speco technologies®

Intensifier® IP Specialty Cameras

QUICK INSTALLATION GUIDE

O2iBD3/O2i695/O2iTC23/O2i605CM/
O2i607CM/O2i562/O2i675

Please read this guide carefully before installation and operation of the product.

Notice

Thank you for purchasing this product. This guide is designed to be a reference tool for the product. Please read it carefully before operating the product and retain it for future reference. Should you require any technical assistance, please contact Speco Technologies Technical Support.

CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN		CAUTION TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.

The lighting flash with an arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of non-insulated 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 appliance.

INFORMATION

This equipment has been tested and found to comply with 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 its own expense.

WARNING

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

CAUTION – To prevent electric shock and risk of the fire hazards

・Do NOT use power source other than that specified.
・Do NOT expose this appliance to rain or moisture.

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

PRECAUTIONS

・ Please read the manual carefully before the installation in order to set up the camera correctly and to obtain the best picture quality.
・ Installation and services should only be carried out by an authorized personnel according to local safety regulations.
・ If any liquid or solid matter gets into the housing, immediately disconnect the camera from power supply and have it checked by your authorized dealer before reusing.
・ Avoid installing the camera in extremely hot or cold places.
・ If you are not a certified person, never try to dismantle the camera.
  To avoid electric shock, never remove the screws or covers. There are no parts inside that need maintenance by the user. All maintenance should be carried out by qualified personnel.
・ Avoid installing the camera in a place of high humidity.
・ Avoid installing the camera at a place exposed to gas or oil.
・ Don't point the camera directly at sunlight.
・ Please pay special attention to keep the unit from dropping or external shock during the process of transportation or handling.
・ Never try to touch the camera with wet hands. It may cause an electric shock.
・ Do not expose the camera to radioactivity. It can cause a serious damage on the image sensor.

LIMITATION OF LIABILITY

This publication is provided "AS IS" without warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for any particular purpose, or non-infringement of the third party's right.
This publication could include technical inaccuracies or typographical errors. Changes are added to the information herein, at any time, for the improvements of this publication and / or the corresponding product(s).

DISCLAIMER OF WARRANTY

In no event shall seller be liable to any party or any person, except for replacement or reasonable maintenance of the product, for the cases, including but not limited to below :

(1) Any damage and loss, including without limitation, direct or indirect, special, consequential or exemplary, arising out of or relating to the product.
(2) Personal injury or any damage caused by inappropriate use or negligent operation of the user.
(3) Unauthorized disassembly, repair or modification of the product by the user.
(4) Inconvenience or any loss when images are not displayed, due to any reason or cause including any failure or problem of the product.
(5) Any problem, consequential inconvenience, or loss or damage, when combined with third party devices.
(6) Any claim or action for damages, brought by any person or organization, due to a violation of privacy when the surveillance footage, for some reason, becomes public or is used for the purpose other than surveillance.

1. PRODUCT OVERVIEW

Key Features

· 2.0 Mega pixel 1/2.8" SONY progressive scan CMOS image sensor for excellent image quality
· Specialty housing design for specific applications
· 2.9mm wide angle lens or 3.6mm pinhole lens (for O2i562 only)
· Support for corridor view (in H.264)
· Integrated motion detection with pre- and post-alarm image / video buffering
· Supports CBR (Constant Bit Rate) and VBR (Variable Bit Rate) modes
· Supports Tampering-Alarm
· Controllable frame rate
· Privacy Masking up to 8 areas
· Built-in standard PoE (802.3af)
· HTTPS support
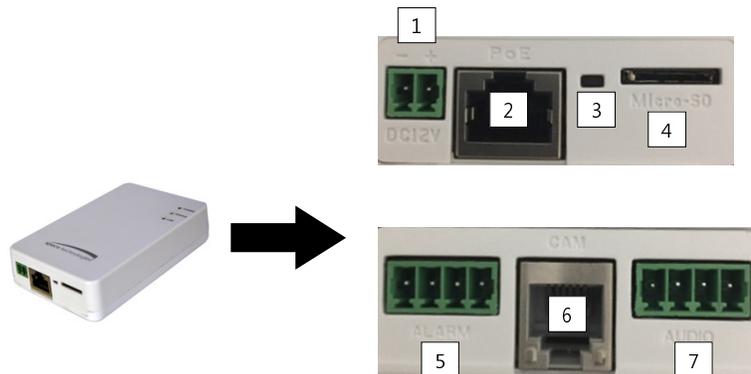· Integrated E-Mail, FTP, DDNS and DHCP client

Specifications

CLASSIFICATION		SPEC
General	CPU	ARM1176JZF-S_{TM} (400 MHz, Instruction cache : 32kbyte, data cache : 16kbyte, MMU)
	Flash	2Gbit Flash Memory
	SDRAM	2Gbit DDR3 Memory
Image Pickup	Image Sensor	2.0 Megapixel 1/2.8" SONY progressive scan CMOS image sensor
	Total Pixels	1952(H) x 1116(V) 2.18 Megapixel
	Effective Pixels	1944(H) x 1104(V) 2.14 Megapixel
	S/N Ratio	More than 50dB
	Min. Illumination	0.2Lux
	Day & Night	Intensifier®
Video	Video Compression	H.264 / Motion JPEG
	Resolutions	Up to 1920 x 1080
	Frame Rate	H.264 Up to 30fps
		MJPEG Up to 30fps with VGA resolution
	Video Streaming	Supports multi stream with H.264, MJPEG
		Adjustable frame rate
		VBR / CBR in H.264
	Image Setting	Brightness, Contrast, Sharpness
		Day & Night
		Auto White Balance
		Auto Exposure
		Privacy Mask
		DSS, Corridor-view (in H.264), Mirror / V-Flip, etc.
	Backlight	WDR (Low / Middle / High)
	Shutter Speed	1/30 ~ 1/10000
	Noise Reduction	2D / 3DNR
Audio	Audio Streaming	Two-way
	Audio Compression	G.711
	Data / Sample Rate	64Kbps / 8KHz
	Audio Input / Output	Line in, Line out

Network	Dynamic IP	SPECO DDNS (Free of Charge)	
	Security	Password protection	
		User access log	
		HTTPS encryption	
	Supported Protocol	HTTP, HTTPS, DNS, RTSP, RTP, TCP, UDP, ICMP, DHCP	
System Integration	Intelligent Video	Motion detection 12 x 12 blocks	
	Alarm Trigger	Motion detection, External Input (NO / NC Type)	
	Video Buffer	5MB pre-alarm and post-alarm-180sec	
	Firmware Upgrade	Remote upgrade via network	
Physical	Etc	1 x Factory Reset Button	
	Memory Slot	Micro SD	
	Power Source	DC 12V / 1.5A, PoE (Power over Ethernet) : 802.3af	
	Power Consumption	4W	
	Main Unit Weight	5 oz	
	Main Unit Dimensions	3.98(W) x 5.85(H) x 9.54(D)	
	Housing Weight	O2i695 (7 oz) / O2iTC23 (5 lbs) / O2i605CM (1.4 lbs) / O2i607CM (1.5 lbs) / O2i562 (5 oz) / O2i675 (4 oz)	
	Housing Dimensions	O2i695 (2.25"x2.75"x2.5") / O2iTC23 (24"x2.75") / O2i605CM (9"x7"x4") / O2i607CM (5.1"x3.3") / O2i562 (3.4"x1.6") / O2i675 (2.75"x4.25"x2.75")	
Environment	Operating Temperature	14F ~ 122F	

※ Specifications are subject to change without prior notice

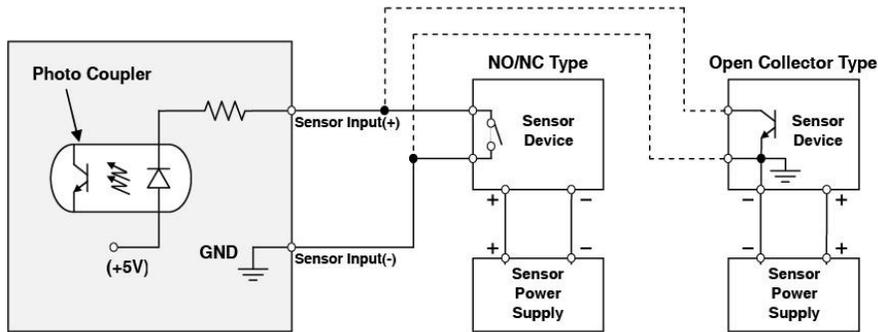## 2. NAME AND FUNCTION OF EACH PART

2.1 Main Unit

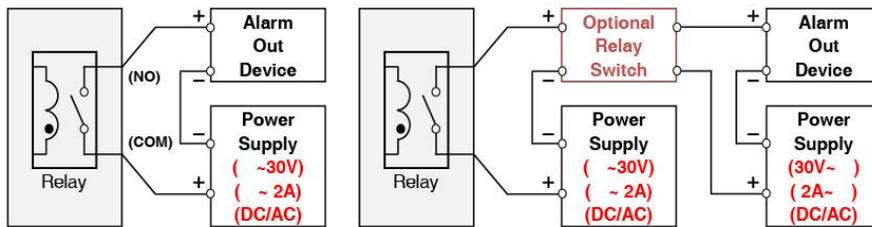| NO.	ITEM	DESCRIPTION
1	Power Connector	DC12V ※ **Caution : If O3FB56M is powered by PoE, do not** **plug in DC Jack with active DC power into** **DC power connector.**
2	Network and POE Connector	POE (Power Over Ethernet) and LAN cable
3	Reset	Press and hold for 5 seconds to reset to factory default setting
4	Micro SD slot	Insert card with contacts facing up until card clicks in place
5	Sensor In / Alarm Out	From left to right (ABCD) A: Alarm COM B: Alarm NO C: GND D: Sensor In
6	Camera port	Connect camera body to main unit
7	Audio In/Out	From left to right (ABCD) A: GND (Input) B: Line In C: GND (Output) D: Line Out

˙Sensor Input

Connect external alarm sensor. Examples of sensing devices are infrared sensor, motion sensor, heat / smoke sensor, magnetic sensor, etc. Connect the two wires of the sensor to "Sensor Input". The sensor type (NC/NO) can be set in camera setup after logging in. Multiple sensor devices can be connected in parallel.

SENSOR input and connection of the sensor

˙Relay Output

Relay output is provided for connecting alarm devices or for remote on / off control of devices such as light. Relay is normally open and it will be closed upon alarm annunciation or remote on.
The relay is capable of switching 30V AC/DC, 2A. For the application which needs power switching beyond this limit, use an additional relay switch as shown below.

※ **Left : switching requirement below 30V, 2A**
※ **Right : switching requirement higher than 30V, 2A.**
        Apply this connection when either voltage or current exceeds the limit.
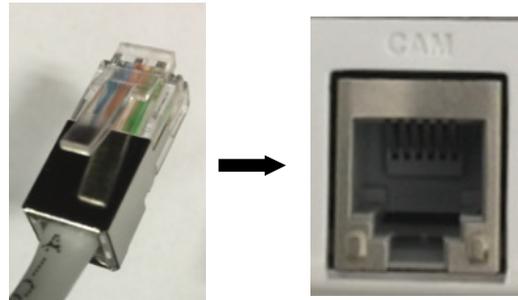
RELAY Output connection

3. INSTALLATION & CONNECTION
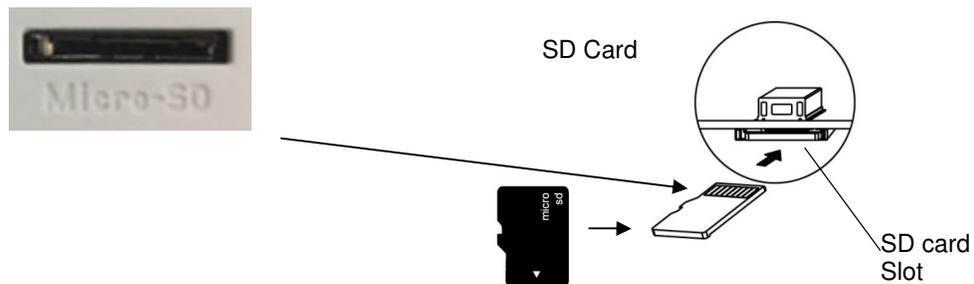
3.1 Install Camera Housing and Connect to Main Unit

① Install camera housing as necessary first.
② Connect the cable from the camera to the main unit.
③ Main unit will provide power to the camera unit.
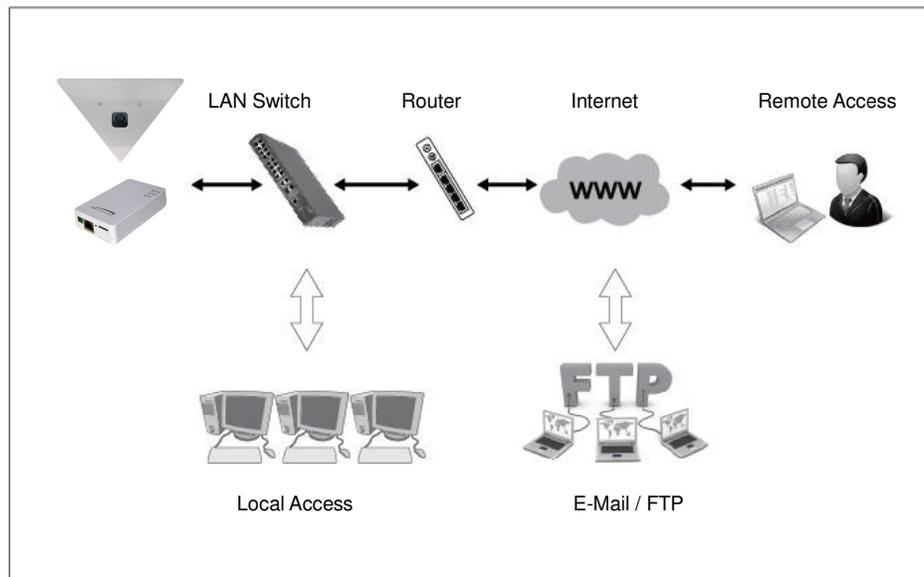④ Install the main unit out of reach.

3.3 Install Micro SD Card

① Make sure the contacts are facing up on the Micro SD card.
② Insert the card.
③ Push until the card clicks into place.

<Caution>
a. Power down the unit before inserting or removing a Micro SD Card.

3.4 INSTALLATION EXAMPLE

3.4.1 Installation Example

3.4.2 Connecting to the Network

Open up IP Scanner.
IP Scanner can search for the device on the local network.
Please note that only devices that are on the same subnet can be discovered.
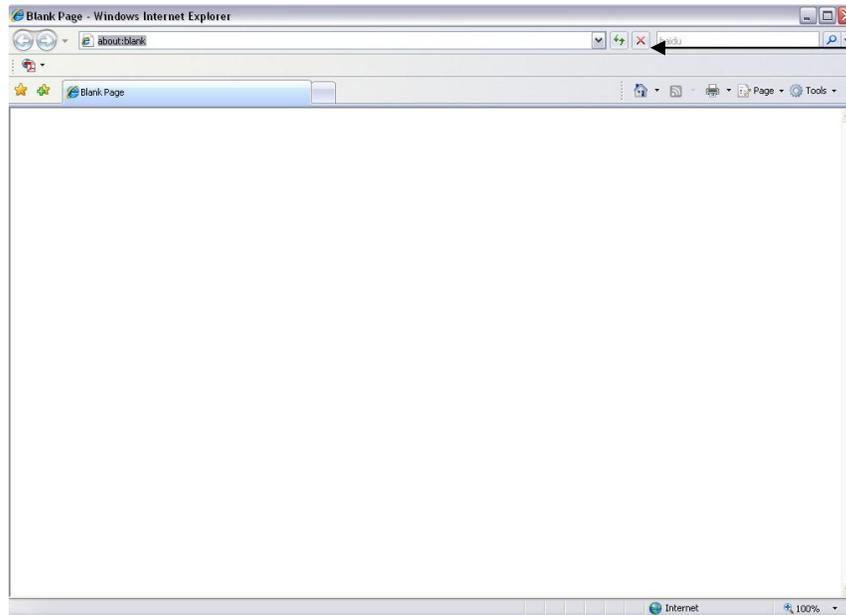The device is set to DHCP mode by default.
In the device list, you can view the IP address, model number, and MAC address of each device. Select the applicable device and double click to open up the web viewer.

Status	Name	IP Address	MAC Address	Version
Online	O2iD4M	192.168.56.128	00:07:18:FF:03:73	1.0.57
Online	O2D4	192.168.56.143	5C:F2:07:1C:28:CA	1.0.53
Online	VIP2PTZ12X	192.168.56.157	00:07:D8:17:8A:68	1.3.7-X1_release
Online	VIP2D1M	192.168.56.149	5C:F2:07:20:9D:AD	2.5.0-T3_release
Online	O5MDP1	192.168.56.139	5C:F2:07:1C:3E:66	1.0.47
Online	Eddie-O2DP8	192.168.56.104	5C:F2:07:1C:1F:74	1.0.47
Online	O5MDP1	192.168.56.124	5C:F2:07:1C:23:D8	1.0.47
Online	O2DP9	192.168.56.147	5C:F2:07:1C:74:16	1.0.54
Online	OB1	192.168.56.105	5C:F2:07:1C:01:3B	
Online	OPTZ36XI	192.168.56.140	5C:F2:07:1C:03:1D	
Online	n/a	192.168.56.130	5C:F2:07:24:00:1A	2236.0.0.1412190
Online	n/a	192.168.56.14	5C:F2:07:24:03:C2	2236.0.0.1409180
Online	n/a	192.168.56.12	5C:F2:07:24:51:2E	2218.0.0.1409180
Online	O2VLB2	192.168.56.146	4C:11:BF:8A:23:64	

3.4.3 Accessing the Camera or video server's Homepage

1) Open the browser and input network camera address in the address bar or double click the device in IP Scanner.

Input your IP address here

2) Please input your user name and password when prompted.
3) Default user name is **admin** and password is **1234**.
4) The first time you login to the camera, you will be notified that a ActiveX control is required to be installed. You need to allow the installation of ActiveX.