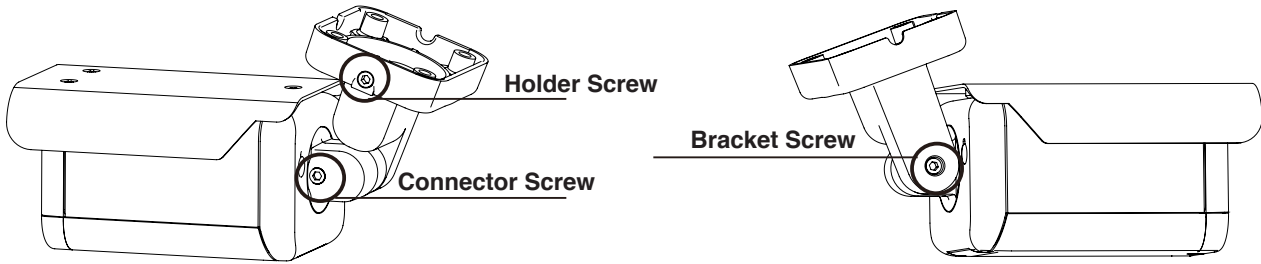
The W70MBIR has a 3-axis gimbal design.
Loosen the holder, bracket and connector screws, then adjust the camera to the appropriate monitoring position. After one direction is set, tighten the relevant fixing screw. Fully tighten all screws when all adjustments are completed.

Changing Camera Functions

Loosen the bottom cover screw to open the bottom cover.
1. Use the video out port for connecting a test monitor to the camera to locally check the image output.

2. Set the required functions using the OSD setup.

3. Rotate the IR Illumination adjustment to adjust the IR intensity; appropriate to the application.

4. Adjust the focal length with the lens zoom and focus levers to obtain the correct field of view. Once a clear and focused image is achieved, fully tighten the thumb screws.

5. After all adjustments are completed lock and tighten the bottom cover using the bottom cover screw.

Vandal Resistant IR Bullet Camera

Chapter 3 - W70LBIR Overview

Specification

Model Number	W70LBIR
Image Sensor	Sony 1/3" Super HAD II CCD
Video Format	PAL
Effective Pixel	976 (H) x 582 (V)
Scanning System	2:1 Interlace
Sync System	Internal / External
Resolution	650TVL (Colour), 700 TVL (B&W)
Video Output	BNC 1.0Vp-p 75Ω
Burst Level	0.286Vp-p
S/N Ratio	>52dB
Minimum Illumination	0.01Lux @ F1.2 (Colour), 0.001Lux @ F1.2 (B&W)
Electronic Shutter	Auto / Manual
Exposure Control	AES / DC Drive Auto Iris / Video Drive Auto Iris Auto / Manual / AIS
White Balance	ATW / Push / USER1 / User2 / Manual / Push Lock
AGC	Auto / Manual
OSD	Yes (Adjustment Inside Cover)
D/N Switch	Auto / Colour / Black & White / EXT1/ EXT2
IR	Smart IR
BLC	OFF / BLC / HLC
Image	Mirror / Lightness / Contrast / Sharpness / Colour / Gain
Digital WDR	OFF / ON 128 x WDR (52dB)
Motion Detection	OFF / ON
Privacy Masking	OFF / ON
Mirror	ON / OFF (Left / Right)
DNR	2 DNR
Sharpness	1 - 255 Adjustable
Menu Language	Chinese / English / Japanese / German / French / Russian / Portuguese / Spanish
Lens	2.8-12mm 2MP IR Corrective
Angle of View	92° ~ 27.2°
Varifocal Adjustment	Adjustment Inside Cover
Lens Mount	φ14
Day & Night	IR Cut Filter with Auto Switching
Iris	Fixed
IR Light	2 Piece LED Array (2.5W Each)
IR Range	Up to 30m in Ideal Conditions
Weatherproof	IP66
Power Supply	DC12V
Power Consumption	Max. 2W @ DC12V (Max. 7W with IR LED's ON)
Heater	Optional (7W)
Operating Conditions	-20°C~50°C RH 85%; -50°C~50°C with Heater ON
Bracket	3-Axis Cable Managed Bracket
Dimensions (L x W x H)	259.6 x 109 x 111.8mm
Weight	996.5g

*Design and Specifications are subject to change without notice.

Features

- Built-in 2.8-12mm IR 2MP Lens
- Built-in ICR
- Easy Lens Focal Length Adjustment
- 2 Piece IR LED Array, Total Power 7W
- Visible Range up to 30m in Ideal Conditions
- 3-Axis Vertical/Horizontal/Rotational
- Vandal Resistant
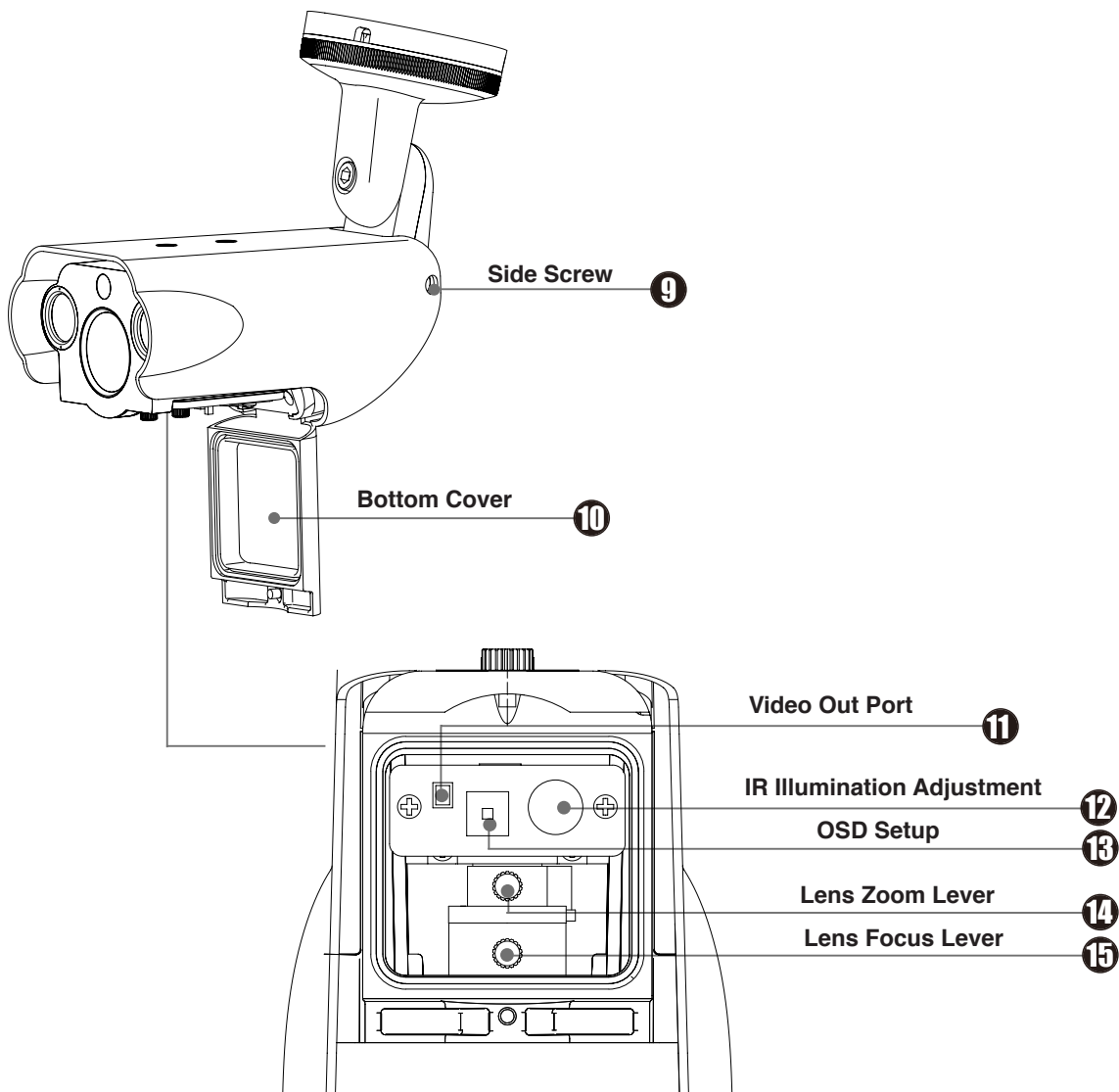- Weatherproof IP66

Package

Check the contents of the package. The following items are included:

- 1x User Manual
- 1x IR Bullet Camera
- 3x Fixing Screws with Dielectric Covers
- 1x Dielectric Paper
- 1x L-type Screwdriver

Product Parts
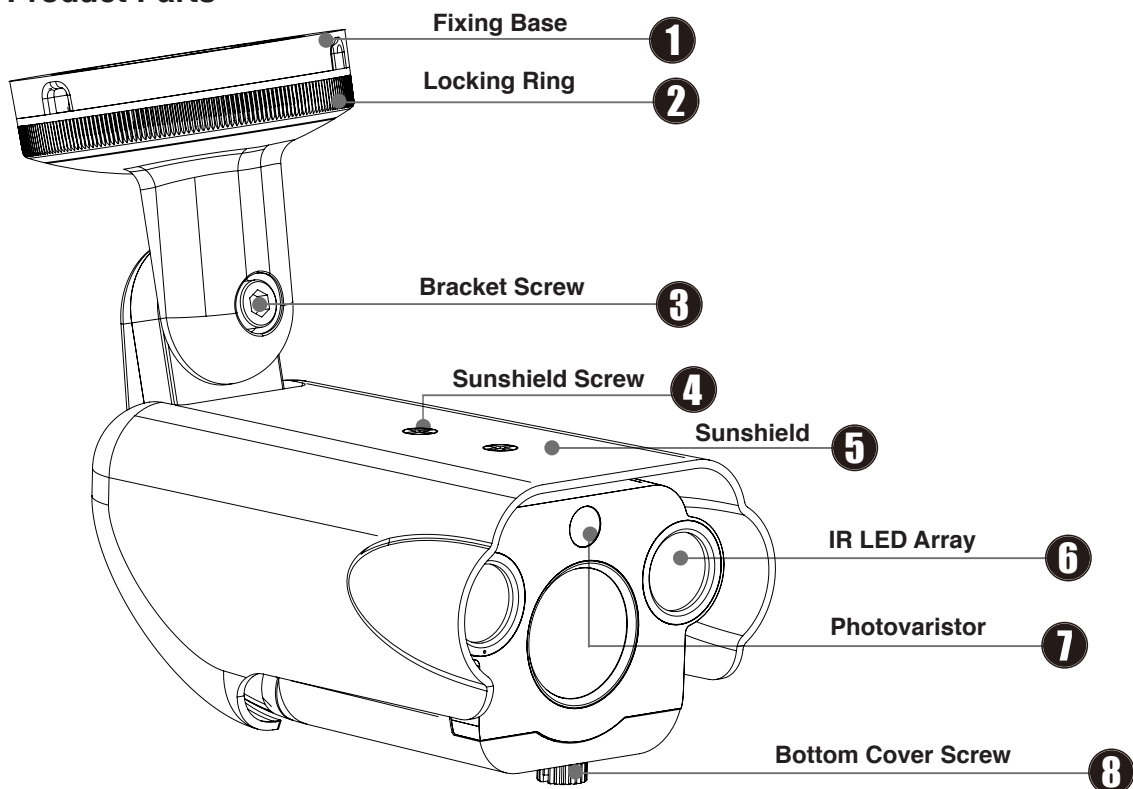
1. **Fixing Base**
   Fix the camera to the ceiling or wall

2. **Locking Ring**
   Locks the Camera Body to the Fixing Base

3. **Bracket Screw**
   Adjusts and fixes the monitoring direction

4. **Sunshield Screw**
   Fixes the Sunshield to the Camera Body

5. **Sunshield**
   Protects the Camera Body

6. **IR LED Array**
   Provides a light source at night time

7. **Photovaristor**
   Photocell to turn the IR LED's On or Off

8. **Bottom Cover Screw**
   Locks the Focus and OSD cover

Side Screw ❾

Bottom Cover ❿

Video Out Port ⓫

IR Illumination Adjustment ⓬

OSD Setup ⓭

Lens Zoom Lever ⓮

Lens Focus Lever ⓯

9. Side Screw
Adjusts and fixes the monitoring direction

10. Bottom Cover
Seals and protects the Focus and OSD controls

11. Video Out Port
Test Monitor connector for checking the image locally

12. IR Illumination Adjustment
Adjusts the IR LED intensity

13. OSD Setup
Sets the available OSD functions

14. Lens Zoom Lever
Adjusts the zoom ratio of the Lens

15. Lens Focus Lever
Adjusts the focal length of the lens

Operating Instructions

Connection

1. Connect one end of the BNC Cable to the terminals of a monitor or recording device.

2. Connect the other end of the BNC Cable to the camera VIDEO OUT terminal.

3. Then, plug the power adapter into the power receptacle. The image will be displayed when the monitor is on.
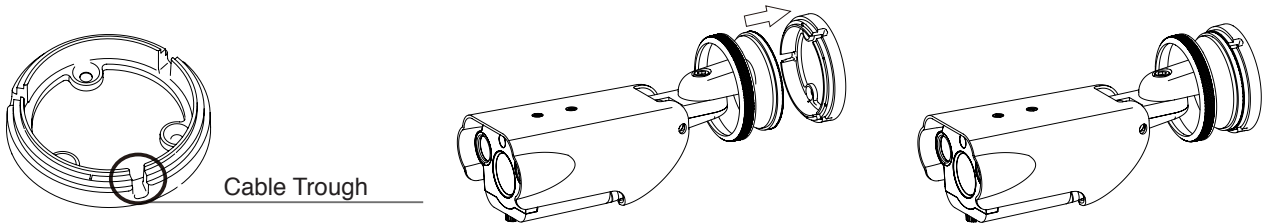
Installation

Before Installation

Read the cautions before installation:
1. Make sure the installation location can support 5 times the total weight of the bullet camera.

2. Make sure the cable doesn't get jammed inappropriately or allow the cable insulation to get damaged during installation. This may result in a malfunction or a fire hazard.

3. Make sure that nobody is beneath the installation location.

Installing the Camera

The installation process is described below:
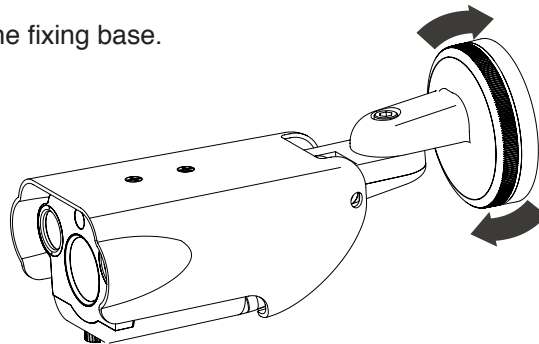

Cable Trough

Step 1
Place the dielectric paper on the wall / ceiling (this is to protect the camera from damage by conducted currents). Then, fix the camera base to the wall/ceiling with the three screws provided.
*Pay attention to the cable trough. Point it in the direction of the power supply if cables exit there.

Step 2
Attach the camera body to the fixing base.

Step 3
Fasten the camera body tightly using the gearing on the locking ring. The installation is complete.

Cautions for Installation:
1. Allow the cable to pass through the hole in the middle before mounting the camera to the base.

2. If passing through the side, the cable must be put in the cable trough first before the camera is mounted.
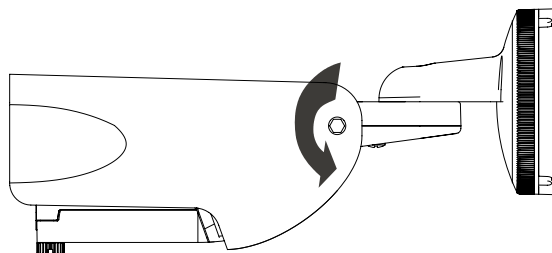
Vandal Resistant IR Bullet Camera

Adjusting the Monitoring Direction
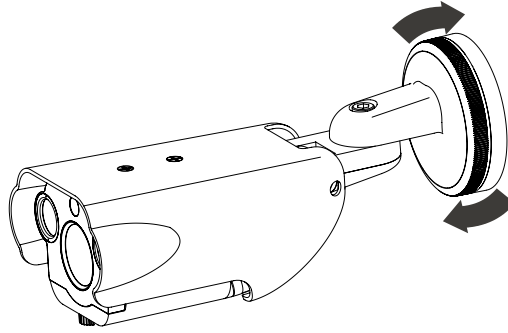
1. Before tightening the locking ring you can rotate the whole Camera Body to the required surveillance position.
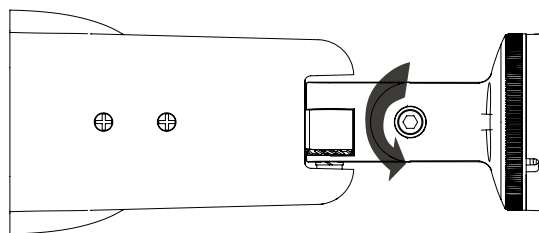
2. Loosen the bracket screw and you can rotate the Camera Body horizontally according to your surveillance need. Tighten the bracket screw after you finish the adjustment.

3. Loosen the side screw and you can rotate the camera body vertically, according to surveillance need. Tighten the side screw after you finish the adjustment.

Changing Camera Functions

Loosen the bottom cover screw to open the bottom cover.
1. Use the video out port for connecting a test monitor to the camera to locally check the image output.

2. Set the required functions using the OSD setup.

3. Rotate the IR Illumination adjustment to adjust the IR intensity; appropriate to the application.

4. Adjust the focal length with the lens zoom and focus levers to obtain the correct field of view. Once a clear and focused image is achieved, fully tighten the thumb screws.

5. After all adjustments are completed lock and tighten the bottom cover using the bottom cover screw.

Chapter 4 - Typical CCD Phenomena

The following effects on the monitor screen are characteristics of CCD cameras. They do not indicate any fault with the camera.

Smear
This can occur when the camera is pointed toward a very bright object, such as electrical lighting, the sun, or a strong reflection. This phenomenon is caused by an electric charge induced by infrared radiation deep in the photosensor. It appears as a vertical smear because the CCD imaging element uses an interline transfer system.

Vertical Aliasing
When the camera is pointed toward vertical stripes or lines, they may appear jagged.

Blemishes
A CCD image sensor consists of an array of individual sensor picture elements (Pixels). A malfunctioning sensor element causes a single pixel blemish in the picture. This is generally not a problem.

White Speckles
A CCD image pickup device uses accurate techniques to capture an image, however imperceptible speckles may occasionally appear on the screen. This is related to the principles of a CCD mage sensor pickup device and not a malfunction. The white speckles could appear under the following conditions:
• Using the camera in high temperatures
• When turning up the gain

Blooming
This is a phenomenon is which the light from very bright objects appears to overflow into neighbouring areas of an image.

Note : If strong light enters a wide area of the image the screen may become dark. If this occurs, move the camera away from the light source or adjust the iris to reduce the amount of light entering the lens.

Chapter 5 - Troubleshooting

If you encounter trouble in using the camera, please refer to the instructions below. For more information, please consult your local authorised distributor or service centre.

Problem	Solution
No Video Output	Check the power supply and the cable, camera and monitor connections.
Malfunction	Check whether the camera is connected to the DC12V power supply.
Light Image	Adjust the display contrast of the monitor; Change the location if the camera is exposed to intense light.
Dark Image	Adjust the Brightness.

The situations below are not malfunctions of the camera.

Problem	Solution
Vertical Streak	May appear when the camera is exposed to intense light.
Fixed Image Clutter	When the camera is in a high temperature environment, there may be fixed image clutter on the entire monitor screen.
Jagged Image	When shooting at a ribbon-like object, a straight line or something with a similar pattern, the image displayed on the monitor may be serrated.

Chapter 6 - Routine Maintenance

1. Regularly clean the dust and dirt from the lens surface of the camera with a dry lint free cloth to maintain clarity of image.

2. Clean the camera body with dry soft cloth. For stubborn dirt, wipe it with a cloth dipped in a little neutral detergent, and then dry the camera.

3. Do not use volatile chemicals, such as thinners, alcohol, benzene etc. to clean the camera, because they can damage the surface coating, and even weaken the functionality and performance of the camera.

Memo

Vandal Resistant IR Bullet Camera

Memo