

SurroundVideo G5 Mini[®]

Installation Manual

Models:

12 Megapixel

- AV12565DN
- AV12566DN
- AV12585DN
- AV12586DN

20 Megapixel

- AV20565DN
- AV20585DN

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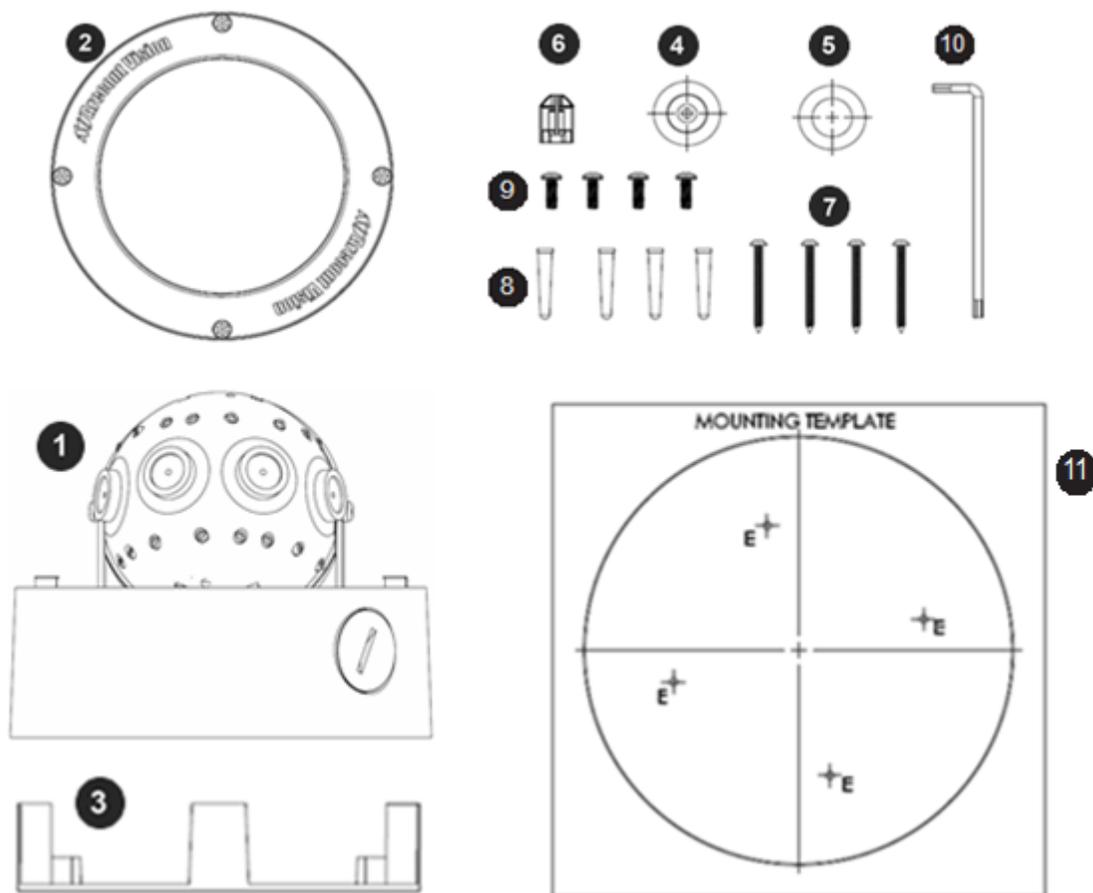


CAUTION!

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:



Reference #	Description
1	1x Arecont Vision SurroundVideo G5 Mini® camera
2	1x Dome Cover
3	1x Mounting Plate
4	1x Grommet with Through Hole
5	1x Grommet without Through Hole
6	1x Insertion Tool
7	4x #6-32 1.0" Wood/ Metal Sheet Screw
8	4x #6-32 1.0" Drywall/ Masonry Mounting Anchors
9	4x #8-32 0.5" Machine Screw
10	1x Security L-key
11	1x Mounting Template
	1x I/O cable
	1x AC & DC auxiliary power cable
	1x CD with Manual and Software

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>

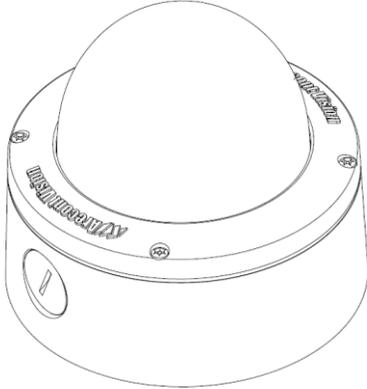
Camera Overview

The SurroundVideo® G5 Mini series network camera is a dual encoder (H.264 & MJPEG), 180 Degree and/or 360 degree panoramic day/night IP camera available in 12MP Megapixel and 20 Megapixel resolutions.. The SurroundVideo® G5 Mini series camera is a compliant Day/Night camera, featuring PSIA compliance, privacy masking, extended motion detection and flexible cropping. This fully compliant implementation of H.264 provides full 8192 x 1536 12 megapixel resolution at full video frame rates of 10 frames per second (fps). At 20 megapixel resolution it provides 10240x1920 at full video frame rate of 7 frames per second (fps). This camera is designed to provide in all in one solution with four integrated 3/5 Megapixel sensors, IK-10 vandal resistant dome and housing, rated IP66 for water and dust protection, to use camera for indoor and outdoor applications.

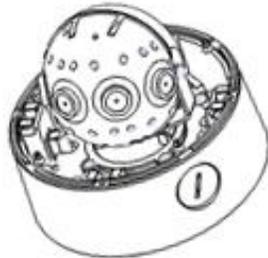
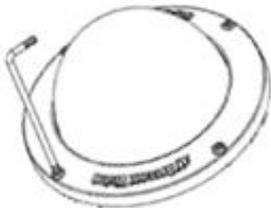
The SurroundVideo® G5 Mini Series is built with Arecont Vision's proprietary massively-parallel MegaVideo® technology, the SurroundVideo® G5 Mini Series has the ability to output multiple image formats allowing simultaneous viewing of the full resolution field of view and regions of interest for high definition forensic zooming. Binning technique improves low-light performance, increases sensitivity and produces better SNR by combining and averaging pixels.

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.



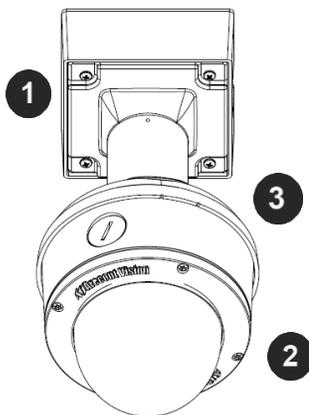
3. Remove the dome cover and protective foam. Do not remove screws from the dome cover.



The SurroundVideo® G5 Mini camera has been designed to provide installers with flexible mounting options such as ceilings, walls, poles or corners.

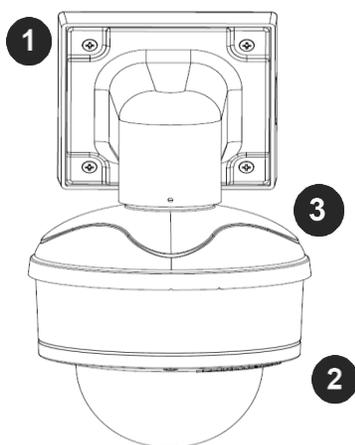
NOTE: When mounting the camera outdoors or in a wet environment, use of supplied grommet is recommended. Ensure the grommet properly seated flush with the camera housing.

Ensure you have the proper compatible mounting parts prior to starting your installation:



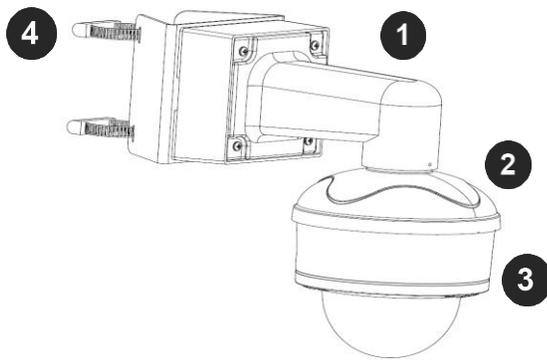
Pendant mount

Reference #	Pendant Mount Components Required
1	Pendant mount (AV-PMJB) with integrated junction box
2	SurroundVideo® G5 Mini camera
3	MD-CAP mounting cap



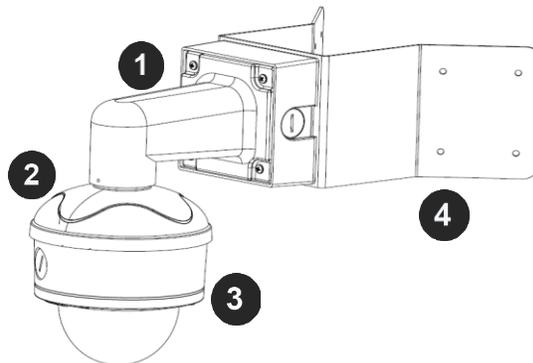
Wall mount

Reference #	Wall Mount Components Required
1	Wall mount (AV-WMJB) with integrated junction box
2	SurroundVideo® G5 Mini camera
3	MD-CAP mounting cap



Pole mount

Reference #	Pole Mount Components Required
1	Wall mount (AV-WMJB) with integrated junction box
2	MD-CAP mounting cap
3	SurroundVideo® G5 Mini camera
4	AV-PMA pole mount adapter



Corner mount

Reference #	Corner Mount Components Required
1	Wall mount (AV-WMJB) with integrated junction box
2	MD-CAP mounting cap
3	SurroundVideo® G5 Mini camera
4	AV-CRMA corner mount adapter

4. 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).

Surface Mount

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

1. Use the template, anchors, and screws provided to prepare the mounting provisions for the camera installation.
2. Use the supplied security L-key, to loosen the four (4) tamper resistant screws securing the dome cover as shown in Figure 1. Do not remove screws from the dome cover.

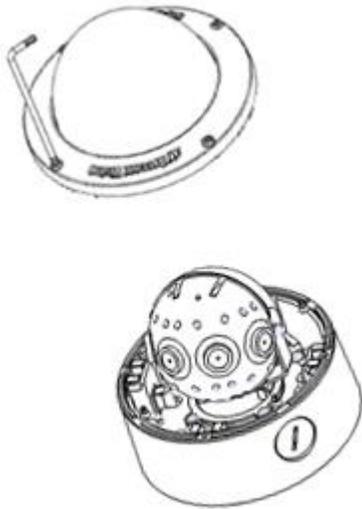


Figure 1

3. Remove the protective foam and discard.
4. Install four supplied dry wall anchors using the supplied mounting template.
5. Align four supplied screws with the dry wall anchors and screw mounting plate into place as shown in Figure 2.

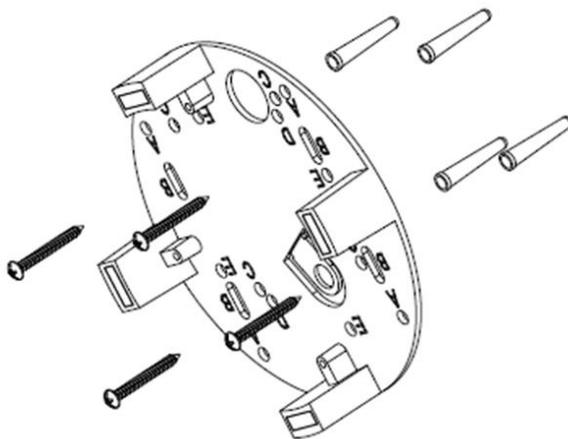


Figure 2

- Prepare the network cable with the supplied grommet and insertion tool as shown in Figure 3.

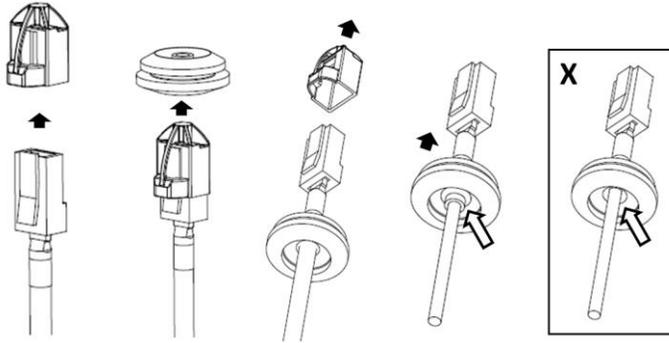


Figure 3

NOTE: When mounting the camera outdoors or in a wet environment, use of supplied grommet is recommended. Ensure the grommet is properly seated flush with the camera housing.

- Align the hole on SurroundVideo® G5 Mini camera with the hole on mounting plate, and install the grommet on camera housing as shown in Figure 4.

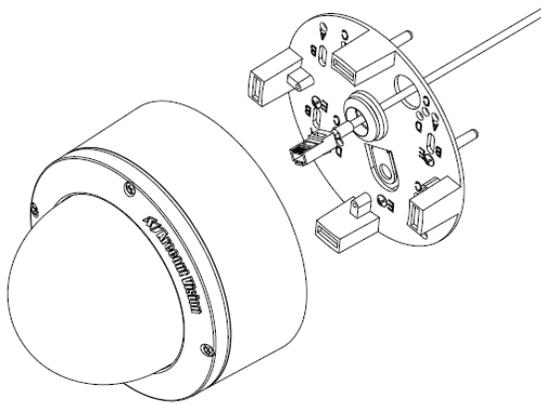


Figure 4

NOTE: If using the side connection of the NPT port, you need to install the supplied grommet without a through hole on the camera housing, and 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 3/4" NPT standard. Ensure NPT port is facing downward.

8. Fasten securely four captive screws as shown in Figure 5.

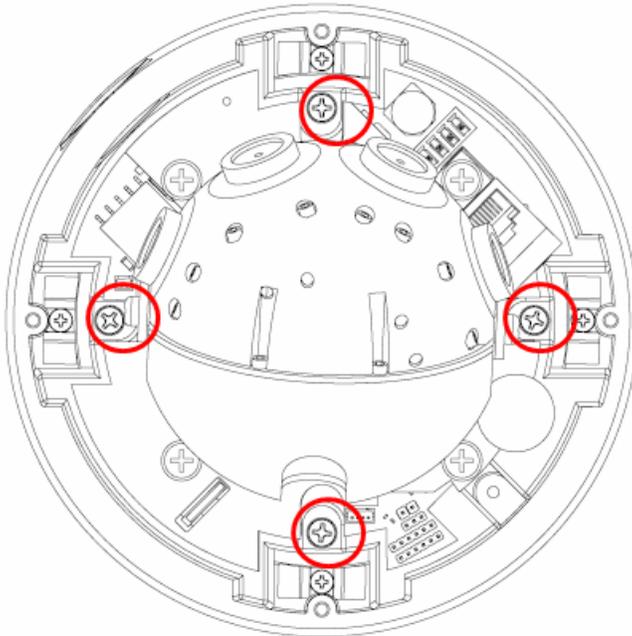


Figure 5

9. Attach the Dome Cover to the SurroundVideo® G5 Mini camera and fasten securely four captive screws.
10. To configure the camera, reference the camera discovery, set-up and configuration section.



CAUTION! The captive screws must be used to properly secure the dome cover and camera housing. 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 MD-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 1.

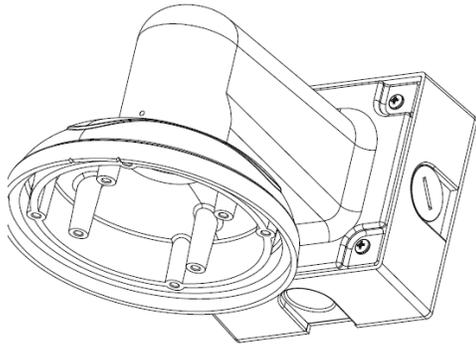


Figure 1: Attach wall mount cap to the wall mount

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

3. Attach the wall mount to the wall using the four drywall screws provided or any optional hardware suitable for the mounting surface.
4. Run the Ethernet Cable and outside power cable (if necessary) through the supplied rubber gasket and then through the wall mount. Ensure the gasket is seated properly.
5. Attach the mounting plate to the MD-CAP with the supplied screws as shown in Figure 2.

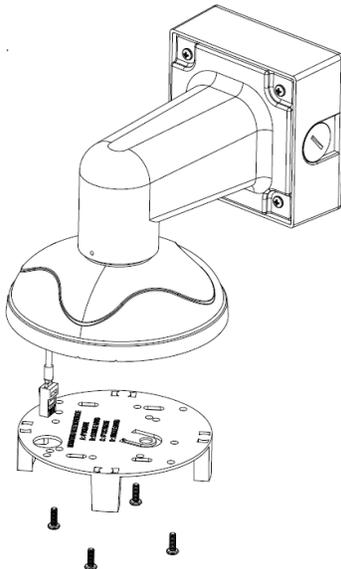


Figure 2

6. Prepare the network cable with the supplied grommet and insertion tool as shown in Figure 3.

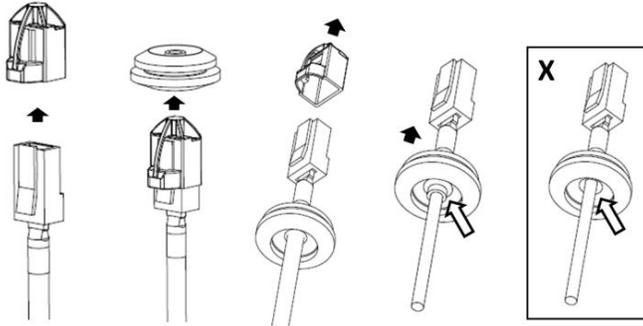


Figure 3

NOTE: When mounting the camera outdoors or in a wet environment, use of supplied grommet is recommended. Ensure the grommet is properly seated flush with the camera housing.

7. Align the hole on SurroundVideo® G5 Mini camera with the hole on mounting plate, and install the grommet on camera housing as shown in Figure 4.

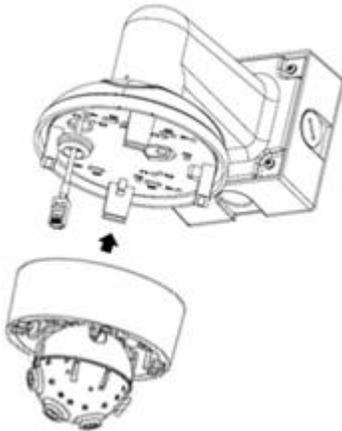


Figure 4

8. Fasten securely four captive screws as shown in Figure 5.

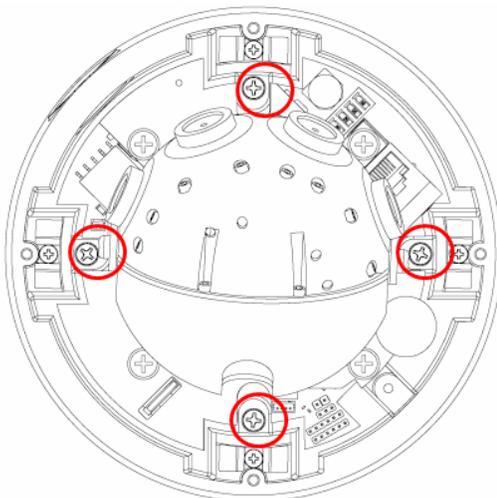


Figure 5

9. Attach the Dome Cover to the SurroundVideo® G5 Mini camera and fasten securely four captive screws as shown in Figure 6.

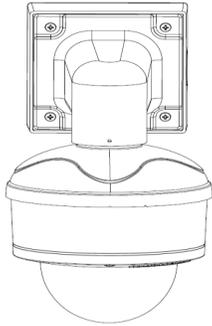


Figure 6

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



CAUTION! The captive screws must be used to properly secure the dome cover and camera housing. 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!

Pendant Mount

For a proper pendant mount installation, the AV-PMJB pendant mount and MD-CAP mounting 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 1.

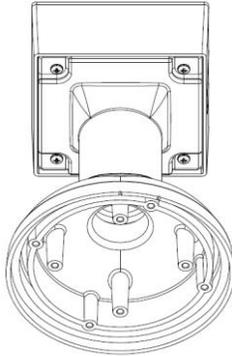


Figure 1: Attach the mount cap and pendant mount

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 supplied rubber gasket and then through the pendant. Ensure the gasket is seated properly.
5. Attach the mounting plate to the MD-CAP with the supplied screws as shown in Figure 2.

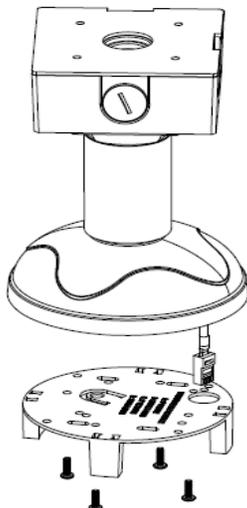


Figure 2

6. Prepare the network cable with the supplied grommet and insertion tool as shown in Figure 3.

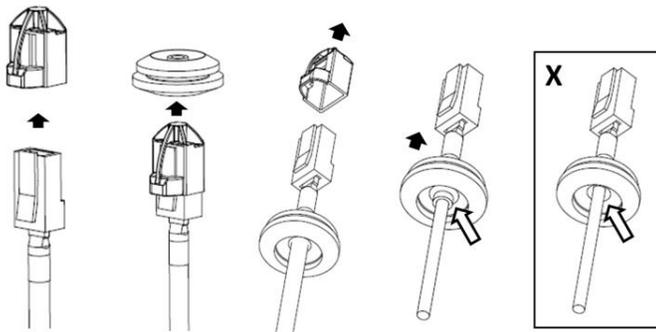


Figure 3

NOTE: When mounting the camera outdoors or in a wet environment, use of supplied grommet is recommended. Ensure the grommet is properly seated flush with the camera housing.

7. Align the hole on SurroundVideo® G5 Mini camera with the hole on mounting plate, and install the grommet on camera housing as shown in Figure 4.

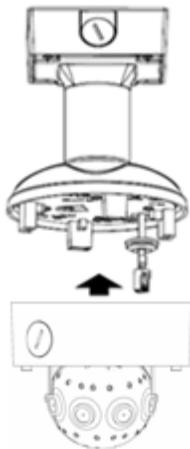


Figure 4

8. Fasten securely four captive screws as shown in Figure 5.

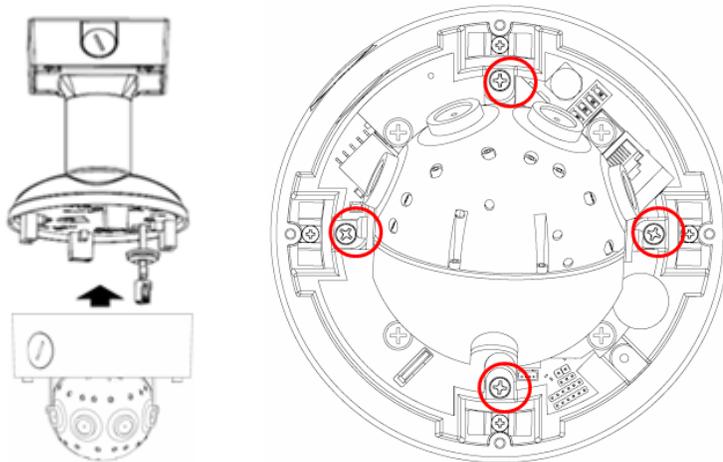


Figure 5

9. Attach the Dome Cover to the SurroundVideo® G5 Mini camera and fasten securely four captive screws as shown in Figure 6.

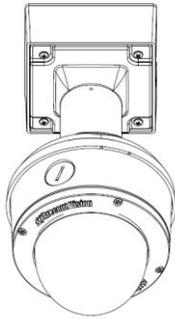


Figure 6

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



CAUTION! The captive screws must be used to properly secure the dome cover and camera housing. 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!

Pole Mount

For a pole mount installation, the AV-WMJB wall mount, AV-PMA pole mount, and MD-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.
3. Attach the Junction Box Adapter to the Pole Mount Adapter as shown in Figure 1.
4. Remove the conduit plug on the junction box adapter and connect $\frac{3}{4}$ " NPT conduit to the junction box adapter (Figure 1).

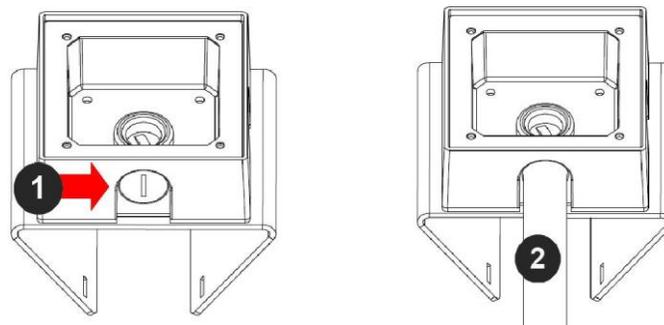


Figure 1: Attach conduit to AV-JBA junction box adapter

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 supplied rubber gasket and then through the Junction Box Adapter and AV-WMJB, Wall Mount Adapter. Ensure the gasket is seated properly.
6. Attach the Wall Mount Adapter (AV-WMJB) to the Pole Mount Adapter (AV-PMA) as shown in Figure 2.

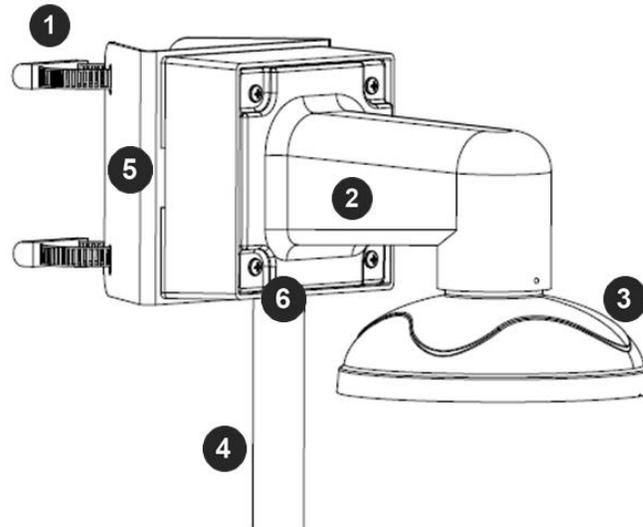


Figure 2: Attach wall mount adapter to pole mount adapter

Reference #	Description
1	Steel straps with compression screws
2	AV-WMJB wall mount
3	MD-CAP mount cap
4	Conduit
5	AV-PMA pole mount
6	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 2.
8. To attach the camera to the Wall Mount Adapter (AV-WMJB), reference the Installation and Wall Mount section.
9. To configure the camera, reference the camera discovery, set-up and configuration section.



CAUTION! The captive screws must be used to properly secure the dome cover and camera housing. 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!

Corner Mount

For a corner mount installation, the AV-WMJB wall mount, AV-CRMA corner mount, and MD-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.
3. Attach the Junction Box Adapter to the Corner Mount Adapter as shown in Figure 1.
4. Remove the conduit plug on the junction box adapter and connect 3/4" NPT conduit to the junction box adapter as shown in Figure 1.

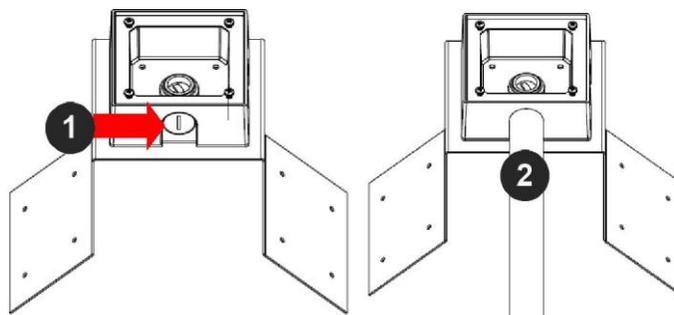


Figure 1: Attach conduit to SV-JBA junction box adapter

Reference #	Description
1	Remove conduit plug
2	Connect 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 supplied rubber gasket and then through the Junction Box Adapter and AV-WMJB, Wall Mount Adapter. Ensure the gasket is seated properly.
6. Attach the Wall Mount Adapter (AV-WMJB) to the Corner Mount Adapter (AV-CRMA) as shown in Figure 2.

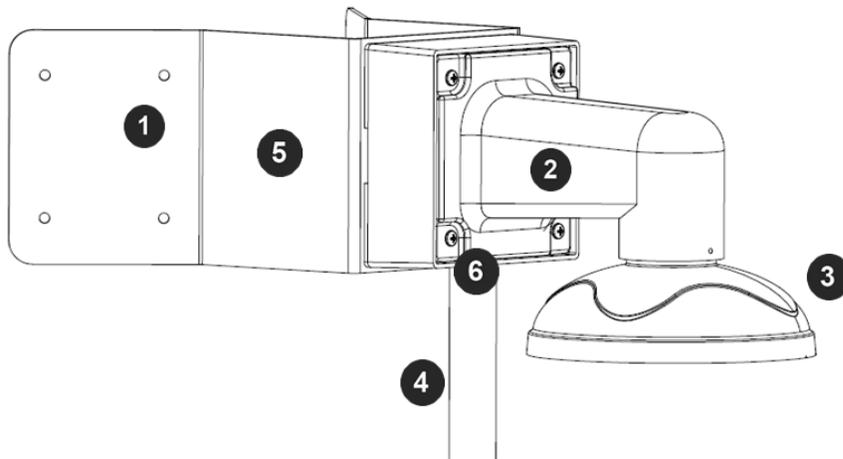


Figure 2: Attach corner mount adapter to exterior corner wall

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

- Using the screws provided (or other hardware), attach the Corner Mount Adapter to an exterior 90 degree corner wall.
- To attach the camera to the Wall Mount Adapter (AV-WMJB), reference the Installation and Wall Mount section.
- To configure the camera, reference the camera discovery, set-up and configuration section.



CAUTION! The captive screws must be used to properly secure the dome cover and camera housing. 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!

Electrical Box Adapter

The mounting plate is used to attach the camera to a common single, double or square electrical box.

1. Using the supplied machine screws, match the mounting holes on the mounting plate with the threaded holes on the electrical box. Ensure every threaded hole is matched with a mounting hole.
2. Attach the mounting plate to the user supplied electrical box as shown in Figure 1.

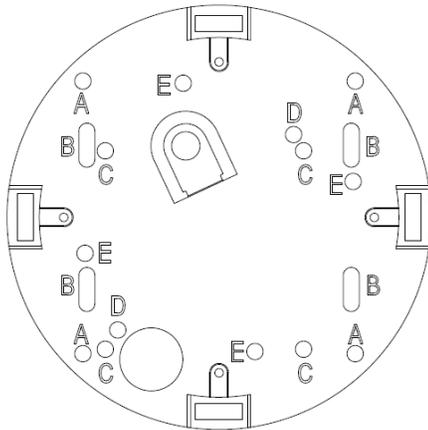


Figure 1: Attach the mounting plate to common electrical box

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 1B and 1C are both mounted 30ft high; however, the camera in Figure 1B is aimed 250ft toward the horizon and the camera in Figure 1C is only aimed 150ft toward horizon. As a result, the camera in Figure 1C will have less than desirable results due to its higher curvature.



Figure 1A: Recommended height for panoramic



Figure 1B: Less curvature provides better results



Figure 1C: Higher curvature produces less desirable

In the example below, the camera in Figures 1D and 1E are both mounted 8ft high; however, the camera in Figure 1D is aimed 80ft toward the horizon and the camera in Figure 1E is only aimed at 30ft toward horizon. The camera in Figure 1E results in a drastic curvature with less usable video.



Figure 1D: Mounting height of 8ft and aimed 80ft toward horizon



Figure 1E: Mounting height of 8ft and aimed only 30ft toward horizon

Adjusting the Pan, Tilt and Focus

1. Remove the dome cover by loosening the captive fasteners with the supplied security L-key screwdriver.
2. Power on the camera to adjust the pan, tilt and focus.
3. To adjust the gimbal tilt, use #2 Phillips screwdriver to loosen two Philips head screws on both sides of the Gimbal, no more than two full turns. Adjust the pan and tilt to obtain the desired field of view as shown in Figure 1. NOTE: Do not remove the screws!

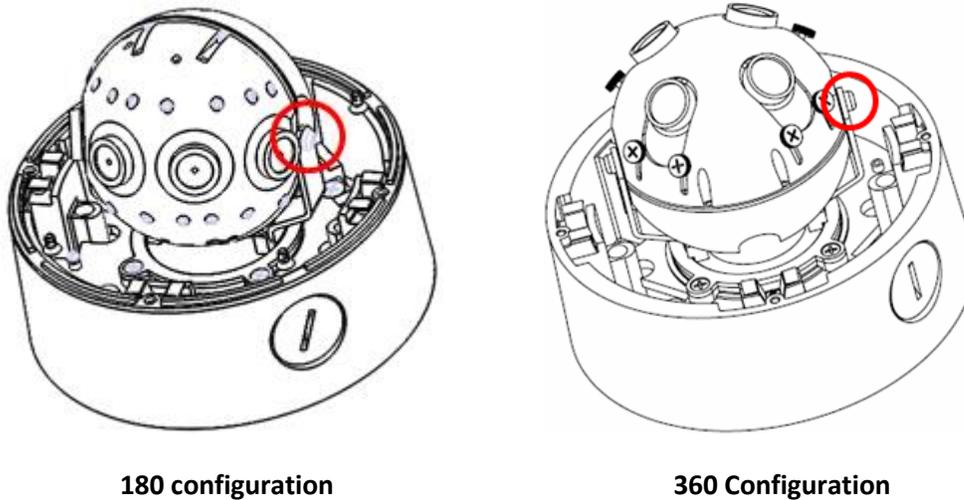
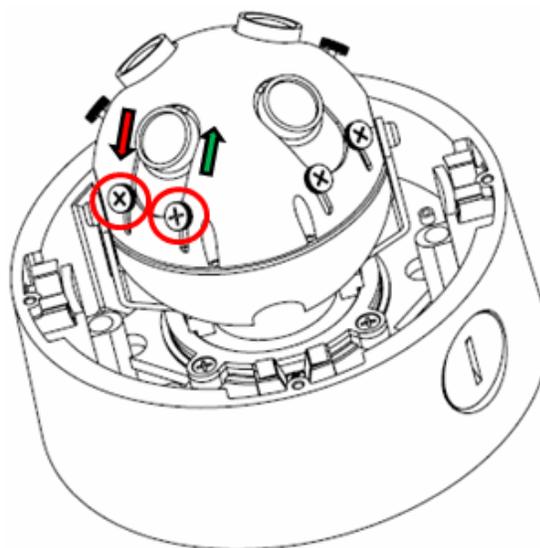
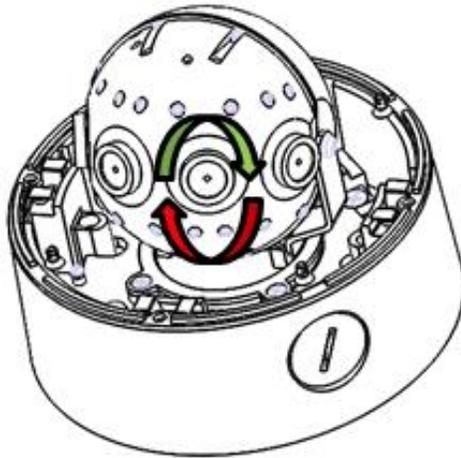


Figure 1: Loose camera head to adjust the field of view

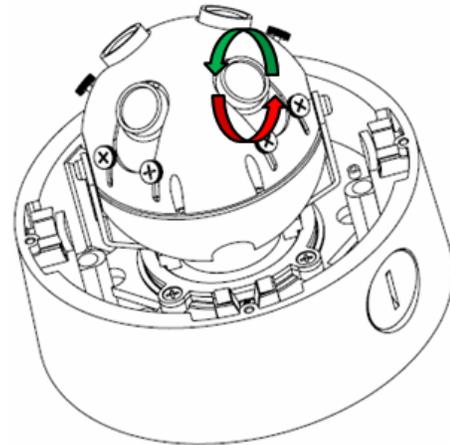
4. To adjust each lens in the 360 configuration, loosen the two set screws on the top shell with a #1 Phillips screwdriver. Adjust each lens angle tilt as required and tighten the two set screws show in the image below.



- To focus each of the four lenses, remove the lens cap and focus the lens by turning the lens clockwise or counterclockwise as shown in the image below:



180 Configuration



360 Configuration

NOTE: The wave washer underneath the lens prevents it from losing focus in vibration.

- Lock the camera head in place by fastening securely two Philips head screws on both sides of the Gimbal as shown in Figure 2. NOTE: Do not over torque the screws.

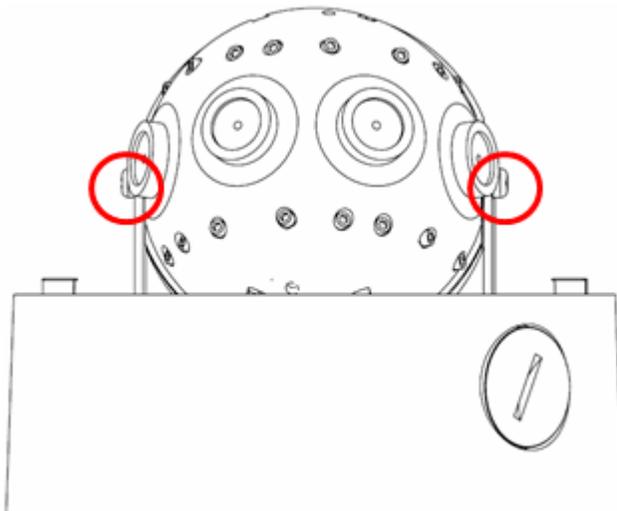


Figure 2

Optional: Connecting Digital I/O

The auxiliary input and output are accessible after removing dome cover as shown in Figure 1.

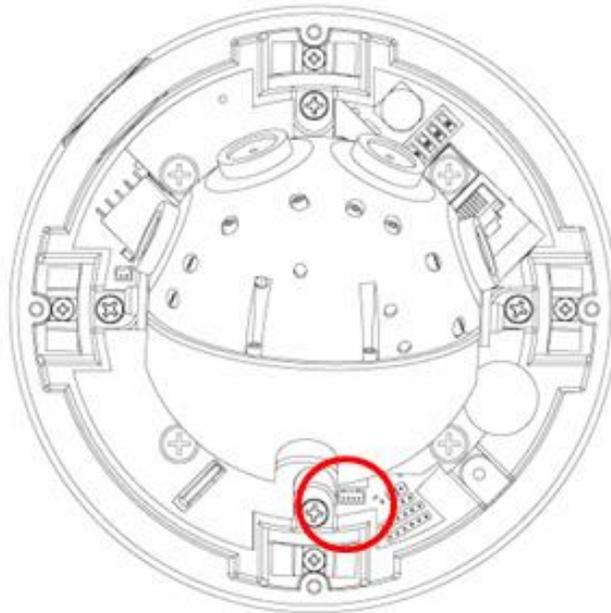


Table 2

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

Figure 1

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 -)

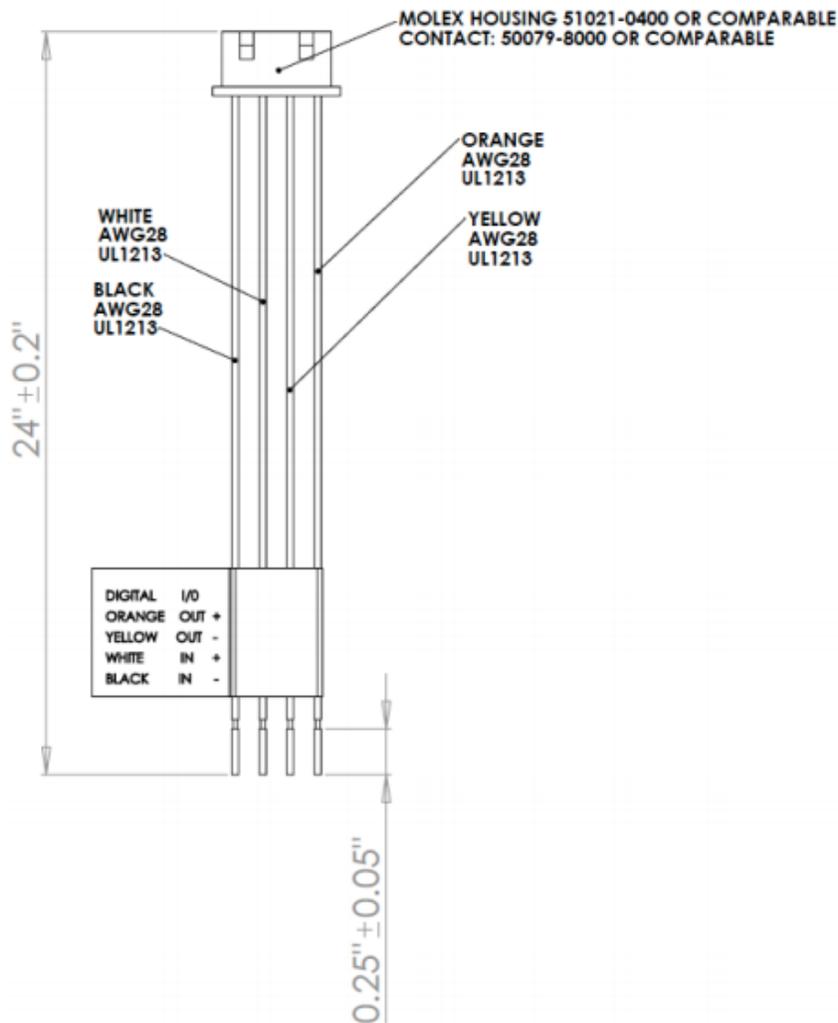
NOTE: SurroundVideo® G5 Mini supports digital input and digital output. See **Table 1** for electrical characteristics.

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 -

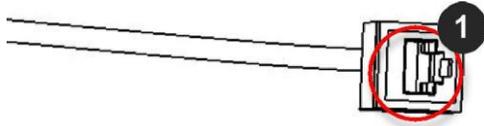
Table 2

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

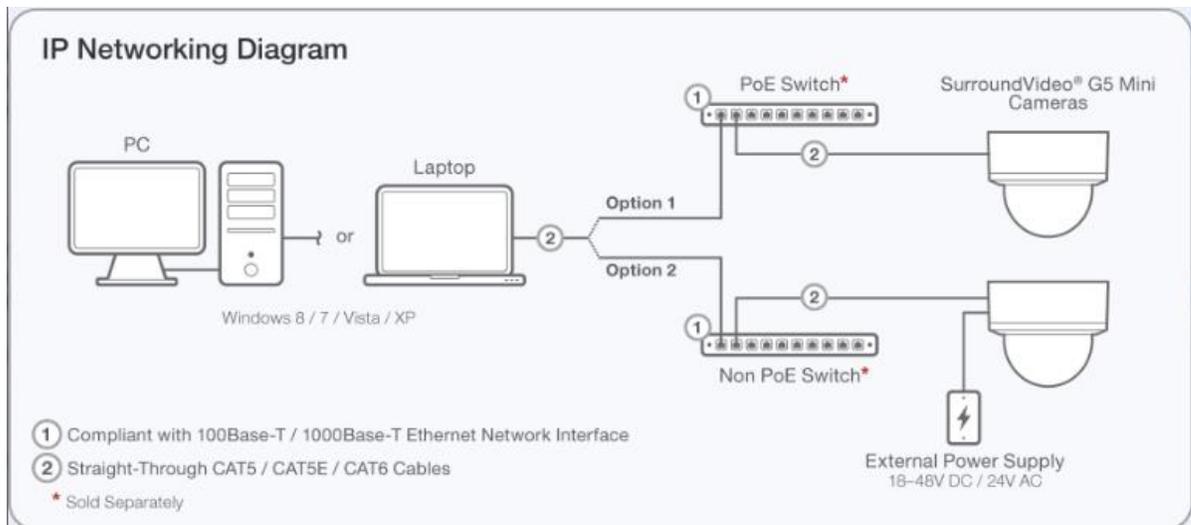
2. If the camera is powered by an outside power supply, 18~48VDC (green and brown wires) or 24VAC (red and black wires), connect the power cable.



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

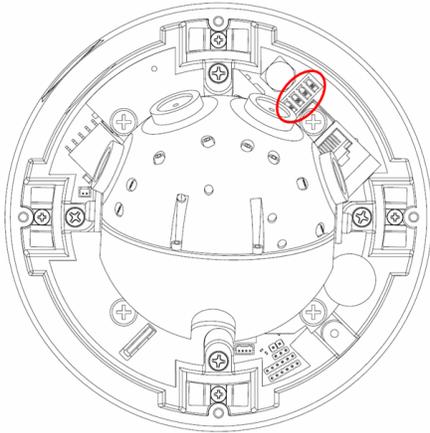
After connections are made, ensure that the watertight compartment is tightly closed and cables and conduits are properly sealed to prevent ingress of water.

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



Auxiliary Power

If the camera is powered by a separate outside AC or DC power source, run the supplied power cable through the access hole on the camera housing and connect the power cable to the 4-position connector on the main camera board. The approximate location of the 4-position connector is circled below.



NOTE: Cameras using auxiliary power with 802.1x enabled may need to manually power cycle the camera to reconnect to the network.



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.

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.

Reset to Factory Default

1. You can reset to factory default via camera web interface or AV IP Utility. This can be done by the following steps:
 - a. Open AV IP Utility and Click on Tools as seen in Figure 1.

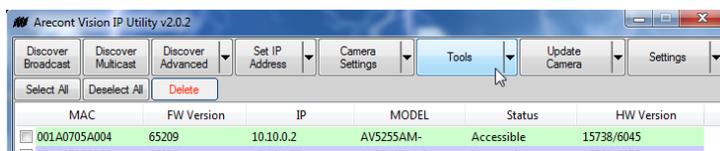


Figure 1

- b. Click on “Restore To Factory Default” as seen in Figure 2

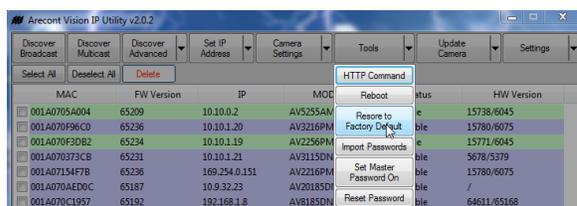


Figure 2

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.

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.

1. Install the AV IP Utility Software as shown in Image 1. (Found on CD)
2. Run the AV IP Utility Software by double clicking on the icon as shown in image 1. (Found on your desktop)



Image 1

3. Click the Discovery Broadcast to display all Arecont Vision cameras on the network shown in image 2. Duplicate IP Addresses typically indicate a conflict where one is left and one is omitted; the AV UP Utility tool displays both.

Camera Discovery

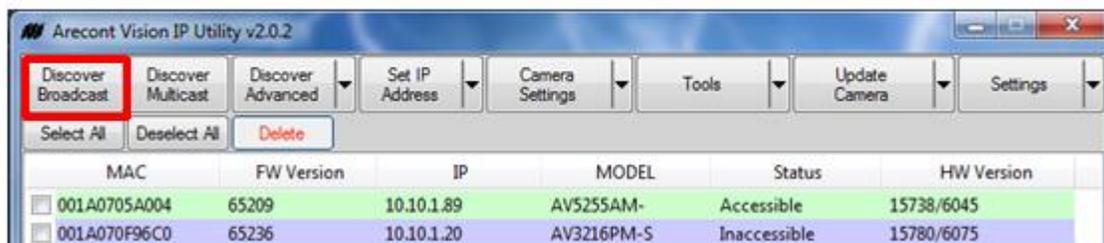


Image 2

Network Protocols

The Arecont Vision SurroundVideo G5 mini cameras support RTSP, RTP/TCP, RTP/UDP, HTTP, DHCP, TFTP, QoS, IP version 4 (IPv4), IP version 6 (IPv6), and 802.1x.

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 – The SurroundVideo G5 Mini 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.

Image Equalization (Exposure Reference) Instructions

1. Launch the camera webpage
2. If the camera is a SurroundVideo G5 NON-WDR, skip to step 3 on the next page. For a surroundVideo G5 WDR, Click “Setting” and select the desired channel to be the cameras “Exposure Reference Channel” (see Image 5). Setting and Exposure Reference Channel will reduce the color and brightness variations among channels.

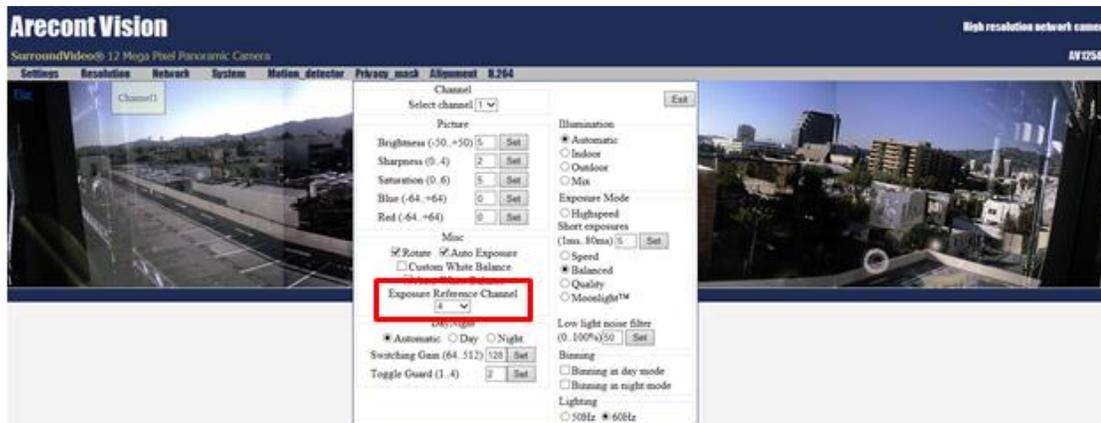


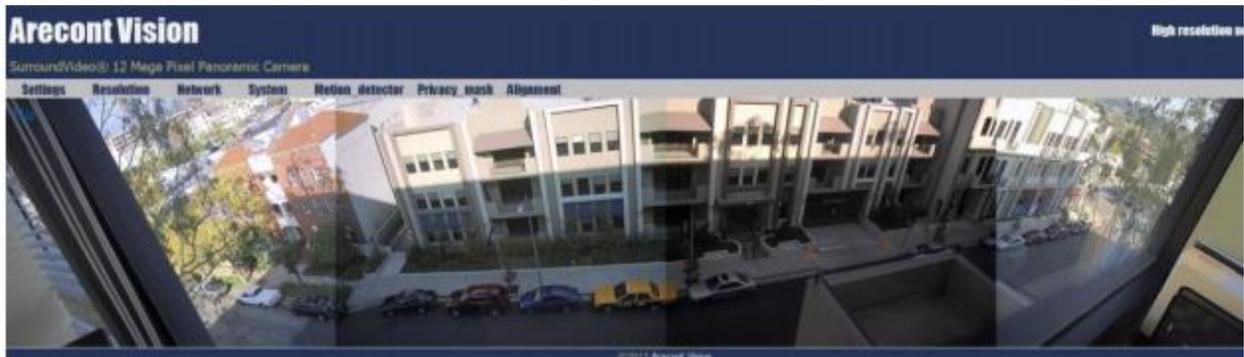
Image 5

NOTE: The default setting for the “Exposure Reference Channel” is “Auto”, which means that each channel is automatically adjusted to provide the best scene. This may cause variations from image to image; however, the camera is providing the best image for each channel. When different channels are under different lighting conditions, there will be some color or brightness variation among the channels. See below for an example on how to adjust different reference channels to minimize brightness and color differences.

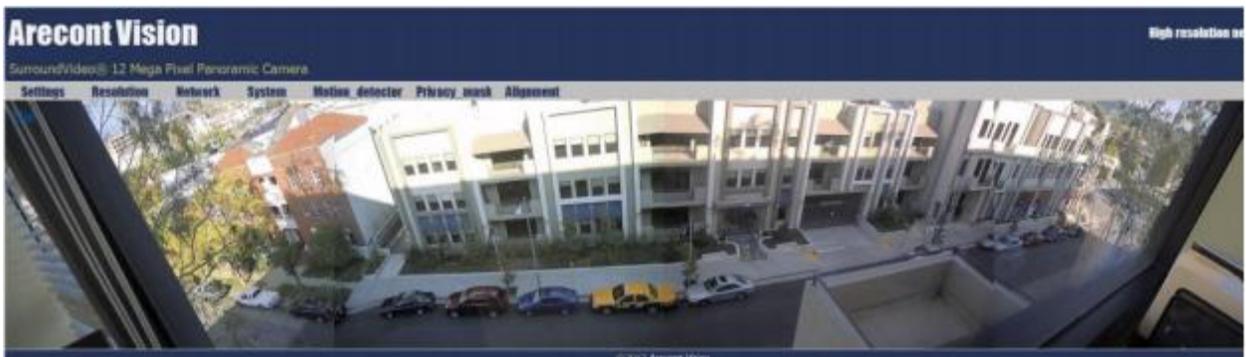
NOTE: Using Exposure Reference Channel Setting may result in abnormal noise which can't be resolved!



- Exposure Reference Channel set as “Auto”



- Exposure Reference Channel set as Channel “1”



- Exposure Reference Channel set as Channel “2”



Equalize Brightness Instructions

NOTE: For a SurroundVideo G5 NON-WDR camera, once the camera webpage is launched, you must make sure that “**Equalize Brightness**” function is on. You do this by :

3. Launch the camera webpage
4. Click “Settings” and make sure the check box for “Equalize Brightness” has been selected in order to turn the function on. (Shown in Image 6 below)

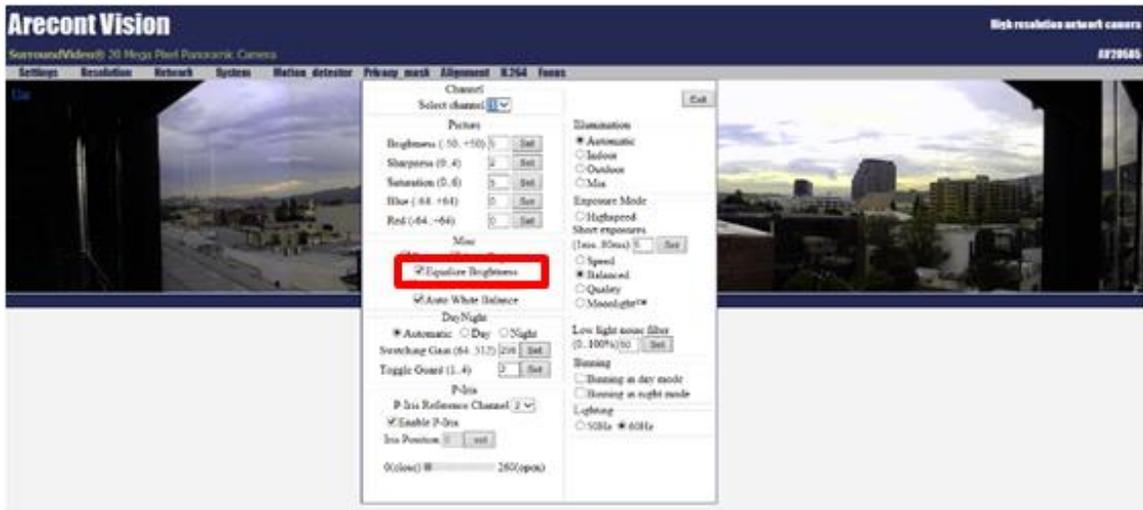


Image 6

*Please note the difference between the “Equalize Brightness” function “ON” and “OFF” in the images shown below:

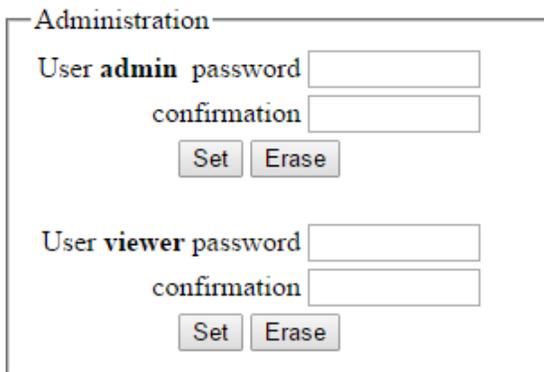


- “Equalize Brightness” setting “OFF”



- “Equalize Brightness” setting “ON”

Administration and Password Setting



The screenshot shows a web interface titled "Administration". It contains two sections for password management. The first section is for the "admin" user, with fields for "password" and "confirmation", and "Set" and "Erase" buttons. The second section is for the "viewer" user, also with "password" and "confirmation" fields, and "Set" and "Erase" buttons.

Administration is the place to set a password. Arecont Vision cameras support two levels of password-protected access control. Camera authentication is compatible with RFC-2068 HTTP 1.1 and is supported by all standard browsers and video surveillance software.

A. There are two types of users with the following reserved names:

admin – full access to all camera settings and live video.

viewer –viewing access only to live video.

Setting and removing the passwords is the privilege of the **admin** user, while the **viewer** can only use the existing password, but not change it. Factory defaults erase all current passwords for both the **admin** and the **viewer**. A newly shipped camera has no password protection and allows full anonymous access from the network. In case the **admin** password has not been set, the camera has full anonymous access from the network, even if the **viewer** password has been set.

B. Access control setup consists of three steps:

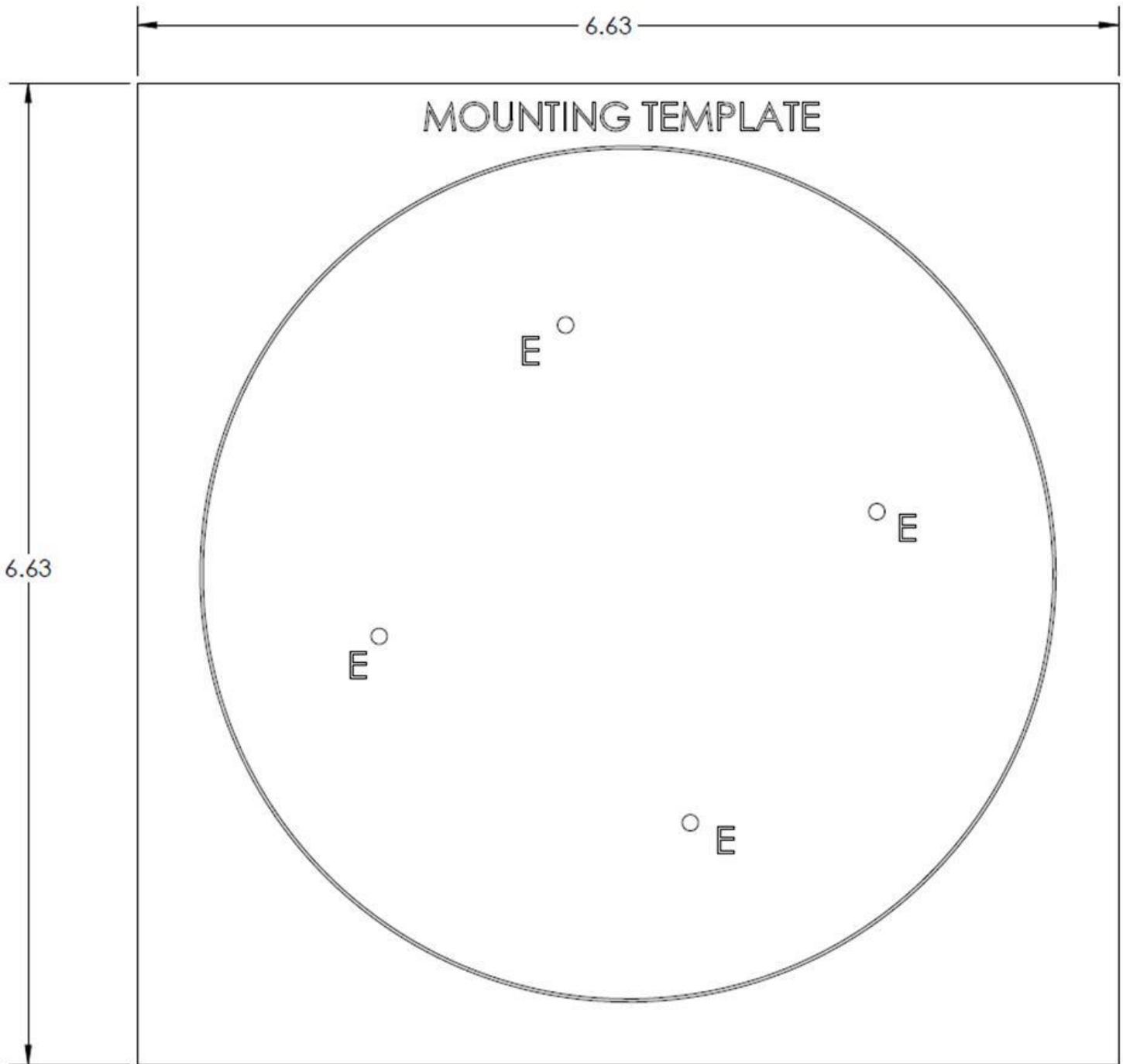
1. Set **admin** password (using http commands or using the camera's web page, see below).
2. Log-in using the **admin** password and set the **viewer** password.
3. Communicate the **viewer** password to the users.

NOTE: The Password accepts a 16 character ASCII but cannot contain white space or following illegal symbols: # % & ` “ ‘ < >.

In order to delete **viewer** password, log-in as **admin** and change the viewer password to a reserved password **empty** – this would restore the full anonymous access to the camera. The **admin** user can change the **viewer** password at any time, even without knowing the current **viewer** password.

NOTE: If the admin password has been set and forgotten, it can only be erased by AV IP Utility using key file. Please contact Arecont Vision technical support to obtain the key file required to perform this function.

Mounting Templates



Unit: Inches

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
4. 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).