



ConteraIP[®] Omni LX

Installation Manual

8MP

AV8576DN-28

20MP

AV20576DN-28

AV COSTAR

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About Our Warranty

Global (3 Year) Limited Warranty

AV COSTAR™ 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, AV COSTAR shall have no obligation or responsibility with respect to any Product that (i) has been modified or altered without AV COSTAR’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. AV COSTAR make no warranties or conditions, express, implied, statutory or otherwise, other than the express limited warranties made by AV COSTAR above, and AV COSTAR 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. AV COSTAR 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 AV COSTAR or (iv) that all licensed program errors will be corrected.

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

ConteralP Omni LX Megapixel Cameras

Camera Overview

The ConteralP® Omni LX multi-sensor, multi-megapixel camera was built to withstand evolving customer change-requirements. The unique, future-proof platform of the ConteralP Omni LX provides organizations of all sizes the flexibility to deploy a security system that truly matches their video surveillance needs now and if requirements change in the future. With its ground-breaking flexibility such as the ability to easily move each of the four sensors around the magnetic 70+ placement-point Omni track, the 3-axis gimbals for an increased range of motion when positioning the sensors, and the ability to interchange the remote focus modular lenses for a customized field of view, the ConteralP Omni LX provides customers with the confidence in a future-proof investment. The ConteralP Omni LX changes when you do.

ConteralP Omni LX is available with an 8- or 20-megapixel (MP) resolution and 2.8mm lens. The customization of this camera is unparalleled offering a range of interchangeable lens options for each individual sensor including 2.4mm, 4.0mm, 6.0mm, 8.0mm, 12mm and 16mm options. For added flexibility, users can place the four individual three-axis lens gimbals independently in nearly any configuration on the track for applications such as hallway intersections or the corner of a building for a 270° view. The three-axis lens adjustment provides users with more camera placement options, allowing the cameras to be easily mounted on a wall or ceiling so they can pan, tilt, and rotate the lens in a variety of directions for a precise field of view. These cameras provide an all-in-one solution for capturing wide area video surveillance while maximizing the field-of-view and reducing the total number of cameras required saving installers time and end users money. ConteralP Omni LX is ideal for applications with normal to challenging lighting conditions. The Omni combines a day/night mechanical IR cut filter for the highest image quality at any time of day. For clear color images in low-light, NightView™ offers strong low-light sensitivity for capturing details in extremely poor-lit scenes. Power can be supplied via a single PoE+ (802.3at) compliant network cable or via a 12–48V DC/24V AC power supply.

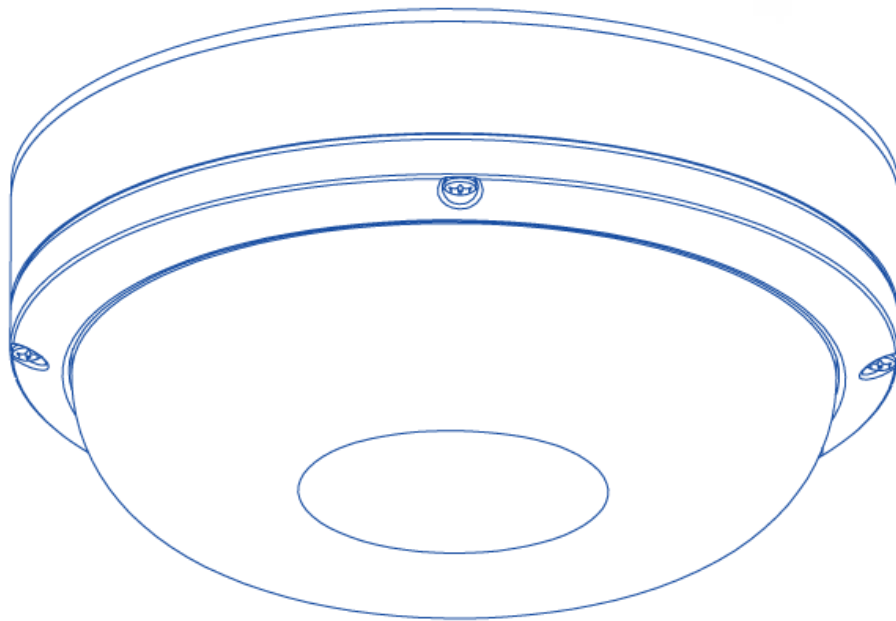
ConteralP Omni LX is designed for demanding environments. Certified to rigorous dust and water tests, the camera carries an IP66 rating. The rugged dome housing is IK-10 rated to withstand the equivalent of 55kg (120lbs) of force for vandal-prone applications.

AV Costar was the first to bring H.264 to the mainstream market and recently developed SNAPstream™ (Smart Noise Adaptation and Processing) technology for reducing bandwidth without impacting image quality. Today we are proud to offer our next generation H.265 with SNAPstream+™ smart codec capable of delivering high quality video while saving over 50% of the data rate to reduce or prevent strain on the network. The ConteralP Omni LX is ONVIF (Open Network Video Interface Forum) Profile S, G, and T compliant, providing interoperability between network video products regardless of manufacturer.

Package Contents

- AV8576DN-28 / AV20576DN-28

Description	QTY
AV8576DN-28 / AV20576DN-28 IP camera	1
Mounting Template	1
Accessory Pack	1



Installation

Accessories

AV Costar offers various mounting solutions for the ConteralP Omni LX series of cameras that provide wall, pendant, and corner mounting options. Please visit the camera models' webpage on www.avcostar.com or contact your local sales representative for information on all accessories.

Model Number	Description
AV-1AK	Audio Cable Kit
AV-CRMA-W	Corner Mount Adapter (AV Costar White)
AV-EBAR-W	Electrical Box Adapter (AV Costar White)
AV-PMA-W	Pole Mount Adapter (AV Costar White)
AV-PMJB-W	Pendant Mount Bracket with Standard Junction Box (AV Costar White) (Fits Cap 1.5" NPT, Box Fits 3/4" NPT)
AV-WMJB-W	Wall Mount Bracket with Standard Junction Box (AV Costar White) (Fits Cap 1.5" NPT, Box Fits 3/4" NPT)
SO-CAP-W	Mounting Cap for ConteralP Omni LX (AV Costar White)
SO-FMA	ConteralP Omni LX Flush Mount Adapter (White)

Surface Mount

The ConteraIP Omni LX 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.
3. Do not remove screws from the dome cover.

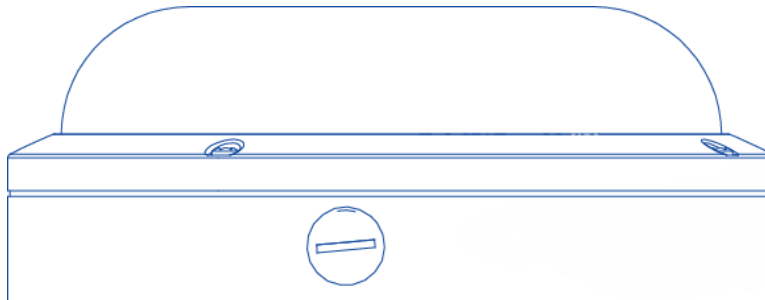
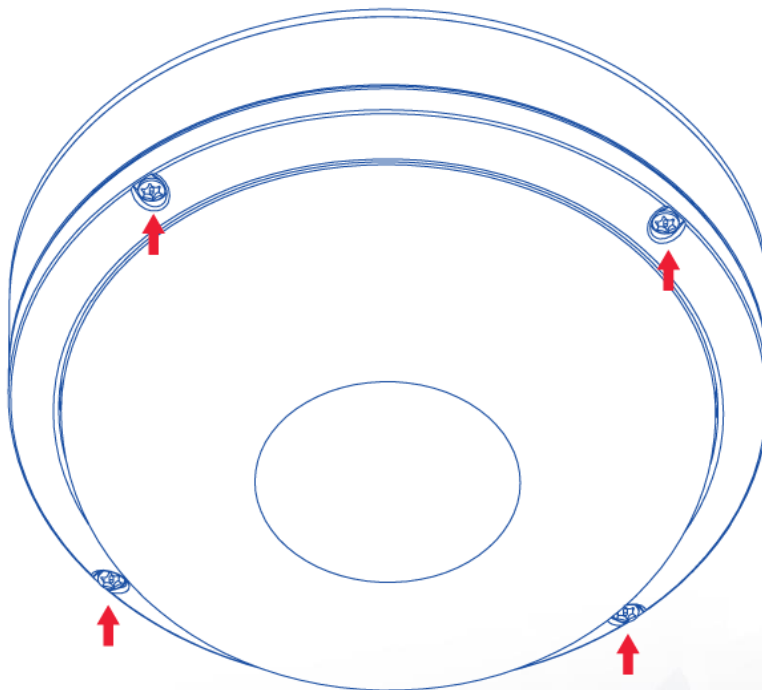


Figure 1: Remove four (4) tamper resistant screws

4. Remove the dome cover and set aside. Remove the protective foam and discard.



If mounting the camera outside or in a wet environment, thread the camera cable through the hole on the supplied rubber gasket and align with the three holes on the top of the housing. Ensure the gasket is properly seated flush with the camera housing.

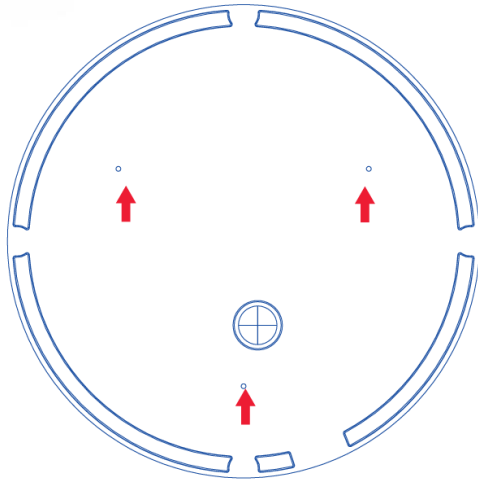
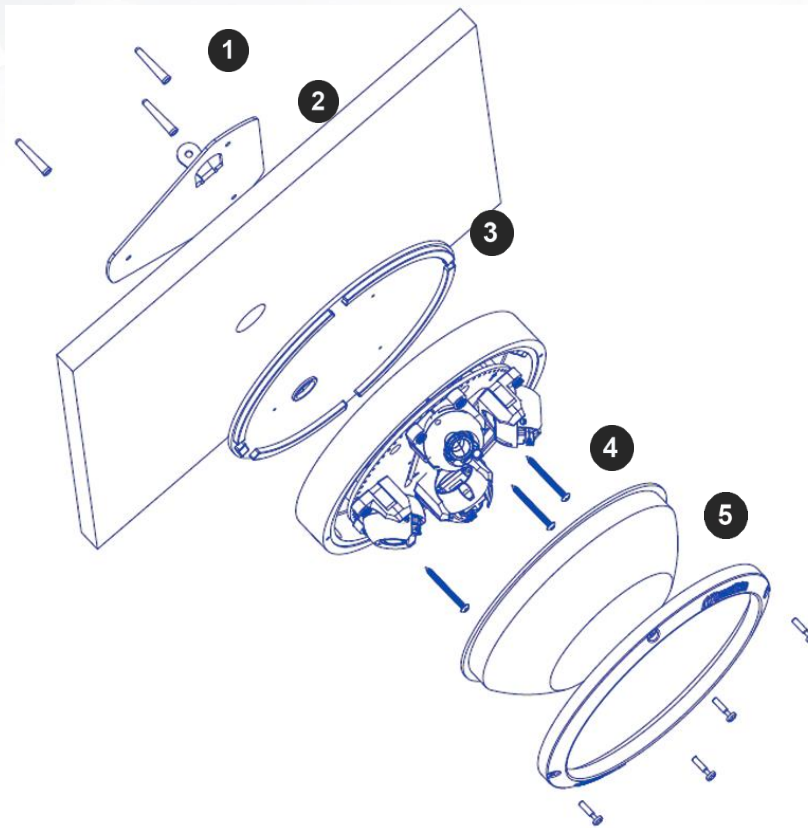


Figure 2: Mount the Surface mount to the wall or ceiling using the three holes on the housing

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

Using the three holes on the top of the camera housing, use the supplied screws and attach to the mounting surface.



Reference #	Description
1	Install 3 supplied dry wall anchors using the supplied mounting template
2	Attach supplied (optional) tether plate
3	Attach supplied rubber gasket to the camera housing by threading the camera cable through the hole in the gasket (ensure the gasket is seated properly)
4	Align 3 supplied screws with the dry wall anchors and screw camera into place
5	Attach the dome cover, ensuring the rubber gasket is properly seated, with the tamper resistant screws

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

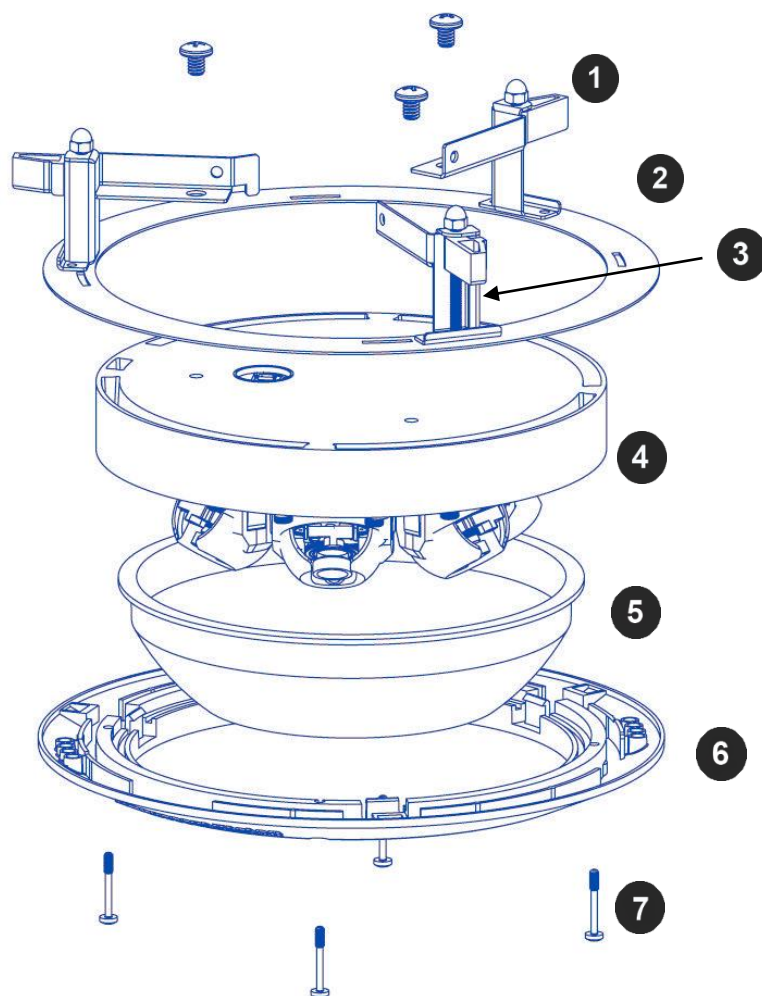


CAUTION! The captive screws must be used to properly secure the dome cover and camera housing. Failure to use the captive fastener may result in serious injury. When mounting the dome cover to the camera housing, ensure that the gasket is properly seated and not folded. Failure to do so may result in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

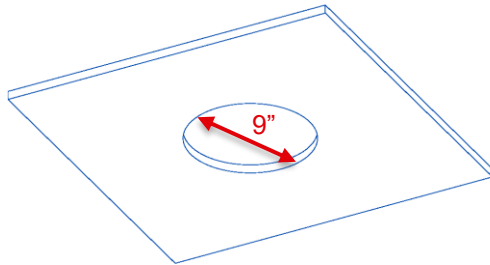
In-ceiling Mount / Flush Mount

To properly flush mount the ConteraIP Omni LX to a drop ceiling or similar surface, a flush mount adapter kit (SO-FMA) is required (sold separately).

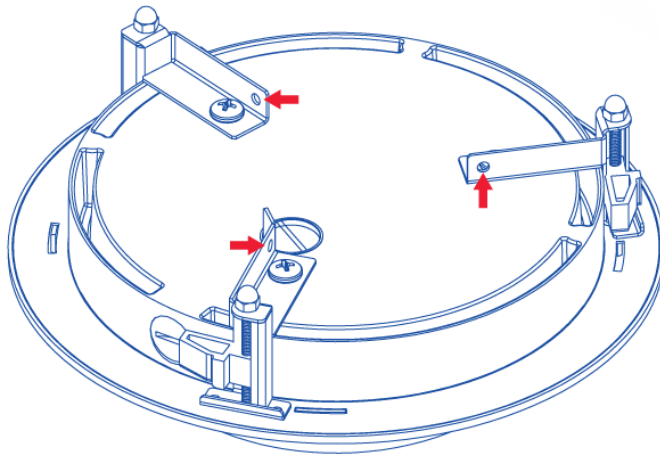
Reference #	Flush Mount Components Required
1	SO-FMA flange plate support arm
2	SO-FMA flush mount bracket assembly
3	Lever screw
4	ConteraIP® Omni LX camera
5	Bubble (without gasket)
6	SO-FMA trim ring
7	Trim ring screws



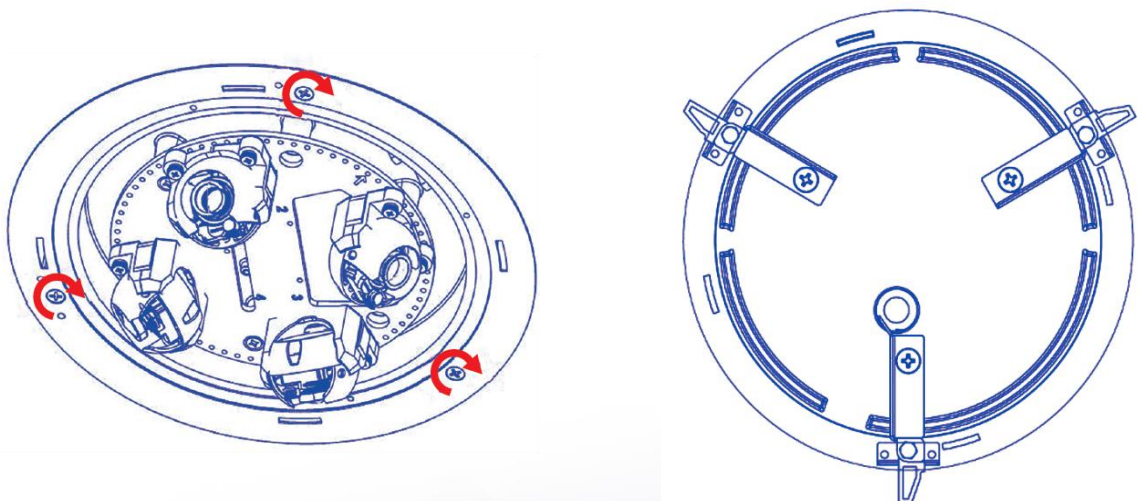
1. Cut a 9" diameter hole in the ceiling with the provided template.



2. Remove existing Dome cover from Omni LX camera and remove gasket from Bubble.
3. Attach Flush mount bracket assembly to Omni LX camera as shown and fasten a safety cable to one of the 3 holes in the bracket assembly. (Cable not supplied.)



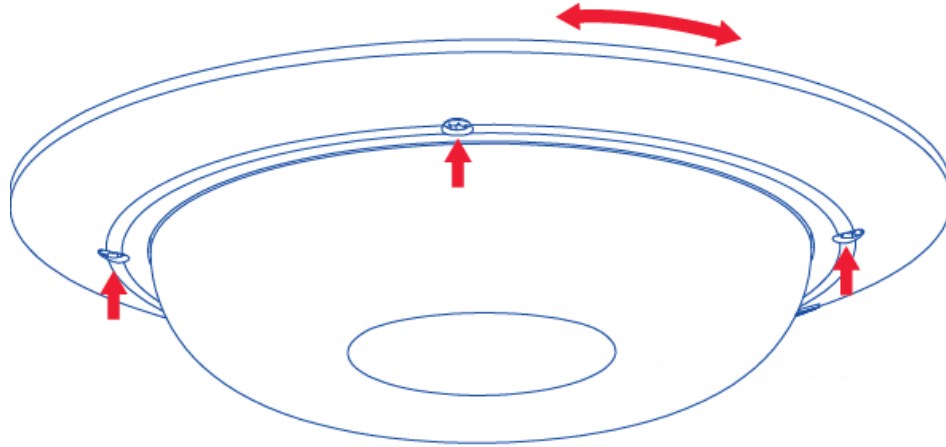
4. Insert housing assembly into ceiling hole and tighten the lever screws until the flush mount is snugly installed.



5. The “Support Arm” will ride down the screw to compress the mounting surface.

NOTE: Do not over-torque the lever screws

6. Snap bubble (without gasket) into flush mount trim ring.
7. Attach the trim ring to the flush mount adapter by rotating until it magnetically snaps in place. And then tighten four trim ring screws.



8. To configure the camera, reference the set-up section.

Pendant Mount

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

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

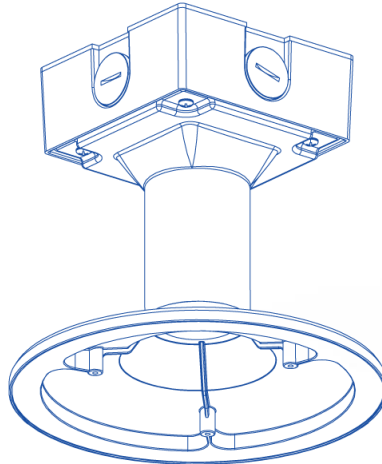


Figure 1: Attach the mount cap and pendant mount

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.

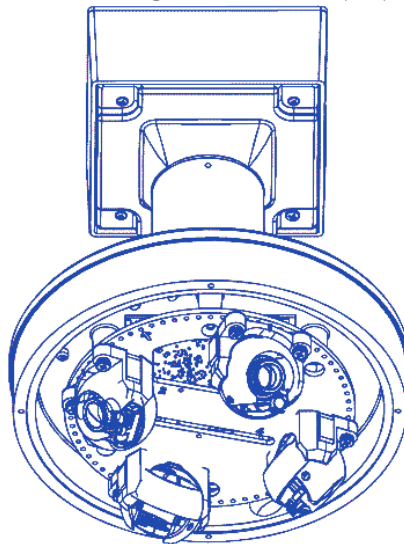


Figure 2: Attach the camera to the SO-CAP-W with the supplied screws

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

Wall Mount

For a proper wall mount installation, the AV-WMJB-W wall mount and SO-CAP-W 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.

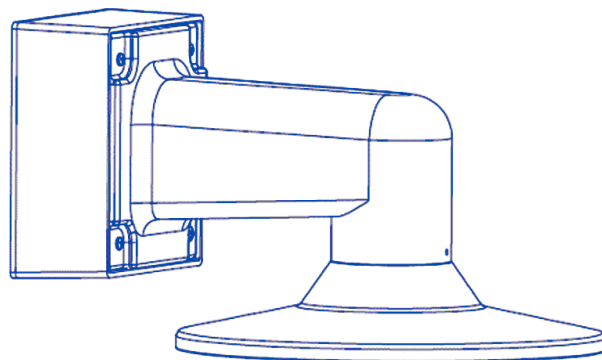


Figure 1: Attach wall mount cap to the wall mount

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

3. Run 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.
4. Attach the wall mount to the wall using drywall screws or any optional hardware suitable for the mounting surface.

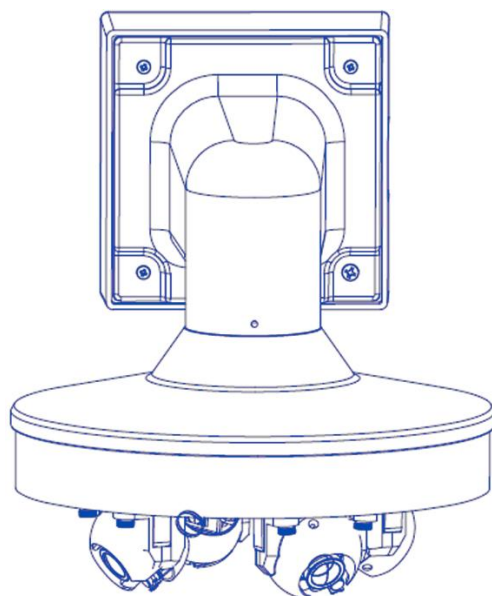


Figure 2: Attach the camera to the SO-CAP-W with the supplied screws

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

Pole Mount

For a pole mount installation, the AV-WMJB-W wall mount, AV-PMA-W pole mount, and SO-CAP-W 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 AV-JBA-W (Junction Box Adapter) to the Pole Mount Adapter (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).

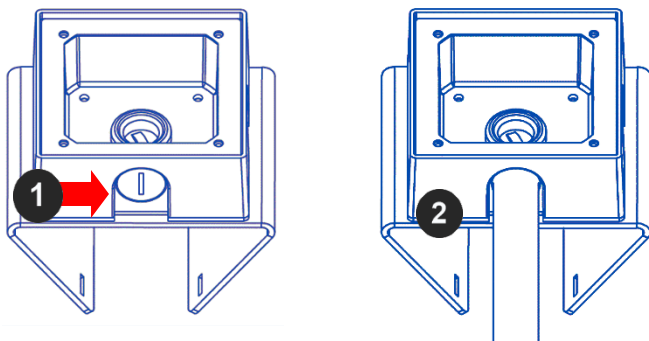


Figure 1: Attach conduit to AV-JBA-W junction box adapter

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-W, Wall Mount Adapter. Ensure the gasket is seated properly.
6. Attach the Wall Mount Adapter (AV-WMJB-W) with mount cap (SO-CAP-W) to the Pole Mount Adapter (AV-PMA-W) as shown in Figure 2.

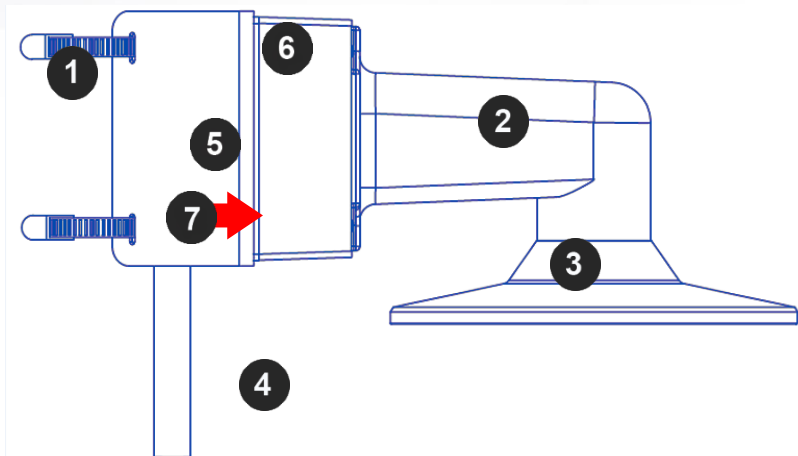


Figure 2: Attach wall mount adapter to pole mount adapter

Reference #	Description
1	Steel straps with compression screws
2	AV-WMJB-W wall mount
3	SO-CAP-W mount cap
4	Conduit
5	AV-PMA-W pole mount
6	AV-JBA-W Junction box
7	Apply Teflon water seal tape to the thread of ¾" 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. Attach the camera to the Wall Mount Adapter.
9. To configure the camera, reference the camera discovery, set-up and configuration section.

Corner Mount

For a corner mount installation, the AV-WMJB-W wall mount, AV-CRMA-W corner mount, and SO-CAP-W 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 AV-JBA-W (Junction Box Adapter) to the Pole Mount Adapter (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).

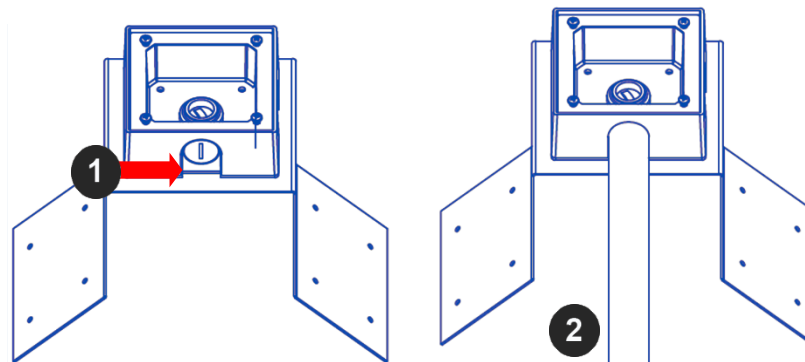


Figure 1: Attach conduit to AV-JBA-W junction box adapter

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-W, Wall Mount Adapter. Ensure the gasket is seated properly.
6. Attach the Wall Mount Adapter (AV-WMJB-W) with mount cap (SO-CAP-W) to the Corner Mount Adapter (AV-CRMA-W) as shown in Figure 2.

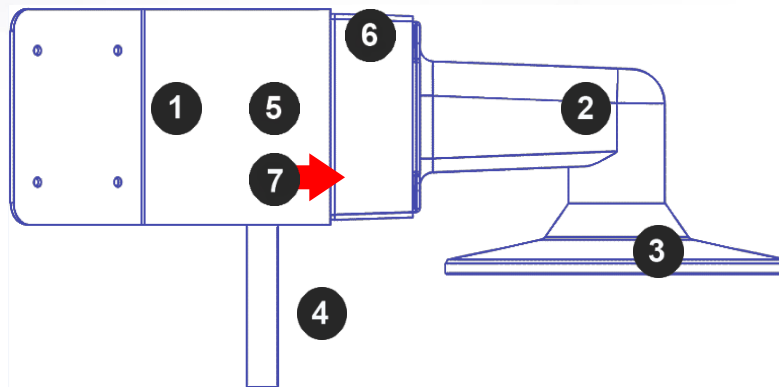


Figure 2: Attach corner mount adapter to exterior corner wall

Reference #	Description
1	Attach corner mount adapter to exterior 90° corner wall
2	AV-WMJB-W wall mount
3	SO-CAP-W mount cap
4	Conduit
5	AV-CRMA-W corner mount adapter
6	AV-JBA-W Junction box
7	Apply Teflon water seal tape to the thread of ¾" NPT pipe to avoid water leakage

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

Electrical Box Adapter

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

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

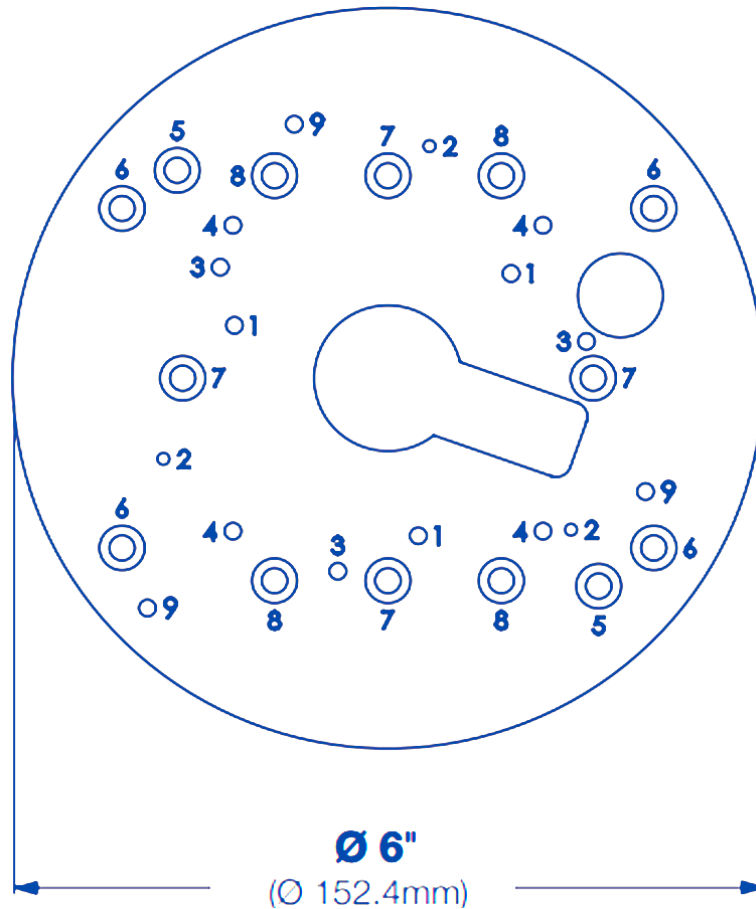


Figure 1: Attach AV-EBAR-W adapter to common electrical box

Reference	Description
5	4S box
6	4-11/16" square box
7	Single gang box
8	Double gang box
9	ConteraIP Omni LX Series

Camera Power Up

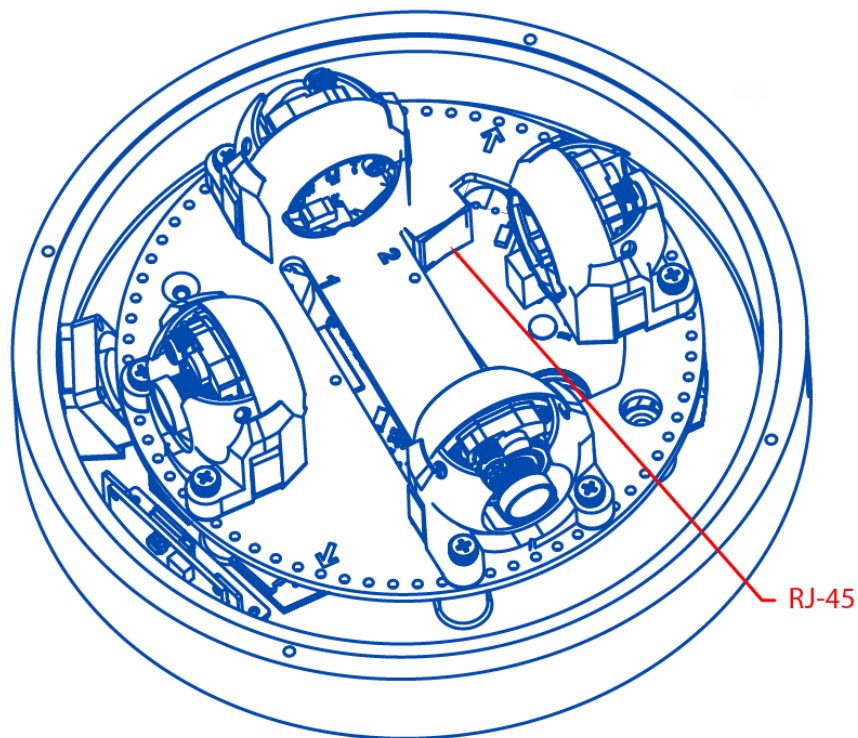


CAUTION! This product should be installed by a qualified service technician in accordance with the National Electrical Code (NEC 800 CC Section 60) or applicable local code. Wiring methods should be in accordance with the National Electrical Code/NFPA 70/ANSI, also with all local codes and authorities having jurisdiction. Wiring should be UL Listed and/or Recognized wire suitable for the application.

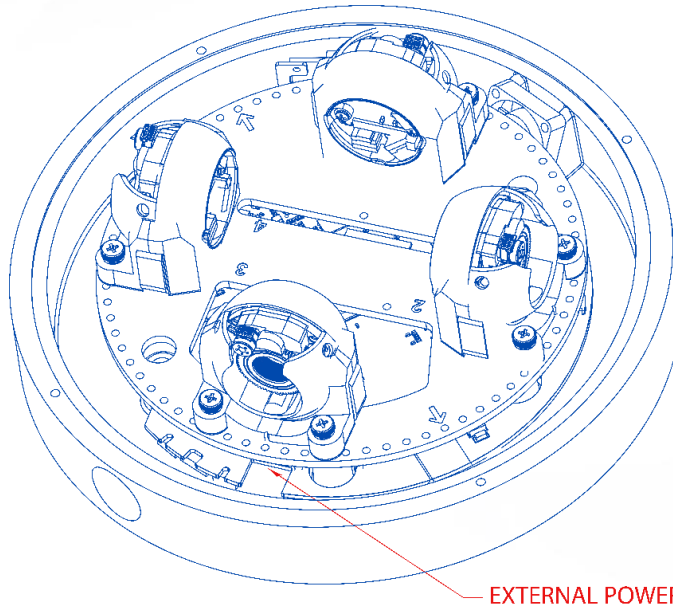


CAUTION! Make the connections inside a watertight compartment. Isolate unused power wires individually. After connections are made, ensure that the watertight compartment is tightly closed and cables and conduits are properly sealed to prevent ingress of water.

1. Connect the camera to a PoE+ port on 1000Mbps network PoE+ switch using an Ethernet cable.

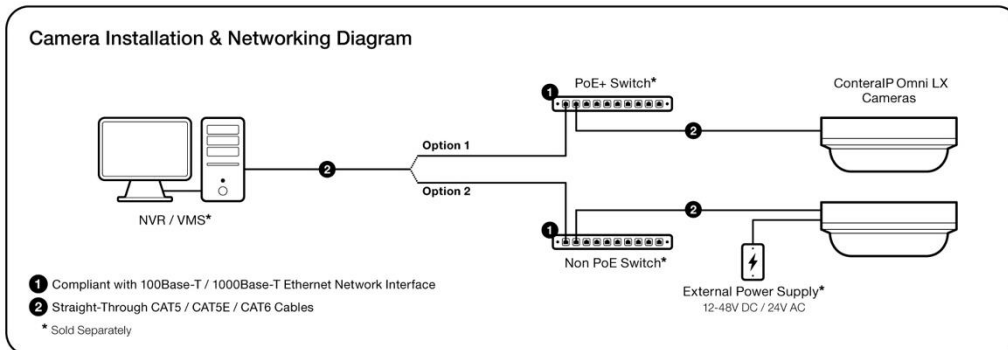


- If the camera is powered by an external power supply 12-48V DC or 24V AC must be supplied.



Connect the PoE+ switch to your computer's network port by using an ethernet cable.

LED	Status	Description
Green	Quick Flashing	Link has been established
	Slow Flashing	Normal operation
None	None	No connection



NOTE: This product is intended to be supplied by a Listed Power Adapter or DC power source, rated (1) 24VAC, 50/60Hz, (Max.14W); (2) 12-48VDC, (Max.14W); (3) 42.5-57V DC, (Max. 14W) for PoE+, Tma = 50°C, and the altitude of operation = 2000m. For assistance with purchasing the power source, please contact AV Costar for further information. Ensure the power cord connection of the power adapter at the socket-outlet provides an earthing connection.

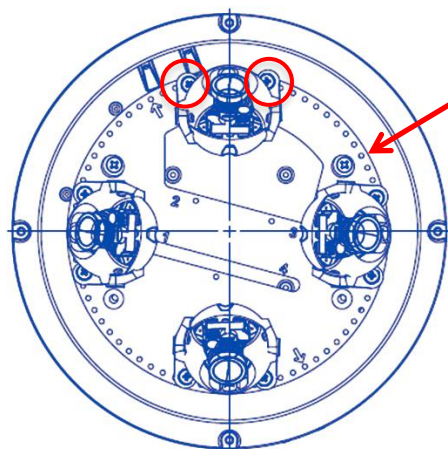
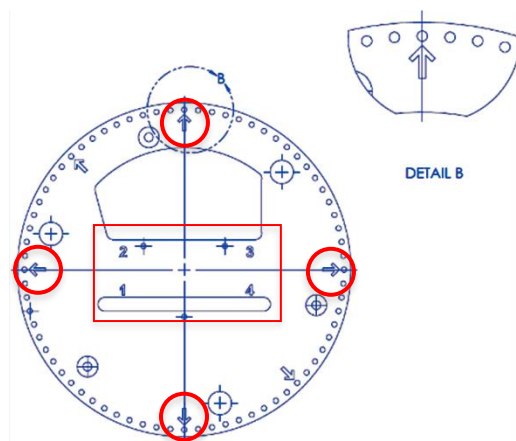
Setting up the Cameras

The ConteraIP Omni LX is user configurable. Prior to installing the camera, thought should be given to the sensor positions. It is always easier to make adjustments before the camera is installed.

The camera lenses are shipped in a 360° position as shown below (Figure 2). To customize the sensors, simply remove the two screws for each individual sensor, position anywhere on the magnetic track and then screw into place. Screw holes around the circumference are spaced in 5 degree increments. The arrows marked on the track plate are 45 degree reference points (Figure 1).

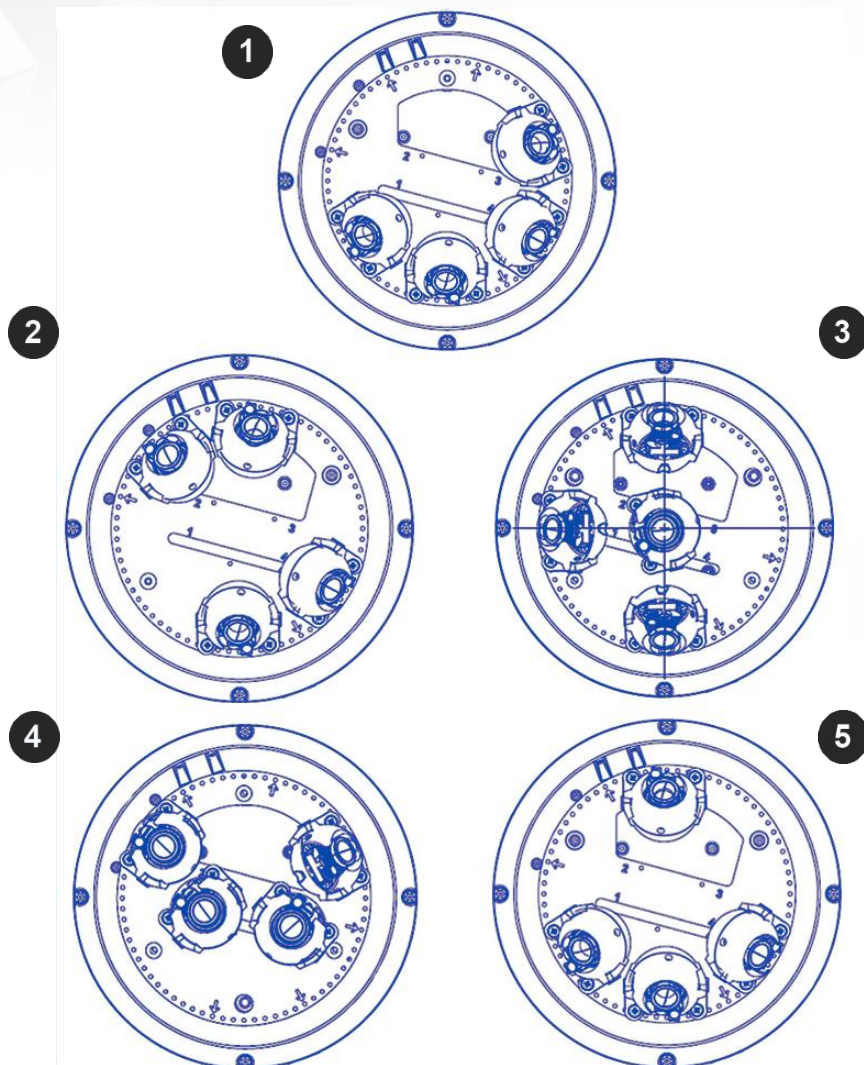
Sensor numbering is indicated on the track plate, which corresponds to the sensor number via the camera software (Figure 1). The slots on the track plate provide additional adjustment of the camera after installation. Simply loosen the three screws to rotate the plate then tighten the three screws after alignment. This feature is most useful for repositioning the cameras mounted to the center locations after the camera installation.

Figure 1: Arrows on the track plate indicate 45° increments



Each hole on the track represents a 5° increment.

Figure 2: 360° configuration (ideal for hallways)



Reference #	Description
1	180° configuration
2	Random configuration
3	270° configuration
4	Assembly line configuration
5	Random configuration

Aligning the Cameras

Properly aligning each camera is essential during setup. Each camera must be placed in a clockwise sequence on the circumference of the track to ensure proper viewing of each camera.

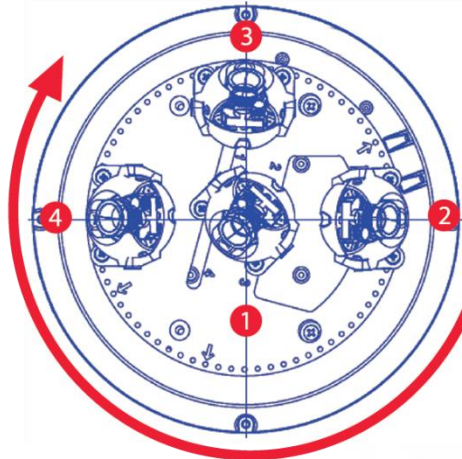
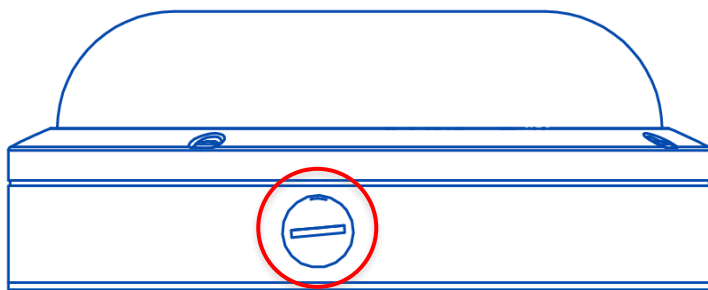


Figure 1: Place cameras in clockwise position on the track

Reference #	Description
1	Sensor 1
2	Sensor 2
3	Sensor 3
4	Sensor 4

When positioning the sensors, ensure the conduit mounting hole does not obstruct the cable when positioning the sensor.



Adjusting the Pan, Tilt and Focus

1. Remove the dome cover by loosening the captive fasteners with the supplied Philips head screwdriver.
2. Power on the camera to adjust the pan, tilt and focus.

NOTE: Ensure not to press the remote focus motor against the sides of the camera module when adjusting the field of view (Figure 1).

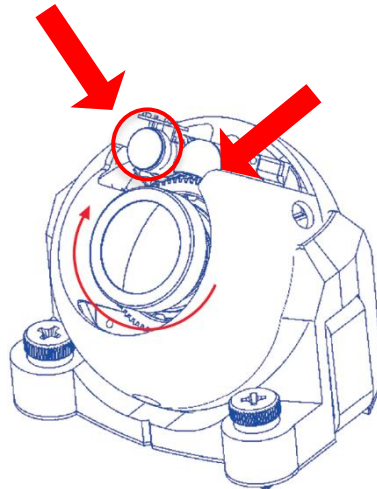
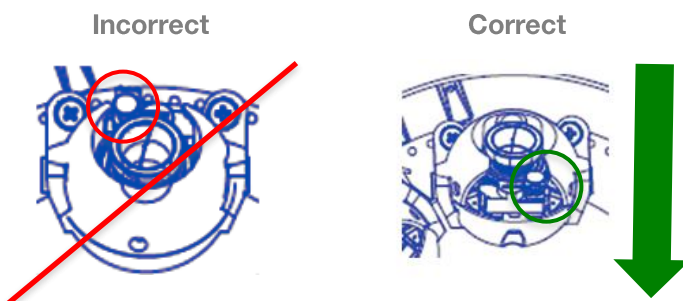


Figure 1: Remote focus motor

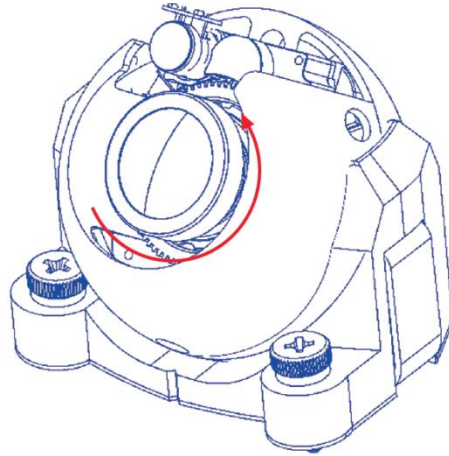
3. To adjust the focus, see the Focus Section of this manual.

NOTE: Positioning the lens motor to close to the board may cause interference with the magnetic Omni track. Ensure each lens motor is positioned away from the board.



Changing the Lens

1. Remove the dome cover by loosening the captive fasteners with the supplied L-key.
2. Manually unscrew the lens counterclockwise, this may take several seconds.



3. Screw the replacement lens clockwise until you feel some resistance and hit a hard stop.

Lens Options

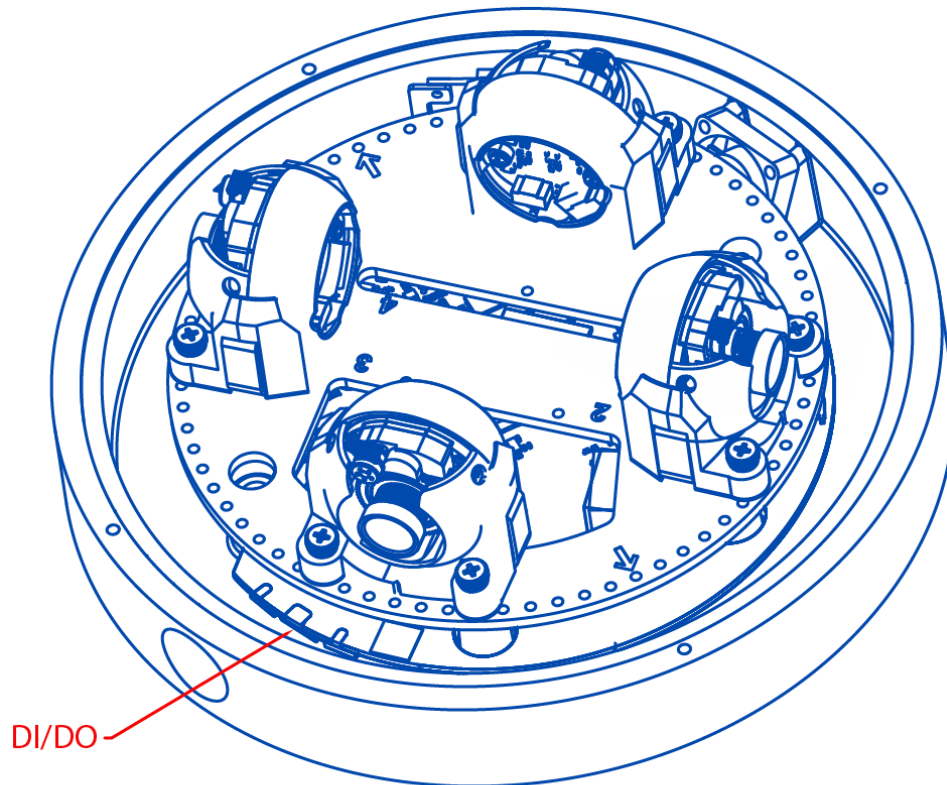
NOTE: Spacers are required for some lens options. See table below.

Lens Part Number	Description	Numbers of Spacers Needed
MPM2.4	2.4mm	0
MPM2.8C¹	2.8mm	0
MPM4.0A	4mm	2
MPM6.0	6mm	2
MPM8.0	8mm	2
MPM12.0A	12mm	2
MPM16.0	16mm	1

1. Standard Lens



Alarm I/O Functions



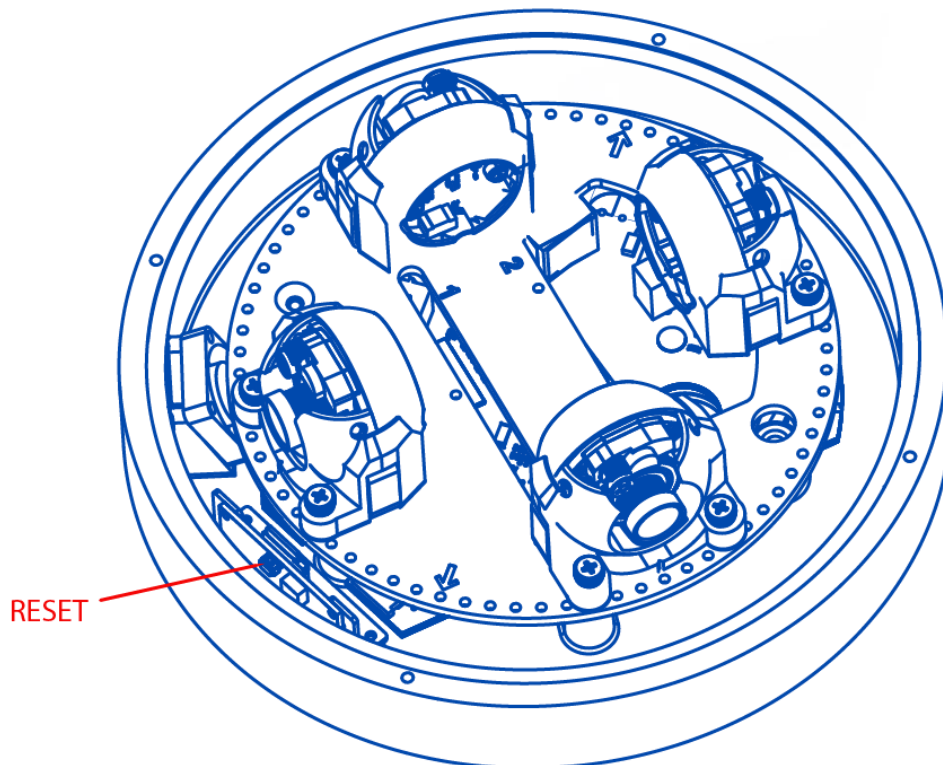
Connect the Alarm In (DI) connector to the alarm input sensor, and then connect the Alarm Out (DO) connector to the alarm output signal.

To avoid any damage, please follow the specification of the part as below:

Alarm In (Wet Contact)		Alarm Out (Wet Contact)	
3.5-12 VDC	50mA (max)	0-30 VDC	50mA (max)

Reset to Factory Default

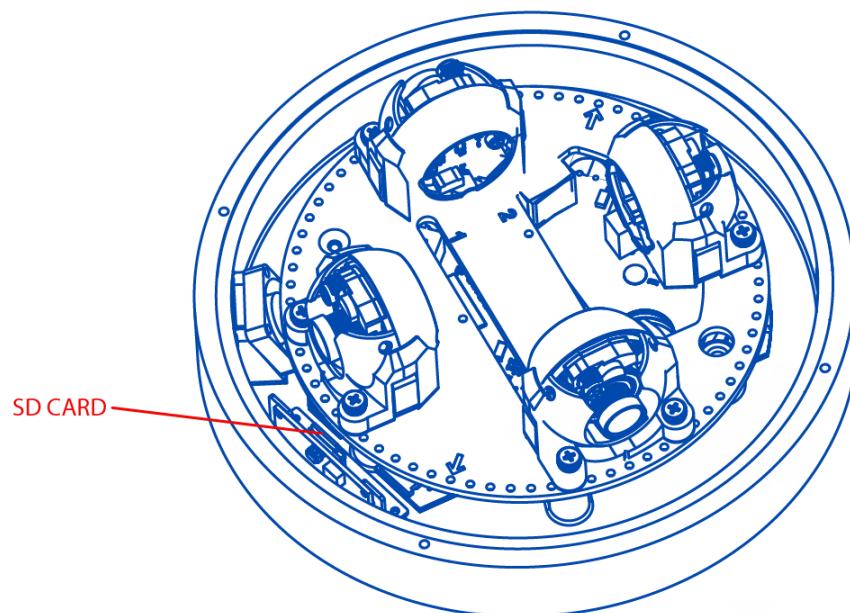
1. Press and hold the reset button for 2 to 5 seconds, then release the reset button. This resets the camera to the factory default except for the network settings.
2. Press and hold the reset button for more than 5 seconds, then release the reset button.
3. This resets the camera to the factory default, and this resets the network settings to the factory default.



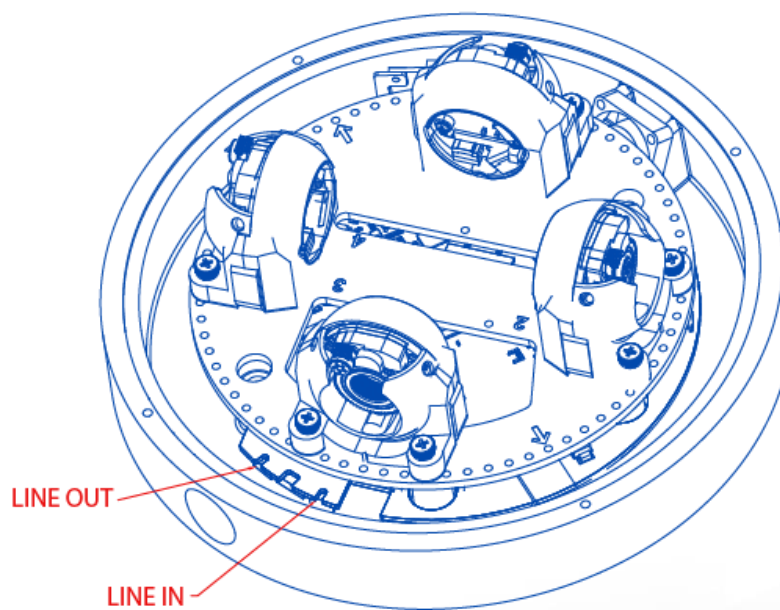
4. The user can also reset the camera to factory default via the camera web interface or the AV Costar Utility.

Audio/SD Card Info

- SD Card Slot



- Audio Connector



Camera Discovery, Setup, and Configuration

AV Costar Utility is recommended for camera discovery and setup. Software can be found on the website of AV Costar <http://www.arecontvision.com/software.php>.

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

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

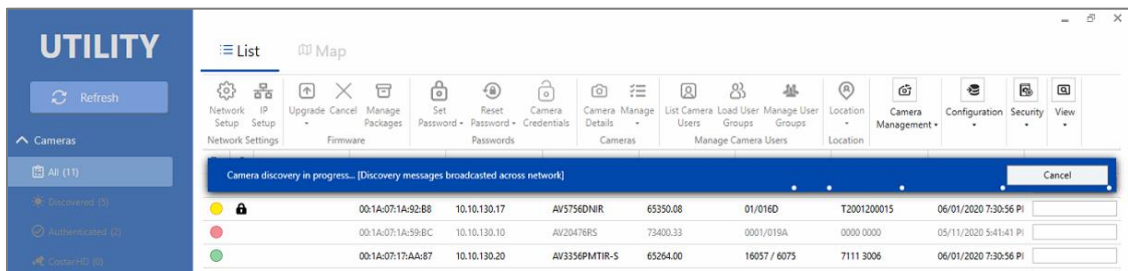
The AV Costar Utility version v3.1.2x+ tool is compatible with all AV Costar ConteralP cameras. The user manual for the software is available on our website.

Camera Discovery

1. Locate and double click Costar Utility shortcut on the desktop and login.



2. When the Costar Camera Utility is launched, it will automatically search the network for AV Costar and CostarHD cameras on the network and over a time interval. You can also manually search cameras by clicking the “Refresh” button.



3. You can access the camera web user interface by typing the camera IP address on the preferred web browser.



4. If there is no DHCP server present in the network, the camera will default to the following IP Address “192.168.1.168”.

NOTE: A password must be entered before the camera can be used. To choose a password, visit the camera’s webpage or use the configuration utility.



INITIAL PASSWORD SETUP

Prior to accessing this device for the first time a unique admin password must be created:

User Name: **admin**

Password:

Confirm Password:

Prior to accessing this device for the first time a unique admin password must be created

Web Interface Navigation



AV20576DN
Firmware: 65431
MAC: 00-1a-07-1a-a2-67

Focus Image Video & Audio Network Privacy Mask Event System Administration Support

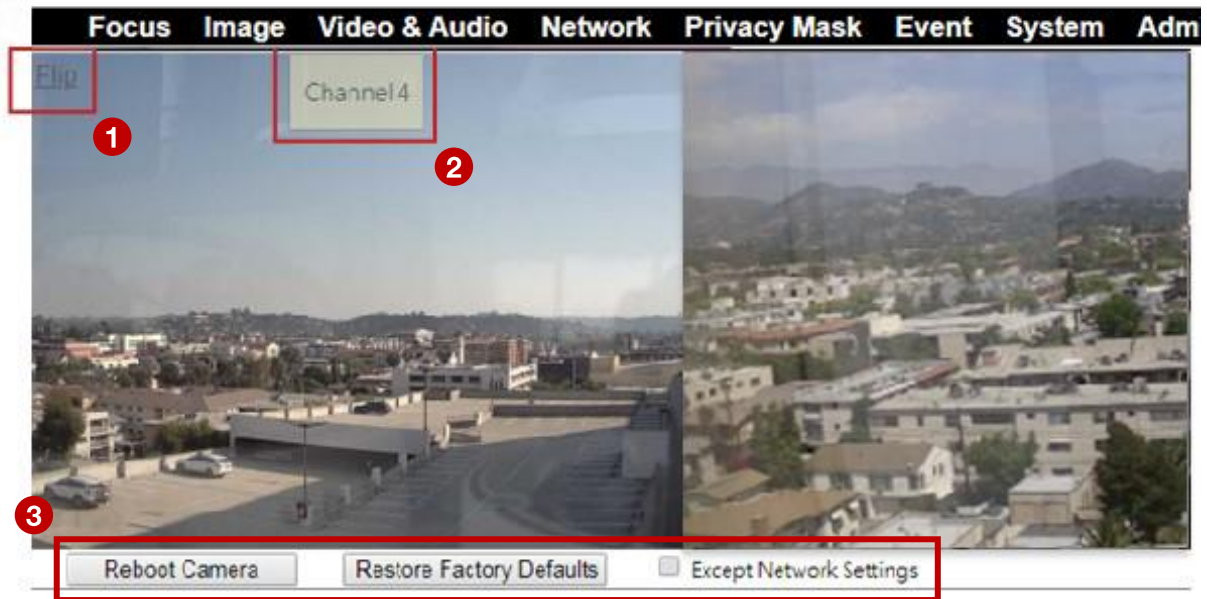
The entire menu is located on the top of the web interface.

The following camera settings are available on the top of the menu in the web interface, and the user will be directed to the page that they click on the menu.

- **Focus**
 - Select Channel
 - Focus
- **Image**
 - Basic
 - Channel
 - Picture (Basic Image Settings)
 - Misc (AE Mode/AWB Mode)
 - WDR (Wide Dynamic Range) Mode
 - Day/Night Mode
 - Lighting Compensation Frequency
 - OSD (On-Screen Display)
 - General Setting
 - Text Overlay
 - ROI (Regions of Interest)
- **Video & Audio**
 - Codec
 - Channel
 - Main Stream Configuration
 - Sub Stream Configuration
 - Third Stream Configuration
 - Audio
- **Network**
 - Basic
 - IP Assignment
 - Ports
 - DNS
 - IPv6 Settings
 - QoS (Quality of Service)
 - UPnP (Universal Plug and Play)
 - RTSP (Real Time Streaming Protocol)
 - DDNS (Dynamic DNS)
 - SNMP (Simple Network Management Protocol)
 - SSL (Secure Sockets Layer)

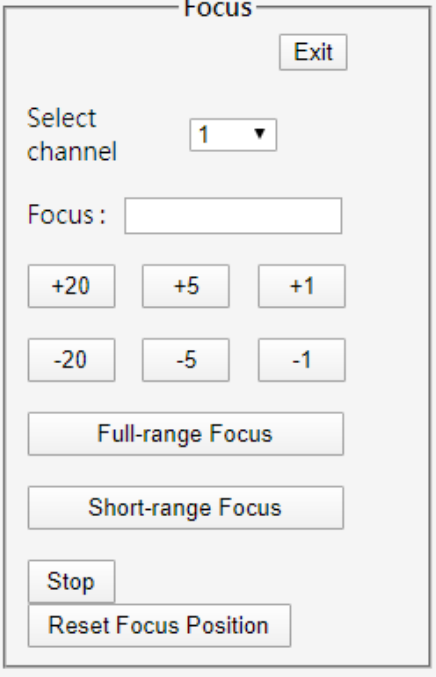
- FTP (File Transfer Protocol)
- 802.1x
- LDAP
- **Privacy Mask**
- **Event**
 - Motion Detection
 - Alarm Handler
 - Digital I/O
 - Tamper Detection
 - Network Failure
 - SD Card
 - FTP Upload
 - SMTP (Simple Mail Transfer Protocol) Notification
 - Network Storage
- **System**
 - Maintenance
 - Camera Information
 - Camera Name
 - Firmware Upgrade
 - Download Log
 - Configuration Management
 - Reboot the Camera
 - Restore Settings
 - Date/Time
- **Administration**
 - Administrator settings
 - Viewer Management
- **Support**

AVCOSTAR™



1. In the upper left-hand corner, there is a Flip button that allows you to rotate images up-side-down (180 degrees) with reorienting the channel order.
2. You will be able to see the Channel number when you move the mouse over the image of the channel.
3. You will be able to reboot or restore the camera to factory default on Live View page.

Focus

Menu	Feature	Description
	Select Channel	Number indicates the level of focusing in order to adjust the field-of-view. NOTE: For supporting H.264 streaming on a webpage, the recommended browsers are Internet Explorer and Firefox.
	Manual Focus: +20, +5, +1, -20, -5, -1	Number indicate the level of focusing in order to adjust the field-of-view.
	Full-range Focus	Full-range Focus button. The camera begins to autofocus with the lens stopping at the best overall point of focus.
	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.
	Reset Focus Position	Resets Focus lens groups to zero position.

Image



AV20576DN
Firmware: 65431
MAC: 00-1a-07-1a-a2-67

Focus **Image** Video & Audio Network Privacy Mask Event System Administration Support

Menu	Feature	Description
<p>Channel</p> <p>Select channel: <input type="text" value="1"/> <input type="button" value="Sync All Channels"/></p>	Select Channel	Select desired channel, 1-4. Click Sync All Channels to apply settings to all four channels.
<p>Picture</p> <p>Brightness (-50...50) <input type="text" value="0"/> <input type="button" value="Set"/></p> <p>Sharpness (0...4) <input type="text" value="2"/> <input type="button" value="Set"/></p> <p>Saturation (0...6) <input type="text" value="3"/> <input type="button" value="Set"/></p> <p>Contrast (0...100) <input type="text" value="50"/> <input type="button" value="Set"/></p> <p>Hue (0...100) <input type="text" value="50"/> <input type="button" value="Set"/></p>	Brightness	Controls the overall brightness of the camera image and works in conjunction with the exposure controls to maintain the image brightness.
	Sharpness	Controls sharpness and edge definition of the image. Setting this to lower levels may make the overall image appear a bit softer while causing lines and edges in the image to look smoother.
	Saturation	Controls the color saturation of the image.
	Contrast	Manually controls Gamma level (affects the overall luminance of the image).
	Hue	Configures the overall hue of the image with a range of 0 ~ 100. Increasing the value will adjust the image hue towards red. Decreasing the value will adjust the image hue towards blue.
<p>Misc</p> <p><input type="checkbox"/> Rotate</p> <p><input type="checkbox"/> Sync Brightness</p> <p>AE Mode: <input type="text" value="Auto"/></p> <p>AWB Mode: <input type="text" value="Auto"/></p>	Rotate	Enable the image rotation on each channel.
	Sync Brightness	Sync Brightness is selected, the Exposure Time Control and Gain Control are the same for all four channels.
	AE Mode (Auto Exposure Mode)	<p>Lock: This option locks the exposure settings to the current values.</p> <p>Auto: If Auto is selected, each channel has individual settings of the Exposure Time Control and Gain Control.</p> <p>NOTE: When AE mode is set to "Lock" the camera will not update for new lighting conditions.</p>

<p>Misc</p> <p><input type="checkbox"/> Rotate</p> <p><input type="checkbox"/> Sync Brightness</p> <p>AE Mode: <input type="text" value="Auto"/></p> <p>AWB Mode: <input type="text" value="Auto"/></p>	<p>AWB Mode (Auto White Balance Mode)</p>	<p>Auto: Enables the automatic white balance feature of camera, which will automatically remove unrealistic color cast so that the color white is rendered white in the image.</p> <p>Off: Select Off to disable AWB Mode.</p>
<p>WDR Mode</p> <p><input type="radio"/> Auto</p> <p><input checked="" type="radio"/> LDR</p> <p>Auto Exposure Mode</p> <p>Stream Profiles</p> <p><input checked="" type="radio"/> Balanced Mode <input checked="" type="checkbox"/> Slow Shutter</p> <p><input type="radio"/> Quality Mode</p> <p><input type="radio"/> Moonlight Mode</p> <p><input type="radio"/> Custom Exposure Mode</p> <p>Short exposures(1~80) <input type="text" value="33"/> <input type="button" value="Set"/></p>	<p>Auto</p>	<p>Enhances the dark areas by adjusting the gamma value.</p>
	<p>LDR</p>	<p>Will not combine long and short exposures into one frame, resulting in better low light performance.</p>
	<p>Auto Exposure Mode</p>	<p>Automatically adjusts illumination and exposure values.</p>
	<p>Stream Profiles: Balance Mode -Slow Shutter Quality Mode Moonlight Mode Custom Exposure Mode</p>	<p>Balanced Mode: Limits exposure time from 0.1ms to 66ms. The camera will keep highest FPS when Slow Shutter is unchecked.</p> <p>Quality Mode: Limits exposure time from 0.1ms to 200ms. This mode is a good compromise between reducing noise and motion blur under most lighting conditions, but with an increase in motion blur under low light conditions.</p> <p>Moonlight Mode: Limits exposure time from 20ms to 500ms. This mode produces the best image quality under very low light conditions with the least amount of image noise. The trade-off is low noise at the expense of high motion blur.</p> <p>Custom Exposure Mode: Enables manual setting of exposure time between 1 and 500ms. Shorter exposure times reduces motion blur for applications such as monitoring fast moving objects and reading license plates. The trade-off is an increased level of noise. It is recommended that this mode is used only when there is constant scene illumination sufficient enough to provide a quality image.</p>
<p>Lighting Compensation Frequency</p> <p><input type="radio"/> 50 Hz</p> <p><input checked="" type="radio"/> 60 Hz</p> <p><input type="radio"/> Custom</p> <p>Frequency (Hz)(5~255): <input type="text" value="60"/> <input type="button" value="Set"/></p>	<p>Lighting Compensation Frequency: 50Hz, 60Hz, Custom</p>	<p>Prevents flicker caused by the power line frequency of lighting. Choose 50Hz for Europe or China, and 60Hz for US or Japan. This parameter will have no effect when the dominant light is sunlight. Optionally, the user can select a frequency between 5Hz and 255Hz. It will be enabled when user selects "Custom."</p>

	<p>Day/Night Mode: Automatic Day Night Schedule Day Mode</p>	<p>Automatic: Enables the camera to automatically switch from day mode to night mode. User can define the switching level from Day to Night or Night to Day. Day: Forces the camera to stay in day mode. Night: Forces the camera to stay in night mode. Schedule Day Mode: User defined times that the camera remains in day mode.</p>
	<p>Camera Name</p>	<p>Specifies a name for the camera. The maximum name length is 32 characters.</p>
	<p>Font Border</p>	<p>Enables a border for the text overlay.</p>
	<p>Text Color</p>	<p>Options are Black, White, Green, or Yellow.</p>
	<p>Text Overlay: Off Date/Time Camera Name Camera Name + Date/Time Custom Text</p>	<p>There are four content positions (Top Left, Top Right, Bottom Left and Bottom Right) to display the text overlay. Date / Time: Displays the current date/time. It will force the camera to synchronize the date/time information. Camera Name: Displays the camera name you set. Camera Name + Date / Time: Displays both camera name and date/time information. Custom Text: Displays a customized text.</p>

<p>ROI Exit</p> <p>Select channel: 1 ▼</p> <p>* Create custom regions of interest by enabling zones below and selecting the desired quality level. Then create the ROI by dragging the mouse over the live image and press "Save Area" or "Del Area".</p> <p>Stream: Main Stream ▼</p> <p>ROI Zone 1: <input type="checkbox"/> Enable Medium ▼ Save Area Del Area</p> <p>ROI Zone 2: <input type="checkbox"/> Enable Medium ▼ Save Area Del Area</p> <p>ROI Zone 3: <input type="checkbox"/> Enable Medium ▼ Save Area Del Area</p> <p>ROI Zone 4: <input type="checkbox"/> Enable Medium ▼ Save Area Del Area</p> <p>ROI Zone 5: <input type="checkbox"/> Enable Medium ▼ Save Area Del Area</p>	<p>ROI (Regions of Interest)</p>	<p>ROI (Regions of Interest) is used to select which areas will be monitored and recorded with higher image quality while using lower image quality for other non-ROI zones in order to save bandwidth and storage.</p> <p>To setup the ROI:</p> <ol style="list-style-type: none"> 1. Select the desired channel 2. Select Main Stream or Sub Stream 3. Enable zones (up to five zones) and select the desired quality level (High, Medium, or Low) 4. Create the ROI by dragging the mouse over the live image 5. Press Save Area or Del Area
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Video & Audio



AV20576DN
Firmware: 65431
MAC: 00-1a-07-1a-a2-67

Focus Image **Video & Audio** Network Privacy Mask Event System Administration Support

Menu	Feature	Description
Channel Select channel: <input type="text" value="Sync All Channels"/>	Select channel	Select the desired channel to change video settings or select Sync All Channels to change video settings for all four channels at once.
Main Stream Codec: <input type="text" value="H.264"/> Resolution: <input type="text" value="2592x1944"/> <input type="checkbox"/> Enable SNAPstream+™ <input type="radio"/> Variable Bitrate <input checked="" type="radio"/> Maximum Bitrate Rate Limit (128-8000 kbps): <input type="text" value="4000"/> H.264 Quality (1...10): <input type="text" value="3"/> <small>* 10 - lowest quality, 1 - highest quality</small> <input type="radio"/> Constant Bitrate (512-8000 kbps): <input type="text" value="0"/> Frames Per Seconds (1~15): <input type="text" value="15"/> GOP Length (1~120): <input type="text" value="15"/>	Codec: H.265 / H.264	Selects H.264 or H.265 encoding
	Resolution	Selects the desired stream resolution
	Enable SNAPstream+™	Enable the SNAPstream+™ feature on the camera. This feature utilizes both Smart GOP and Smart ROI to reduce bitrate without impacting the image quality. Smart GOP sets GOP to automatically increase when no moving objects are detected. Smart ROI will increase the bitrate of moving objects and make them clearer.
	Variable Bitrate	Maintains the quality settings configured. There may be variation in the bit rate output from the camera when using this mode.
	Maximum Bitrate	Maintains variable bit rate control and maintains the bitrate under the rate limit you choose. It can be set from 128 kbps to 8000 kbps.
	H.264 Quality	H.264 image quality setting for variable bit rate control. Setting a lower value results in higher image quality or setting a higher value results in lower image quality.
	Frames Per Seconds	Frame rate adjustment for the camera video stream.
	GOP Length	Specifies how many frames exist between two consecutive I-Frames.
Sub Stream Codec: <input type="text" value="H.264"/> Resolution: <input type="text" value="1296x972"/> <input type="checkbox"/> Enable SNAPstream+™ <input type="radio"/> Variable Bitrate <input checked="" type="radio"/> Maximum Bitrate Rate Limit (128-8000 kbps): <input type="text" value="4000"/> H.264 Quality (1...10): <input type="text" value="3"/> <small>* 10 - lowest quality, 1 - highest quality</small> <input type="radio"/> Constant Bitrate (512-8000 kbps): <input type="text" value="0"/> Frames Per Seconds (1~15): <input type="text" value="15"/> GOP Length (1~120): <input type="text" value="15"/>		

<p>Third Stream</p> <p>Codec: <input type="text" value="MJPEG"/></p> <p>Resolution: <input type="text" value="640x480"/></p> <p>Quality: <input type="text" value="Middle"/></p> <p>Frame Rate (0~30): <input type="text" value="5"/></p>	<p>Video Compression: MPJEG</p>	<p>The third stream is designed for the live view on web interface, and the only option of Video Compression is MPJEG.</p>
	<p>Resolution</p>	<p>The third stream is designed for the live view on web interface, and the only option for Resolution is VGA.</p>
	<p>Quality: Low / Middle / High</p>	<p>Adjusts the compression level for JPEG images</p>
	<p>Frame Rate</p>	<p>Frame rate adjustment for the camera video stream.</p>
<p>Codec Audio E</p> <p>Audio Configuration</p> <p>Audio In:</p> <p><input checked="" type="radio"/> Enable <input type="radio"/> Disable</p> <p>Audio In Volume: <input type="text" value="Mid"/></p> <p>Audio Out:</p> <p><input checked="" type="radio"/> Enable <input type="radio"/> Disable</p> <p>Audio Out Volume: <input type="text" value="Mid"/></p> <p>Encoding: <input type="text" value="U-Law"/></p> <p><input type="button" value="Apply"/></p>	<p>Audio In Enable/Disable Audio In Volume Audio Out Enable/Disable Audio Out Volume Encoding</p>	<p>Enable/Disable: Enables or Disables the Audio In / Audio Out features on the camera. Audio In/Out Volume: Specifies the volume level of Audio In / Audio Out High, Middle, or Low. Encoding: Specifies the encoding algorithm: A-Law or U-Law.</p>

Menu	Feature	Description
<p>IP Assignment</p> <p>IP Address: 10.10.45.60</p> <p>Subnet Mask: 255.255.255.0</p> <p>Default Gateway: 10.10.45.1</p> <hr/> <p>Ports</p> <p>HTTP Port: 80 (80,1024~65535)</p> <p>Second HTTP Port: 8080 (8080,1024~65535)</p> <p>HTTPS Port: 443 (443,1024~65535)</p> <hr/> <p>DNS</p> <p>Primary DNS: 10.10.0.5</p> <p>Secondary DNS: 10.10.0.177</p>	<p>IP Assignment: DHCP IP Address Subnet Mask Default Gateway</p>	<p>DHCP: If checked, the camera will attempt to obtain its IP address from the DHCP server available on the network.</p> <p>IP Address: Sets the current IP address of the camera.</p> <p>Subnet Mask: Once set, the camera will use these mask bits to determine if a destination is from a different network.</p> <p>Default Gateway: Once set, the camera will send network traffic to the specified gateway if the destination is on a different network.</p>
	<p>Port: HTTP Second HTTP Port HTTPs</p>	<p>HTTP: The port default is 80. It is used to access the camera via the web browser.</p> <p>Second HTTP Port: Sets an alternative HTTP port. This port can be useful when the standard HTTP port (80) is not appropriate for this camera.</p> <p>HTTPs: The port default is 443. It can be used when you use HTTPs.</p>
	<p>Port: Primary DNS Secondary DNS</p>	<p>Configures the Primary and Secondary DNS.</p>
<p>IPv6 Settings</p> <p><input type="checkbox"/> Enable IPv6</p> <p>Link-Local: IPv6 Address: []</p> <p>Address Prefix: 64 (0~127)</p> <p>Default Route: []</p> <p><input type="checkbox"/> Router Advertisement</p> <p>DNS: []</p>	<p>IPv6 Settings: Enable IPv6 IPv6 Address Address Prefix Default Route Router Advertisement DNS</p>	<p>Enable IPv6: Enables IPv6 function. Manually configures IPv6 address, Address prefix, Default route, and DNS server address.</p> <p>Router Advertisement: Enables Router Advertisement</p>

<input type="checkbox"/> QoS Enable QoS Video (0~63) <input type="text" value="34"/> <input type="button" value="Set"/> Management DSCP (0~63) <input type="text" value="0"/> <input type="button" value="Set"/>	QoS Enable	Enables quality of service.
	QoS Video	Sets DSCP value for video traffic.
	Management DSCP	Sets DSCP value for non-video traffic.
<input type="checkbox"/> UPnP <input checked="" type="checkbox"/> Enable UPnP	Enable UPnP	Enables Universal Plug and Play function.
<div style="border: 1px solid black; padding: 5px;"> <div style="display: flex; justify-content: space-between; border-bottom: 1px solid black;"> Basic QoS UPnP RTSP </div> <div style="border-bottom: 1px solid black; padding: 5px;"> <p>Channel</p> <p>Select channel: <input type="text" value="1"/> * Video port c</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>Unicast</p> <p>Port: <input type="text" value="554"/> (554, 1025~65535)</p> <p><input checked="" type="checkbox"/> Enable RTSP Unicast Stream1 <input type="checkbox"/> Enable RTSP Stream1 Metadata</p> <p>Path1 : <input type="text" value="stream1"/></p> <p>Link for external media players : <input type="text" value="rtsp://10.10.46.60:554/stream1"/></p> <p><input checked="" type="checkbox"/> Enable RTSP Unicast Stream2 <input type="checkbox"/> Enable RTSP Stream2 Metadata</p> <p>Path2 : <input type="text" value="stream2"/></p> <p>Link for external media players : <input type="text" value="rtsp://10.10.46.60:554/stream2"/></p> <p><input checked="" type="checkbox"/> Enable RTSP Unicast Stream3 <input type="checkbox"/> Enable RTSP Stream3 Metadata</p> <p>Path3 : <input type="text" value="stream3"/></p> <p>Link for external media players : <input type="text" value="rtsp://10.10.46.60:554/stream3"/></p> </div> </div>	Select channel	Select the desired channel to change RTSP settings
	Enable RTSP Unicast Stream	Enables RTSP Unicast for stream 1 (Main stream), stream 2 (Sub Stream), and stream 3 (Third Stream)
	Enable RTSP Stream metadata	Enables RTSP stream metadata for stream 1 (Main stream), stream 2 (Sub Stream), and stream 3 (Third Stream)
	Path	Configures the pathname for each stream.
	Link for external media players	Copies the link from here for external media players
	Enable RTSP Multicast Stream	Enables RTSP Multicast stream for stream 1 (Main stream), stream 2 (Sub Stream), and stream 3 (Third Stream)
	Always Multicast	Enables the video streams to start multicast streaming without using RTCP
	Video IP Video Port	Configures the multicast address and the port number to stream video.
	Audio IP Audio Port	Configures the multicast address and the port number to stream audio. *This function's support depends on the model

Multicast Stream1 <input checked="" type="checkbox"/> Enable RTSP Multicast Stream <input type="checkbox"/> Always Multicast Video IP : <input type="text" value="225.24.228.121"/> Video Port : <input type="text" value="5016"/> (1025~65535) Audio IP : <input type="text" value="226.24.228.121"/> Audio Port : <input type="text" value="5002"/> (1025~65535) Meta IP : <input type="text" value="227.24.228.121"/> Meta Port : <input type="text" value="5004"/> (1025~65535) Path : <input type="text" value="stream1m"/> TTL : <input type="text" value="255"/> (1~255)	Meta IP Meta Port	Configures the multicast address and the port number to the HTML meta.
	Path	Configures the URL address of the video stream.
	TTL	Configures the time-to-live threshold of the multicast datagram before it is discarded by the router.
DDNS <input type="checkbox"/> Enable DDNS Host Name : <input type="text"/> DDNS Server : <input type="text" value="DynDNS"/> User Name : <input type="text"/> Password : <input type="text"/> Password Confirmation : <input type="text"/>	Enable DDNS	Enables DDNS service
	Host Name	Specifies the Host name registered with the DDNS server
	DDNS Sever	Selects one of the pubic DDNS severs from the dropdown menu. Options are DynDNS, NO-IP, and Twi-DNS.
	User Name	Specifies the user name of the DDNS account.
	Password	Specifies the password of the DDNS account.
	Password Confirmation	Confirms the password of the DDNS account.
SNMP <input checked="" type="radio"/> No SNMP Server <input type="radio"/> SNMP V2c Public Community String : <input type="text" value="public"/> Private Community String : <input type="text" value="private"/> Trap Configuration Address : <input type="text" value="192.168.1.200"/> Community String : <input type="text" value="public"/> <input type="radio"/> SNMP V3 SNMP User : <input type="text" value="initial"/> Authentication : <input type="text" value="None"/> Privacy : <input type="text" value="None"/> Trap Configuration Address : <input type="text" value="192.168.1.200"/> <input type="button" value="Download MIB"/>	No SNMP Sever	Disables SNMP function
	SNMP v2c	Enables SNMP version 2 support
	Community String	Specifies the name of the community to access to SNMP information.
	Trap Configuration: Address Community String	Specifies the destination IP address to send SNMP trap messages.
	SNMP v3	Enables SNMP version 3 support.
	SNMP User	Specifies the user name of the SNMP v3.
	Authentication Password	Selects one of the Authentication modes from the dropdown menu. Options are None, MD5, and SHA. Specifies the Password for the Authentication.
	Privacy Password	Selects one of the encryption methods for SNMP v3 from the dropdown menu. Options are DES and AES. Specifies the Password for the encryption.
	Trap Configuration: Address	Specifies the destination IP address to send SNMP trap messages.
	Download MIB	Clicks to download MIB file for SNMP.

<p>SSL</p> <p>Mode : <input type="radio"/> Disabled <input checked="" type="radio"/> Optional Certificate : No certificate has been installed.</p> <p>Action : <input type="button" value="Install New Certificate"/></p> <p>Key PEM file : <input type="button" value="Choose File"/> No file chosen Certificate PEM file : <input type="button" value="Choose File"/> No file chosen</p>	Mode	Disable: Support for HTTP only. (Optional) Support for HTTP and HTTPs both.
	Certificate	Shows the current status of the Certificate
	Action Install New Certificate Key PEM file Certificate PEM file	<ol style="list-style-type: none"> 1. Locate Key PEM file and Certificate PEM file and click Upload. 2. Click Install New Certificate to upload the Certificate.
<p>FTP Server</p> <p><input checked="" type="checkbox"/> Enable</p> <p>User name : adminftp</p> <p>Password : <input type="password" value="****"/></p> <p>Confirm : <input type="password" value="****"/></p> <p>Max. Connection (1~10) : <input type="text" value="10"/></p>	Enable	Enables FTP access to the camera. NOTE: This function is only available when a SD card is installed. You can access files in the SD card via FTP.
	Password Confirm	Specifies and confirms the password to access the FTP.
	Max. Connection	Specifies the maximum number of FTP connections to the IP camera.
<p>802.1x</p> <p>Protocol : <input type="text" value="NONE"/></p> <ul style="list-style-type: none"> NONE EAP-MD5 EAP-TLS EAP-TTLS EAP-PEAP 	Protocol	<p>The default is None to disable 802.1x functions. You can select one of the protocol options from the dropdown menu. The supported protocols are EAP-MD5, EAP-TLS, EAP-TTLS or EAP-PEAP.</p> <p>After the protocol has been selected, manually configure the username, password, and other required information.</p>

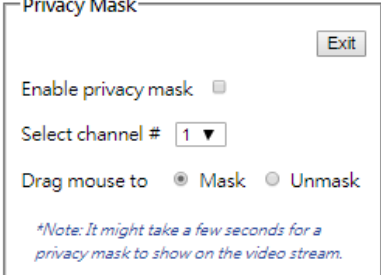
<p>LDAP</p> <p><input type="checkbox"/> Enable LDAP</p> <p>Server: <input type="text"/></p> <p>Port: <input type="text" value="389"/> (389, 1025-65535)</p> <p>Base dn: <input type="text" value="dc=ipcamera,dc=com"/></p> <p>Bind dn template: <input type="text" value="cn=%u,ou=people,dc=ipcamera,dc=com"/></p> <p>Search dn template: <input type="text" value="cn=%u"/></p> <p>Administrator: <input type="text" value="cn=admin,ou=groups,dc=ipcamera,dc=com"/></p> <p>Viewer: <input type="text" value="cn=user,ou=groups,dc=ipcamera,dc=com"/></p>	<p>Enable LDAP</p>	<p>Enables LDAP service.</p>
	<p>Server</p>	<p>Specifies the IP address of the LDAP server.</p>
	<p>Port</p>	<p>Specifies the port address of the LDAP server. Default port is 389.</p>
	<p>Base dn</p>	<p>Specifies the starting point an LDAP server uses when searching for user's authentication within the Directory.</p>
	<p>Bind dn template</p>	<p>Identifies the username that will be used to do the searching and request the authentication</p>
	<p>Search dn template</p>	<p>Defines at which node the search originates</p>
	<p>Administrator</p>	<p>Specifies the administrator</p>
	<p>Viewer</p>	<p>Specifies the viewer user</p>

Privacy Mask



AV20576DN
 Firmware: 65431
 MAC: 00-1a-07-1a-a2-67

Focus Image Video & Audio Network **Privacy Mask** Event System Administration Support

Menu	Feature	Description
	Enable Privacy Mask	Creates a privacy mask on the image so the selected areas will not be visible.
	Select Channel	Select the desired channel to add privacy masks.
	Drag mouse to: Mask Unmask	Select Mask to add privacy masks or Select Unmask to remove privacy masks.

Menu	Feature	Description
<div style="border: 1px solid black; padding: 5px;"> <p>Motion Detection Exit</p> <p><input checked="" type="checkbox"/> Enable motion detection <input type="checkbox"/> Enable extended motion detection</p> <p>Select channel 1 ▼</p> <p>Zone Size (2..15) 11 Set</p> <p>Object Size Sensitivity (1..225) 2 Set</p> <p>Movement Duration Factor (2..31) 15 Set</p> <p>Motion Sensitivity (1..64) 30 Set</p> </div>	Enable motion detection	Turn on and off on-camera motion detection.
	Enable extended motion detection	Enables the extended motion detection and motion detection zones with an increase from default 64 to 1024 for enhanced motion detection sensitivity.
	Select channel	Select the desired channel to apply motion detection.
	Zone Size	Adjusts the size of motion detection zones.
	Object Size Sensitivity	Sets the size of each zone displayed by the motion detection grid. Contains sub zones where the number of sub zones is set by setting the zone size up to 32x32 (pixels). This setting configures the sensitivity of the motion detection to the size of objects in the image moving through the zone. Higher values will trigger motion only for larger objects moving through the zone, and lower values will cause detection of smaller objects in the zone (increasing sensitivity to smaller size objects moving through the image).
	Movement Duration Factor	Sets the sensitivity to brightness changes between dark and light objects within each grid zone. As an example, "Object Size Sensitivity" will set the size of the object detected within the zone, and "Movement Duration Factor" sets the duration that movement must be maintained to trigger motion detection. Lower settings can increase false motion alarms caused by image noise; higher settings will require more movement to trigger a motion event.
	Motion Sensitivity	Sets the sensitivity to sudden overall brightness changes in the image.

<div style="border: 1px solid black; padding: 5px;"> <p>Alarm Handler</p> <p><input checked="" type="checkbox"/> Enable Alarm Detection</p> <p>Alarm Schedule</p> </div>	Enable Alarm Detection	Enables Alarm Detection (Alarm In) function.
	Alarm Schedule	Configures the alarm schedule by holding down the mouse button and clicking the time block to enable the schedule settings on the selected time. A light blue color on the time block indicates that the alarm schedule is enabled, while a light grey color indicates that the alarm schedule is disabled. Alternatively, you can manually enter the numbers to configure the hours and minutes for the “start” and “end” of the day. S: Click “S” to set up a 24-hour schedule on a particular day. D: Click “D” to clear the previous schedule on a particular day.
<div style="border: 1px solid black; padding: 5px;"> <p>Digital I/O</p> <p><input type="checkbox"/> Trigger Alarm Detection</p> <p><input type="checkbox"/> Trigger Motion Detection</p> <p><input type="checkbox"/> Trigger Tamper Detection</p> <p><input type="checkbox"/> Trigger Network failure</p> <p>Type <input type="text" value="N.O."/> ▼</p> <p>Off Time <input type="text" value="0"/> (0~30s)</p> </div>	Trigger Alarm Detection	When a signal is detected from Alarm in the Alarm out will be triggered.
	Trigger Motion Detection	When a motion event is detected the Alarm out will be triggered.
	Trigger Tamper Detection	When a tamper event is detected, the Alarm out will be triggered.
	Trigger Network Failure	When a network failure event is detected the Alarm out will be triggered.
	Type	Selects the type: N.O (Normally Open) or N.C. (Normally Closed)
Off Time	Specifies the alarm duration	

<p>Tampering Detection</p> <p>Select channel: <input type="text" value="1"/></p> <p><input type="checkbox"/> Enable Tampering Detection</p> <p><input type="button" value="Tampering Schedule"/></p> <p>Sensitivity: <input type="text" value="Medium"/></p>	Select channel	Select the desired channel to enable tampering detection.
	Enable Tampering Detection	Enables Tampering Detection function.
	Tampering Schedule	Configures the alarm schedule by holding down the mouse button and clicking the time block to enable the schedule settings for the selected time. A light blue color on the time block indicates that the alarm schedule is enabled, while a light grey color indicates that the alarm schedule is disabled. Alternatively, you can manually enter the numbers to configure the hours and minutes for the “start” and “end” of the day. S: Click “S” to set up a 24-hour schedule for a particular day. D: Click “D” to clear the previous schedule for a particular day.
	Sensitivity	Configures the sensitivity level of Tamper Detection: High, Medium, and Low.
<p>Network Failure</p> <p><input type="checkbox"/> Enable Network Failure</p>	Enable Network Failure	Enable network failure detection.
<p>SD Record Handler</p> <p><input type="checkbox"/> Enable</p> <ul style="list-style-type: none"> <input type="radio"/> Trigger Alarm Detection <input type="radio"/> Trigger Motion Detection <input type="radio"/> Trigger Tampering Alarm <input type="radio"/> Trigger Network Failure <input type="radio"/> Manual Record 	SD Record Handler Enable	Enables and selects a desired trigger source. The options are Trigger Alarm Detection, Trigger Motion Detection, Trigger Tampering Alarm, Trigger Network Failure, and Manual Record.

<p>SD Card Information</p> <p>Available Storage : 0 MBytes</p> <p>Usage : 0% (0 / 0 MBytes)</p> <p>Status : not_mounted</p> <p>Overwrite when storage full : <input checked="" type="checkbox"/></p> <p>Record Type : Video ▼</p>	<p>SD Card Information</p> <p>Available Storage</p> <p>Format SD Card</p> <p>Usage</p> <p>Status</p> <p>Overwrite when storage full</p> <p>Record Type</p>	<p>Available Storage: Displays the available storage of the SD card if it is installed.</p> <p>Format SD Card: Erases all the data stored on the SD Card.</p> <p>Usage: Displays the total storage that has been used now.</p> <p>Status: Displays the status whether the SD card is installed or not. (not mounted or ok)</p> <p>Overwrite when storage full: Enables overwriting the SD card if the storage is full.</p> <p>Recording Type: Specifies the desired action to record a stream. The options are Snapshot and Video.</p>
<p>FTP Upload Handler</p> <p><input checked="" type="checkbox"/> Enable Trigger Event</p> <ul style="list-style-type: none"> <input type="radio"/> Trigger Alarm Detection <input type="radio"/> Trigger Motion Detection <input type="radio"/> Trigger Tampering Alarm <input type="radio"/> Trigger Scheduled 	<p>FTP Upload Handler</p> <p>Enable Trigger Event</p>	<p>Enables and selects a desired trigger source. The options are Trigger Alarm Detection, Trigger Motion Detection, Trigger Tampering Alarm, and Trigger Scheduled.</p>
<p>Remote Server</p> <p>Host Address : <input type="text"/></p> <p>Port : <input type="text" value="21"/> (21, 1025-65)</p> <p>Username : <input type="text"/></p> <p>Password : <input type="text"/></p>	<p>Remote Server</p> <p>Host Address</p> <p>Port</p> <p>Username</p> <p>Password</p>	<p>Host Address: Specifies the host name or IP address of the FTP server.</p> <p>Port: Specifies the port number of the FTP server.</p> <p>Username: Specifies the login username of the FTP server.</p> <p>Password: Specifies the login password of the FTP server.</p>
<p>SMTP Notification Handler</p> <p>From : <input type="text"/></p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Trigger Alarm Detection <input checked="" type="checkbox"/> Trigger Motion Detection <input checked="" type="checkbox"/> Trigger Tampering Alarm 	<p>SMTP Notification Handler</p>	<p>From: Specifies the email address of the sender</p> <p>Select a desired trigger source. The options are Trigger Alarm Detection, Trigger Motion Detection, and Trigger Tampering Alarm.</p>

<p>SMTP Server</p> <p>Host Address: <input type="text"/></p> <p>Port: <input type="text" value="25"/> (1~65535)</p> <p>Username: <input type="text"/></p> <p>Password: <input type="text"/></p> <p>Authentication: <input type="text" value="NO_AUTH"/></p>	<p>SMTP Server Host Address Port Username Password Authentication</p>	<p>Host Address: Specifies the host name or IP address of the SMTP server.</p> <p>Port: Specifies the port number of the SMTP server.</p> <p>Username: Specifies the login username of the SMTP server.</p> <p>Password: Specifies the login password of the SMTP server.</p> <p>Authentication: Specifies the authentication mode of the SMTP sever. The options are NO_AUTH, SMTP_PLAIN, LOGIN and TLS_TLS.</p>																																																							
<p>Recipient List</p> <table border="1"> <thead> <tr> <th>Enable</th> <th>No</th> <th>Email</th> <th>Alarm</th> <th>Motion</th> </tr> </thead> <tbody> <tr><td><input type="checkbox"/></td><td>1</td><td><input type="text"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td>2</td><td><input type="text"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td>3</td><td><input type="text"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td>4</td><td><input type="text"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td>5</td><td><input type="text"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td>6</td><td><input type="text"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td>7</td><td><input type="text"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td>8</td><td><input type="text"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td>9</td><td><input type="text"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input type="checkbox"/></td><td>10</td><td><input type="text"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> </tbody> </table>	Enable	No	Email	Alarm	Motion	<input type="checkbox"/>	1	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Recipient List</p>	<p>Specifies the email addresses to send the email notification when selected events are triggered by Alarm, Motion, or Tamper. A maximum of 10 email addresses can be configured.</p>
Enable	No	Email	Alarm	Motion																																																					
<input type="checkbox"/>	1	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																					
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<p>Network Storage Handler</p> <p><input type="checkbox"/> Enable Trigger Event</p> <ul style="list-style-type: none"> <input type="radio"/> Trigger Alarm Detection <input type="radio"/> Trigger Motion Detection <input type="radio"/> Trigger Tampering Alarm <input type="radio"/> Trigger Scheduled 	<p>Network Storage Handler</p>	<p>Enables and selects a desired trigger source. The options are Trigger Alarm Detection, Trigger Motion Detection, Trigger Tampering Alarm, and Trigger Scheduled.</p>																																																							
<p>Recipient Setup</p> <p>Network Storage Status: <input type="text" value="not_mounted"/></p> <p>Network Address: <input type="text"/></p> <p>Folder Name: <input type="text"/></p> <p>Record Type: <input type="text" value="Video"/></p>	<p>Recipient Setup Network Storage Status Network Address Folder Name Record Type</p>	<p>Network Storage Status: Displays the current status of the connection with the network storage server. (Status will display "Not Mounted" or "OK")</p> <p>Network Address: Specifies the IP address of the network storage server.</p> <p>Folder Name: Specifies the folder name on the network storage server.</p> <p>Recording Type: Specifies the desired action when an event is triggered. The options are Snapshot and Video.</p>																																																							
<p>Login Certificate</p> <p>Username: <input type="text"/></p> <p>Password: <input type="text"/></p>	<p>Login Certificate</p>	<p>Specifies the login Username and Password for the network storage sever.</p>																																																							

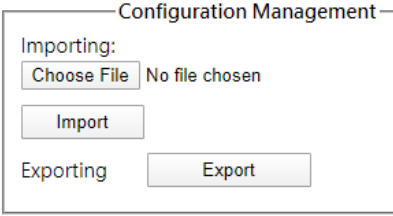
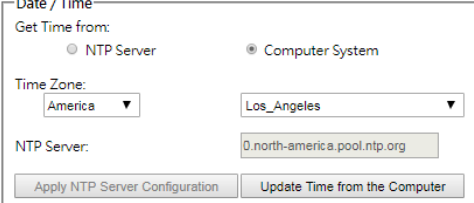
<p>Mount and Remove Network Storage</p> <p>Mount</p>	<p>Mount and Remove Network Storage</p>	<p>Mount: Sets up a network connection with the network storage server. All the video recordings or snapshots from event triggers will be uploaded to the network storage server. After the setting is complete, the Network Storage Status field will display "ok".</p> <p>Remove: Deletes the previous setting. After the setting is removed, the Network Storage Status field will display "not mounted".</p>
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AV20576DN
Firmware: 65431
MAC: 00-1a-07-1a-a2-67

Focus Image Video & Audio Network Privacy Mask Event **System** Administration Support

Menu	Feature	Description
<p>Camera information</p> <p>Model Name <input type="text" value="AV20576DN"/></p> <p>Firmware <input type="text" value="65431"/></p> <p>MAC Address <input type="text" value="00-1a-07-1a-a2-67"/></p> <p>Serial Number <input type="text" value="TSCB71005872"/></p>	Camera information	Displays the information of the camera: Model Name, Firmware, MAC Address, and Serial Number.
<p>Camera Name</p> <p><input type="text" value="AV20576DN-67"/></p> <p><input type="button" value="Save"/></p>	Camera Name	Specifies a name for the camera. The maximum name length is 32 characters.
<p>Firmware Upgrade</p> <p>Please select a file to update:</p> <p><input type="button" value="Choose File"/> No file chosen</p> <p><input type="button" value="Upgrade"/></p>	Firmware Upgrade	Click "Choose File" to choose the firmware upgrade file, and then click Upgrade.
<p>Download Log</p> <p><input type="button" value="Download"/></p>	Download Log	Records all the status information of the camera in list format. Downloads the log file to the computer as a text file.
<p><input type="button" value="Reboot the Camera"/></p> <p><input type="button" value="Restore to Factory Default Settings Except Network Settings"/></p> <p><input type="button" value="Restore to Factory Default Settings"/></p>	<p>Reboot the Camera</p> <p>Restore Factory Default Settings Except Network Settings</p> <p>Restore to Factory Default Settings</p>	<p>Reboot the Camera: Reboots the camera.</p> <p>Restore Factory Default Settings Except Network Settings: Restores all settings to factory default except the network settings.</p> <p>Restore to Factory Default Settings: Restores all settings to factory default.</p>

 <p>Configuration Management</p> <p>Importing: <input type="button" value="Choose File"/> No file chosen <input type="button" value="Import"/></p> <p>Exporting: <input type="button" value="Export"/></p>	<p>Configuration Management</p>	<p>Records all the configuration information of the camera except network settings. Import: Imports a Configuration file from other cameras. Export: Exports a Configuration file from this camera.</p>
 <p>Date / Time</p> <p>Get Time from: <input type="radio"/> NTP Server <input checked="" type="radio"/> Computer System</p> <p>Time Zone: <input type="text" value="America"/> <input type="text" value="Los_Angeles"/></p> <p>NTP Server: <input type="text" value="0.north-america.pool.ntp.org"/></p> <p><input type="button" value="Apply NTP Server Configuration"/> <input type="button" value="Update Time from the Computer"/></p>	<p>Date/Time Get Time from NTP Server Computer System</p>	<p>NTP Server: Synchronizes the date/time information with defined NTP server. After setting up the desired Time zone and NTP Server, click “Apply NTP Server Configuration.”</p> <p>NOTE: Please make sure to set up appropriate gateway before configuring the NTP server.</p> <p>Computer System: Synchronizes the date/time information with current computer’s date/time. Once this option is selected, click “Update Time from the computer.”</p>
	<p>Time Zone</p>	<p>Specifies the country / city of the time zone from the drop-down menu.</p>
	<p>NTP Server</p>	<p>Specifies the desired NTP server</p>

Administration



AV20576DN
Firmware: 65431
MAC: 00-1a-07-1a-a2-67

Focus Image Video & Audio Network Privacy Mask Event System **Administration** Support

Menu	Feature	Description
<p>Administrator</p> <p>Username: admin</p> <p>Admin Password: <input type="password"/></p> <p>Confirmation: <input type="password"/></p> <p>Set Erase</p>	Access Control	<p>Passwords can be up to 16 letters, digits and symbols, excluding the following symbols for passwords without encoding # % & ' " < > / [] { } _ () = . + ,</p>
<p>Viewer Management</p> <p>User List: <input type="text"/></p> <p>Add Delete</p> <p>User Information</p> <p>User Viewer Name: <input type="text"/></p> <p>User Viewer password: <input type="password"/></p> <p>Confirmation: <input type="password"/></p> <p>Access Level: <input type="radio"/> Admin <input type="radio"/> Viewer</p> <p>Set Erase</p>	<p>Administrator Username Admin Password Confirmation Set/ Erase</p>	<p>Username: The username of Administrator is admin and cannot be changed.</p> <p>Admin: includes full access to all camera settings and live video.</p> <p>Admin Password: Specifies the password for the administrator.</p> <p>Confirmation: Re-enters the password for the password validation.</p> <p>Set / Erase: Saves or removes the password.</p> <p>NOTE: If admin password was set but has been lost, it can be erased by AV Costar Utility using the key file. Please contact AV Costar™ technical support to obtain the key file required to perform this function. Or, if the camera has a reset button, you can also reset it to Factory default to remove the password.</p>
	<p>Viewer Management User List User Viewer Name User Viewer Password Confirmation Access Level Set/ Erase</p>	<p>User List: Displays current user accounts created on the camera. Clicks New User/ Delete User to create or remove a user account.</p> <p>User Viewer Name: Specifies the user name. It must be at least five and up to sixteen characters.</p> <p>User Viewer Password: Specifies the password for the viewer.</p> <p>Confirmation: Re-enters the password for the password validation.</p> <p>Access Level: Defines the authorization level for the user: Admin or Viewer.</p> <p>Set/ Erase: Save or removes the password.</p>

Support



AV20576DN
 Firmware: 65431
 MAC: 00-1a-07-1a-a2-67

- Focus
- Image
- Video & Audio
- Network
- Privacy Mask
- Event
- System
- Administration
- Support

Menu	Feature	Description
<p>Support</p> <ul style="list-style-type: none"> • Resources • Online Support Request • Firmware Downloads • Software Downloads • Technical Updates • Product Selector • Downloads 	<p>Support</p>	<p>Provides several hyperlinks to get more information on the camera.</p>

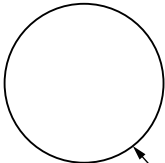


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CABLE POSITION



Need Assistance?

Get the configuration utility, installation manuals, and more information on this product at the AV Costar website.

avcostar.com/downloads
For further help, call +1.818.937.0700



Ø7.72"
Ø196mm