

# MegaDome® G3 RS

## Installation Manual

### Models

#### 1080p

AV2355RS

AV2356RS

#### 3 Megapixel

AV3355RS

AV3356RS

#### 5 Megapixel

AV5355RS



Contents

Package Contents..... **Error! Bookmark not defined.**

Camera Overview ..... **Error! Bookmark not defined.**

Installation ..... 7

    Surface Mount ..... 10

    Wall Mount ..... 13

    Pendant Mount ..... 16

    Pole Mount..... 19

    Corner Mount ..... 21

    Electrical Box Adapter ..... 23

Adjusting the Pan, Tilt and Focus..... **Error! Bookmark not defined.**

Auxiliary I/O Functions ..... 24

Camera Power Up ..... 26

SD Card Set-up ..... 29

SD Card Tab ..... 32

SD Card Setup via AV200 ..... 33

Camera Discovery, Setup, and Configuration ..... 34

Network Protocols..... 34

General Remote Focus ..... **Error! Bookmark not defined.**

Refined Remote Focus ..... 37

AV IP Utility Focus Tab ..... 39

Mounting Templates ..... 40

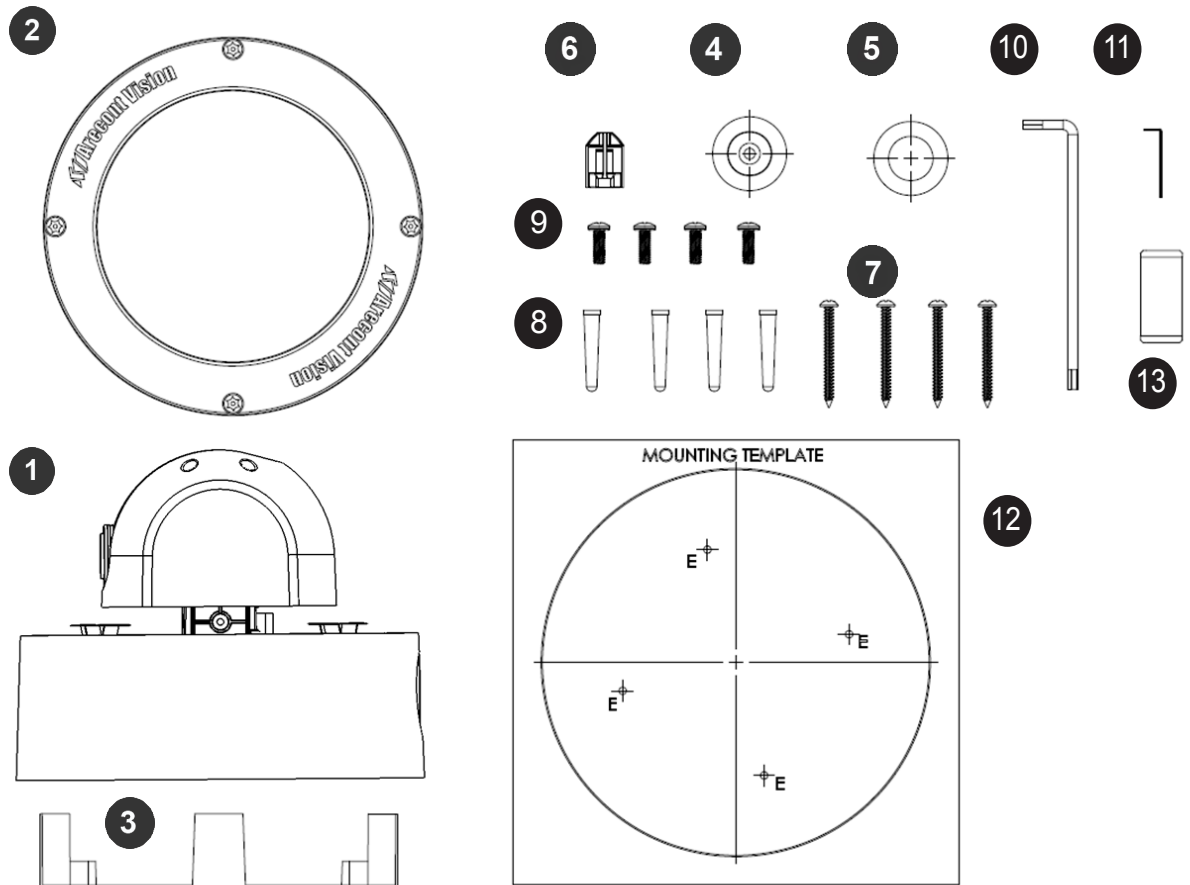
Support..... 41

**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 MegaDome® G3 RS 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 Set Screw L-key
12	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

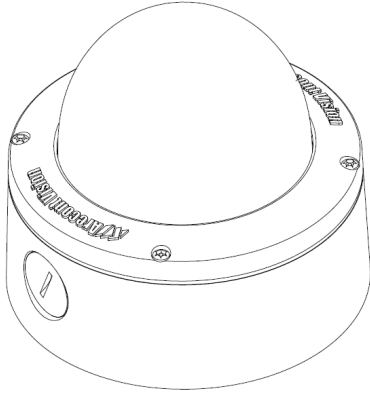
MegaDome® G3 RS third generation multi-megapixel cameras provide ample resolution to zoom-in for details in live or recorded video. With an IR corrected motorized lens and gimbal, MegaDome G3 RS is easy to install and manage with “no-touch” remote setup. Install the magnetic mounting plate, connect the PoE (Power-over-Ethernet) IP cable, magnetically snap in place and fasten the camera to the mounting plate, and then remotely configure the camera. Use the intuitive interface to remotely pan, tilt, zoom, and focus the sensor.

These indoor/outdoor all-in-one solutions integrate a 1080p, 3, or 5-megapixel (MP) sensor with fast frame rates, and SNAPstream™ (Smart Noise Adaptation and Processing) technology to reduce bandwidth without impacting image quality. The True Day/Night mechanical IR cut filter provides the highest image quality at any time of day. Select 3MP models of MegaDome G3 RS include wide dynamic range (WDR), delivering up to 100dB at full resolution for applications with bright or over saturated lighting conditions. All models feature CorridorView™ for 90° image rotation, non-integer scaling, and an SDHC memory card slot for internal storage. The installer-friendly housing is IP66 rated for both indoor and outdoor applications and the cast-aluminum housing is IK-10 impact resistant, capable of withstanding the equivalent of 55 kg (120 lbs) of force.

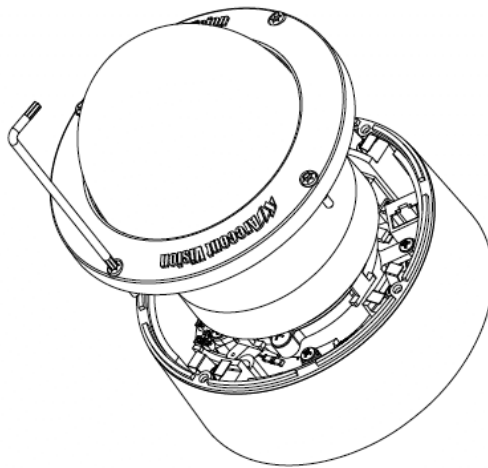
The camera is integrated with the industry’s leading VMS/NVR platforms. Using the camera interface or the AV IP Utility, security updates and both new or enhanced features can be applied to the cyber-hardened MegaDome G3 RS’s Massively Parallel Image Processing (MPIP) architecture. This in house developed architecture runs on the Field Programmable Gate Array (FPGA) integrated circuit that is at the core of every Arecont Vision camera. The MegaDome G3 RS is ONVIF (Open Network Video Interface Forum) Series S compliant, providing interoperability between network video products regardless of manufacturer.

## 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.



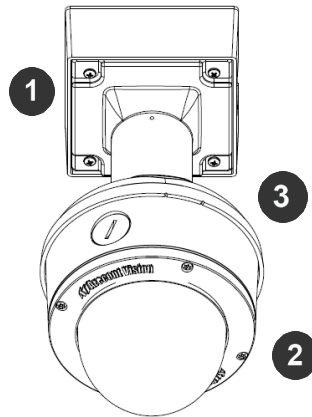
3. Remove the dome cover and protective foam. Do not remove screws from the dome cover.



The MegaDome® G3 RS camera has been designed to provide installers with flexible mounting options such as ceilings, walls, poles or corners.

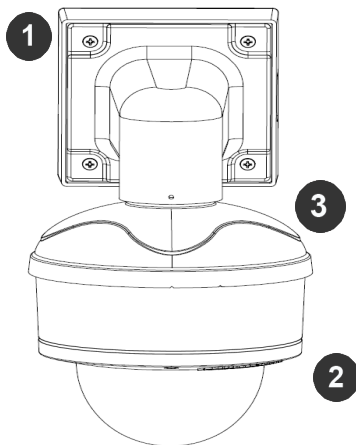
**NOTE:** When mounting the camera outdoors or in a wet environment, use of supplied grommet is recommended. Ensure the grommet properly seated flush with the camera housing.

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



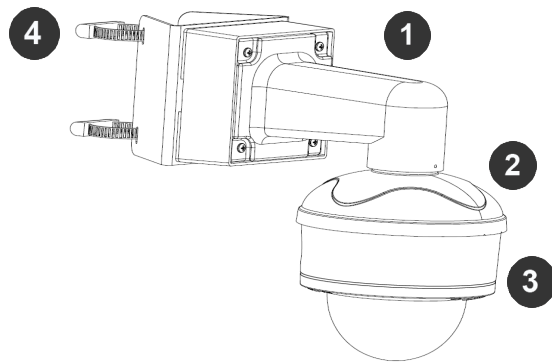
#### *Pendant mount*

Reference #	Pendant Mount Components Required
1	Pendant mount (AV-PMJB) with integrated junction box
2	MegaDome® G3 RS camera
3	MD-CAP mounting cap

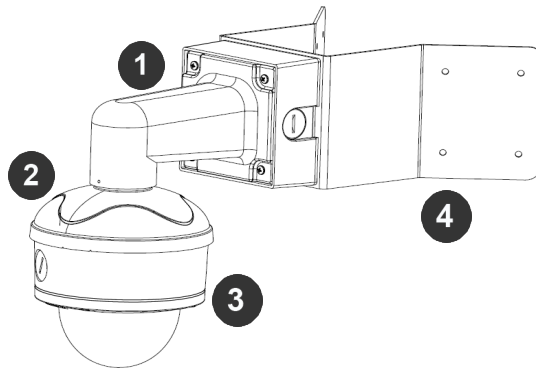


#### *Wall mount*

Reference #	Wall Mount Components Required
1	Wall mount (AV-WMJB) with integrated junction box
2	MegaDome® G3 RS 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	MegaDome® G3 RS 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	MegaDome® G3 RS 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](http://www.arecontvision.com)) for camera discovery and setup (see Instruction Manual located on the CD or available on our website).

## Surface Mount

The MegaDome® G3 RS 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.

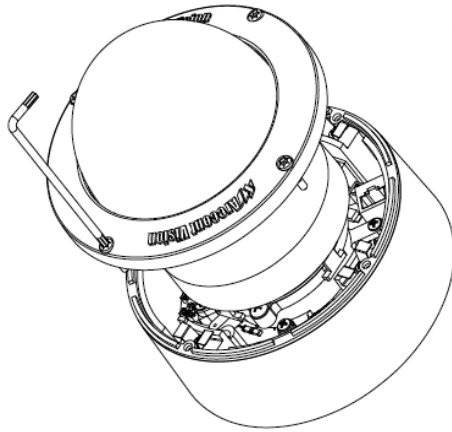


Figure 1

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.

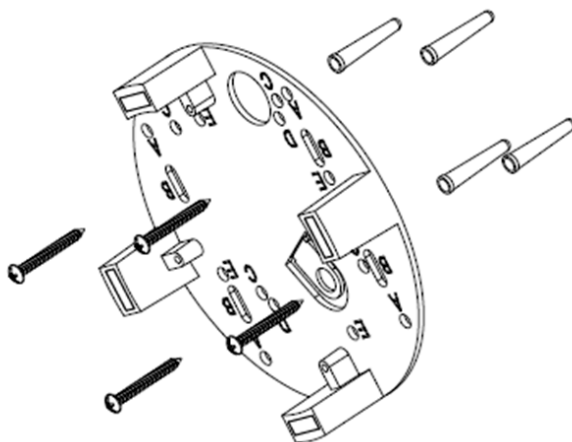


Figure 2

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

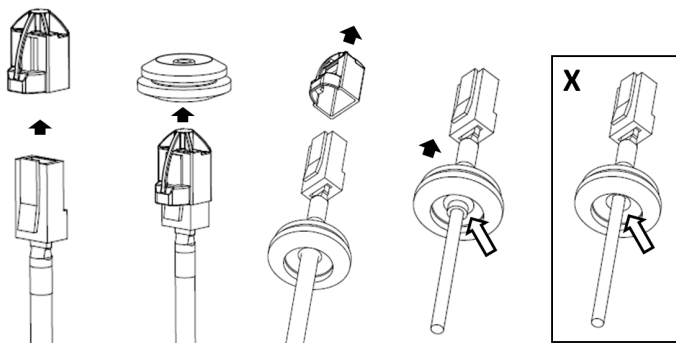


Figure 3

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 MegaDome® G3 RS camera with the hole on mounting plate, and install the grommet on camera housing as shown in Figure 4.

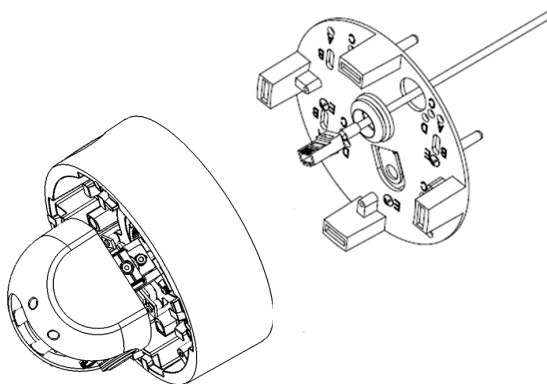


Figure 4

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.

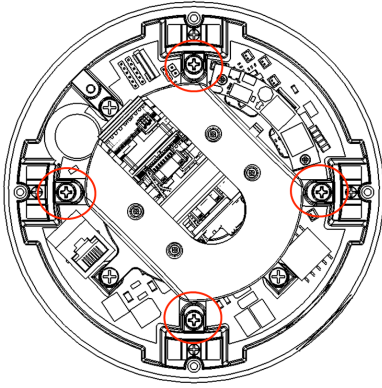


Figure 5

9. Attach the Dome Cover to the MegaDome® G3 RS 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.

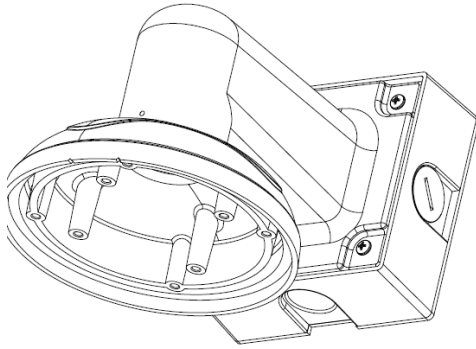


Figure 1: Attach wall mount cap to the wall mount

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.

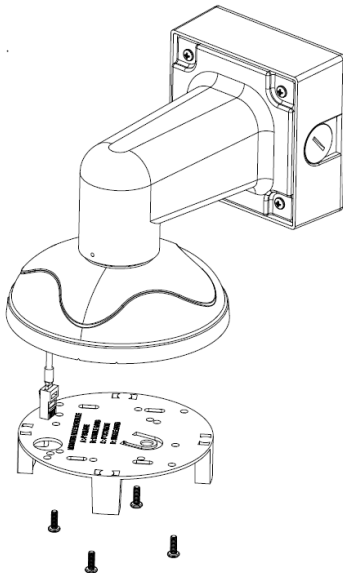


Figure 2

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

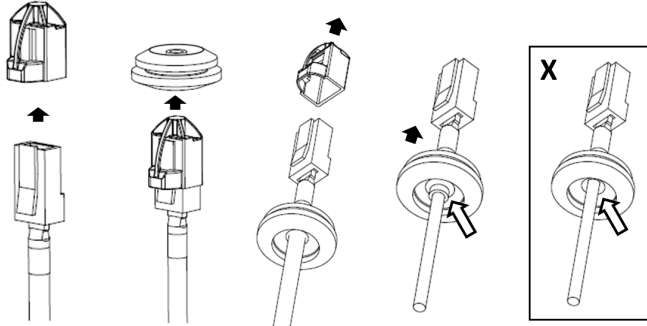


Figure 3

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 MegaDome® G3 RS camera with the hole on mounting plate, and install the grommet on camera housing as shown in Figure 4.

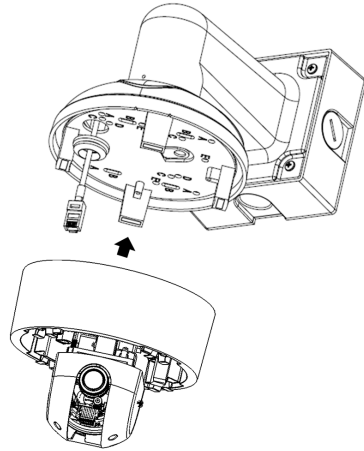


Figure 4

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

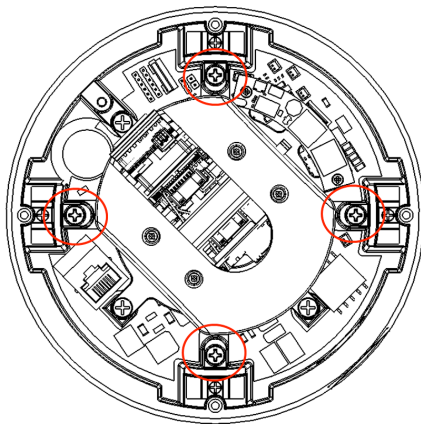


Figure 5

9. Attach the Dome Cover to the MegaDome® G3 RS camera and fasten securely four captive screws as shown in Figure 6.

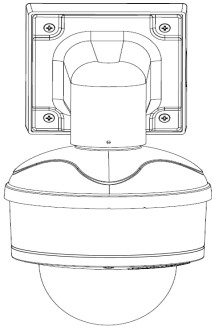


Figure 6

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

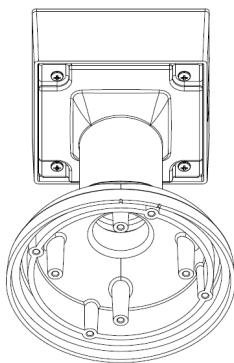


**CAUTION!** The captive screws must be used to properly secure the dome cover and camera housing. Failure to use the captive fastener may result in serious injury. When mounting the dome cover to the camera housing, ensure that the gasket is properly seated and not folded. Failure to do so may result 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.

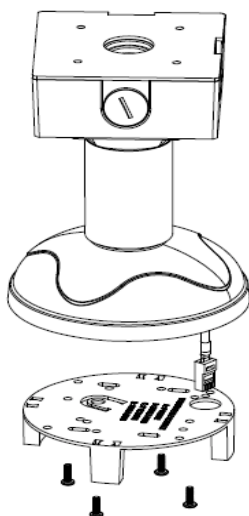
1. Using the mounting template, prepare the mounting provisions for the camera installation.
2. Connect top shield, pendant pole and mount together as shown in Figure 1.



*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.

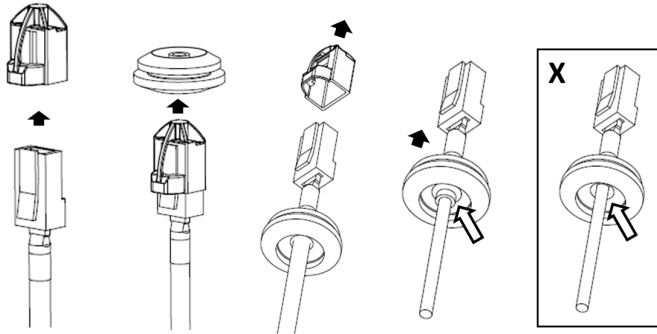


Figure 3

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 MegaDome® G3 RS camera with the hole on mounting plate, and install the grommet on camera housing as shown in Figure 4.

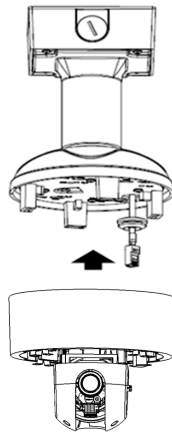


Figure 4

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

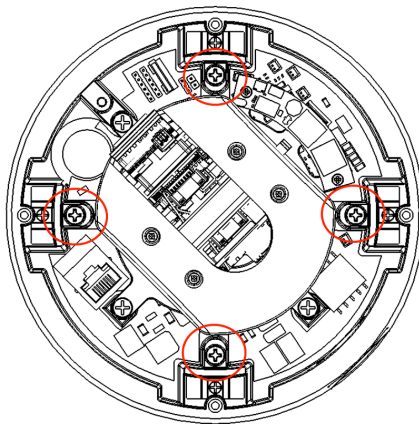


Figure 5

9. Attach the Dome Cover to the MegaDome® G3 RS camera and fasten securely four captive screws as shown in Figure 6.

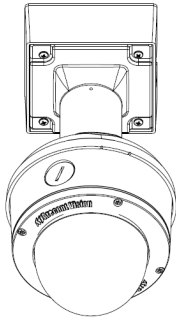


Figure 6

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).

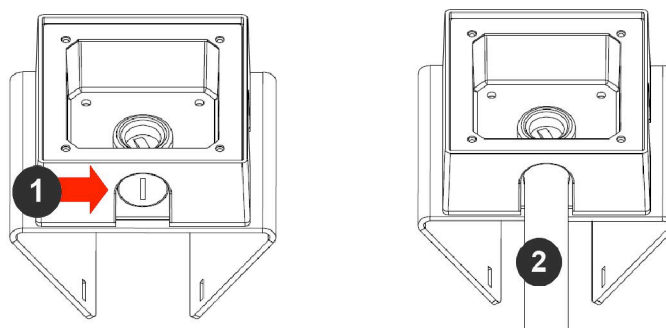


Figure 1: Attach conduit to AV-JBA junction box adapter

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.

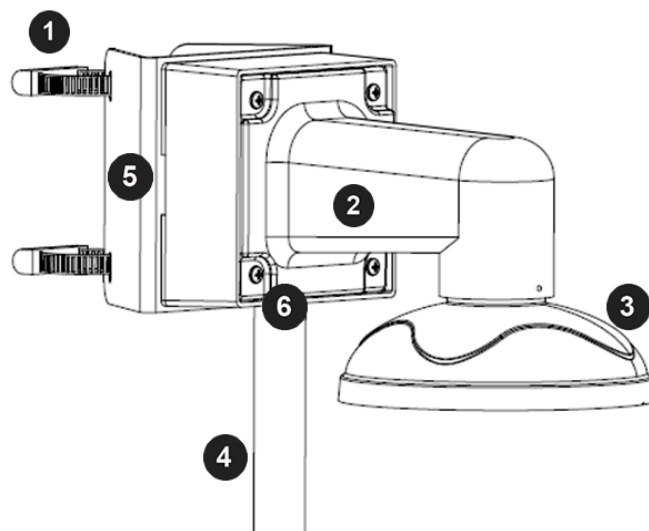


Figure 2: Attach wall mount adapter to pole mount adapter

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 $\frac{3}{4}$ " 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  $\frac{3}{4}$ " NPT conduit to the junction box adapter as shown in Figure 1.

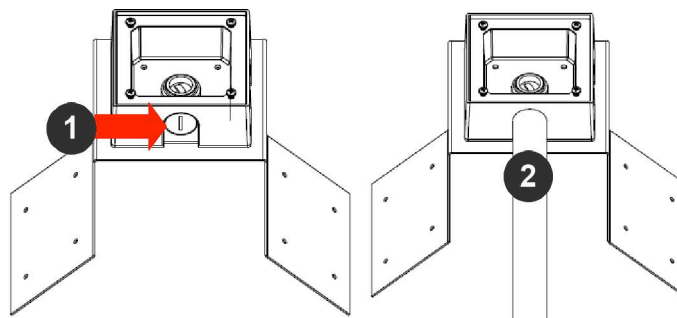


Figure 1: Attach conduit to SV-JBA junction box adapter

Reference #	Description
1	Remove conduit plug
2	Connect $\frac{3}{4}$ " 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 Corner Mount Adapter (AV-CRMA) as shown in Figure 2.

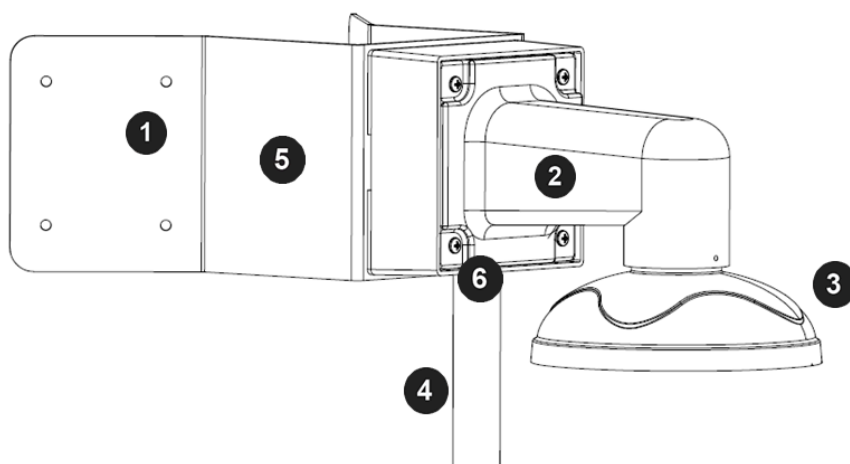


Figure 2: Attach corner mount adapter to exterior corner wall

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

7. Using the screws provided (or other hardware), attach the Corner Mount Adapter to an exterior 90 degree corner wall.
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.

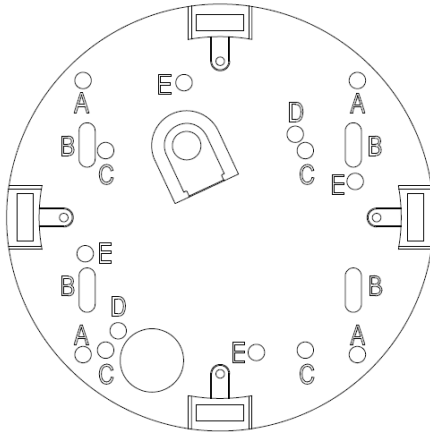


**CAUTION!** The captive screws must be used to properly secure the dome cover and camera housing. Failure to use the captive fastener may result in serious injury. When mounting the dome cover to the camera housing, ensure that the gasket is properly seated and not folded. Failure to do so may result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

## 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*

## Auxiliary I/O Functions

The auxiliary input and output are accessible after removing dome cover.

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

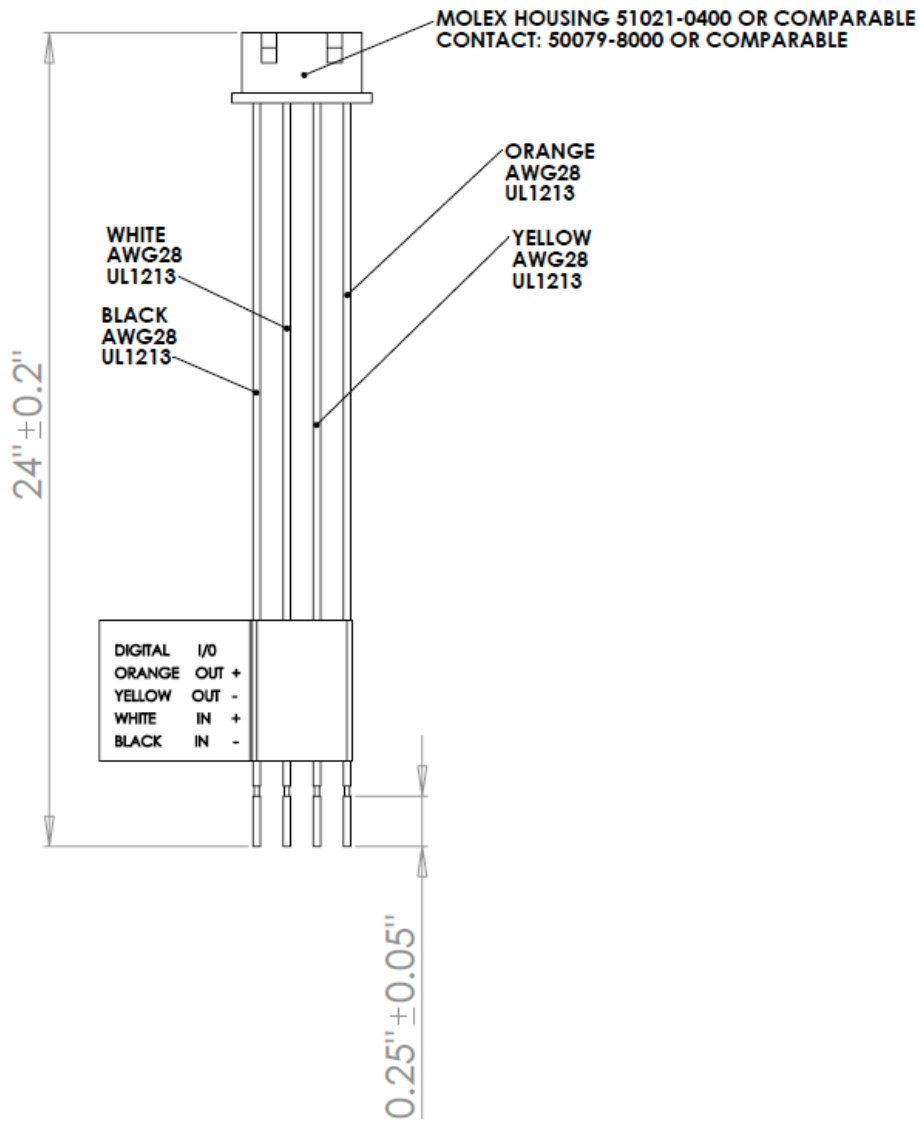
NOTE: MegaDome® G3 RS camera supports digital input and digital output. See **Table 1** for electrical characteristics.

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 -

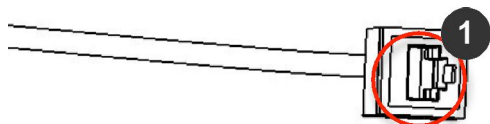
Table 2

## Camera Power Up



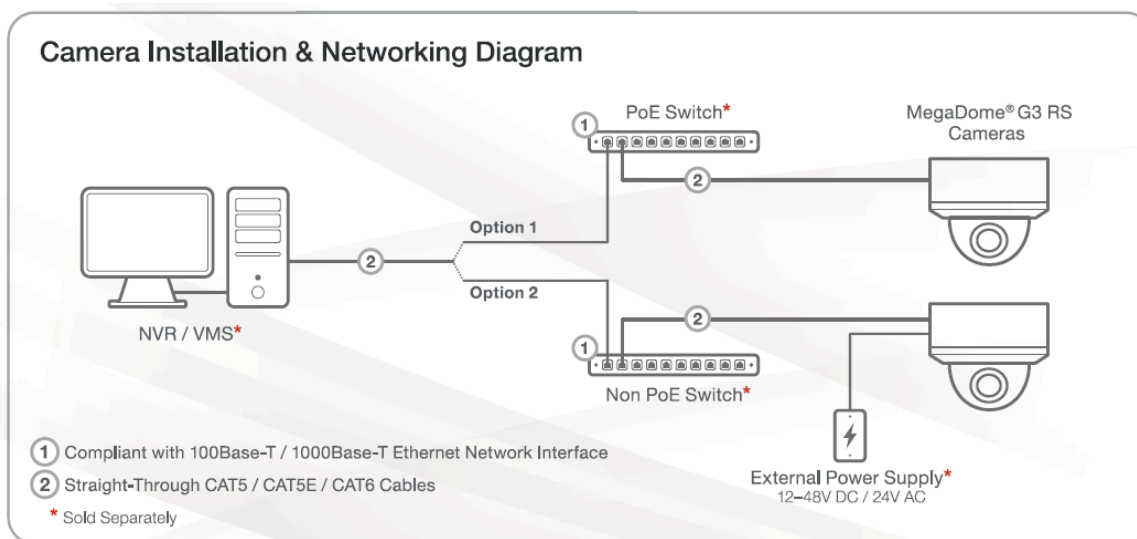
This product should be installed by a qualified service technician in accordance with the National Electrical Code (NEC 800 CEC Section 60) or applicable local code.

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



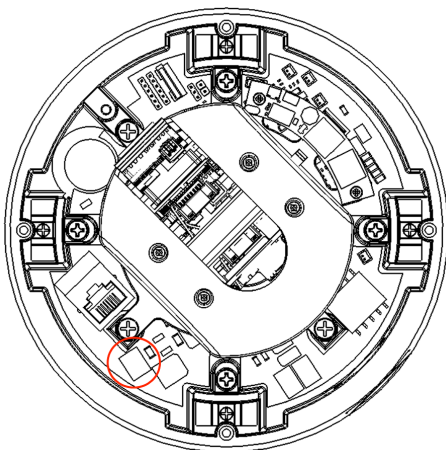
Reference #	Description
1	PoE Connector

2. If the camera is powered by an outside power supply, 12-48 VDC or 24VAC, connect the power cable.
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 DC or AC power source, run the supplied power cable through the access hole on the camera housing and connect the power cable to the 2-position connector on the main camera board. The approximate location of the 2-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.



## Locally Storing Data

The MegaDome® 4K camera includes a SDHC card slot for onboard storage. To set-up the SD card features, the Web Interface page or AV 200 can be used.

The camera supports class 10 microSD or microSDHC cards up to 32GB. Not all SD cards are the same. Arecont Vision highly recommends using SanDisk Extreme Micro SD cards (or an equivalent substitute) as these cards have been fully tested without issue. The SanDisk Extreme line is better suited for demanding applications like constant recording. Typical lower grade SD cards are meant for multimedia applications and will, at times, have questionable quality and reliability.

Recording to the SD card is FIFO (first in first out). The oldest (first) entry is deleted first as new storage requirements arise. There is no indication when this will happen. Storage time is dependent on a variety of factors such as SD card size and camera FPS.

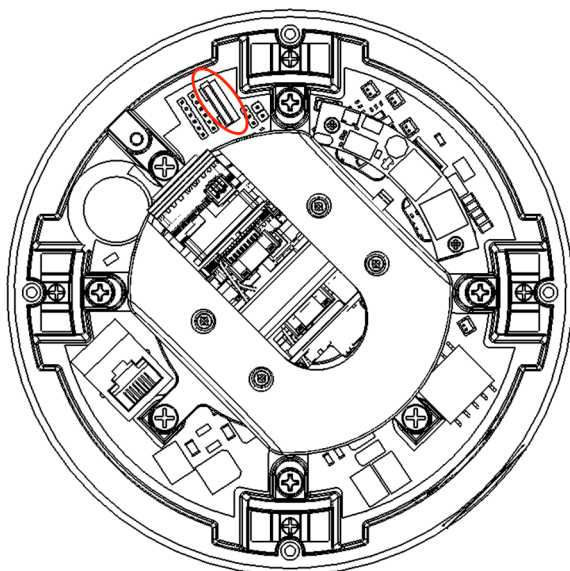
SD Recording supports video only. Audio is not supported.

## SD Card Set-up

Insert an SD card (user supplied) into the SD card slot until it locks in place. The location of the SD card slot is located on the main unit. The SD card can only be set-up via the Web Interface or AV200 Software.

Note: Upon insertion or removal of an SD card, the camera must be rebooted.

Note: It is recommended to setup recording time to extend at least 60 seconds past the desired stopping point to avoid missing critical recorded video.



## SD Card Set-up via Web Interface

To set-up the SD card via the web interface, open your preferred web browser and type the camera's IP address.

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



Figure 1

Click SD Card tab

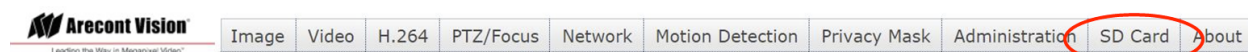
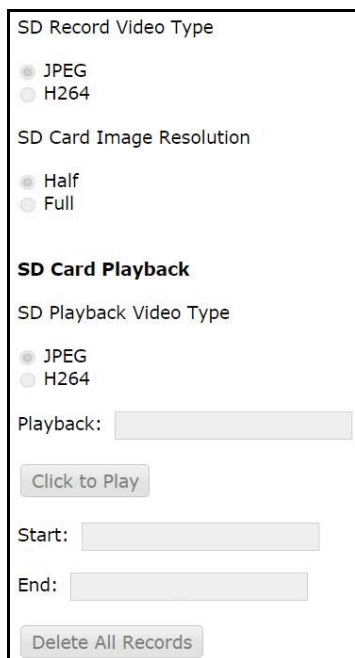


Figure 2

Select one of the recording methods:

- **Continuous Recording** to start continuously recording.
- **Stop Continuous Recording AND Enable Event-triggered Recording** to enable events recording for network failure, motion alarm and/or I/O alarm trigger.

The **Start** and **End** times are visible once the camera starts recording as shown in Figure 3. The start time represents the beginning time of the oldest recording.



SD Record Video Type

☒ JPEG  
☐ H264

SD Card Image Resolution

☒ Half  
☐ Full

**SD Card Playback**

SD Playback Video Type

☒ JPEG  
☐ H264

Playback:

Start:

End:

Figure 3

To playback recorded video:

- Input the date and time of the desired video (must be set between the Start and End time).
- Check the Playback SD card video checkbox to play the video.

Playback tips:

Video recorded to an SD card from an Arecont Vision camera can only be played back via an Arecont Vision camera that has the same or lower resolution. Playback cannot be viewed with any other device. For example, video recorded to an SD card via a 10MP camera can be played back on a 3MP camera but a 3MP cannot be played back on a 10MP model.

- SD card must be inserted to any AV camera.

## SD Card Tab

Menu	Feature	Description
<div> SD Card </div> <div> <input type="checkbox"/> View SD Recording ROI </div> <div> <small>* Mouse-related control requires running JPEG video * Click and move to select window to set. * Double click to reset to default settings.</small> </div> <div> SD Card Recording </div> <div> Record Enable: </div> <div> <input type="radio"/> Continuous Recording  <input checked="" type="radio"/> Stop Continuous Recording AND Enable Event-triggered Recording </div> <div> <input type="checkbox"/> Network Failure  <input type="checkbox"/> Motion Alarm  <input type="checkbox"/> I/O Alarm </div> <div> Recording Framerate: <input type="text"/> </div> <div> SD Record Video Type </div> <div> <input checked="" type="radio"/> JPEG  <input type="radio"/> H264 </div> <div> SD Card Image Resolution </div> <div> <input checked="" type="radio"/> Half  <input type="radio"/> Full </div> <div> SD Card Playback </div> <div> SD Playback Video Type </div> <div> <input checked="" type="radio"/> JPEG  <input type="radio"/> H264 </div> <div> Playback: <input type="text"/> </div> <div> <input type="button" value="Click to Play"/> </div> <div> Start: <input type="text"/> </div> <div> End: <input type="text"/> </div> <div> <input type="button" value="Delete All Records"/> </div>	View SD Recording ROI	Allows the user to drag the box to the area where need to be recorded.
	Continuous Recording	Allows the user to continuously record without restriction. Default is unchecked box.
	Stop Continuous Recording AND Enable Event-triggered Recording	Allows the user to enable events recording when network failure, motion alarm, or an I/O alarm is triggered. Default is unchecked box.  NOTE: if the continuous recording is disabled and no event recording is enabled, the SD card will not initiate recording.
	Network Failure	Allows the SD Card to record video only in the event that the network fails.
	Motion Alarm	Allows the SD Card to record video only in the event that motion is detected.
	I/O Alarm	Allows the SD Card to record video only in the event that an I/O alarm is triggered.
	Recording Framerate	Allows setting a frame rate output limit for the H.264 video stream. Reducing the frame rate output is another way to control the bandwidth used for the H.264 video streaming from the camera trade off is the obvious reduction of frame rate output at the camera.
	SD Record Video Type	Provides the ability to set the record video type. Options are JPEG and H.264.
	SD Card Image Resolution	Provides the ability to set the resolution. Options are Full, Half, or Scaled. Half is the default.
	Playback	Allows the user to choose the specific time of video to playback.
	Start	Shows the beginning time frame of the video being recorded. No default.
	End	Shows the ending time frame of the video being recorded. No default.
	Delete All Records	Allows the user to delete any previously recorded video on the SD card.

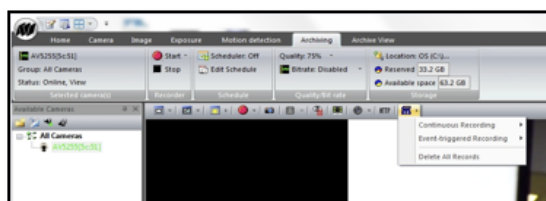
## SD Card Setup via AV200

To set-up the SD card via AV200, launch the AV200 application icon on the desktop.



To enable recording to the SD card, select the desired camera and drag it to the workspace to open a view. From the window, select the SD card drop down menu. Choose:

- **Continuous Recording**  
- OR -
- **Event-triggered Recording** to enable events recording for network failure, motion alarm or I/O alarm



To launch the SD card playback window, click on the **SD card** icon.



- Set play range to full span sets the playback range to the maximum available on the SD card.
- Set playback range allows the user to input the playback date and time manually.
- Export play exports an .avi file for playback on most media players.

## 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 MegaDome® 4K cameras support RTSP, RTP/TCP, RTP/UDP, HTTP, HTTPS, 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.

**HTTPS** – Hypertext Transfer Protocol Secure: encrypts and authenticates communication between Web server and browser.

**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 MicroDome G2 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.

**IPv6** – This camera supports the IPv6 internet-layer protocol for packet-switched internetworking across multiple IP networks. IPv6 uses 128-bit addresses, which allows for many more devices and users on the internet as well as extra flexibility in allocating addresses and efficiency for routing traffic.

**802.1x** – The IEEE 802.1x standard provides a general method for authentication and authorization in IEEE-802 networks. Authentication is carried out via the authenticator, which checks the transmitted authentication information using an authentication server and approves or denies access to the offered services (LAN, VLAN or WLAN) accordingly.

## General Remote Pan, Tilt, Zoom, 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 (Fig 2).

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

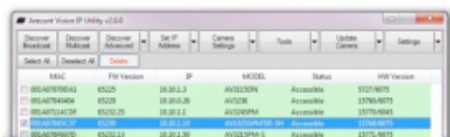
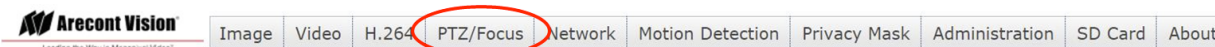


Figure 1: Double click via AV IP Utility



Figure 2: Type the camera IP address

2. Click PTZ /Focus Tab

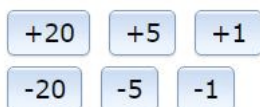


NOTE: Additional information regarding the Arecont Vision® web interface is found separately in the [AV IP Utility Web Browser Manual](#) via the Arecont Vision website.

3. To obtain the desired field of view, press the manual Pan & Tilt buttons (+20, +5, +1, -20, -5, -1).

### Pan & Tilt

Pan:



Tilt:



NOTE: Motorized Pan and Tilt Capable – Pan 359°, Tilt 90°

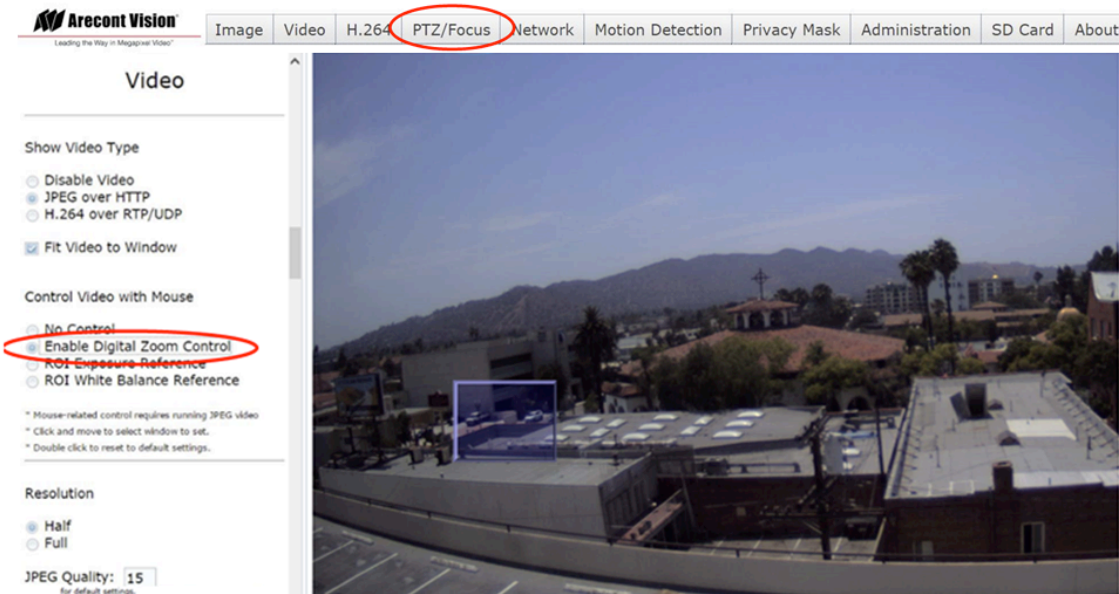
4. Click the Full-range Focus button. The camera begins to autofocus with the lens stopping at the best overall point of focus. When the focus area turns to Green, the autofocus is complete.





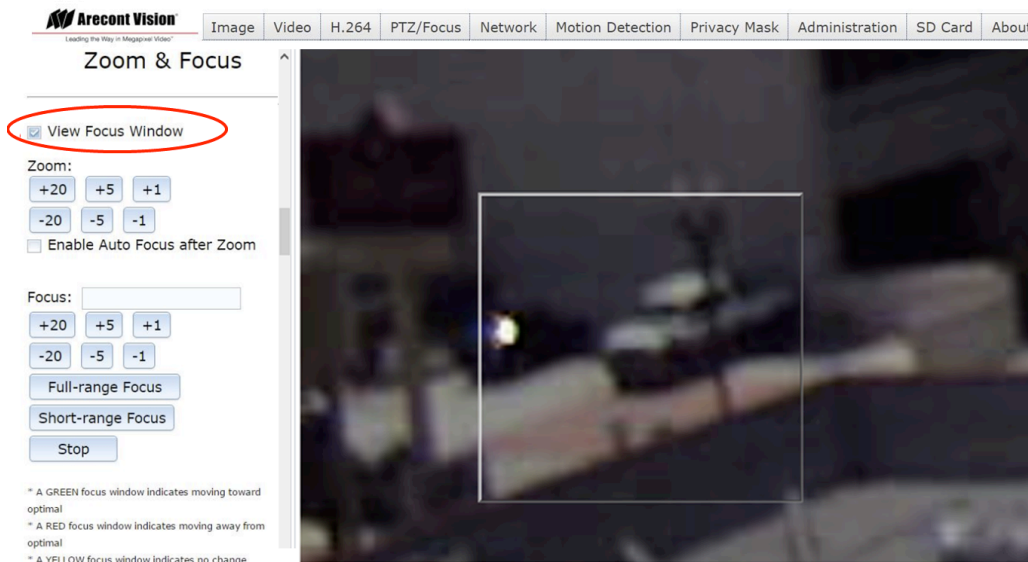
## Refined Remote Focus

1. For a more refined, detailed focus For a more refined, detailed focus, scroll to the Video Tab section and select the Enable Digital Zoom Control radial button.

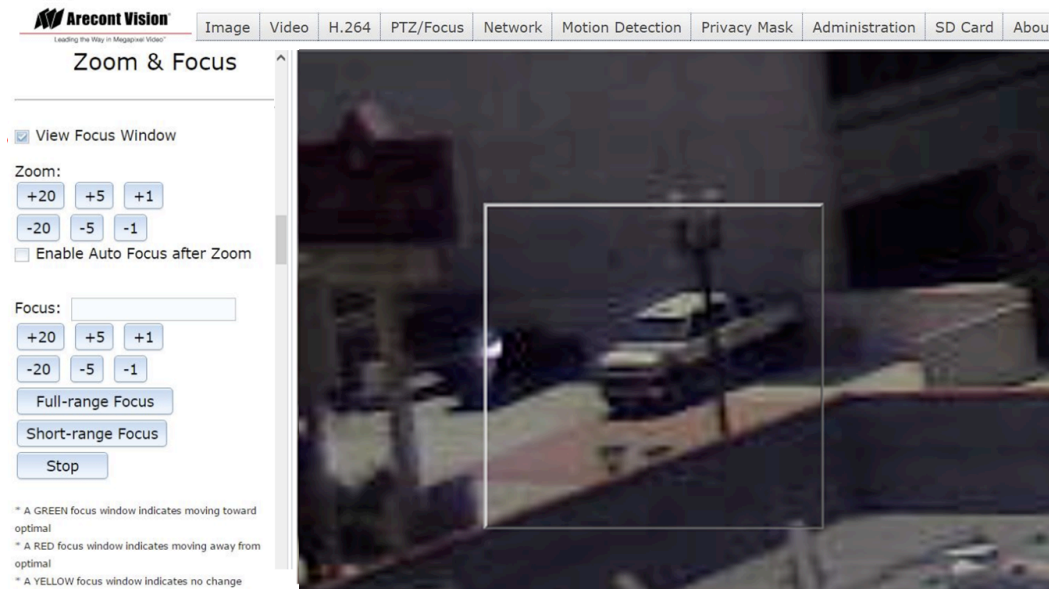


2. Choose an area that has a lot of objects or an area you have an interest in seeing more details. Left click and drag the box to the area where you want to see finer details. The image zooms in.
3. Repeat until you are able to see pixelization of the image.
4. Scroll to the Focus Tab section and enable the View PTZ/Focus Window.

5. Left click and drag to highlight the area within the zoomed window you created.



6. Click Short-range Focus button.
7. The camera proceeds to go through the short range adjustment around the original focus. It stops at the best point of focus using the new reference area. When the box around the image illuminates green, the camera has completed the focus. For an additional focus, press the manual focus buttons (+20, +5, +1, -20, -5, -1).

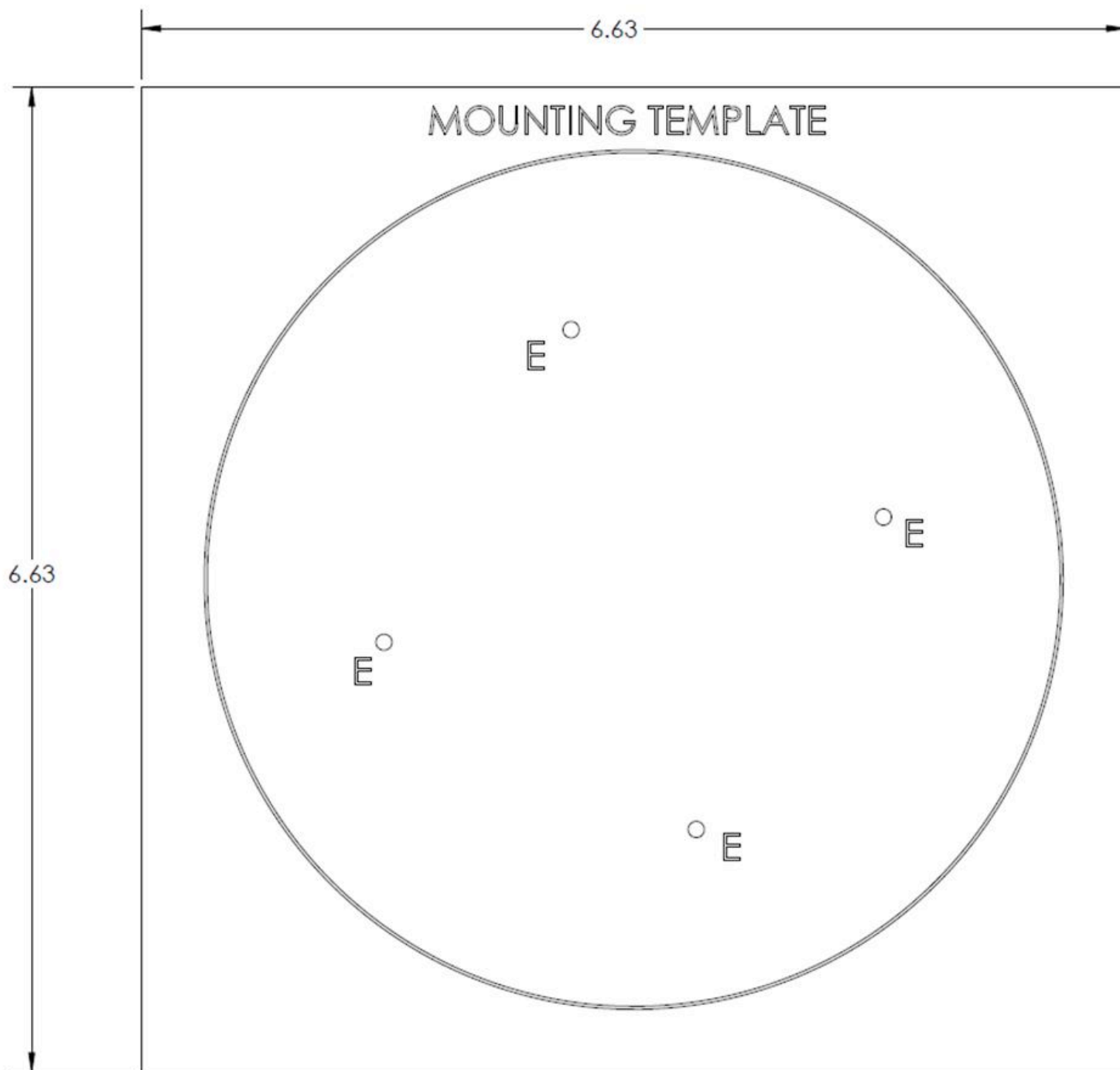


8. When satisfied with the camera's focus setting, scroll to the Video Tab section and select the Enable Digital Zoom Control radial button.
9. Double click the image; the video returns to the full field of view.

## AV IP Utility PTZ/Focus Tab

Menu	Feature	Description
<div> <p><b>Pan &amp; Tilt</b></p> <p>Pan:</p> <div> <div>+20</div> <div>+5</div> <div>+1</div> </div> <div> <div>-20</div> <div>-5</div> <div>-1</div> </div> <p>Tilt:</p> <div> <div>+20</div> <div>+5</div> <div>+1</div> </div> <div> <div>-20</div> <div>-5</div> <div>-1</div> </div> <p><b>Zoom &amp; Focus</b></p> <hr/> <p><input checked="" type="checkbox"/> View Focus Window</p> <p>Zoom:</p> <div> <div>+20</div> <div>+5</div> <div>+1</div> </div> <div> <div>-20</div> <div>-5</div> <div>-1</div> </div> <p><input type="checkbox"/> Enable Auto Focus after Zoom</p> <p>Focus: <input type="text"/></p> <div> <div>+20</div> <div>+5</div> <div>+1</div> </div> <div> <div>-20</div> <div>-5</div> <div>-1</div> </div> <div>Full-range Focus</div> <div>Short-range Focus</div> <div>Stop</div> <p> <small>* A GREEN focus window indicates moving toward optimal</small>  <small>* A RED focus window indicates moving away from optimal</small>  <small>* A YELLOW focus window indicates no change</small>  <small>* The focus window will turn GREY when complete</small> </p> </div>	Manual Pan & Tilt: +20, +5, +1, -20, -5, -1	Numbers indicate the level of Pan/ Tilt in order to adjust the field-of-view.
	View Focus Window	Allows the user to drag the box to the area where need to be focused on.
	Manual Zoom/ Focus: +20, +5, +1, -20, -5, -1	Numbers indicate the level of Zooming/ focusing in order to adjust the field-of-view.
	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.

## Mounting Templates



Unit: Inches

## Support

1. Arecont Vision FAQ Page Located at [ArecontVision.com](http://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](http://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](http://Support.ArecontVision.com)
  2. Phone: 1.818.937.0700 (option #1)
  3. Email: [support@arecontvision.com](mailto: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](http://www.arecontvision.com)) for camera discovery and setup (see Instruction Manual located on the CD or available on our website).