

SurroundVideo® G5

Installation Manual

Models:

5 Megapixel

- AV5585PM

12 Megapixel

- AV12585PM
- AV12586PM

20 Megapixel

- AV20585PM



GEN5
Megapixel IP Camera

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CAUTION!

1. Do not attempt to service a damaged unit yourself. Refer all servicing to qualified service personnel.
2. Wiring methods shall be in accordance with the National Electrical Code/NFPA 70/ANSI, and with all local codes and authorities having jurisdiction. Wiring should be UL Listed and/or Recognized wire suitable for the application.
3. Always use hardware e.g. screws, anchors, bolts, locking nuts etc. which are compatible with mounting surface and of sufficient length and construction to insure a secure mount.

Package Contents

This equipment should be unpacked and handled with care. The original packaging is the safest container in which to transport the unit and can be used if returning the unit for service. The packaging contains:

- One (1) Arecont Vision SurroundVideo® G5 Camera
- One (1) mounting template
- Four (4) Mounting Wood Screws
- Four (4) Mounting Dry Wall Anchors
- One (1) RJ45 Female to female coupler
- One (1) Security L-key
- One (1) Hex key

Warranty Information

Global (3 Year) Limited Warranty

ARECONT VISION warrants to Purchaser (and only Purchaser) (the “Limited Warranty”), that: (a) each Product shall be free from material defects in material and workmanship for a period of **thirty-six (36) months** from the date of shipment (the “Warranty Period”); (b) during the Warranty Period, the Products will materially conform with the specification in the applicable documentation; (c) all licensed programs accompanying the Product (the “Licensed Programs”) will materially conform with applicable specifications. Notwithstanding the preceding provisions, ARECONT VISION shall have no obligation or responsibility with respect to any Product that (i) has been modified or altered without ARECONT VISION’s written authorization; (ii) has not been used in accordance with applicable documentation; (iii) has been subjected to unusual stress, neglect, misuse, abuse, improper storage, testing or connection; or unauthorized repair; or (iv) is no longer covered under the Warranty Period. ARECONT VISION MAKE NO WARRANTIES OR CONDITIONS, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, OTHER THAN THE EXPRESS LIMITED WARRANTIES MADE BY ARECONT VISION ABOVE, AND ARECONT VISION HEREBY SPECIFICALLY DISCLAIMS ALL OTHER EXPRESS, STATUTORY AND IMPLIED WARRANTIES AND CONDITIONS, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT AND THE IMPLIED CONDITION OF SATISFACTORY QUALITY. ALL LICENSED PROGRAMS ARE LICENSED ON AN “AS IS” BASIS WITHOUT WARRANTY. ARECONT VISION DOES NOT WARRANT THAT (I) THE OPERATION OF THE PRODUCTS OR PARTS WILL BE UNINTERRUPTED OR ERROR FREE; (II) THE PRODUCTS OR PARTS AND DOCUMENTATION WILL MEET THE END USERS’ REQUIREMENTS; (III) THE PRODUCTS OR PARTS WILL OPERATE IN COMBINATIONS AND CONFIGURATIONS SELECTED BY THE END USER; OTHER THAN COMBINATIONS AND CONFIGURATIONS WITH PARTS OR OTHER PRODUCTS AUTHORIZED BY ARECONT VISION OR (IV) THAT ALL LICENSED PROGRAM ERRORS WILL BE CORRECTED.

For RMA and Advance Replacement information visit <http://www.arecontvision.com>

Camera Overview

The SurroundVideo® G5 multi-sensor, multi-megapixel dome camera pushes the boundaries of next generation technology, providing users with four (4) integrated, motorized P-iris lenses for an incredible 180° panoramic experience in a single indoor/outdoor housing. SurroundVideo® G5 cameras provide an all-in-one solution for capturing wide area video surveillance while maximizing the field-of-view and reducing the total number of cameras required.

The SurroundVideo® G5 multi-megapixel camera series delivers 5-, 12-, or 20-megapixel resolutions. For added flexibility, users can view the camera's four (4) sensors individually or as a smooth transition of all images blended together for a full 180° panoramic view. The camera is factory aligned with a slight image overlap to ensure you never miss a thing.

The series combines a day/night mechanical IR cut filter for the highest image quality at any time of day. The SurroundVideo® G5 camera features four (4) factory-installed P-iris lenses, ensuring the best possible depth of field and image clarity for precise performance from each individual sensor. Once mounted, the operator can quickly focus and position the camera remotely, eliminating the need to adjust the camera on-site. No more hassle individually installing multiple cameras to cover a wide area, manually focusing lenses, or risk missing critical information.

SurroundVideo® G5 is designed for demanding environments. Subjected and certified to rigorous dust and water tests, the IP66 rating, and its extended operating temperature range make it ideal for outdoor applications. The IK-10 rated, rugged dome housing is perfect for deterring vandals since it can withstand the equivalent of 55 kg (120 lbs) of force.

Installation

1. Determine a secure location to mount the camera.
2. Use the supplied security L-key, to loosen the four (4) screws securing the dome cover (Figure 1). Remove dome cover. Do not remove screws from the dome cover.

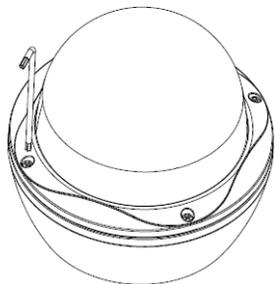
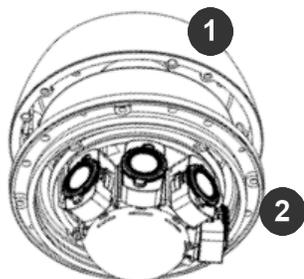
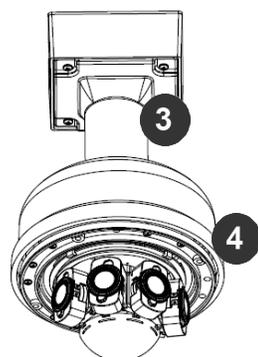


Figure 1: Remove dome cover

3. The SurroundVideo® G5 camera has been designed to provide installers with flexible mounting options such as ceilings, walls, poles or corners. Choose the best method for your installation:

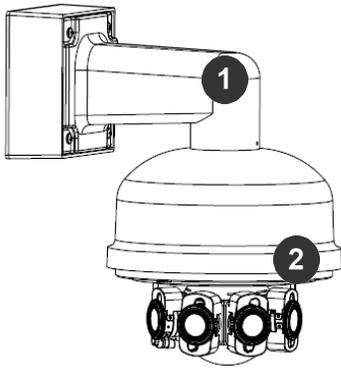


Remove for in-ceiling installation



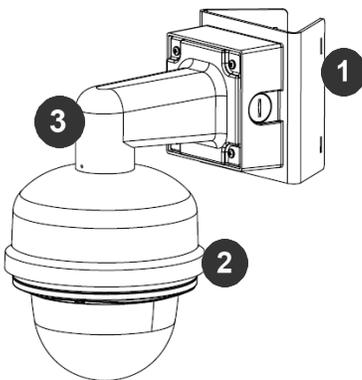
Pendant mount

Reference #	Mount Type	Parts Required
1	In-ceiling mount	Remove surface mount portion of camera
2		+ SV-FMA flush mount adapter
3	Pendant mount	AV-PMJB pendant mount
4		+ SV-CAP mount cap



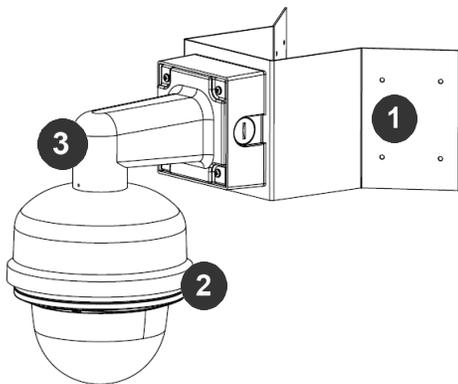
Wall mount

Reference #	Mount Type	Parts Required
1	Wall mount	AV-WMJB
2		+ SV-CAP mount cap



Pole mount

Reference #	Mount Type	Parts Required
1	Pole mount	AV-PMA
2		+ SV-CAP mount cap
3		+ AV-WMJB



Corner mount

Reference #	Mount Type	Parts Required
1	Corner mount	AV-CRMA
2		+ SV-CAP mount cap
3		+ AV-WMJB

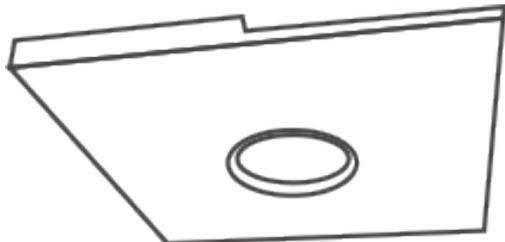
NOTE: It is recommended to conduct periodic inspections of the installation. Rust on the metal parts or screws may result in damage to the camera.

- Use the Arecont Vision software AV IP Utility located on the CD or available for download at our website (www.arecontvision.com) for camera discovery and setup (see Instruction Manual located on the CD or available on our website).

In-ceiling Mount

To properly flush mount the SurroundVideo® G5 to a drop ceiling or similar surface, a flush mount adapter kit (SV-FMA) is required (sold separately). An in-ceiling mount should only be attached onto hard ceilings including wood, plastic, metal and concrete.

1. Cut a hole in the ceiling using the template provided to fit the camera housing.



NOTE: SurroundVideo® G5 ships with both surface mount and in-ceiling mount, the mounting template takes both into consideration.

2. Loosen the four (4) machine screws with user-supplied #2 Phillips head screwdriver and remove the in-ceiling mount housing from the surface mount housing (see Figure 4). Set surface mount housing aside for future use.

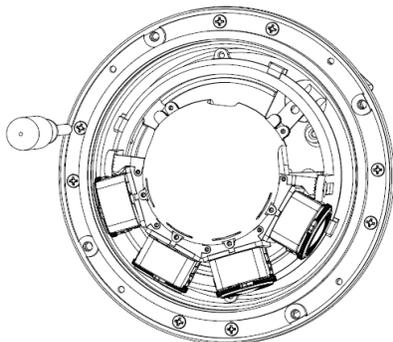


Figure 3: Remove four (4) screws

NOTE: The above removed screws are also used to attach the camera with in-ceiling mount housing to the pendant mount and wall mount. Do not discard.

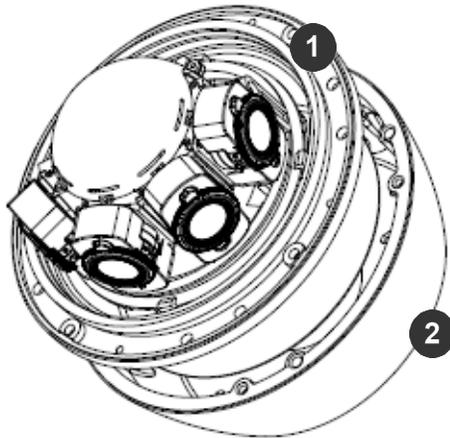


Figure 4: Remove in-ceiling mount from surface mount housing

Reference #	Description
1	In-ceiling mount
2	Surface mount

- Attach the Flange Plate to the in-ceiling mount with the 3 set screws as shown in Figure 5.

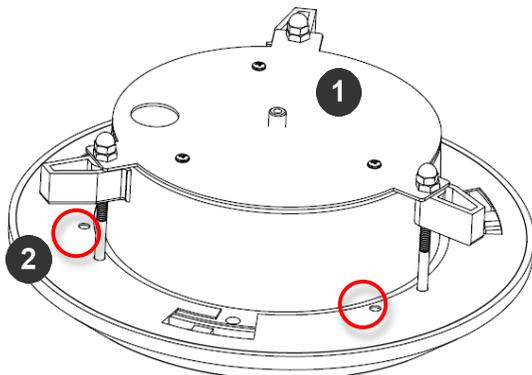


Figure 5: Attach Flange Plate to in-ceiling mount with 3 set screws

- Attach Top Plate to in-ceiling mount with other 3 set screws as shown in Figure 6.

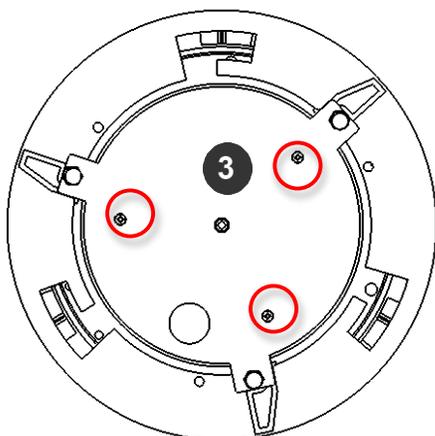


Figure 6: Attach Top Plate to in-ceiling mount with 3 set screws

Reference #	Description
1	In-ceiling mount
2	Flange Plate
3	Top Plate

4. Insert each lever screw into the Flange Plate, support arm, and Top Plate. Then, screw the nuts and caps as shown in Figure 7.

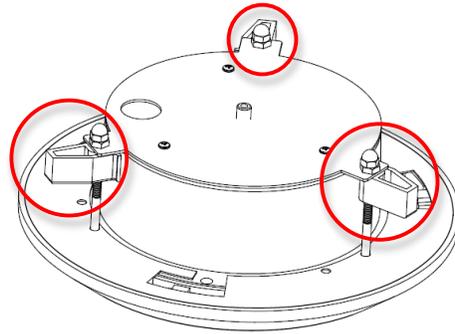


Figure 7: Attach the 3 levers

5. Insert the Flush Mount Adapter (SV-FMA: sold separately) into the hole.
6. Screw the “lever screws” until the flush mount is snugly installed, as shown in Figure 8. The “Support Arm” will ride down the screw to compress the mounting surface (Figure 9).

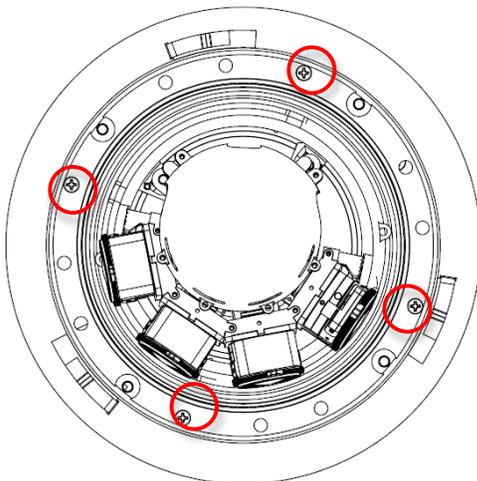


Figure 8: Attach Top Plate to in-ceiling mount with 3 set screws

NOTE: Do not over-torque the lever screws

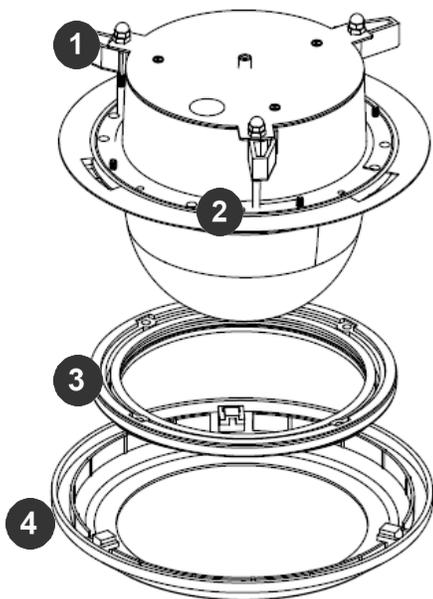


Figure 9: Compress the mounting surface with lever screws

Reference #	Description
1	Support Arm
2	Lever Screw
3	Flange Plate
4	Trim Ring

7. To configure the camera, reference the set-up section.
8. Attach the Trim Ring to the Flush Mount Adapter by rotating clockwise as show in Figure 10.

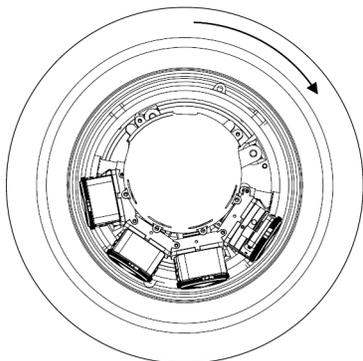


Figure 10: Attach Trim Ring to the Flush Mount Adapter clockwise

Mounting Recommendations

For the best visibility toward the target, and a minimal blind spot below the camera, Arecont Vision recommends mounting panoramic cameras 15-20ft off the ground. If the application is unable to meet this criteria, for every 10ft the camera is mounted from the ground, expect a 10ft blind spot below, and the camera should be aimed ~100ft, for every 10ft mounted from the ground, toward the horizon.

For example, a camera mounted at 30ft will have a 30ft blind spot below the camera and should be aimed 300ft toward the horizon. In the example below, the camera in Figures 10B and 10C are both mounted 30ft high; however, the camera in Figure 10B is aimed 250ft toward the horizon and the camera in Figure 10C is only aimed 150ft toward horizon. As a result, the camera in Figure 10C will have less than desirable results due to its higher curvature.



Figure 10A: Recommended height for panoramic cameras



Figure 10B: Less curvature provides better results



Figure 10C: Higher curvature produces less desirable results

In the example below, the camera in Figures 10D and 10E are both mounted 8ft high; however, the camera in Figure 10D is aimed 80ft toward the horizon and the camera in Figure 10E is only aimed at 30ft toward horizon. The camera in Figure 10E results in a drastic curvature with less usable video.



Figure 10D: Mounting height of 8ft and aimed 80ft toward horizon



Figure 10E: Mounting height of 8ft and aimed only 30ft toward horizon

Pendant Mount

For a proper pendant mount installation, the AV-PMJB pendant mount and SV-CAP mount cap are required (sold separately). A pendant mount should only be attached onto hard ceilings including wood, plastic, metal, and concrete.

1. Using the mounting template, prepare the mounting provisions for the camera installation.
2. Connect top shield, pendant pole and mount together as shown in Figure 11.

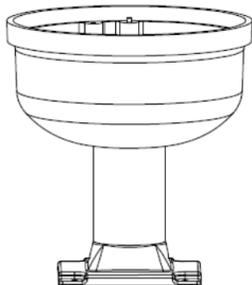


Figure 11: Attach the mount cap and pole

NOTE: The thread size of top shield, pendant pole and mount is 1.5" NPT.

3. Attach the pendant mount to the ceiling using the four wood screws provided or any optional hardware suitable for the mounting surface.
4. Run the Ethernet Cable and outside power cable (if necessary) through the pendant.

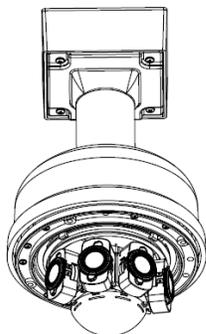


Figure 12: Attach camera

5. To configure the camera, reference the camera discovery, set-up and configuration section.

Surface Mount

The SurroundVideo® G5 can be directly attached onto hard ceilings or walls including wood, plastic, metal and concrete.

1. Use the template provided to prepare the mounting provisions for the camera installation.

NOTE: SurroundVideo® G5 ships with both surface mount and in-ceiling mount, the mounting template takes both into consideration.

2. Loosen the four (4) machine screws with user-supplied #2 Phillips head screwdriver.

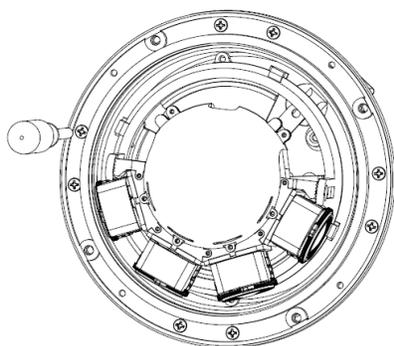


Figure 3: Remove four (4) screws

NOTE: The above removed screws are also used to attach the camera with in-ceiling mount housing to the pendant mount and wall mount. Do not discard.

3. Remove the in-ceiling housing from the surface mount housing. Set the in-ceiling housing aside.

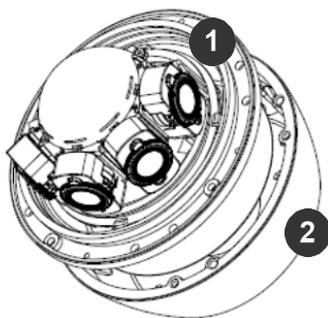


Figure 4: Remove in-ceiling mount from surface mount housing

Reference #	Description
1	In-ceiling mount
2	Surface mount

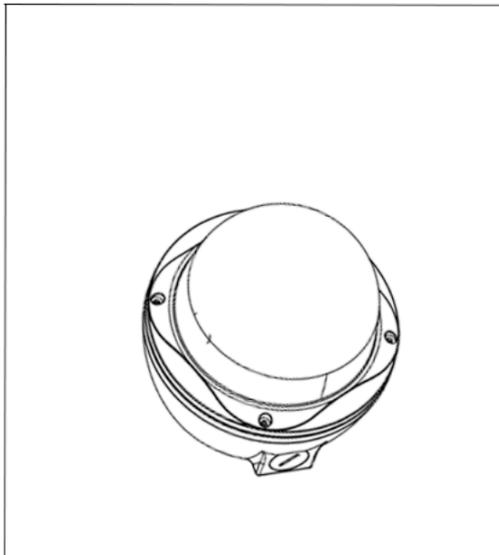


Figure 5: Mount the Surface mount to the wall or ceiling

NOTE: If you use the side connection of the NPT port, remove the cap covering the side entrance, otherwise; leave the cap in place. If using the NPT port, always use Teflon tape around the threads to ensure proper sealing. The conduit fits $\frac{3}{4}$ " NPT standard. Ensure NPT port is facing downward.

4. Route the cable tree from the camera around the rear of the camera module and secure all cables. See the Connections section for details on how to connect the camera.
5. Check that the indicator LED's are illuminated to the desired conditions (see LED Indicator table).



CAUTION! The captive fasteners must be used to properly secure the dome cover. Failure to use the captive fastener may result in serious injury. When mounting the dome cover to the camera housing, ensure that the gasket is properly seated and not folded. Failure to do so may result in water and dust ingress. Water damage from improper installation is not covered by the warranty!

Wall Mount

For a proper wall mount installation, the AV-WMJB wall mount and SV-CAP wall mount cap are required (sold separately). A wall mount should only be attached onto hard ceilings including wood, plastic, metal, and concrete.

1. Using the Mounting template, prepare the mounting provisions for the camera installation.
2. Connect wall mount cap and wall mount as shown in Figure 13.

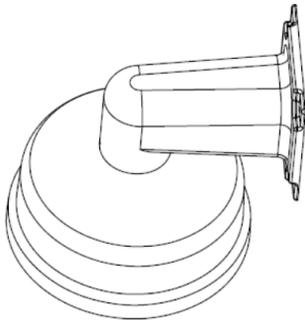


Figure 13: Attach wall mount cap to the wall mount

NOTE: The thread size for Top shield, pendant pole and mount is 1.5" NPT.

3. Run Ethernet Cable and outside power cable (if necessary) through the Wall Mount.
4. Attach the wall mount to the wall using drywall screws or any optional hardware suitable for the mounting surface.

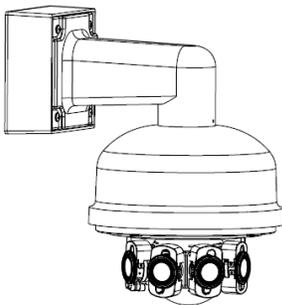


Figure 14: Attach camera

5. To configure the camera, reference the camera discovery, set-up and configuration section.

Pole Mount

For a pole mount installation, the AV-WMJB wall mount, AV-PMA pole mount, and SV-CAP mount cap are required (sold separately). A pole mount should only be attached onto hard ceilings including wood, plastic, metal, and concrete.

1. Using the mounting template, prepare the mounting provisions for the camera installation.
2. Connect the wall mount cap and wall mount as shown in Figure 13.
3. Attach the AV-JBA (Junction Box Adapter) to the Pole Mount Adapter (Figure 15).
4. Remove the conduit plug on the junction box adapter and connect $\frac{3}{4}$ " NPT conduit to the junction box adapter (Figure 15).

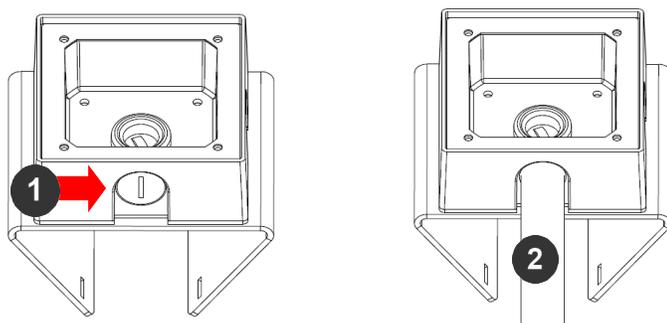


Figure 15: Attach conduit to AV-JBA junction box adapter

Reference #	Description
1	Remove conduit plug
2	Connect $\frac{3}{4}$ " NPT conduit to junction box adapter (ensure use of water seal tape)

NOTE: Use silicon or water pipe seal tape to make sure no water leakage between conduit pipe and junction box adapter.

5. Run the Ethernet cable and outside power cable (if necessary) through the Junction Box Adapter and SV-WMJB, Wall Mount Adapter.
6. Attach the Wall Mount Adapter (SV-WMJB) to the Pole Mount Adapter (AV-PMA) as shown in Figure 16.

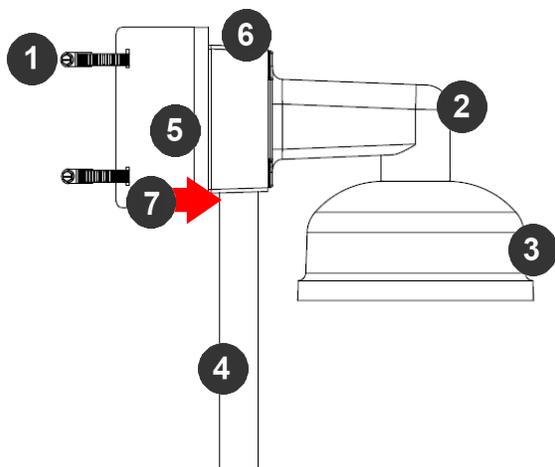


Figure 16: Attach wall mount adapter to pole mount adapter

Reference #	Description
1	Steel straps with compression screws
2	AV-WMJB wall mount
3	SV-CAP mount cap
4	Conduit
5	AV-PMA pole mount
6	AV-JBA Junction box
7	Apply Teflon water seal tape to the thread of 3/4" NPT pipe to avoid water leakage

7. Use the supplied two Steel Straps to attach the Pole Mount Adapter to the pole and tighten the compression screws as shown in Figure 16.
8. Attach the camera with the in-ceiling mount to the Wall Mount Adapter.
9. To configure the camera, reference the camera discovery, set-up and configuration section.

Corner Mount

For a corner mount installation, the AV-WMJB wall mount, AV-CRMA corner mount, and SV-CAP mount cap are required (sold separately). A corner mount should only be attached onto hard corner surfaces including wood, plastic, metal, and concrete.

1. Using the Mounting template, prepare the mounting provisions for the camera installation.
2. Connect the wall mount cap and wall mount as shown in Figure 13.
3. Attach the AV-JBA (Junction Box Adapter) to the Corner Mount Adapter (Figure 16).
4. Remove the conduit plug on the junction box adapter and connect $\frac{3}{4}$ " NPT conduit to the junction box adapter (Figure 16).

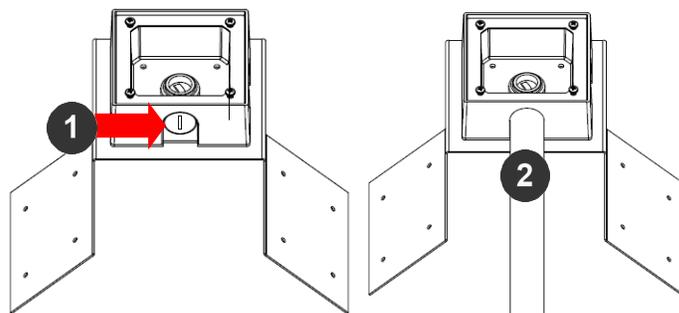


Figure 16: Attach conduit to AV-JBA junction box adapter

Reference #	Description
1	Remove conduit plug
2	Connect $\frac{3}{4}$ " NPT conduit to junction box adapter (ensure use of water seal tape)

NOTE: Use silicon or water pipe seal tape to make sure no water leakage between conduit pipe and junction box adapter.

5. Run the Ethernet cable and outside power cable (if necessary) through the Junction Box Adapter and SV-WMJB, Wall Mount Adapter.
6. Attach the Wall Mount Adapter (SV-WMJB) to the Corner Mount Adapter (AV-CRMA) as shown in Figure 17.

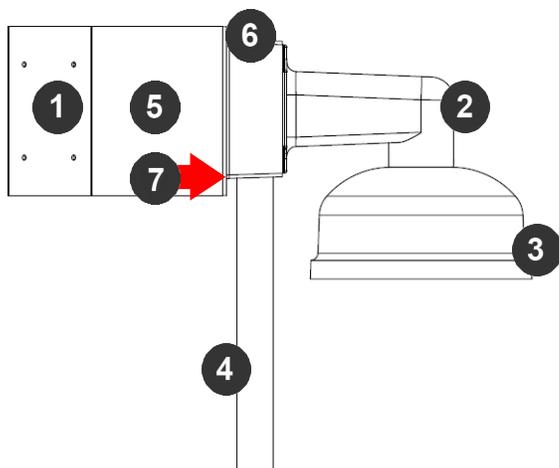


Figure 17: Attach corner mount adapter to exterior corner wall

Reference #	Description
1	Attach corner mount adapter to exterior 90° corner wall
2	AV-WMJB wall mount
3	SV-CAP mount cap
4	Conduit
5	AV-CRMA corner mount adapter
6	AV-JBA Junction box
7	Apply Teflon water seal tape to the thread of 3/4" NPT pipe to avoid water leakage

7. Using the screws provided (or other hardware), attach the Corner Mount Adapter to an exterior 90° corner wall.
8. Attach camera with in-ceiling mount to Wall Mount Adapter.
9. To configure the camera, reference the camera discovery, set-up and configuration section.

Electrical Box Adapter

The AV-EBA electrical box adapter is used to attach the camera to a common single, double or square electrical box.

1. Using the AV-EBA's supplied machine screws, match the mounting holes on the adapter with the threaded holes on the electrical box. Ensure every threaded hole is matched with a mounting hole.
2. Attach the electrical box adapter to the user supplied electrical box.

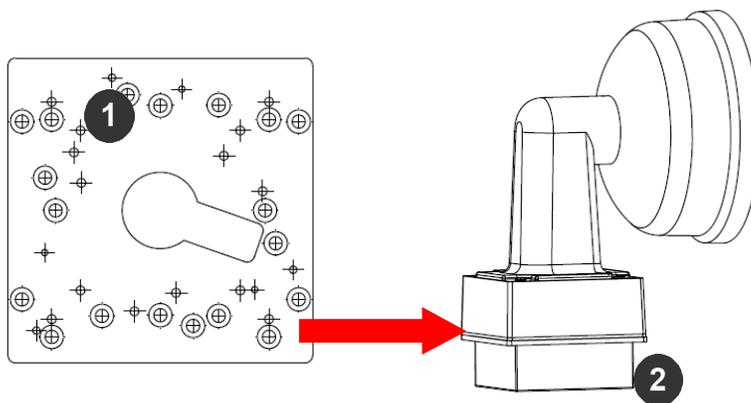


Figure 17: Attach AV-EBA adapter to common electrical box

Reference #	Description
1	AV-EBA electrical adapter plate
2	Common electrical box (single, double or square gang box)

Adjusting the Pan, Tilt and Focus

1. Remove the dome cover by loosening the captive fasteners with the supplied Philips head screwdriver.
2. Power on the camera to adjust the pan, tilt and focus.
3. To adjust the pan, use a #2 Phillips screwdriver to loosen both screws on the sides of the plastic gimbal bracket as shown in Figure 18.

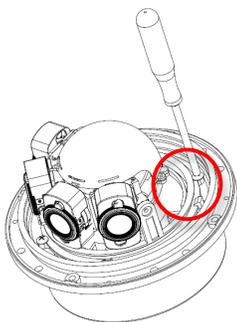


Figure 18: Loosen both screws aside of gimbal bracket

4. Adjust the pan as required and re-tighten the screw (Figure 19).

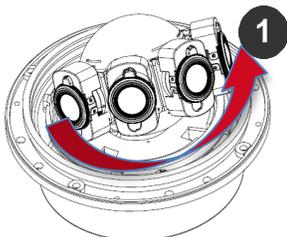


Figure 19: Adjust the pan and re-tighten the screws

Reference #	Description
1	Adjustable 360°

- To adjust the tilt, use a #2 Phillips screwdriver to loosen both screws on the sides of the plastic gimbal bracket 1/4 turn (Figure 20). NOTE: Do not remove the screws!

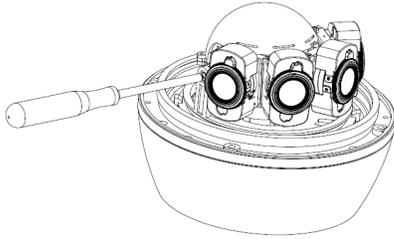


Figure 20: Loosen both screws on the gimbal bracket

- Adjust lens tilt as required and re-tighten the screws (Figure 21).

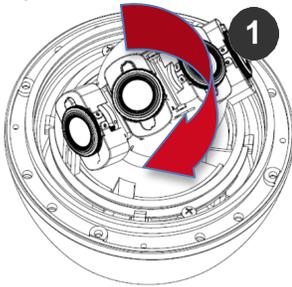


Figure 21: Adjust lens tilt and re-tighten the screws

Reference #	Description
1	Adjustable 90°

NOTE: The camera has a 2-Axis gimbal with 360° pan and 90° tilt for easy and accurate positioning.

- To adjust the focus, see the Remote Focus Section of this manual.

Optional: Connecting Digital I/O

To use digital I/O, connect digital I/O with pigtail cable connector as shown below.

Reference #	Description
1	Input (White + / Black -)
2	Output (Orange + / Yellow -)

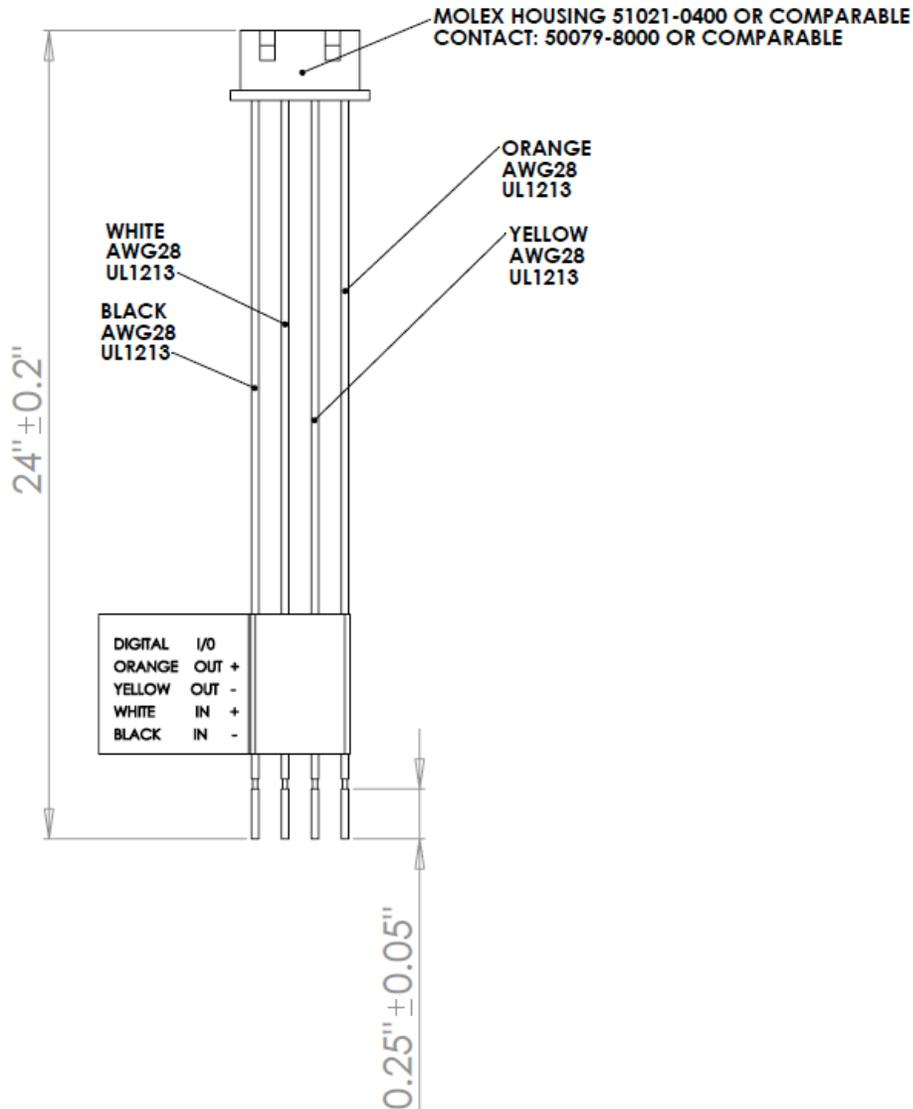
NOTE: SurroundVideo® G5 supports digital input and digital output. See **Table 1** for electrical characteristics.

Electrical Characteristics		MIN	MAX
Input Voltage (V) (Measured between + and – terminals)	ON	3.5	6.3
	OFF	0	1.3
Output Current (mA) (Measured between + and – terminals) Applied Voltage Range: 0-80V	ON	-	50
	OFF	-	0.1

Table 1

NOTE: The digital input is electrically isolated from the rest of the camera's electrical circuitry via general-purpose photo couplers. The input is additionally protected with a serial 250 Ohm resistor, and a de-bouncing circuit. Duration of any input signal should be at least 5 ms to comply with the requirements of the de-bouncing circuit.

NOTE: **Table 2** shows the cable color for digital input and output.



Digital I/O

Orange	Digital OUT +
Yellow	Digital OUT -
White	Digital IN +
Black	Digital IN -

Table 2

Connecting Heater and Blower

The heater and blower are integrated to the camera. If the heater is required, connect the heater's power input to a separate **12-35V DC, 24V AC** power supply.

Power Input for Heater	Power Consumption
12-35V DC, 24V AC (separate power required)*	11W Max(DC) 13W Max(AC)

**Products shipped before 6/1/16 will only support 10V to 35V DC*

	Temp Heater Turns On	Temp Heater Turns Off
Heater*	62.6°F (17° C)	86° F (30° C)

**Heater must be powered separately; Blower is powered via PoE and is always on*

Color	+ / -
Red	+
Blue	-

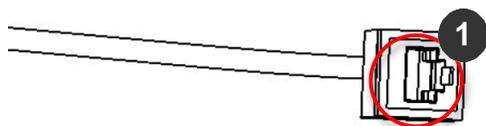
1. Align the holes in the camera with the prepared holes on the mounting surface. Attach the camera with the in-ceiling mount housing to the surface mounting housing.
2. Insert camera with in-ceiling mount into hard ceiling with the wood screws or any optional hardware suitable for the mounting surface.

Camera Power Up



This product should be installed by a qualified service technician in accordance with the National Electrical Code (NEC 800 CEC Section 60) or applicable local code. Make sure that your installation of wires complies with Electrical Code of the local government where the camera is installed and no bare wires are exposed.

1. Connect the camera to a PoE port on 100Mbps network PoE switch using an Ethernet cable as shown in the image below.



Reference #	Description
1	PoE Connector

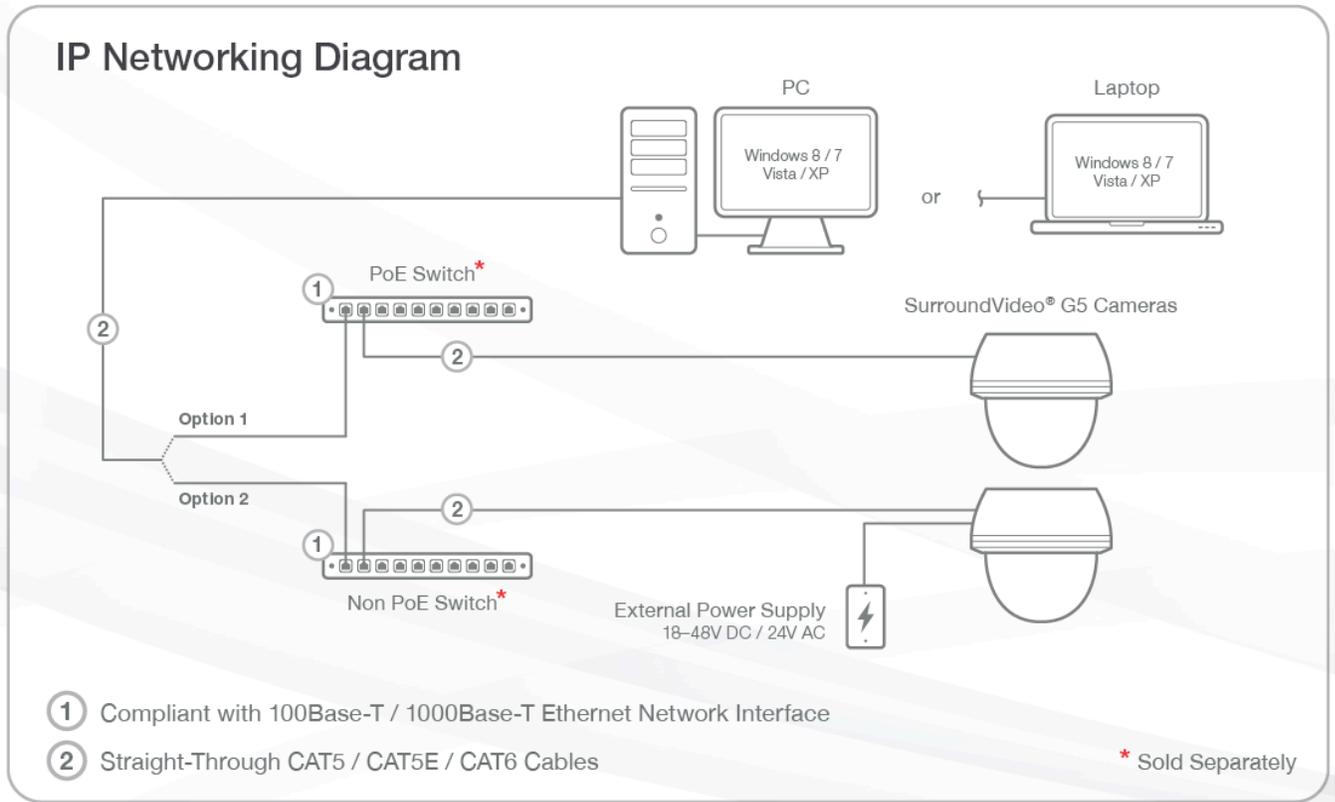
2. If the camera is powered by an outside power supply, 18~48VDC (green and brown wires) or 24VAC (red and black wires), connect the power cable.



CAUTION! Make the connections inside a watertight compartment. Isolate unused power wires individually.

After connections are made, ensure that the watertight compartment is tightly closed and cables and conduits are properly sealed to prevent ingress of water.

3. Connect the PoE switch to your computer's network port using an Ethernet cable.



NOTE: A yellow LED on the rear of the camera illuminates after a few seconds.

- The flashing yellow LED indicates that a link to your computer has been established.
- A green LED will blink when the camera has been accessed.

LED	Status	Description
Yellow	Flashing	Link has been established.
	Solid	Normal Operation.
Green	Flashing	Camera has been accessed. Normal operation.
	Solid	N/A
None	None	No Connection.

NOTE: Wiring methods shall be in accordance with the National Electrical Code/NFPA 70/ANSI, and with all local codes and authorities having jurisdiction. Wiring should be UL Listed and/or Recognized wire suitable for the application.

System Requirements

Computer with Windows XP/Vista/7 operating system, network access, and Microsoft Internet Explorer web browser version 9.0 or later (32-bit).

Camera Discovery, Setup, and Configuration

For camera discovery and setup, the AV IP Utility is recommended. The software can be found on the CD included with your camera or at: <http://www.arecontvision.com/software.php>.

The AV IP Utility has the ability to provide multiple discovery options, including broadcast and multicast, check the status of a camera, change camera settings, import and export camera settings via a .csv file, and update firmware and/or hardware from virtually anywhere with a network connection.

Whether used for large installations that require an update to multiple settings, or smaller installations where only one camera needs changed, the AV IP Utility tool is efficient and convenient for mass or single camera uploads.

The AV IP Utility tool is compatible with all Arecont Vision® megapixel cameras. The user manual for the software is included on the CD that came with your camera or available on our website.

Network Protocols

The Arecont Vision SurroundVideo® G5 cameras support RTSP, RTP/TCP, RTP/UDP, HTTP, DHCP, TFTP, and IP version 4 (IPv4).

Note: Concurrent multi-streaming via RTSP and TFTP is not supported.

RTSP – Cameras communicate with video management systems over Real Time Streaming Protocol. Do not change the RTSP port unless you are sure your VMS does not use the default setting.

RTP/TCP – The Real-time Protocol/Transmission Control Protocol is best suited for applications that require high reliability, and transmission time is relatively less critical.

RTP/UDP – The Real-time Protocol/User Datagram Protocol is used for live unicast video, especially when it is important to always have an up-to-date video stream, even if some images are dropped.

HTTP – The Hypertext Transfer Protocol is an application protocol for distributed, collaborative, hypermedia information systems.

DHCP – The Dynamic Host Configuration Protocol allows network administrators to centrally manage and automate the assignment of IP addresses. DHCP should only be enabled if using dynamic IP address notification, or if the DHCP can update a DNS server.

TFTP – The Trivial File Transfer Protocol is a simple, lock-step, File Transfer Protocol which allows a client to get from or put a file onto a remote host. TFTP lacks security and most of the advanced features offered by more robust file transfer protocols such as File Transfer Protocol.

QoS – Quality of Service guarantees a certain level of a specified resource to selected traffic on a network. A QoS-aware network prioritizes network traffic and provides a greater network reliability by controlling the amount of bandwidth an application may use.

IPv4 – This camera supports the IPv4 internet-layer protocol for packet-switched internetworking across multiple IP networks. IPv4 uses 32-bit addressing which allows for devices and users on the internet for routing traffic.

General Remote Focus

1. To control the remote focus via the web interface, double click the camera within the AV IP Utility (Figure 1) or open your preferred web browser and type the camera's IP address (Figure 2). NOTE: The following instructions may vary based on the camera model you are using.

NOTE: For supporting H.264 streaming on a webpage, the recommended browsers are Internet Explorer and Firefox.



Figure 1: Double click via AV IP Utility

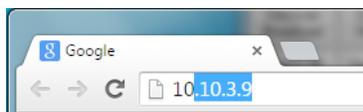


Figure 2: Type the camera IP address

2. Scroll to the Focus Tab section.



NOTE: Additional information regarding the Arecont Vision® web interface is found separately in the **AV IP Utility Web Browser Manual** via the Arecont Vision website.

3. Click the Full-range Focus button. The camera begins to autofocus with the lens stopping at the best overall point of focus. When the focus area turns to Green, the autofocus is complete.



AV IP Utility Focus Tab

Menu	Feature	Description
	Manual Focus: +20, +5, +1, -20, -5, -1	Numbers indicate the level of focusing in order to adjust the field-of-view. To set-up a focus area (if necessary), draw a rectangle with the mouse (by left-clicking and dragging the mouse to a desired zoom size). To automatically adjust focus, choose “Full-range Focusing” or “Short-range Focusing” depending on the image clarity.
	Full-range Focus	Best for scenes that are completely out of focus. The camera automatically scans the full focus range of the scene to find the best focus position.
	Short-range Focus	Best for scenes that are slightly of out of focus. The camera quickly fine-tunes for a precise focus position.
	Stop	Stops any command in progress.
	Focus Aid	<p>The higher the focus aid value means the more the lens is required to focus.</p> <p>If the focus window box illuminates GREEN, the lens has reached its optimal focus level.</p> <p>If the focus window box illuminates RED, the lens is having difficulty reaching an optimal focus level.</p> <p>If the focus window box illuminates YELLOW, the focusing of the lens remains unchanged.</p> <p>If the focus window box illuminates GREY, the focusing of the lens has been completed.</p>

Support

1. Arecont Vision FAQ Page Located at ArecontVision.com
2. Check the following before you call:
 - Restore camera to factory default with AV200 or the camera webpage.
 - Upgrade to the latest firmware by visiting ArecontVision.com.
 - Isolate the camera on a dedicated network and test with AV200.
 - Swap the “troubled” camera with a known good camera to see if the problem follows the camera or stays at the location.
3. Contact Arecont Vision Technical Support one of three ways:
 1. Online Portal: Support.ArecontVision.com
 2. Phone: 1.818.937.0700 (option #1)
 3. Email: support@arecontvision.com