speco technologies



QUICK INSTALL GUIDE

O2B8M
Full HD Bullet IP Camera

Please read this guide carefully before operating the unit and retain it for future reference.

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 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 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.

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

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.

REGULATORY INFORMATION: FCC Part 15
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.

- A suitable conduit entries, knock-outs or glands shall be provided in the cable entries of this product in the end user.
- 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 brushings.

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.

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

Warning: Wiring methods shall be in 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 the internal apparatus to rain or moisture

Warning: Please adopt the power adapter which can meet the safety extra low voltage (SELV) standard. And source with DC 12 V or AC 24 V (depending on models) according to the IEC60950-1 and Limited Power Source standard.

Warning: Install the camera on a ceiling or wall where can withstand the weight of 5 times of the camera including mounting bracket.

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

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

Caution: The internal apparatus shall not be exposed to water (dripping or splashing) and no objects filled with liquids, such as vases, shall be placed within the enclosure

Caution: Make sure the power supply voltage is correct before using the camera.

Caution: Do not drop the camera or subject it to physical shock.

Caution: The sensor may be burned out by a laser beam, so when any laser equipment is being used, make sure that the surface of the sensor not be exposed to the laser beam.

Caution: While shipping, the camera should be packed in its original packing.

Note:

Please make sure the product is installed appropriate places where secured from flood, such as under the eaves, to operate properly. This product is certified as IP66 standard. However, if there is any flood concerns, it is highly recommended to use an outdoor Housing. When you install the camera inside an outdoor Housing, please use one of the following methods:

1. Remove the front glass of Housing before installing the camera.
2. To keep the front glass of Housing, remove the front cover, and then put the camera close to the front glass.

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

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.

Handling of the unit

Be careful not to spill water or other liquids in the unit. Be cautious not to get combustible or metallic material inside the body. If used with foreign matter inside, the camera is liable to fail or to get cause of fire or electric shock.

- Remove dust or dirt on the surface of the lens with a blower.
- Use a soft and lint-free, dry cloth(such as glass cleaner) to clean the body. If it is very dirty, use a cloth dampened with a small quantity of neutral detergent then wipe dry.
- Avoid the use of volatile solvents such as thinners, alcohol, benzene and insecticides.
  They may damage the surface finish and/or impair the operation of the camera.
- This camera is designed for mounting on the ceiling or wall. If you install this camera upside down, it may cause malfunction.

Operating and storage location

Avoid viewing a very bright object (such as light fittings) during an extended period. Avoid operating or storing the unit in the following locations.

- Extremely hot or cold places (operating temperature -10 °C to 50 °C, however, we recommend that the unit be used within a temperature range of 0 °C to 45 °C)
- Damp or dust place
- Places exposed to rain
- Places subject to strong vibration
- Close to generators of powerful electromagnetic radiation such as radio or TV transmitters.
- Do not use the camera in such place where rapid temperature fluctuation by switching an air conditioner on and off.

Introduction

This manual is intended for users of the network camera and includes instructions for using and managing the camera on the network

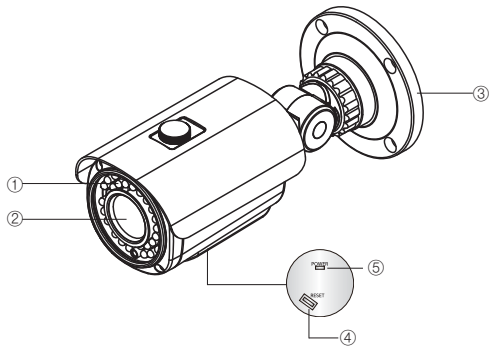
Features

- Multistream for live monitoring and recording
- H.264 and M-JPEG compression algorithm
- Four levels of video compression and various video compression resolutions
- Two-way audio communication
- Pre- and post-event buffering and video stream buffering to enhance reliability of network recording
- Remote monitoring via web browser or remote software
- Automatic HTML code generation for webcasting on a user's website
- Up to 10 simultaneous connections to the camera for remote monitoring
- Enhanced security using IP address filtering, HTTPS, SSL and IEEE 802.1X functions and password protected
- multiple user levels
- Network bandwidth limit and MAT functions to use network bandwidth efficiently
- Convenient network connection using the UPnP (Universal Plug and Play) function and built-in mDNS (Multicast DNS) protocol
- Supports ONVIF protocol
- Digital WDR (Wide Dynamic Range) to adjust the image display in high contrast conditions
- Slow shutter to reduce the minimum illumination requirements
- Day and night functionality with the built-in IR-cut filter changer
- Auto focus functionality
- Convenient firmware upgrades via the network connection
- Firmware duplication and autorecovery functions to enhance system stability
- Management of multiple cameras via Ethernet connections
- Event detection functions: motion, trip-zone, tampering
- Power sources: 12 VDC, PoE (Power over Ethernet)
- NTSC or PAL programmable video output

Specification

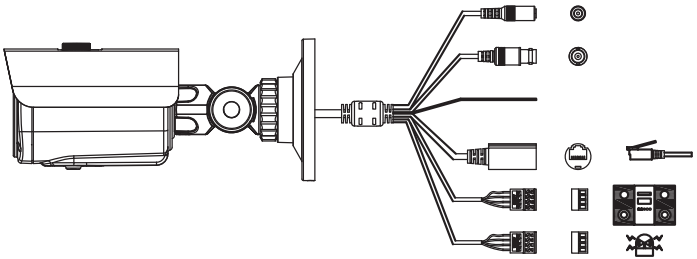
MODEL	O2B8M
LENS	
Lens Type	3~10mm Motorized Focus Lens
Lens Iris Control	DC Auto Iris
CAMERA	
Image Sensor	1/2.8" 2 Mega Pixel Sony CMOS
Minimum Illumination	IR LED Off : 0.5Lux, IR LED On : 0Lux
Scanning Mode	Progressive Scan
Dynamic Range (D-WDR)	74.7dB or Higher (90dB or higher)
Electronic Shutter	Auto
IR LED	42pcs (850nm)
VIDEO	
Compression Algorithm	H.264, M-JPEG
Compression Resolution	352X240, 704X480, 1280X720, 1920X1080
Bitrate Control	H.264-CBR /VBR (up to 12Mbps)
Maximum Frame Rate	30ips @ 1920X1080 + 30ips @ 4CIF
Multi Stream	Primary, Secondary, Tertiary
INPUTS/OUTPUTS	
Video Output	1 Composite, 1 Vp-p
Audio Input	1 line in
Audio Output	1 line out
Alarm Input	1 TTL, NC/NO programmable, 4.3V (NC) or 0.3V (NO) threshold, 5 VDC
Alarm Output	1 relay out, NO only, 0.3A @ 125 VAC, 1A @ 30 VDC
Network Connectivity	10/100 Mbps Ethernet
CONNECTORS	
Video Output	BNC
Audio In/Out	Φ 3.5 audio jack
Alarm In	Wires
Alarm Out	Wires
Ethernet Port	RJ-45
AUDIO	
Compression Algorithm	G.726 (16KHz), G.711 μ - Law (8KHz)
GENERAL	
Dimensions (Ø x H)	3.94"(W)X3.94"(H)X8.27"(D)
Unit Weight	3.09lbs

Part Names and Functions



① **IR LED:** The sensor in the middle of IR LEDs detects low illumination and the IR LEDs are lit at night or under low lighting conditions.
② **Lens:** Motorized Lens is installed.
③ **Bottom Base:** Fixed Base on the Wall Ceiling
④ **Factory Reset Switch:** Use to return all settings to the original factory settings.
⑤ **Power:** When camera connect power supply, LED light on

Connection Guide



Connection Precautions

- Be sure to disconnect the unit before installation and connection.
- The installation should be made by qualified service personnel or system installers.
- Do not expose the power and connection cables to moisture, which may cause damage to the unit.

Connecting to the Network

You can control and monitor the system via network. With remote control (monitoring), you can change the system configuration or monitor the image.
Connect the IP camera to your network using a standard RJ-45 network cable

Connecting Power Source

Connect power, using one of the methods listed below:

To use a power adapter

Connect a DC 12 V power source to the power input terminal as shown below.
(recommended power adapter is DC 12 V/1.5 A or above)

NOTE:

- When the connecting Alarm and Audio, tighten the screws
- Put your finger between the power connector and the camera body to pull out the connector.

To use PoE (Power over Ethernet)

Connect an ethernet cable to the LAN port on the unit and to the PoE device. You must use a "IEEE802.3af" standard PoE device.

NOTE:
If the camera doesn't work properly after connecting to the PoE device, please check if the PoE device is supplying enough power.

Connecting Alarm Device

Alarm terminals are used to connect the alarm (relay) devices such as sensors, door switches, etc.

ALARM IN & OUT / ALARM IN & OUT RETURN (Sensor Input / Relay Output)

Connect the sensor device and alarm (relay) device to the alarm terminal. Alarm signal is sent out at an event occurrence.

NOTE:

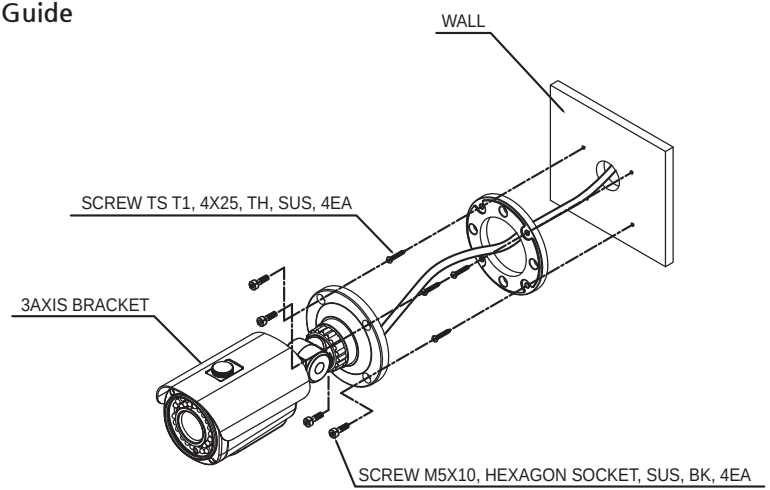
- The Photo MOS Relay is rated for 100 mA at DC 20 V or 100 mA at AC 28V.
- Grasp both ends of the 3 or 4 pin connector plug and then sway both side to pull it out.

Connecting Microphone and Speaker Device

Optionally connect an active speaker and/or external microphone with a built-in amplifier.

NOTE:
Keep the microphone away from the speaker to avoid howling.

Connection Guide



1. Screw the bottom cover to the wall or ceiling by using the mounting screws provided with the camera. Use the mounting template provided with the camera.
2. Connect the external devices, network and power adapter.
3. Adjust the angle of the lens for the proper view angle. Refer to the View Angle section below for details.
4. Adjust the focus and zoom by using the focus and zoom lever.
5. Fix the shield case in the tilt adjustment screw.
6. Apply power.

WARNING: You might need to reinforce the wall or ceiling. If the wall or ceiling is not strong enough to support the camera, the camera might fall damaging the camera or causing injuries