



MegaBall™ **Installation Manual**

 **Arecont Vision**
megapixel technology...
beyond imagination

Arecont Vision MegaBall™ Installation Manual

MegaBall™ Wall Mount Version (-W) Installation Manual

Inside the box:

- A. Arecont Vision MegaBall™ camera with wall mount (indoor use only)
- B. CD with AV100 software and user manuals (license key required for recording)
- C. Mounting template
- D. Pack of three (3) wood screws and three (3) dry wall anchors
- E. One double-sided hex key (fixed focal lens version only)
- F. Security L-Key

Not included but needed:

- #1 Phillips head screwdriver

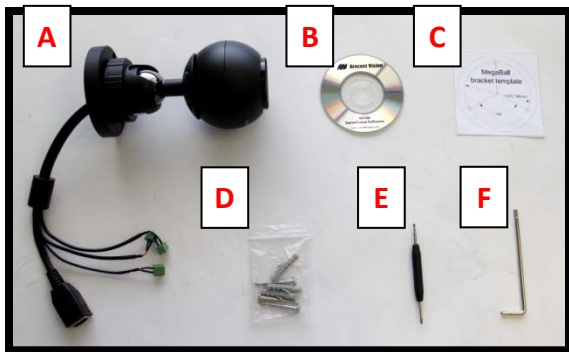


Image 1

Mounting the Camera:

1. Remove the camera and hardware from the box.
2. Using the mounting template, prepare the mounting surface for camera installation.

3. Plug the Ethernet cable into the MegaBall™ PoE female RJ45 connector. (**Image 2**)
*NOTE: If the camera will be powered via PoE, please skip to **step 5**.*

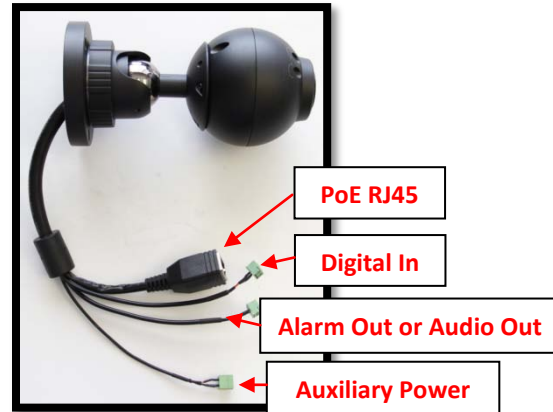


Image 2

4. If the camera will be powered by an AC 24V or DC 12-48V power supply, connect external power with pigtail cable connector.

*NOTE 1: Ensure that the polarity of the DC input on the camera matches the way that the wires are installed in the connector shown in **Image 2**.*

NOTE 2: AC power does not have polarity.

5. Align the holes on the camera wall mount with the prepared holes on the mounting surface. Attach the camera to the mounting surface with the wood screws or any other hardware suitable for the mounting surface.

Adjusting the Tilt, Pan, Z-Axis (yaw):

6. To adjust the camera tilt, pan or z-axis (yaw), loosen the ring on the wall mount bracket as shown in **Image 3** then adjust as necessary and retighten the ring.



Image 3

NOTE : The 3-axis bracket allows 360° camera body rotation, 90° tilt and 360° bracket rotation for easy installation in any location. (Image 4)



Image 4

CAUTION: Adjusting the camera without loosening the bracket ring may result in scratches on the bracket joint. Incorrect

installation practices are not covered under warranty!

Adjusting the Focus, Iris and Field of View:

7. For the vari-focal model, adjust the focus, iris and field of view using the provided Security L-Key (**Image 1F**) as shown in **Image 5**.

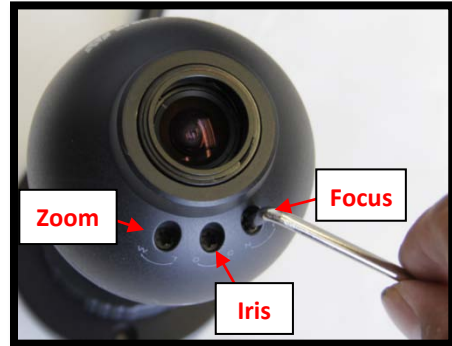


Image 5

8. For the fixed-focal model, adjust the focus by loosening the two set screws on the front shell as shown in **Image 6** using supplied double sided hex key (**Image 1E**). Adjust the lens adapter to focus the camera as shown in **Image 7**. Retighten the set screws once focusing is complete.



Image 6



Image 7

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MegaBall™ Dome Version (-D) (-DA) Installation Manual

Inside the box:

- A. Arecont Vision MegaBall™ camera with in-ceiling mount (indoor use only)
- B. Surface mount (preassembled on dome)
- C. Audio Bezel (-DA module only)
- D. O-ring (preassembled on bezel)
- E. Dome cover (Bubble)
- F. CD with AV100 software and user manuals (license key required for recording)
- G. One double-sided hex key (fixed focal lens version only)
- H. Security L-Key
- I. Pack of three (3) wood screws and three (3) dry wall anchors
- J. Mounting template

Not included but needed:

- #1 Phillips head screwdriver

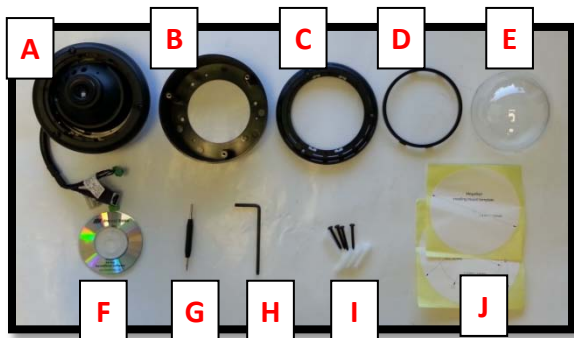


Image 1

Mounting the Camera:

1. Remove the camera and hardware from the box.
2. Using the mounting template, prepare the mounting surface for camera installation.
3. Plug Ethernet cable into the MegaBall™ PoE female RJ45 connector. (**Image 2**)

*NOTE: If the camera will be powered via PoE, please skip to **step 5**.*

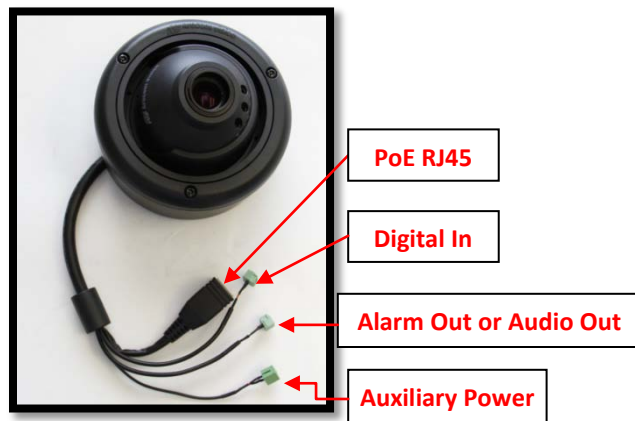


Image 2

4. If the camera will be powered by an AC 24V or DC 12-48V power supply, connect auxiliary power to terminal block on pigtail cable connector.

*NOTE 1: Ensure that the polarity of the DC input on the camera matches the way that the wires are installed in the connector shown in **Image 2**.*

NOTE 2: AC power does not have polarity.

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- Using the provided Security L-key (**Image 1F**), loosen the three (3) screws securing the dome cover (**Image 3**). Remove the vandal resistant dome cover. *NOTE: Do not remove the screws from the dome cover.*



Image 3

- Loosen the three (3) machine screws (**Image 4**) and remove the in-ceiling mount camera from the surface mount housing. (**Image 4**)

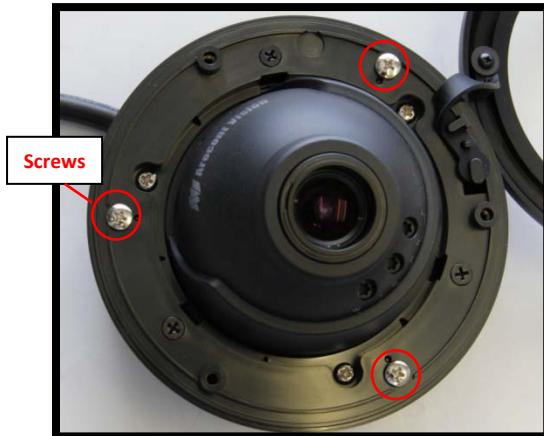


Image 4

In-ceiling Mount Installation (Optional)

- Using the mounting template, cut a hole in the surface for mounting.
- Insert the in-ceiling mount camera into the hole.
- Tighten the “lever screws” until the flush mount is snug, as shown in **Image 5**. The “Support Arm” will ride down the screw to compress the mounting surface. *NOTE: Do not over-torque the lever screws.*

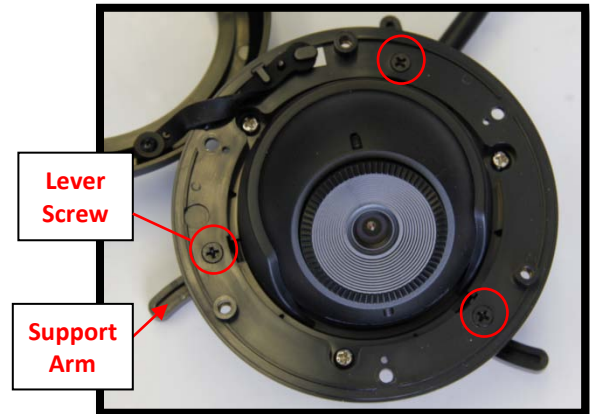


Image 5

Surface mount installation

- Align the holes in the surface mount with the prepared holes on the mounting surface with the wood screws or any optional hardware suitable for the mounting surface.
- Attach the in-ceiling camera to the surface mount, using the three machine screws as shown on **Image 4**.

Adjusting the Tilt, Pan, Z-Axis (Yaw):

12. To adjust the camera tilt, pan or z-axis (yaw), loosen the 3 set screws on the in-ceiling mount as shown in **Image 6**. Then adjust as necessary and retighten the 3 set screws.

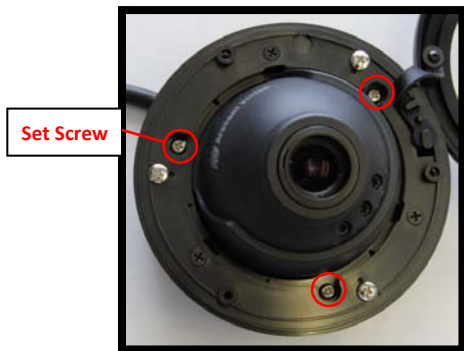


Image 6

*NOTE : The 3-axis in-ceiling camera allows 360° camera body rotation, 90° tilt, and 360° camera sleeve rotation for easy installation in any location as shown in **Image 7**.*

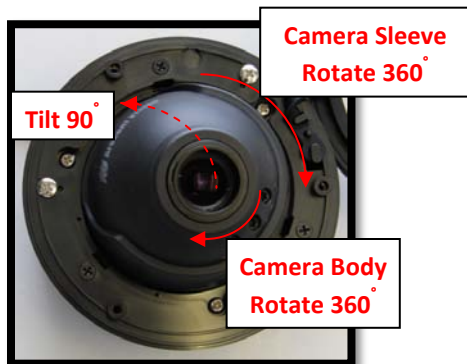


Image 7

Adjusting the Focus, Iris and Field of View:

13. For the vari-focal model, adjust focus, iris and field of view using the provided Security L-Key as shown in **Image 8**.

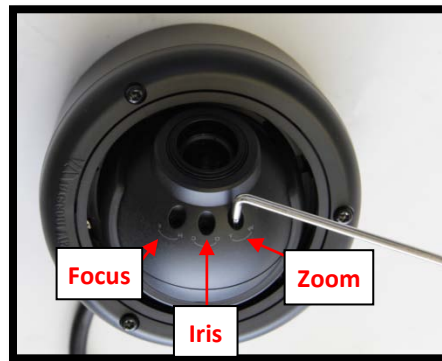


Image 8

NOTE 1: Fully open the lens iris and close iris as necessary to get better sharpness and depth of field.

*NOTE 2: Fully opening the lens iris under strong light condition may result in less sharpness and artificial color in Megaball™ WDR camera series as shown in **Image 9 and 10**.*

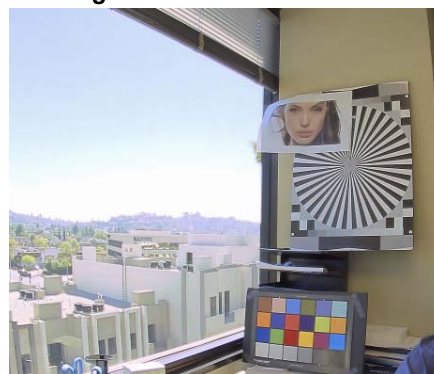


Image 9: Fully open lens iris



Image 10: Close lens iris as necessary

- For the fixed-focal model, adjust the focus by loosening the two set screws on the front shell as shown in **Image 11** using the supplied double sided hex key (**Image 1G**).



Image 11



Image 12

- Adjust the lens adapter to focus the camera as shown in **Image 12**. Retighten the set screws once focusing is complete.

Dome Cover (Bubble) Installation (Optional):

- Remove the O-ring (**Image 1D on Page 3**) from the bezel by pushing on the 4 drift pins on the back of bezel shown in **Image 13**.

- Attach the provided dome cover (**Image 1D on Page 3**) to the bezel as shown in **Image 14**.

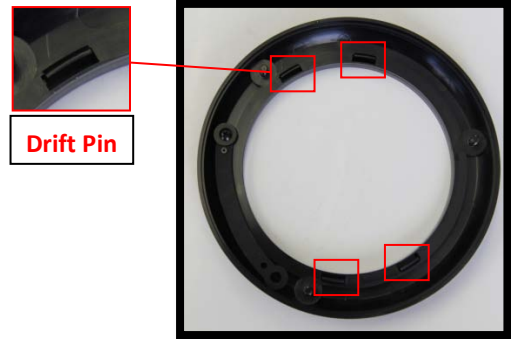


Image 13



Image 14

- Remove the protective film from the bubble. *NOTE: Take precaution not to scratch the bubble.*
- Secure the dome cover to the camera using the provided Security L-Key (**Image 1H on Page 3**)

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Audio Bezel Installation (-DA models only):

20. If adding dome cover (**Image 1E**) on the bezel is necessary, follow Step 21-23 to replace installed bezel with provided audio bezel (**Image 1C**) and get best audio quality.
21. Remove O-ring (**Image 1D**), screws and rubber cable from default bezel as shown in **Image 15**.

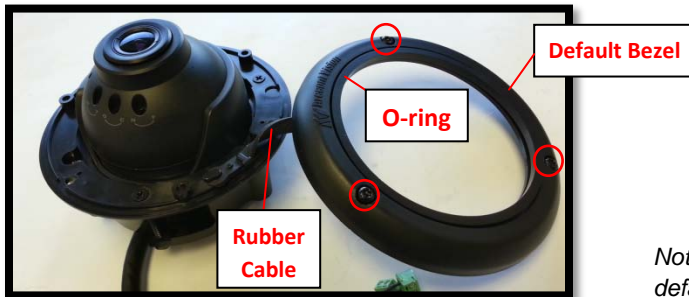


Image 15

22. Install screws and dome bubble on the audio bezel as shown in **Image 16**.



Image 16

23. Secure the dome cover to the camera using the provided Security L-Key (**Image 1H**) as shown in **Image 17**.



Image 17

*Note: If the dome cover is not required, keep using default bezel and make sure the microphone hole is not covered by the liner as shown on **Image 18**.*



Image 18

Optional: Connecting Alarm I/O and Audio Out:

24. To use the Alarm I/O, connect the alarm I/O to the pigtail cable connector as shown in **Image 2**.

NOTE: Table 1 shows the electrical characteristics and Table 2 shows cable color for digital I/O.

Electrical Characteristics:		Min	Max	Camera
Input voltage (V) (measured between + and – terminals)	ON	2.9	6.3	IR & DN Versions
	OFF	0	1.3	
Output current (mA) (measured between + and – terminals) Applied Voltage Range: 0 - 80V	ON	-	50	DN version Only
	OFF	-	0.1	

Table 1

NOTE: Both the input and the output are 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 debouncing circuit. Duration of any input signal should be at least 5ms to comply with the requirements of the debouncing circuit.

Yellow	Digital IN +
Red	Digital IN –
Green	Digital OUT + / Audio Out +
Black	Digital OUT - / Audio Out -

NOTE: The Audio Out will be only available for Megaball Audio models (-A)

Table 2

Camera Installation:

25. Install the AV100 application manager Software. (**Image 19**, found on the CD).
26. Run the AV100 application manager by double clicking on the icon shown below. (**Image 20**, found on your desktop).

NOTE: you can download latest version AV100 on website

<http://www.arecontvision.com/software.php>

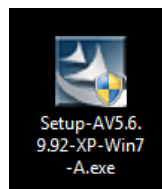


Image 19

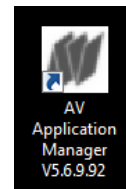


Image 20

27. Select “Run” next to “Setup Cameras” from the AV100 application manager as shown in **Image 21** and wait for “Arecont Vision Camera Installer” window to appear as shown in **Image 22**.



Image 21

28. Click “Mode” tab to select desired install mode on the Arecont Vision Camera Installer as shown in **Image 22**.

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NOTE 1: Basic Mode: software will automatically discover and change / assign IP address to match PC subnet if they are not locked.

NOTE 2: Advanced Mode: software will automatically discover but allow manual update of the IP address. See “AV100 Installation Manual” (found on the CD) for details on Advanced Mode.

NOTE3: User can verify camera model number and FW version of all cameras as shown in **Image 23**.

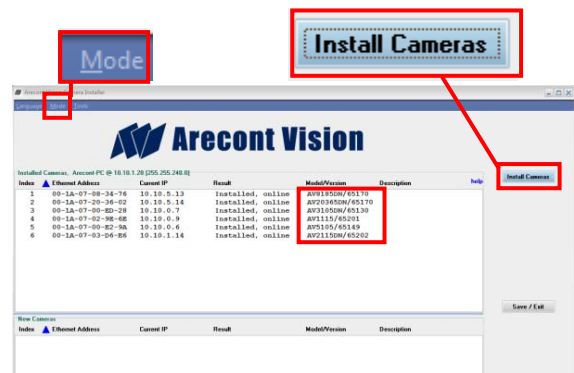


Image 22

29. For basic mode, select “Install Cameras” on the Arecont Vision Camera Installer as shown in **Image 22**.
30. Confirm that all the cameras connected to the network switch appear in the upper window.
31. Repeat **Step 29** if all of the cameras do not appear in the upper window.

CAUTION: If the software does not find a camera, the software utility may be blocked by the anti-virus or Windows® firewall. Before turning them off, please consult your IT manager.

NOTE : Double click the camera model on the Camera Installer as shown in **Image 22** to access the camera web interface. See “AV Camera Web Page User Manual” (found on the CD) for details on the web interface.

Index	Ethernet Address	Current IP	Result	Model/Version	Description
1	00-1A-07-08-34-76	10.10.5.13	Installed, online	AV81850M/65170	
2	00-1A-07-20-26-02	10.10.5.14	Installed, online	AV203450M/65170	
3	00-1A-07-00-80-28	10.10.0.7	Installed, online	AV1155M/65130	
4	00-1A-07-02-98-08	10.10.0.9	Installed, online	AV1115/65201	
5	00-1A-07-00-82-9A	10.10.0.6	Installed, online	AV5105/65149	
6	00-1A-07-03-06-86	10.10.1.14	Installed, online	AV21150M/65202	

Image 23

32. When all cameras are discovered and display “Installed, online”, select “Save/Exit.” The AV100 application main menu will appear.
33. From the “AV100 Application Manager” menu, select “Run” next to “Live video” to view live images.

NOTE: See the “AV100 Installation Manual” (found on CD) for details on camera configurations.

MegaBall Accessories (Sold Separately)

Wall Mount (D4S-WMT-B or D4S-WMT) Installation Instructions

Inside the box:

- A. Wall mount (Fits ¾" NPT Standard)
- B. Pack of three (3) machine screws, four (4) wood screws and four (4) dry wall anchors
- C. Mounting template

NOTE: D4S-WMT-B color is black and D4S-WMT color is light grey.

Not included but needed:

- #2 Phillips screw driver

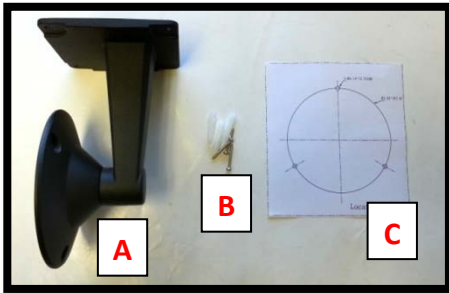


Image 24

1. Remove wall mount and hardware from the box.
2. Using the mounting template, prepare the mounting provisions for camera installation.
3. Attach surface mount (**Image 1B on Page 3**) to wall mount as shown in **Image 25** using three machine screws provided.

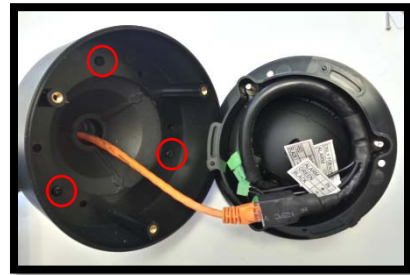


Image 25

5. Run Ethernet cable through the wall mount
6. Attach wall mount to the wall using drywall screws or any optional hardware suitable for the mounting surface.
7. Connect Ethernet cable with Megaball pigtail cable as shown on **Image 25**



Image 26

8. For installation of the camera, please reference "**Mounting the Camera**".

MegaBall Accessories (Sold Separately)

Pendant Mount (D4S-CMT-B or D4S-CMT) Installation Instructions

Inside the box:

- A. Pendant Mount (Fits with ¾" NPT)
- B. Pack of three (3) machine screws, three (3) wood screws and three (3) dry wall anchors
- C. Mounting template

NOTE: D4S-CMT-B color is black and D4S-CMT color is light grey.

Not included but needed:

- D. #2 Phillips screw driver

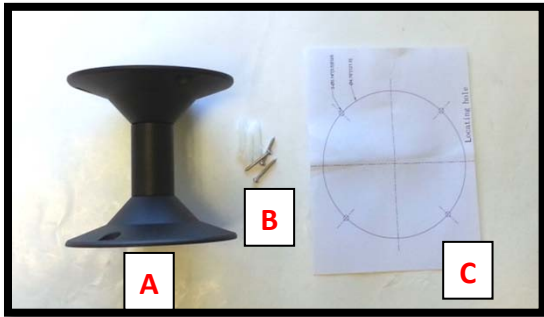


Image 27

1. Remove pendant mount and hardware from the box.
2. Using the mounting template, prepare the mounting provisions for camera installation.

3. Attach surface mount (**Image 1B on Page 3**) to pendant mount as shown in **Image 28** using three machine screws provided.

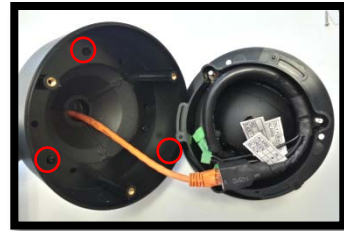


Image 28

4. Run Ethernet Cable through the Pendant
5. Attach Pendant to the ceiling using the three wood screws provided or any optional hardware suitable for the mounting surface.
6. Connect Ethernet cable with Megaball pigtail cable as shown on **Image 28**



Image 29

6. For installation of the camera, please reference "**Mounting the Camera**".

MegaBall Accessories (Sold Separately)

Junction Box Adapter (SV-JBA) Installation Instruction

Inside the box:

- A. Junction Box Adapter
- B. Pack of four (4) machine screws
- C. One double-sided hex key
- D. Pack of four (4) wood screws and four (4) dry wall anchors
- E. Mounting template

Not included but needed:

- #2 Phillips screwdriver
- Wall Mount, MD-WMT
- 3/4" NPT Conduit (if necessary)

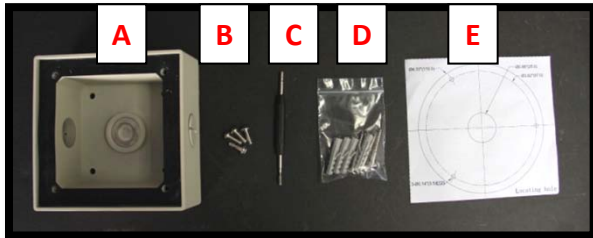


Image 30

1. Remove junction box adapter and hardware from the box
2. Remove the conduit plug by first removing the socket set screw using the provided hex key (C) as shown on **Image 31**.
3. Attach the junction box adapter to the wall using drywall screws or any optional hardware suitable for the mounting surface.



Image 31



Image 32

4. Attach the wall mount to junction box adapter then attach cap to the wall mount as shown in Image 32.
5. Connect 3/4" NPT Conduit to the junction box adapter.
6. Run Ethernet cable and outside power cable (if necessary) through the Junction Box Adapter and Wall Mount.
7. For installation of the camera, please reference "**Mounting the Camera.**"

MegaBall Accessories (Sold Separately)

Electrical Box Adapter (SV-EBA) Installation Instructions

Inside the box: (Accessory Sold Separately)

- A. Electrical Box Adapter
- B. Pack of four (4) machine screws

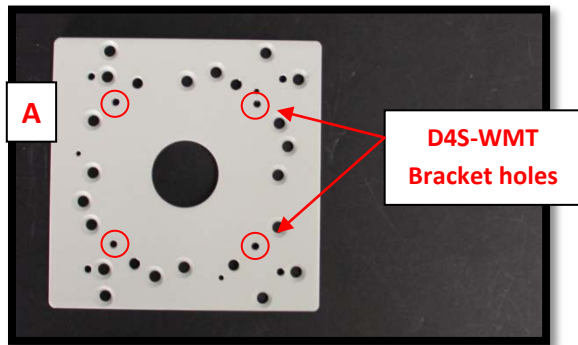


Image 33

Not included but needed:

- #2 Phillips head screwdriver
 - Common electrical box, such as single gang box, double gang box, or square electrical boxes shown in **Image 34-1~4**.
1. Remove the electrical box adapter and hardware from the box.
 2. Attach the wall mount bracket to the electrical box adapter.
 3. Attach adapter to electrical box.

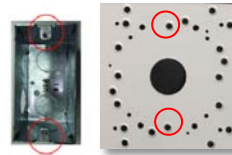


Image 34-1 Single gang box

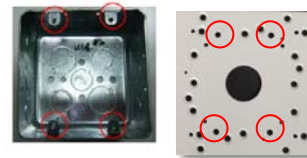


Image 34-2 Double gang box



Image 34-3 Square box

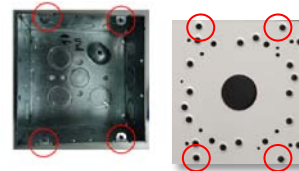


Image 34-4 Square box

Leading
the **way** in
Megapixel
video

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Arecont Vision

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