QUICK INSTALL GUIDE

O2iD5M
2MP Intensifier(R) IP Vandal Dome Camera

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

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 14 °F to 122 °F, however, we recommend that the unit be used within a temperature range of 32 °F to 113 °F)
- 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 guide includes instructions for installing and using this IP camera

Features

- Multi-streams for live view and recording
- H.265/H.264/MJPEG compression algorithm
- Two-way audio communication
- True WDR operation
- Color in low light without IR LEDs
- Motorized zoom with auto focus
- Power sources: 12 VDC, PoE (Power over Ethernet)
- Micro SD card slot
- IP66 and IK10 compliant for weather and vandal resistance
<table>
<thead>
<tr>
<th>Specification</th>
<th>O2iD5M</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MODEL</strong></td>
<td></td>
</tr>
<tr>
<td><strong>LENS</strong></td>
<td></td>
</tr>
<tr>
<td>Lens Type</td>
<td>2.8mm-12mm Motorized Lens</td>
</tr>
<tr>
<td>Lens Iris Control</td>
<td>DC Auto Iris</td>
</tr>
<tr>
<td><strong>CAMERA</strong></td>
<td></td>
</tr>
<tr>
<td>Image Sensor</td>
<td>1/3&quot; 2Mega CMOS Sensor</td>
</tr>
</tbody>
</table>
| Minimum Illumination | COLOR: 0.05Lux F1.4  
BW:0.0025Lux F1.4 |
| Scanning Mode | Progressive Scan |
| Dynamic Range (WDR) | Auto / Manual(1/30(25) ~ 1/10,000)  
Anti-Flicker, Slow Shutter(Off, 1/15 sec~ 1/1 sec) |
| Electronic Shutter | 108dB (True WDR) |
| **VIDEO**     |       |
| Compression Algorithm | H.265(MP/BP), H.264(HP/MP/BP), M-JPEG |
| Compression Resolution | 352X240, 640X360, 704X480(D1), 1280X720(720P), 1920X1080(1080P), Pivot |
| Bitrate Control | H.264 - CBR / VBR (up to 13Mbps)  
H.264 - CBR / VBR (up to 7Mbps) |
| Maximum Frame Rate | 30ips @ 1080p + 30ips @ 720p + 30ips @ 4CIF Max Triple Streaming |
| **AUDIO**     |       |
| Compression Algorithm | G.726 (16KHz), G.711 μ - Law (8KHz) |
| **INPUS / OUTPUTS** |     |
| Video Output | 1BNC |
| Audio Input | 1 line in |
| Audio Output | 1 line Out |
| Alarm Input | 1TTL, 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 |

<table>
<thead>
<tr>
<th>Network Connectivity</th>
<th>10/100 Mbps Ethernet</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONNECTORS</strong></td>
<td>BNC</td>
</tr>
<tr>
<td>Video Output</td>
<td>Φ 3.5 audio jack</td>
</tr>
<tr>
<td>Audio In/Out</td>
<td>Wires</td>
</tr>
<tr>
<td>Alarm In</td>
<td>Wires</td>
</tr>
<tr>
<td>Alarm Out</td>
<td>Wires</td>
</tr>
<tr>
<td>Ethernet Port</td>
<td>RJ-45</td>
</tr>
</tbody>
</table>

| **GENERAL**          |       |
| Dimensions (Ø x H)   | 5.1"(W)X3.9"(H)X5.1"(D) |
| Unit Weight          | 2lbs |
| Operating Temperature | 14°F to 122°F(-10°C to 50°C) |
| Operating Humidity   | 0% to 90% |
| Power Supply         | 12 VDC, PoE(Power over Ethernet)(IEEE 802.3af, Class 3) |
| Power Consumption    | Max. 4.68W |
| Approval             | FCC, CE, IP66, IK10 |
Part Names and Functions

1. **Lens**: Motorized Lens is installed.
2. **Dome Cover Fixed Hook**: Fixed Dome Cover with Body
3. **Bottom Base**: Fixed Base on the Wall Ceiling
4. **Tilt Adjustment Screw**: Allows you to adjust the tilt angle.
5. **Factory Reset Switch**: Use to return all settings to the original factory settings.
6. **Lens Rotating**: Loosen screw and rotate it for adjusting Lens Angle View
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 camera's settings can be set or changed remotely by connecting to the camera via Internet Explorer.

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 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 28 V.
- 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.
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.
4. Focus and zoom can be set remotely.
5. Fix the shield case in the tilt adjustment screw.
6. If the camera is a vandal dome model, screw the dome cover to the bottom cover by using the setscrew provided with the camera.

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.