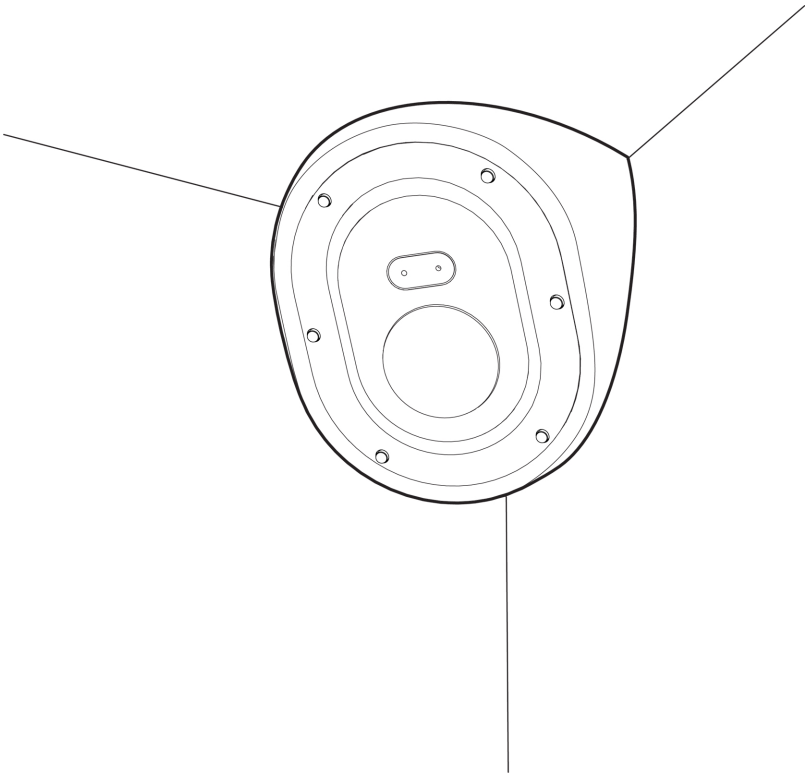

Installation Guide

Avigilon H5A Corner Camera Models:

3.0C-H5A-CR2-IR	3.0C-H5A-CR2-IR-SS
5.0C-H5A-CR2-IR	5.0C-H5A-CR2-IR-SS

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Avigilon Corporation
avigilon.com

PDF-H5A-CR2-A

Revision: 3 - EN

20230403

Important Safety Information

This manual provides installation and operation information and precautions for the use of this device. Incorrect installation could cause an unexpected fault. Before installing this equipment read this manual carefully. Please provide this manual to the owner of the equipment for future reference.

This Warning symbol indicates the presence of dangerous voltage within and outside the product enclosure that may result in a risk of electric shock, serious injury or death to persons if proper precautions are not followed.

This Caution symbol alerts the user to the presence of hazards that may cause minor or moderate injury to persons, damage to property or damage to the product itself if proper precautions are not followed.

WARNING — Failure to observe the following instructions may result in severe injury or death.

- Installation must be performed by qualified personnel only, and must conform to all local codes.
- This product is intended to be supplied by a UL Listed Power Unit marked “Class 2” or “LPS” or “Limited Power Source” with output rated 12 VDC or 24 VAC, 13 W min. or Power over Ethernet (PoE), 13 W min.
- Do not connect directly to mains power for any reason.

CAUTION — Failure to observe the following instructions may result in injury to persons or damage to the device.

- Do not expose the camera directly to high levels of x-ray, laser, or UV radiation. Direct exposure may cause permanent damage to the image sensor.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other sources of heat.
- Do not subject the device cables to excessive stress, heavy loads or pinching.
- Do not open or disassemble the device. There are no user serviceable parts.
- Refer all device servicing to qualified personnel. Servicing may be required when the device has been damaged (such as from a liquid spill or fallen objects), has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Do not use strong or abrasive detergents when cleaning the device body.
- Use only accessories recommended by Avigilon.
- This device complies with EN 60529 IP66 and IP67 ratings.

Regulatory Notices

The following H5A Thermal camera models should be installed by a trained professional and should be

installed in restricted access locations:

- 640F-H5A-THC-BO12 (DTMLD53)
- 640F-H5A-THR-BO50 (DTMLD53)

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This Class B digital apparatus complies with Canadian ICES-003 (B)/NMB-3 (B).

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications made to this equipment not expressly approved by Avigilon Corporation or parties authorized by Avigilon Corporation could void the user's authority to operate this equipment.

This equipment contains a coin cell battery. Risk of fire, explosion, and burns. Do not disassemble, crush, heat above 100°C (212°F), or incinerate.

The use of EMC compliant support and auxiliary equipment with this device is required in order to fully comply with the EMC regulatory standards.

For Korea

이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며,
모든 지역에서 사용할 수 있습니다.

IR Safety Information

Use appropriate shielding or eye protection.

Disposal and Recycling Information

When this product has reached the end of its useful life, please dispose of it according to your local environmental laws and guidelines.

European Union:

This symbol means that according to local laws and regulations your product should be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Some collection points accept products for free. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

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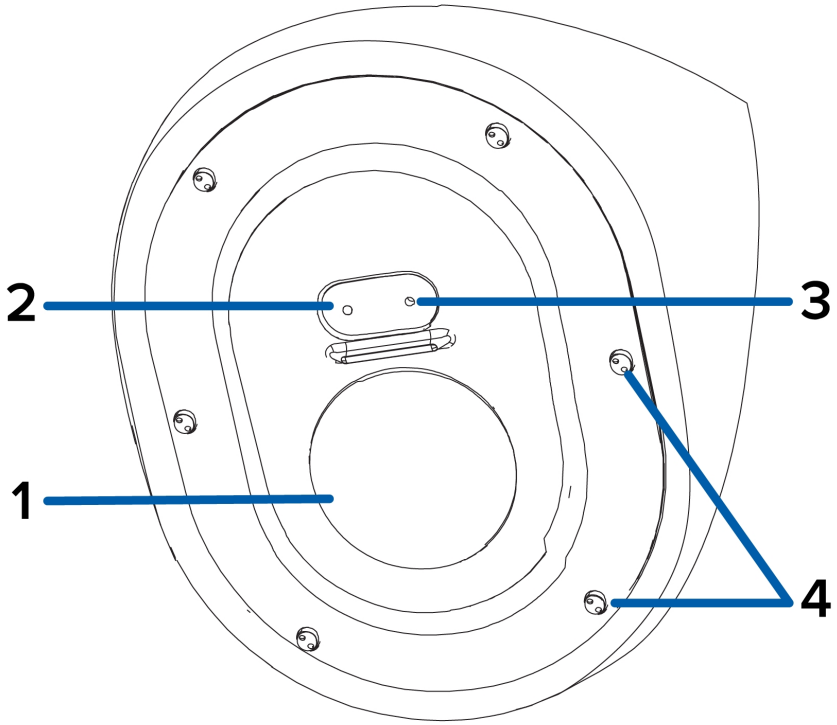
Overview

Assembled View



1. **Front cover**

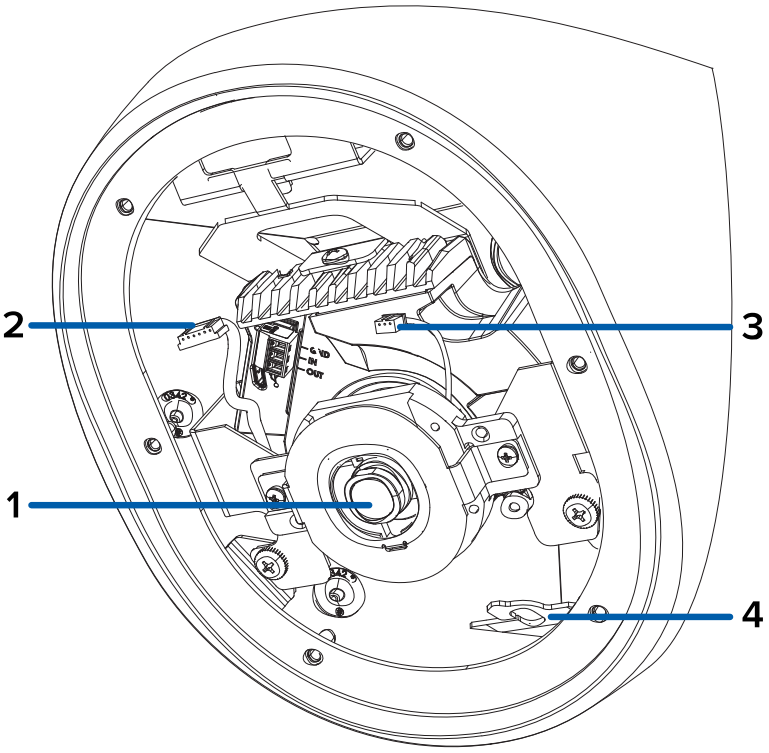
   Vandal resistant front cover.
2. **Recording LED**

   LED turns on when the camera is streaming video to a local microSD card, ACC or another VMS system, or the camera web interface.
3. **Microphone**

   Built-in audio receiver.
4. **Tamper resistant screws**

   Tamper resistant captive screws to fix the dome cover to the base.

Housing Front View



1. **Camera lens**

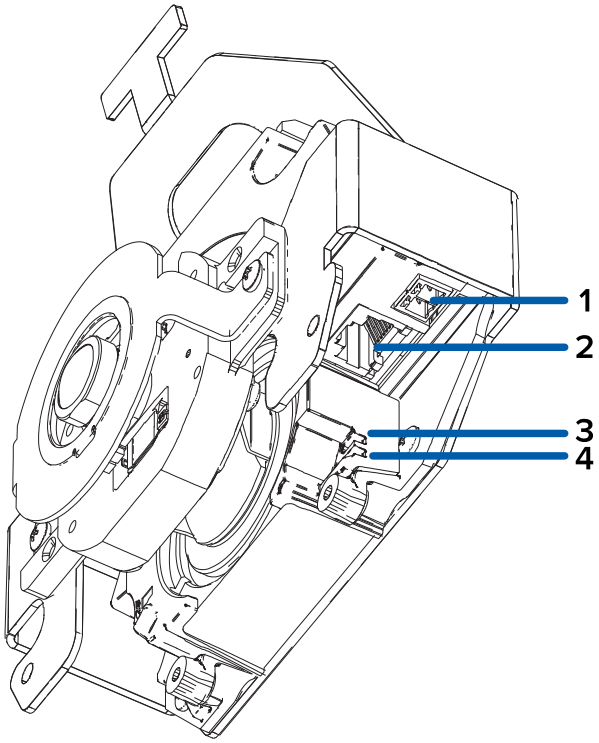
   Lens that captures the video image.
2. **LED cable**

   Connect the cable to the LED connector on the front cover to power the Recording LED and IR LED.
3. **Microphone cable**

   Connect the cable to the microphone audio connector on the front cover to use the built-in microphone.
4. **Lanyard hook**

   A hook for connecting the lanyard on the camera cover.

Gimbal Bottom View



1. **Power connector block**

   Accepts a terminal block with either an AC or DC power connection. DC input can be either polarity. Only required when Power over Ethernet is not available.

2. **Ethernet port**

   Accepts an Ethernet connection to a network. Server communication and image data transmission occurs over this connection. Also receives power when it is connected to a network that provides Power over Ethernet.

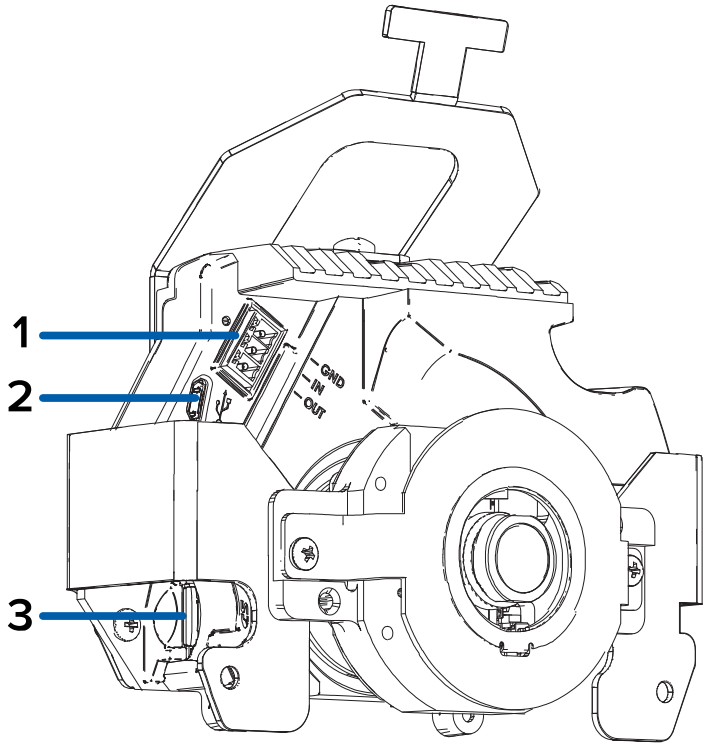
3. **Connection status LED indicator**

   Green LED provides information about device operation. For more information, see *Connection Status LED Indicator* on page 36.

4. **Link LED indicator**

   Amber LED indicates if there is an active connection in the Ethernet port.

Gimbal Front View



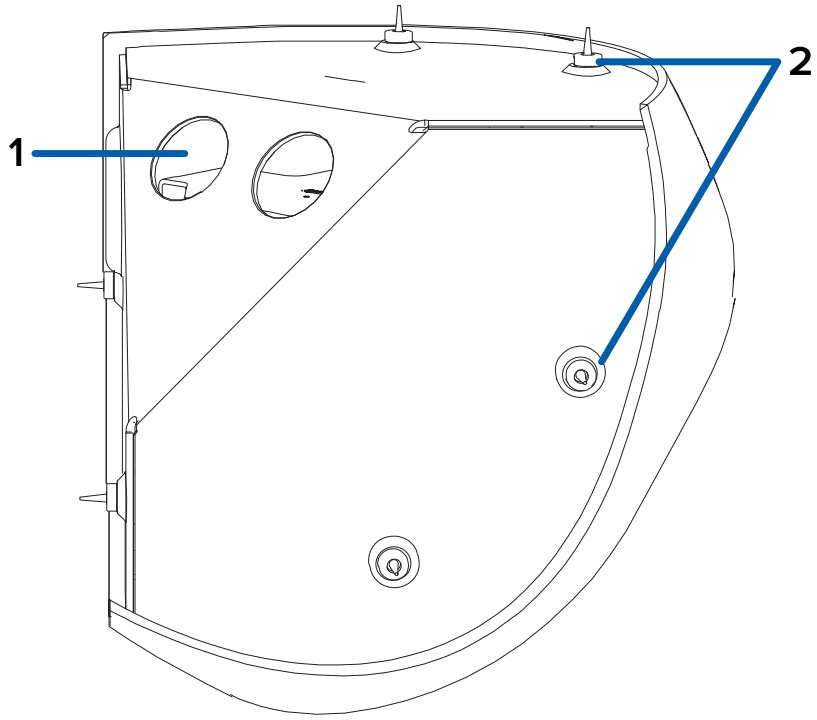
1. **I/O connector block**

   Provides connections to external input/output devices.
2. **Micro USB port**

   Accepts a micro USB to USB adapter. Only required when using the Avigilon USB Wi-Fi Adapter.
3. **microSD card slot**

   Accepts a microSD card for onboard storage. For more information, see *(Optional) Configuring microSD Card Storage* on page 22.

Housing Rear View

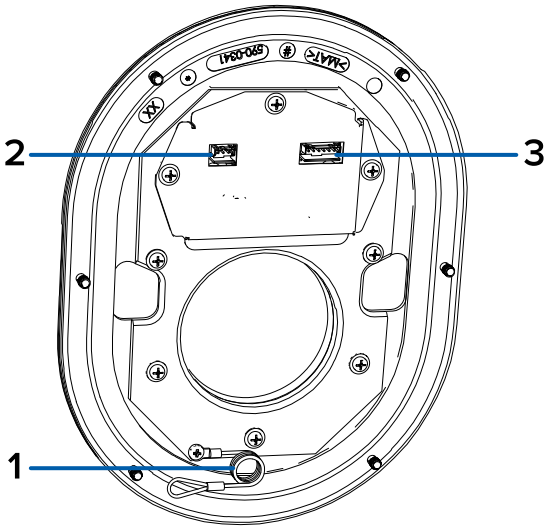


1. **Cable entry holes (x2)**

   Entry holes for the cables required for camera operation.
2. **Mounting holes**

   Mounting points for the camera (x6) with rubber grommets inserted.

Cover - Rear View



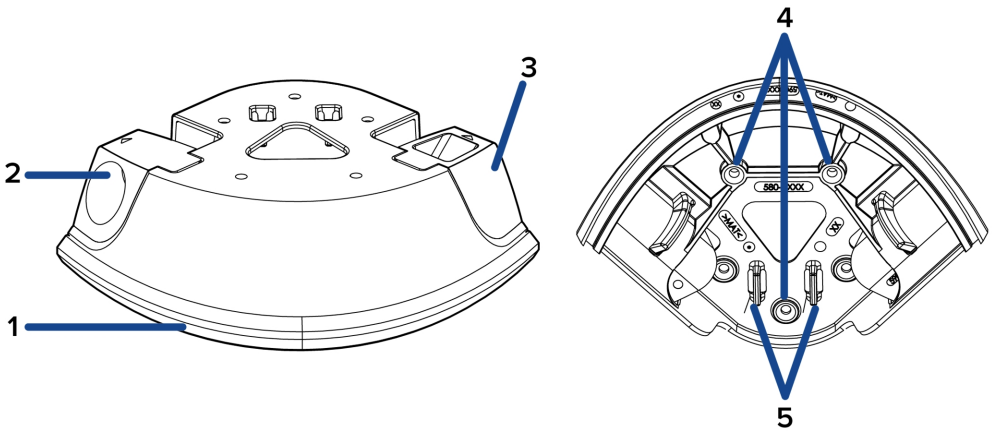
1. **Lanyard**

   Connects to the lanyard anchor on the camera base.
2. **Microphone connector**

   Connect the microphone audio cable to use the built-in microphone.
3. **LED connector**

   Connect the LED cable to power the camera's Recording LED and IR LED.

Conduit Box Accessory View



1. **Rubber gasket**

   Rubber gasket for creating a seal between the corner camera and conduit box accessory.
2. **Conduit entry point**

   Removable conduit entry point that can be installed on either side of the conduit box. The conduit box comes with 2 sizes of conduit entry points to use: 3/4" NPT or 1/2" NPT.
3. **Closed conduit entry point**

   The matching piece to the conduit entry point used to close the opposite side of the conduit box.
4. **Mounting holes**

   Mounting points for the conduit box (x3).
5. **Ethernet cable clips**

   Clips to secure the Ethernet cable.

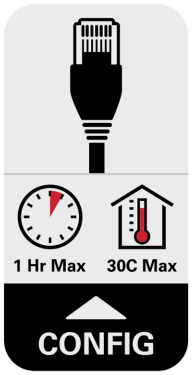
Installation

Pre-Deployment In-Box Configuration

The camera comes equipped with an RJ45 configuration cable pre-installed for users that want to configure camera settings before installing the camera. The RJ45 connector on the configuration cable is accessible through the small flap on the side of the camera box for easy configuration before unpacking the camera.

Note: The maximum recommended duration of in-box configuration is 1 hour. The maximum recommended ambient temperature is 30° C (86° F).

1. Locate and open the flap on the side of the camera packaging. Look for the *Config* label.



2. Connect a network cable to the RJ45 plug on the configuration cable. The network cable must provide PoE. IEEE 802.3af Class 3, to power the camera during configuration.
3. Connect to the camera using an ACC Client, the Camera Configuration Tool, or the camera's web browser interface to configure the camera's settings. For more information about connecting to the camera, see *Assigning an IP Address* on page 22, and *Accessing the Live Video Stream* on page 22.
4. Once you have finished making configuration changes, unplug the network cable.

CAUTION — Be careful when handling the camera after configuring it inside the packaging. The camera may be hot when handling it or removing from the packaging immediately after in-box configuration.

Required Tools and Materials

- Small slotted screwdriver with 5/64” or 2 mm blade width — for connecting power when not using Power over Ethernet.

- No. 2 Phillips screwdriver — for attaching camera to a mounting surface
- Drill for drilling mounting holes in the mounting surface
- Cutting tool for cutting cable access hole in the mounting surface
- Silicone sealant

Camera Package Contents

Ensure the package contains the following:

- Avigilon H5A Corner camera
- RJ-45 grommet piercing cap
- Microphone audio cable
- 2 cable entry grommets
- 6 wall anchors for solid walls, for #8-10 screws
- 6 mounting screws,#10-1.25" long, flat head, Phillips, stainless steel
- Tamper resistant screw driver

Installation Steps

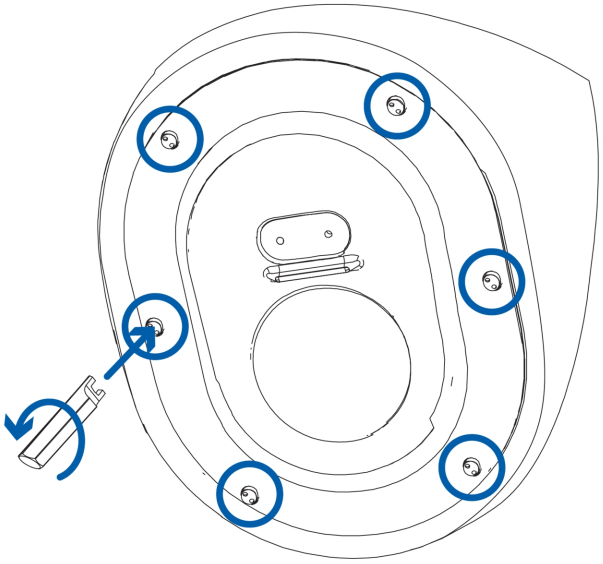
Complete the following sections to install the device.

Removing the Front Cover and Gimbal

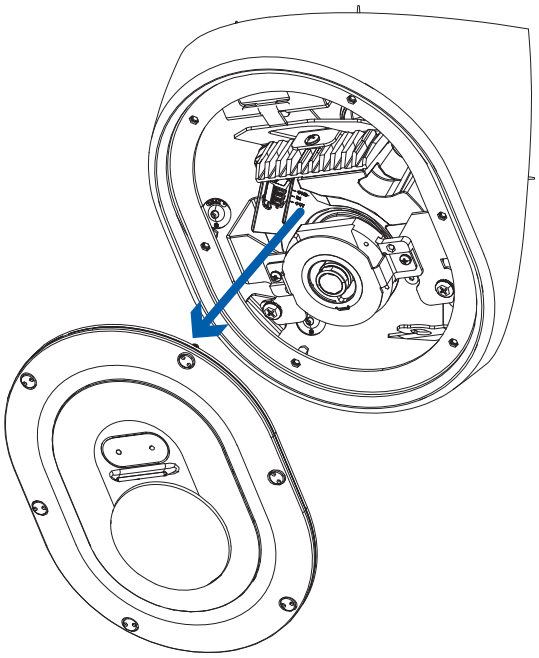
Before mounting the camera, you need to remove the front cover and camera gimbal from the housing:

> **Note:** Be careful not to scratch or touch the dome bubble. The resulting marks or fingerprints may affect the overall image quality. Keep the protective covers on the outside of the dome bubble until the installation is complete.

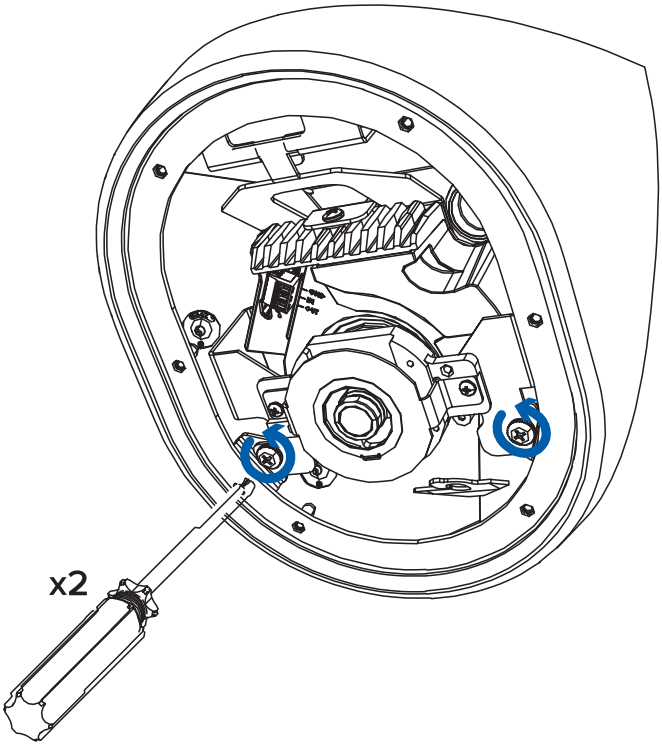
1. Loosen the screws that fix the cover to the base. Use the supplied driver to loosen the screws.



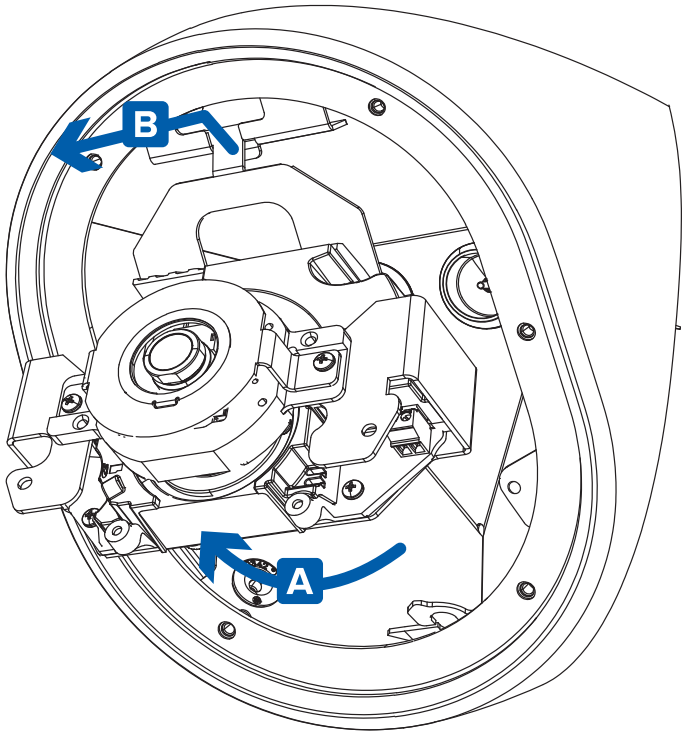
2. Pull the front cover off of the camera base.



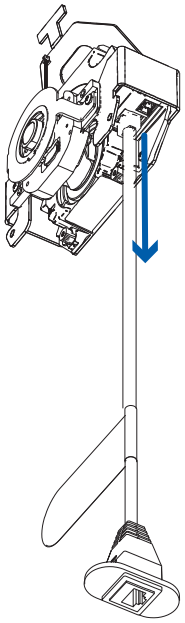
3. Loosen and detach the two screws that secure the gimbal to the base.



4. Rotate the bottom part of the gimbal upwards after the screws are removed (A), then unhook the gimbal from the slot at the top of the housing and pull the gimbal out (B).



5. Remove the RJ-45 in-box configuration cable that comes pre-installed on the camera.



Preparing the Mounting Grommets

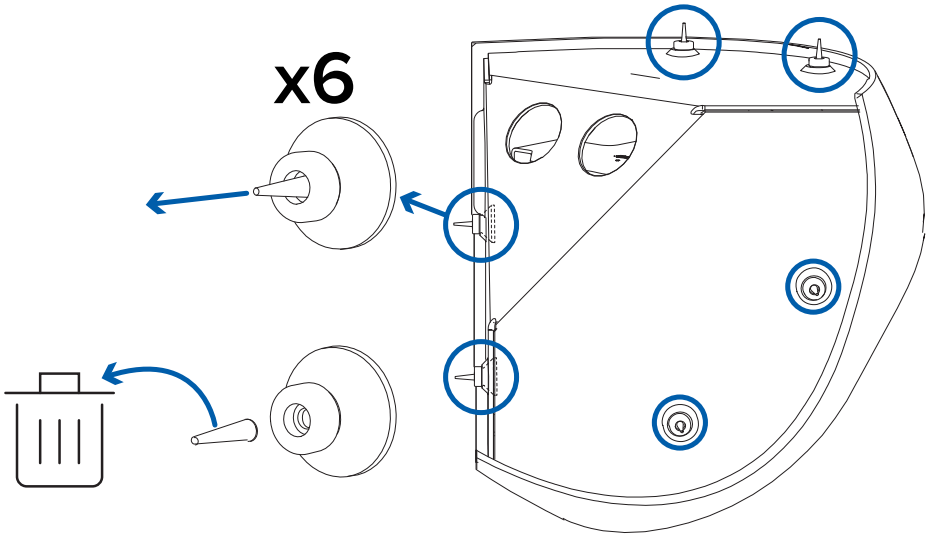
There are 6 mounting holes in the camera housing. Each mounting hole is filled by a grommet to help protect the mounting points from water or dust. See *Overview* on page 1 for more information the mounting hole locations.

1. Determine which mounting holes you will use to mount the camera.

> **Tip:** Avigilon recommends using all 6 mounting holes to secure your camera, to ensure the

camera is mounted securely and to make the camera ligature-proof.

2. Pull the pins out of the grommets for the mounting holes that will be used.



Mounting and Aiming Video Analytics Cameras

When installing an Avigilon video analytics camera, follow the listed mounting and aiming recommendations to maximize the camera's analytics capabilities:

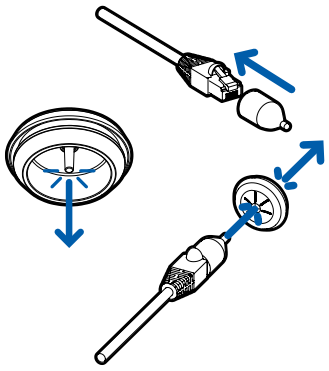
- The camera should be installed above 2.74 m (9 feet).
- The camera should tilt downwards no more than 45 degrees.
- The camera image should be level with the horizon line.
- The camera should be mounted to a stable surface to minimize the physical movement of the camera after installation.

For more details, see *Designing a Site for Video Analytics*. The document is available on the Avigilon website.

Inserting Cables through the Sealing Grommet

To protect the camera and components from ingress of dust or moisture, you must pull the required cables through the sealing grommet(s) included with the camera for the cable entry holes.

1. Pull the tab on the grommet to open a hole for the Ethernet cable.
2. Push an Ethernet cable through the grommet by one of the following methods:
    a. If the Ethernet cable is uncrimped, push the cable through the grommet.
    b. If the Ethernet cable is already crimped, place the grommet piercing cap on the Ethernet connector then push the cable through the grommet.



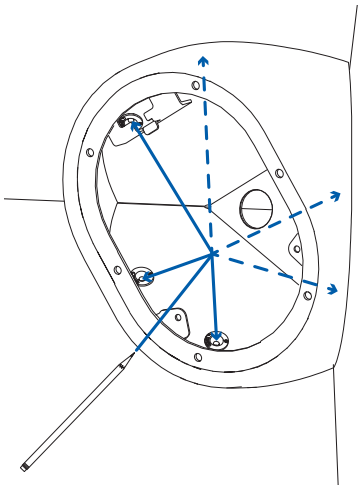
    Ensure that the orientation of the cable and grommet matches the one shown in the image.
3. Push any other required cables through the second grommet.

> **Note:** If you will pull multiple cables through the sealing grommet, apply silicone sealant to seal any gaps in the grommet.

Mounting the Corner Camera Base

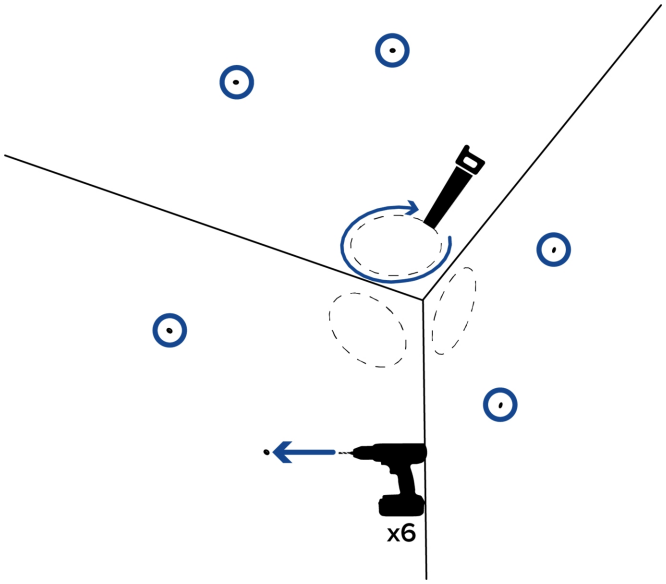
Perform the following steps to mount the camera base.

1. Place the base into the mounting location. Make sure that the mounting grommet pins have been removed. For more information, see *Preparing the Mounting Grommets* on page 12.
2. Use a pen or pencil to mark the spots that will be drilled into the mounting surface for the mounting screws.

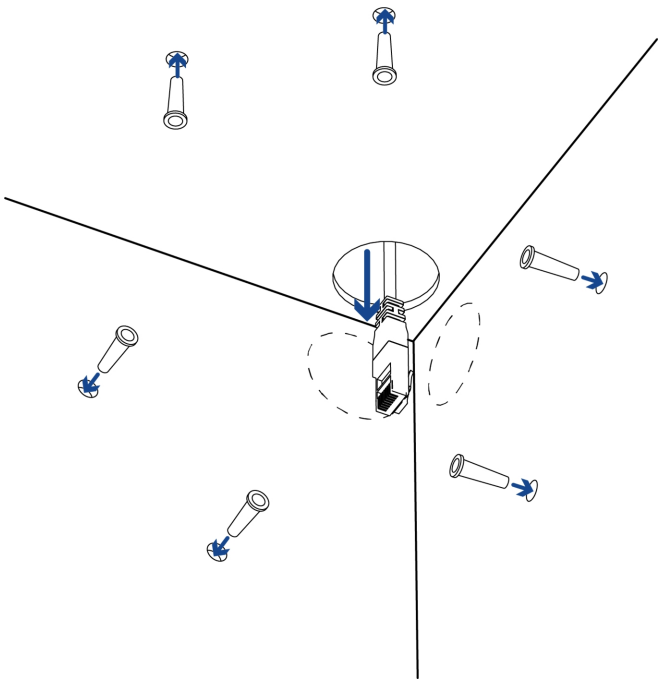


> **Tip:** Avigilon recommends using all 6 mounting holes to secure your camera, to ensure the camera is mounted securely and to make the camera ligature-proof.

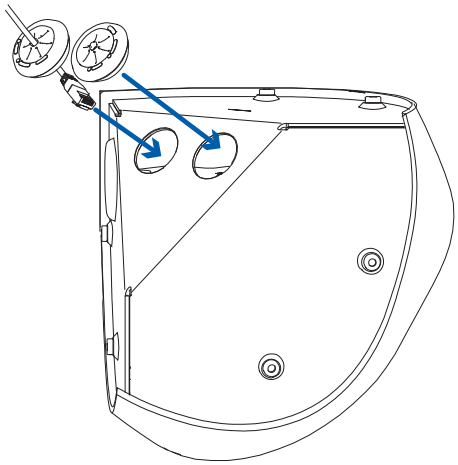
3. Remove the base from the mounting surface. Drill the 6 mounting holes and one cable entry hole into the mounting surface.



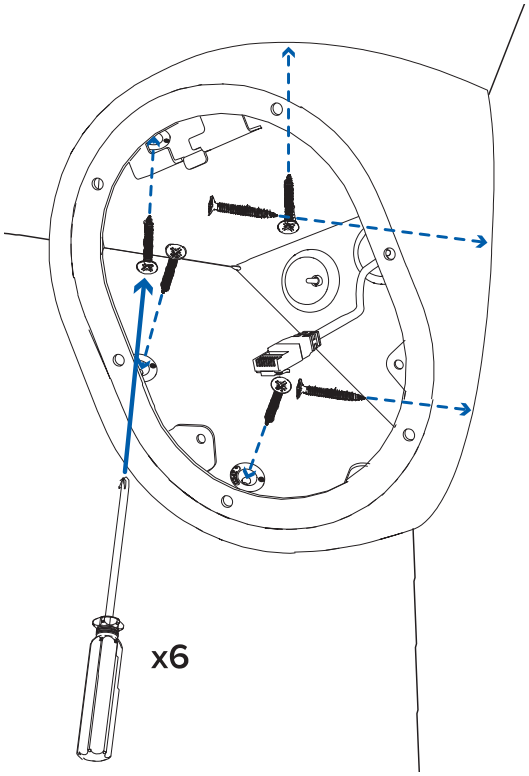
4. Insert the wall anchors into the mounting holes.



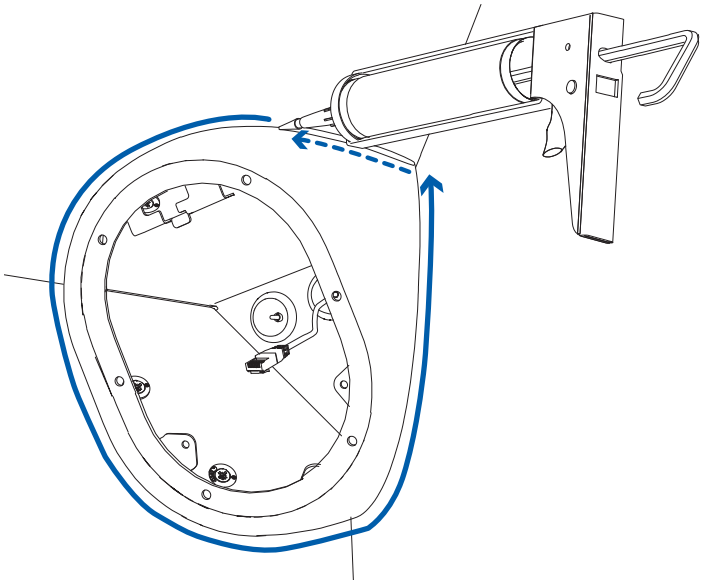
5. Pull the required cables through the cable entry hole.
6. Insert the sealing grommets with the required cables pulled through into the cable entry holes on the back of the camera base. For more information, see *Inserting Cables through the Sealing Grommet* on page 13.



7. Place the camera base in the mounting location and drive the 6 mounting screws to secure it in place.



8. Apply silicone sealant around the edges of the camera base to prevent moisture from entering the mounting surface.



Connecting Cables

Refer to the diagrams in *Overview* on page 1 for the location of the different connectors.

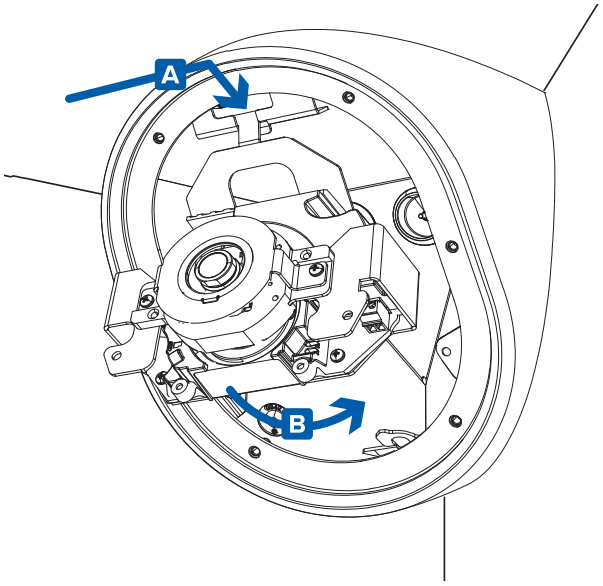
1. If external input or output devices are part of the installation (for example: door contacts, relays, etc.), connect the devices to the I/O connector block.
2. If the built-in microphone will be used, the factory-intalled audio cable will have to be connected to the inside of the front cover.
3. Connect a network cable to the Ethernet port (RJ-45 connector).

   The Link LED indicator will turn on once a network link has been established.
4. Connect power using one of the following methods:
   - Power over Ethernet (PoE) Class 3 — If PoE is available, the LEDs will turn on.
   - External Power — Connect an external 12 V DC or 24 V AC power source to the power connector block.
5. Check that the Connection Status LED indicator indicates the correct state. For more information, see *Connection Status LED Indicator* on page 36.

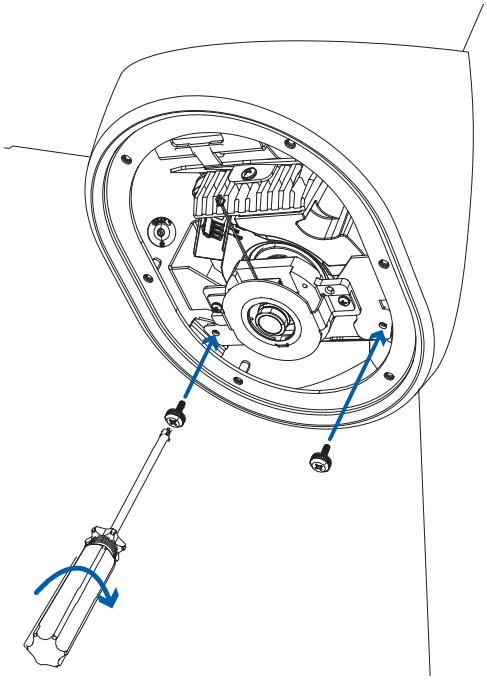
Mounting the Camera Gimbal to the Base

Once the camera base is mounted in place, install the gimbal back into the base:

1. Slide the hook at the top of the gimbal into the slot at the top of the camera base (A) and then rotate the gimbal into the housing (B).



2. Use a phillips screwdriver to tighten the 2 screws and secure the gimbal to the camera base.



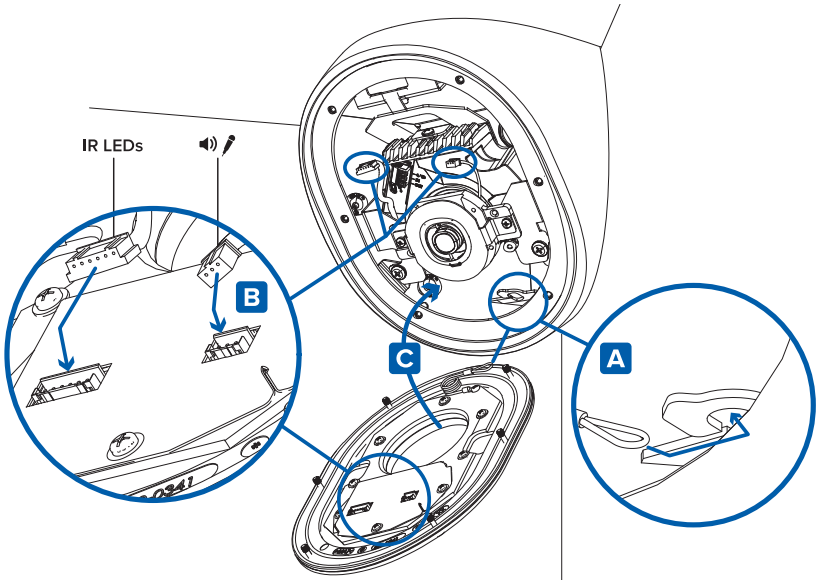
Installing the Front Cover

Note:
Before installing the dome cover, we recommend that you first connect to the camera and adjust the aim, zoom, and focus so that the camera covers the required field of view. For more information, see:

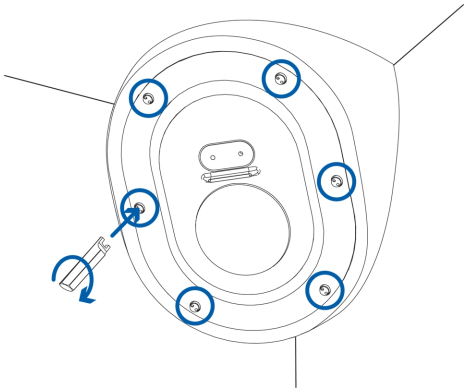
- *Assigning an IP Address* on page 22
- *Mounting the Camera Gimbal to the Base* on page 18
- *Configuring the Camera* on page 23

Be careful not to touch or scratch the dome bubble. Any marks or fingerprints on the dome bubble will cause unwanted reflections.

1. Attach the lanyard to the lanyard hook at the bottom of the camera base (A).



2. Connect the LED cable to the connector on the front cover (B).
3. If you are using the built-in microphone, connect the microphone audio cable to the connector on the front cover (B).
4. Fit the front cover into place (C).
5. Secure the front cover to the camera base by tightening the 6 screws with the supplied driver.



Initializing a Camera Username and Password

Important: You must create a user with *administrator* privileges before the camera is operational.

The first user can be created using any of the following methods:

- Camera's Web Interface: enter the camera's IP address in a web browser to access the web interface. If the camera is in the factory default state you will be redirected to the Add a new user page to create the first user. For more information, see the *Avigilon IP Camera Web Interface User Guide*.
- Camera Configuration Tool: cameras discovered in the factory default state will be identified by . Select the **Admin Users** tab to create the first user. For more information, see the *Avigilon Camera Configuration Tool User Guide*.
- USB Wi-Fi Adapter: when connecting a camera in the factory default state, you will be redirected to the Create Administrator User page to create the first user. For more information, see *Avigilon USB Wi-Fi Adapter System User Guide*.
- Avigilon Control Center software version 7.4 or later, or version 6.14.12 or later: when connecting a camera in the factory default state, the client software will ask you to create a new user. For more information, see the *Avigilon Control Center Client User Guide*.
- Avigilon Cloud Services (ACS) v3.0 or later: when adding a camera you will be asked to create a new user for cameras in the factory default state. For more information, see the *Avigilon Cloud Services User Guide*.

Tip: If you are connecting your Avigilon camera to a 3rd party VMS, you will need to set up the first user through the camera's Web Interface, USB Wifi Adapter, or Camera Configuration Tool before you connect to the 3rd party VMS.

(Optional) Using the USB Wi-Fi Adapter

If you have a USB Wi-Fi Adapter (H4-AC-WIFI), attach it to the camera's micro USB port to access the camera's mobile web interface.

INSERT PICTURE OF CAMERA HERE

After you connect to the Wi-Fi signal broadcast by the adapter, you can access the mobile web interface from any mobile device using the following address:

http://camera.lan

For more information about configuring the camera from the mobile web interface see *Avigilon USB Wi-Fi Adapter System User Guide*.

Note: The camera will reserve the 10.11.22.32/28 subnet for internal use while the USB Wi-Fi Adapter

is plugged in.

Assigning an IP Address

The device automatically obtains an IP address when it is connected to a network.

Note: If the device cannot obtain an IP address from a DHCP server, it will use Zero Configuration Networking (Zeroconf) to choose an IP address. When set using Zeroconf, the IP address is in the 169.254.0.0/16 subnet.

The IP address settings can be changed using one of the following methods:

- The mobile web interface using the USB Wifi Adapter. For more information, see *(Optional) Using the USB Wi-Fi Adapter* on the previous page.
- Device's web browser interface: http://*<camera IP address>/*.
- Network Video Management software application (for example, the Avigilon Control Center™ software).
- ARP/Ping method. For more information, see *Setting the IP Address Using the ARP/Ping Method* on page 39.

Accessing the Live Video Stream

Live video stream can be viewed using one of the following methods:

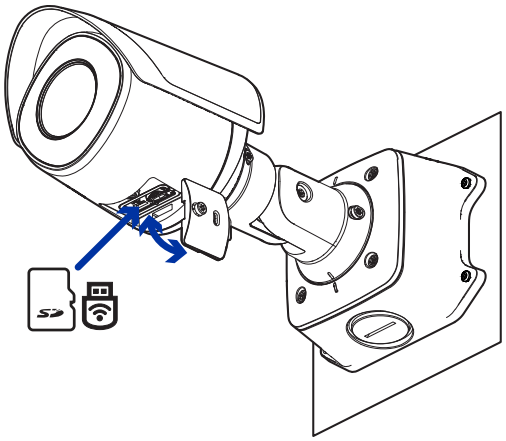
- The mobile web interface using the USB WiFi Adapter. For more information, see *(Optional) Using the USB Wi-Fi Adapter* on the previous page.
- Web browser interface: http://*< camera IP address>/*.
- Network Video Management software application (for example, the Avigilon Control Center software).

(Optional) Configuring microSD Card Storage

To use the camera's SD card storage feature, you must insert a microSD card into the card slot.

It is recommended that the microSD card have a write speed of class 10 or better. If the microSD card does not meet the recommended write speed, the recording performance may suffer and result in the loss of frames or footage.

1. Insert a microSD card into the camera. Do not force the microSD card into the camera or you may damage the card and the camera.



2. Access the camera's web interface to enable the onboard storage feature. For more information, see the *Avigilon IP Camera Web Interface User Guide*.

Focusing the Camera

Ensure this procedure is performed after the front cover is installed, so you can accommodate for the focus shift caused by the lens bubble.

In the camera web browser interface or the Avigilon Control Center software, use the camera's Image and Display settings to focus the camera.

1. Click **Auto Focus** to focus the lens.
2. Use the focus near and far buttons to manually adjust the focus.

Configuring the Camera

Once installed, use one of the following methods to configure the camera:

- If you have the USB Wifi Adapter, you can access the mobile web interface to configure the camera. For more information, see *Avigilon USB Wi-Fi Adapter System User Guide*.
- If you have installed multiple cameras, you can use the Camera Configuration Tool to configure common settings. For more information, see the *Camera Configuration Tool User Guide*.
- If the camera is connected to the Avigilon Control Center system, you can use the client software to configure the camera. For more information, see the *Avigilon Control Center Client User Guide*.
- If the camera is connected to a third-party network management system, you can configure the camera's specialty features in the camera's web browser interface. For more information, see the *Avigilon IP Camera Web Interface User Guide*.

Installation with the Conduit Box Accessory

The conduit gang box is an optional mounting accessory that can be used for installations where the cables are not able to come through the wall and a cable conduit is necessary. Order CNBX-1001 to mount your corner camera with the conduit box.

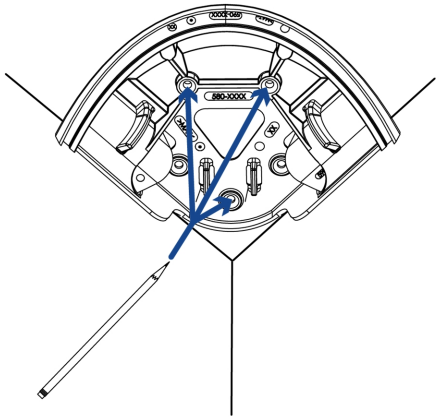
Mounting the Conduit Gang Box

Perform the following steps to mount the conduit gang box mounting accessory.

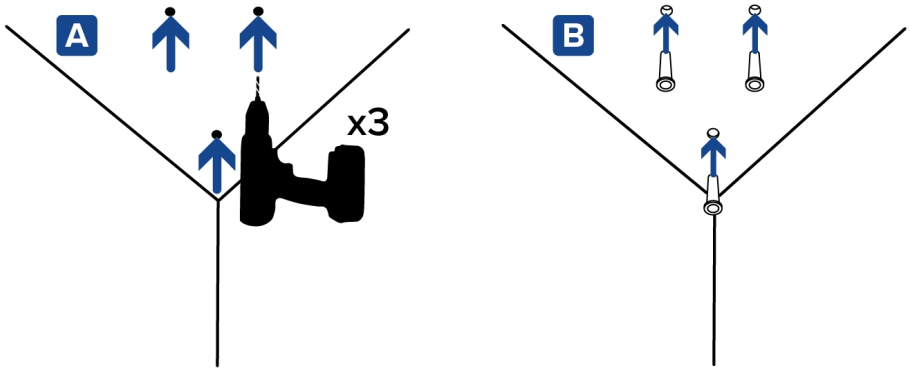
1. Place the conduit box onto the mounting location.

   Note: Be cautious of uneven walls when mounting the conduit box and corner camera. Uneven walls may make it difficult to mount the camera. Before mounting the conduit box, place the conduit box and the camera in the mounting location to ensure they can be mounted flush to the ceiling and both walls without large gaps.

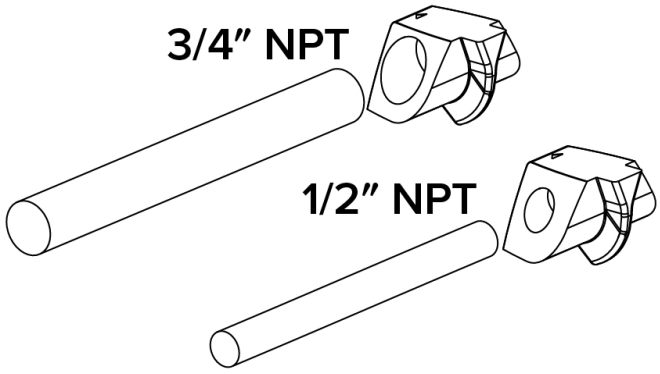
2. Use a pen or pencil to mark the 3 spots that will be drilled into the ceiling for the mounting screws.



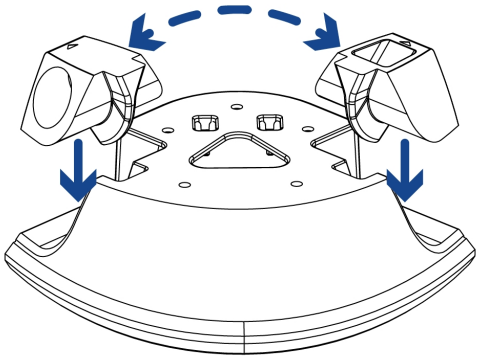
3. Remove the base from the mounting surface. Drill the 3 mounting holes into the mounting surface (A).



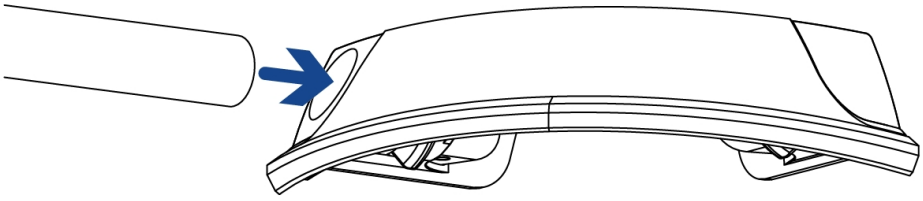
4. Insert the wall anchors into the mounting holes (B).
5. Determine which size conduit pipe you will use for your cables. The conduit box comes with 2 sizes of conduit entry points to use: 3/4" NPT or 1/2" NPT.



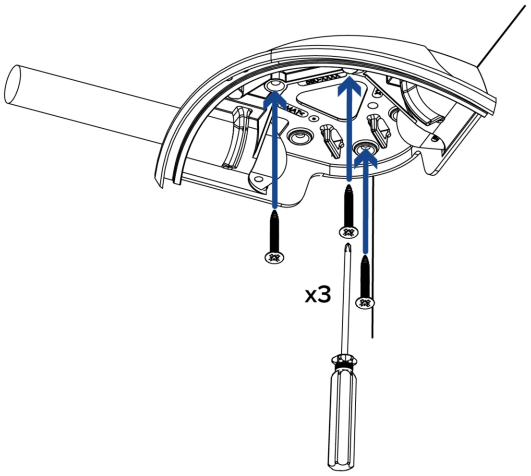
6. Insert the conduit entry point into the conduit box by pushing down. Insert the matching solid piece on the other side of the conduit box. The sides are reversible so the cable conduit can come from either direction.



7. Insert the conduit pipe into the conduit entry point.



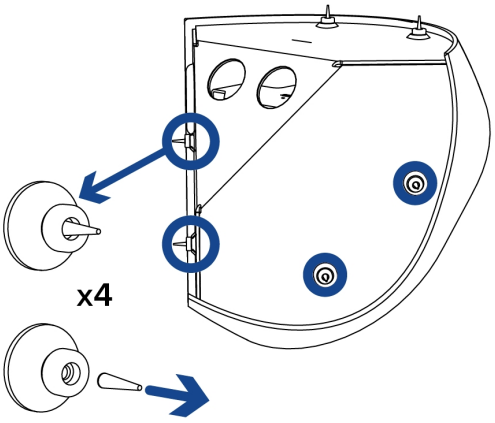
8. Place the conduit box against the mounting surface and drive the 3 mounting screws in to secure it in place.



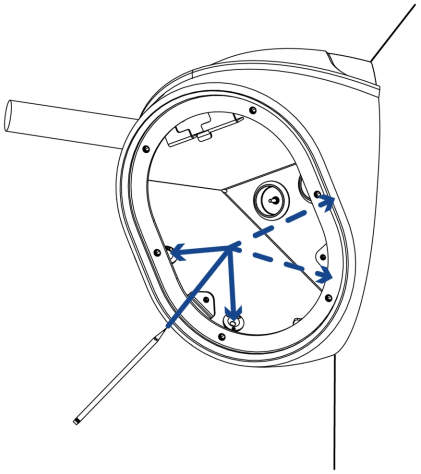
Mounting the Camera Base to the Conduit Box

Perform the following steps to mount the corner camera base to the conduit box.

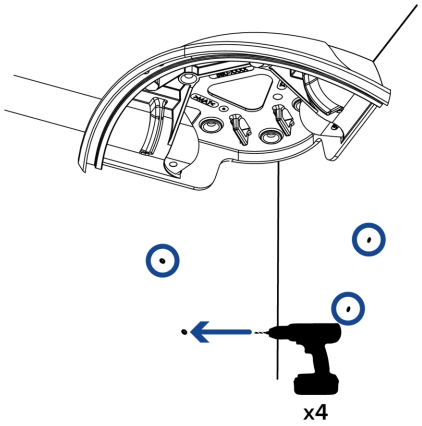
1. Before mounting the camera base, you will need to prepare it for mounting. Perform these steps first:
    a. *Removing the Front Cover and Gimbal* on page 9
    b. *Preparing the Mounting Grommets* on page 12. For the conduit box installation only 4 mounting grommet pins need to be removed. The two top pins for mounting to the ceiling can remain in place.



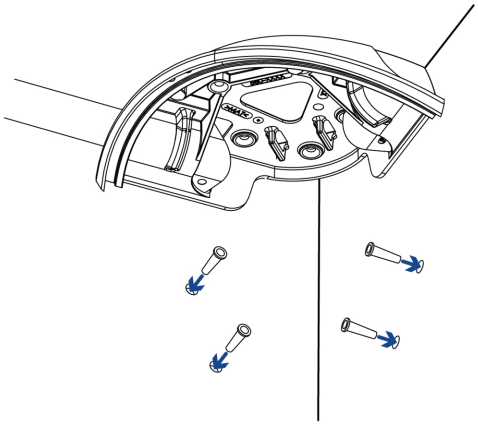
2. Place the base into the mounting location up against the installed conduit box. Use a pen or pencil to mark the spots that will be drilled into the mounting surface for the mounting screws.



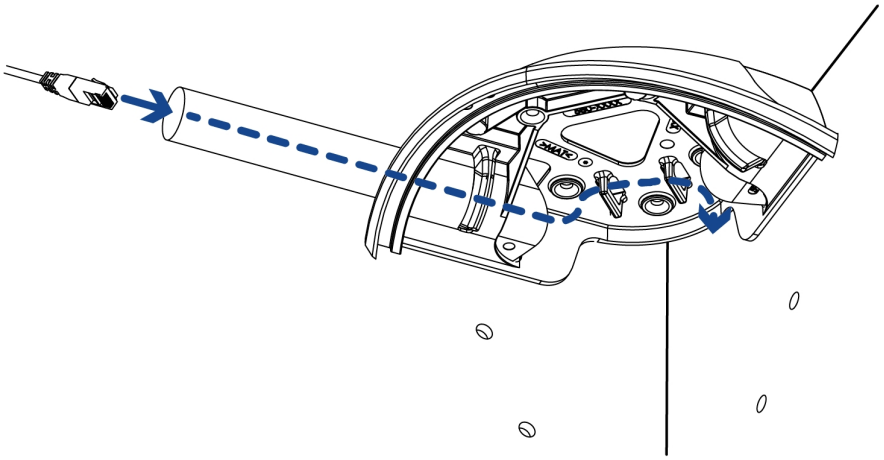
3. Remove the base from the mounting surface. Drill the 4 mounting holes into the mounting surface.



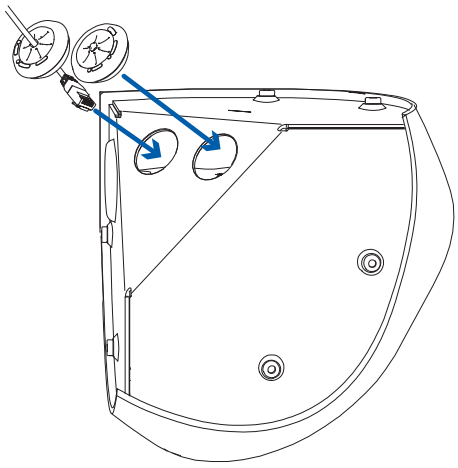
4. Insert the wall anchors into the mounting holes.



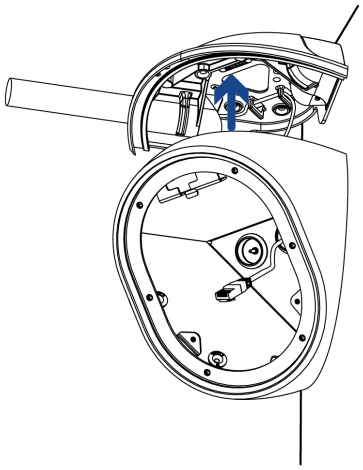
5. Pull the required cables through the cable conduit pipe. Use the Ethernet cable clips to keep the cable in place.



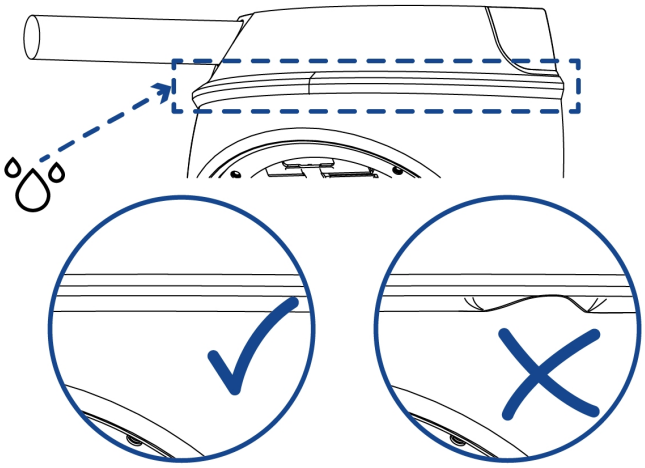
6. Insert the sealing grommets with the required cables pulled through into the cable entry holes on the back of the camera base. For more information, see *Inserting Cables through the Sealing Grommet* on page 13.



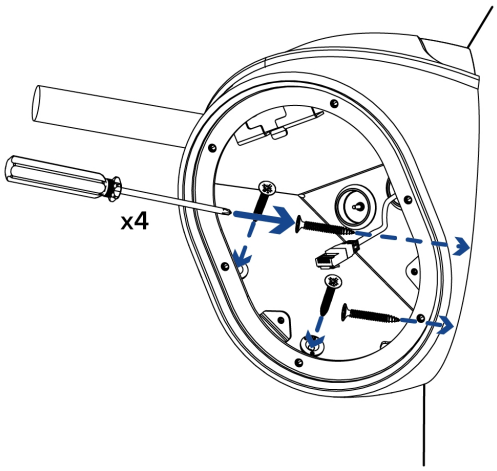
7. Place the camera base in the mounting location.



8. Check the rubber gasket where the camera and conduit box join. The gasket should fit easily over the top edge of the corner camera. Adjust to correct anywhere the gasket is pinched.

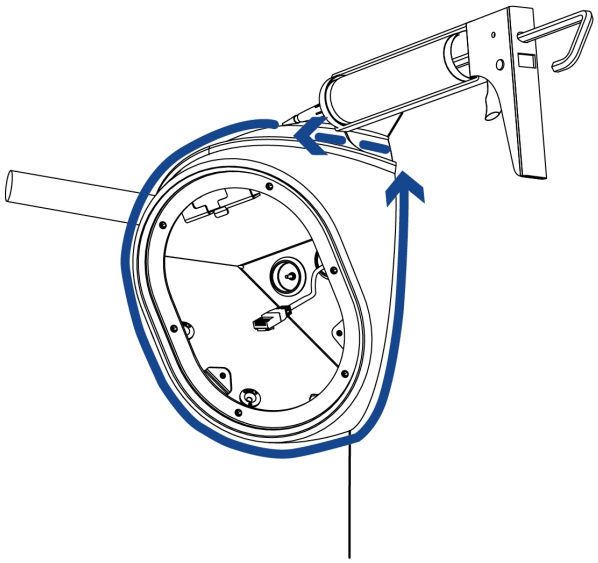


9. Drive the 4 mounting screws to secure the camera in place



10. Apply silicone sealant around the edges of the camera base and conduit box to prevent moisture from

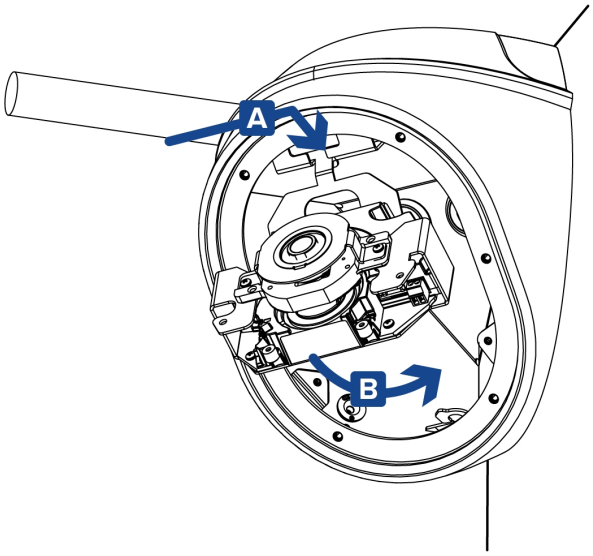
entering the mounting surface.



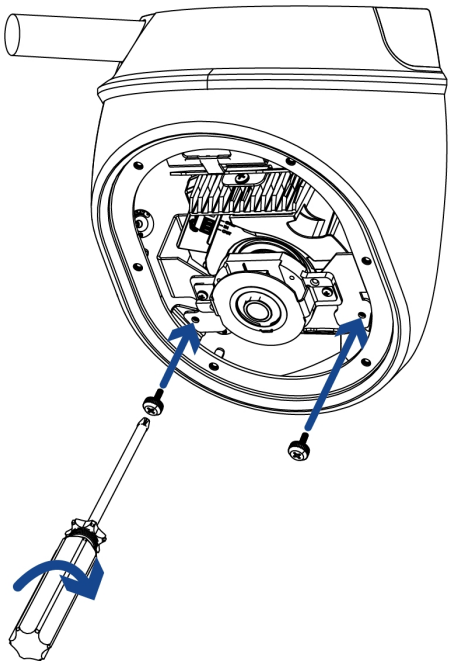
Mounting the Camera Gimbal

Once the camera base is mounted in place, install the gimbal back into the base:

1. Connect the Ethernet cable and any other cables required. For more information see *Connecting Cables* on page 17.
2. Slide the hook at the top of the gimbal into the slot at the top of the camera base (A) and then rotate the gimbal into the housing (B).



3. Use a phillips screwdriver to tighten the 2 screws and secure the gimbal to the camera base.



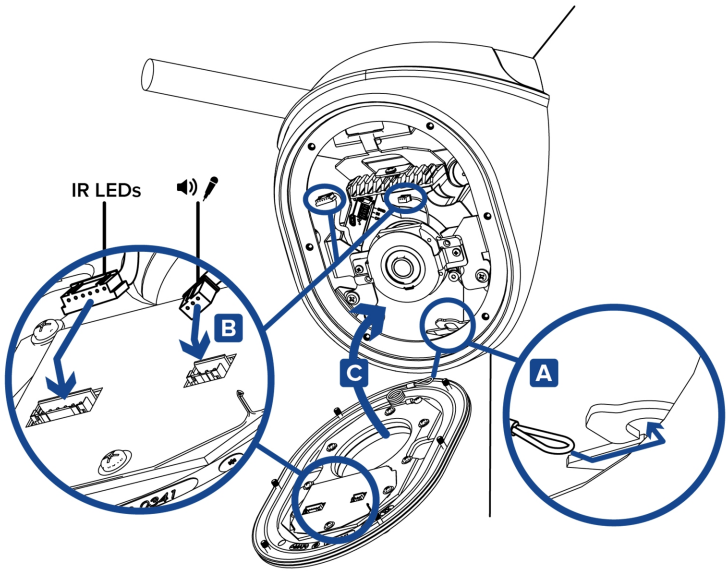
Installing the Front Cover

Note:
Before installing the dome cover, we recommend that you first connect to the camera and adjust the aim, zoom, and focus so that the camera covers the required field of view. For more information, see:

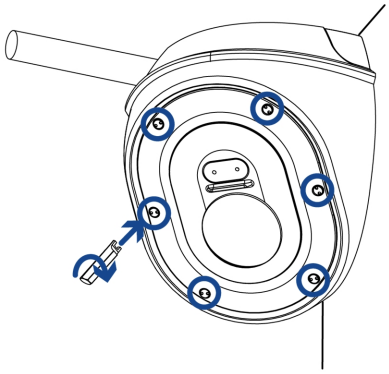
- *Assigning an IP Address* on page 22
- *Mounting the Camera Gimbal to the Base* on page 18
- *Configuring the Camera* on page 23

Be careful not to touch or scratch the dome bubble. Any marks or fingerprints on the dome bubble will cause unwanted reflections.

1. Attach the lanyard to the lanyard hook at the bottom of the camera base (A).



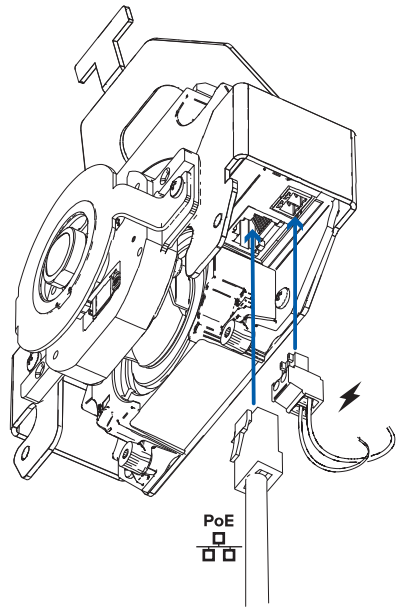
2. Connect the LED cable to the connector on the front cover (B).
3. If you are using the built-in microphone, connect the microphone audio cable to the connector on the front cover (B).
4. Fit the front cover into place (C).
5. Secure the front cover to the camera base by tightening the 6 screws with the supplied driver.



Cable Connections

Connecting External Power

If PoE is not available, the camera needs to be powered through the removable power connector block. Refer to the diagram below for the location of the power connector block. The gimbal will need to be removed from the housing to access the power connector block.



To connect power to the power connector block, complete the following steps:

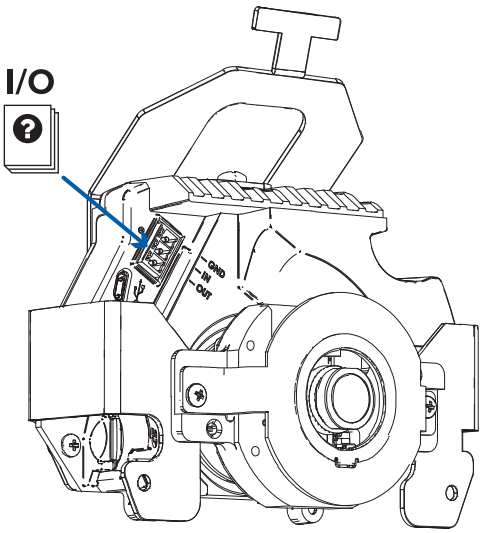
1. Remove the power connector block from the camera.
2. Remove the insulation from ¼" (6 mm) of the power wires. Do not nick or damage the wires.
3. Insert the two power wires into the two terminals on the power connector block. The connection can be made with either polarity.

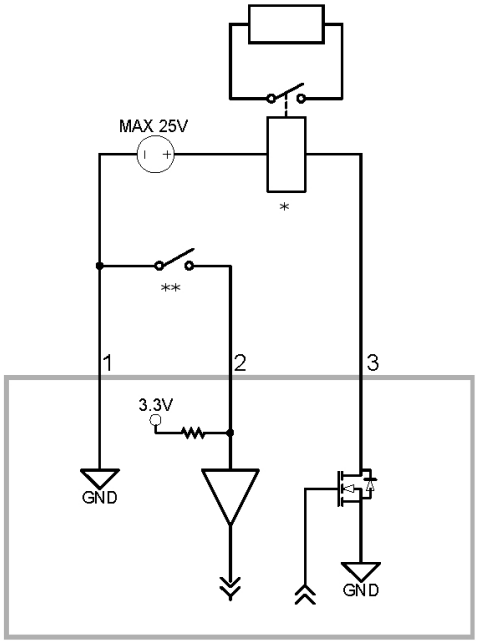
   Use a small slotted (5/64" or 2 mm blade width) screwdriver to loosen and tighten the terminals.
4. Attach the power connector block back into the camera.

WARNING — This product is intended to be supplied by a UL Listed Power Unit marked "Class 2" or "LPS" or "Limited Power Source" with output rated 12 VDC or 24 VAC, 13 W min. or PoE, 13 W min.

Connecting to External Devices

External devices are connected to the camera through the I/O terminal block. The pinout for the I/O terminal block is shown in the following diagram:





1. Ground
2. Input — To activate, connect the Input to the Ground pin. To deactivate, leave disconnected or apply between 3-15 V.
3. Output — When active, Output is internally connected with the Ground pin. Circuit is open when inactive. Maximum load is 25 VDC, 120 mA.

- * — Relay
- ** — Switch

Connecting to Microphones, Speakers, and Video Monitors

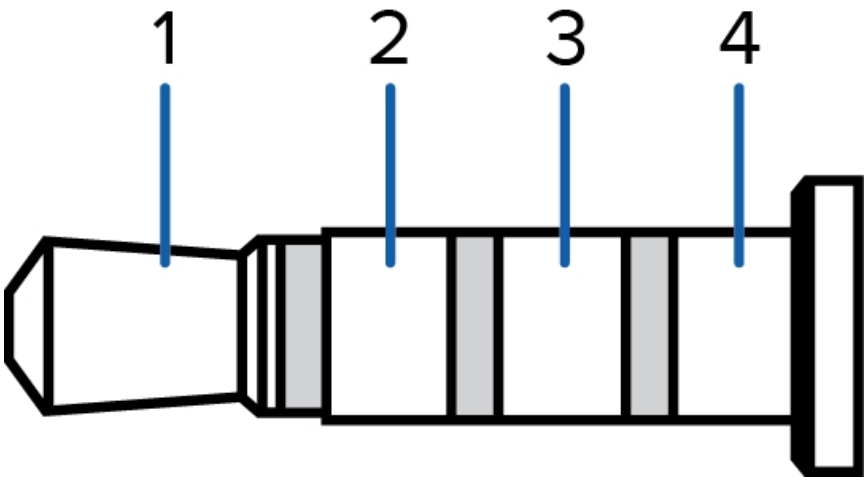
The camera can be connected to an external microphone, speaker and video monitor through the mini-jack (3.5 mm) audio/video connector (Avigilon part number CM-AC-AVIO1).

Only the 2.0 megapixel models can be connected to an external video monitor through the A/V connector.

Note: The camera only supports line level mono audio input and an NTSC or PAL video output.

The video output signal is determined by the camera flicker control setting. When the camera flicker control is set to 60 Hz, the video output signal is NTSC. When the flicker control is set to 50 Hz, the video output signal is PAL. Use the Camera Installation Tool to configure the camera's flicker control in the Image and Display setup.

The pinout for the connector is shown in the following diagram:



The wiring for the connector pinout is shown in the following table:

Ring	Purpose	Wire
1	Audio IN	Red
2	Composite Video OUT	Black
3	GND	Yellow
4	Audio OUT	Green
4	No connection	Green

Connection Status LED Indicator

Once connected to the network, the green Connection Status LED indicator will display the progress in connecting to the Network Video Management software.

The following table describes what the LED indicator shows:

Connection State	Connection Status LED Indicator	Description
Obtaining IP Address	One short flash every second	Attempting to obtain an IP address.
Discoverable	Two short flashes every second	Obtained an IP address but not connected to the Network Video Management software.
Upgrading Firmware	Two short flashes and one long flash every second	Updating the firmware.
Connected	On	Connected to the Network Video Management software or an ACC™ Server. The default connected setting can be changed to Off using the camera's web user interface. For more information see the *Avigilon IP Camera Web Interface User Guide*.

Troubleshooting Network Connections and LED Behavior

Note: For any of the below LED behaviors, ensure that the camera is getting power and is using a good network cable before trying another solution.

LED Behavior	Suggested Solution
Green LED is off and amber is on	Perform a factory reset of the camera using the physical firmware revert button. Resetting through the camera's web interface will not produce the desired result.
Both LEDs are off and the camera is not connected or streaming video	Check the **General** setup page in the camera's web interface to ensure the LEDs are not disabled. If the LEDs are not disabled, perform a factory reset of the camera using the physical firmware revert button. Resetting through the camera's web interface will not produce the desired result.

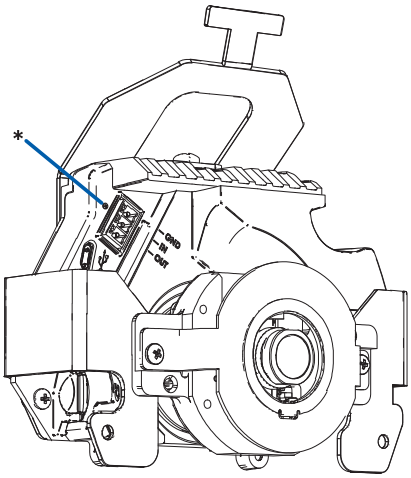
LED Behavior	Suggested Solution
Both LEDs are blinking several times at the same time, then pause and repeat the blinking	Perform a factory reset of the camera using the physical firmware revert button. Resetting through the camera's web interface will not produce the desired result.
A different LED blinking pattern than those described above	Perform a factory reset of the camera using the physical firmware revert button. Resetting through the camera's web interface will not produce the desired result.

Resetting to Factory Default Settings

If the device no longer functions as expected, you can choose to reset the device to its factory default settings.

Use the firmware revert button to reset the device. The firmware revert button is shown in the following diagram:

For cameras that have an SD card inserted, resetting the camera will not affect video that has been recorded to the SD card.



1. Ensure the device is powered on.
2. Using a straightened paperclip or similar tool, gently press and hold the firmware revert button.
3. Release the button after three seconds.

CAUTION — Do not apply excessive force. Inserting the tool too far may damage the camera.

Setting the IP Address Using the ARP/Ping Method

Complete the following steps to configure the camera to use a specific IP address:

> **Note:** The ARP/Ping Method will not work if the **Disable setting static IP address through ARP/Ping method** checkbox is selected in the camera's web browser interface. For more information, see the *Avigilon IP Camera Web Interface User Guide*.

1. Locate and make note of the MAC Address (MAC) listed on the Serial Number Tag for reference.
2. Open a Command Prompt window and enter the following commands:
   a. `arp -s` *<New Camera IP Address> <Camera MAC Address>*

      For example: `arp -s 192.168.1.10 00-18-85-12-45-78`

   b. `ping -l 123 -t` *<New Camera IP Address>*

      For example: `ping -l 123 -t 192.168.1.10`
3. Reboot the camera.
4. Close the Command Prompt window when you see the following message:

   `Reply from <New Camera IP Address>: ...`

Cleaning

Dome Bubble

If the video image becomes blurry or smudged in areas, it may be because the dome bubble requires cleaning.

To clean the dome bubble:

- Use hand soap or a non-abrasive detergent to wash off dirt or fingerprints.
- Use a microfiber cloth or non-abrasive fabric to dry the dome bubble.

Important: Failure to use the recommended cleaning materials may result in a damaged or scratched dome bubble. A damaged dome bubble may negatively impact image quality and cause unwanted IR light reflecting into the lens.

Body

- Use a dry or lightly dampened cloth to clean the camera body.
- Do not use strong or abrasive detergents.

For More Information

Additional information about setting up and using the device is available in the following guides:

- *Avigilon Control Center Client User Guide*
- *Web Interface User Guide — Avigilon High Definition H4 and H5 IP Cameras*
- *Camera Configuration Tool User Guide*
- *Designing a Site with Avigilon Video Analytics*

These guides are available on **help.avigilon.com** and on the Avigilon website: **avigilon.com/support**.

Limited Warranty and Technical Support

Avigilon warranty terms for this product are provided at **avigilon.com/warranty**.

Warranty service and technical support can be obtained by contacting Avigilon Technical Support: **avigilon.com/contact**.