

# AVIGILON™



## Installation Guide

### Avigilon H6A PTZ Camera Models:

2.0C-H6A-PTZ-DCM30

2.0C-H6A-PTZ-DPM30

4.0C-H6A-PTZ-DCM30

4.0C-H6A-PTZ-DPM30

2.0C-H6A-PTZ-DC30

2.0C-H6A-PTZ-DP30



**MOTOROLA SOLUTIONS**

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Avigilon Corporation  
avigilon.com

PDF-H6A-PTZ-A

Revision: 1 - EN

20240220

# 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.



## WARNING

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.



## CAUTION

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.
- ESD to the camera when it is operating could cause a temporary loss of video. When servicing the camera, follow the appropriate ESD mitigation procedures. The operator should remove any static by grounding themselves before servicing the camera.
- 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:
  - In-Ceiling Mount: 24 VAC  $\pm$  10% 55VA, or 24 VDC  $\pm$  10% 35W, or 25.5 W PoE+ IEEE 802.3 at Type 2, Class 4 compliant.
  - Pendant Mount: 24 VAC  $\pm$  10%, 85VA or 24 VDC  $\pm$  10% 70W, or IEEE 802.3at Type 2, Class 4 compliant, or IEEE802.3bt Type 3, Class 6 compliant, or IEEE802.3bt Type 4, Class 8 compliant\* (\*Using anything less than a Type 4, Class 8 PSE will result in reduced environmental and pan/tilt speed specifications).
- 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.

# Regulatory Notices

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.

Pendant mount models comply with EN 60529 IP66 and IP67 ratings.

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

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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.

To meet the requirements of the EN 50121-4 Railway Applications Standard, use an external power supply or POE injector that is also compliant with EN 50121-4. Please contact Avigilon for assistance regarding supporting equipment.

To meet the requirements of the EN 50130-4 Alarm Systems Applications standard, use an external uninterruptible power supply (UPS).

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.

## 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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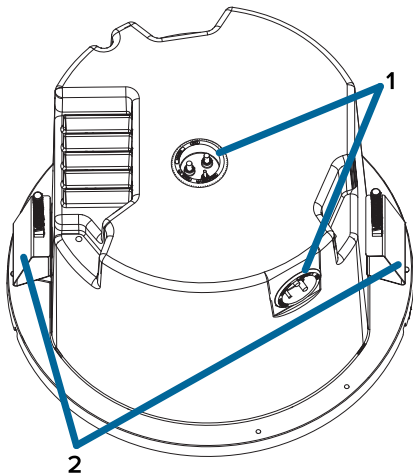
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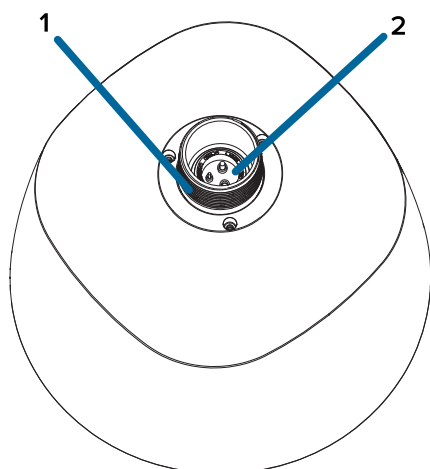
# Overview

## In-Ceiling Back Box (Top View)



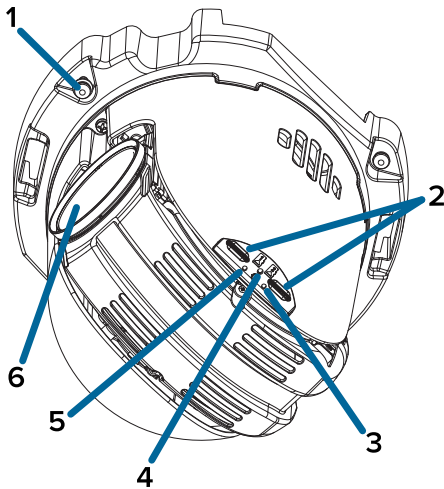
1. **Grommets**  
Provide weatherproofing and protection around the cables that pass through the camera housing.
2. **Spring Clips**  
Spring loaded clips that secure the camera to the ceiling tile.

## Pendant Back Box (Top View)



- 1. NPT Thread**  
1 1/2-inch NPT thread included in the back box for attaching to camera mounts.
- 2. Grommet**  
Provides weatherproofing and protection around the cables that pass through the camera housing.

## Dome Drive



**1. Tamper Resistant Screws**

Captive screws to fix the dome drive to the back box.

**2. microSD Card Slots**

Accepts up to two microSD cards for onboard storage. Install microSD cards so the metal contacts are facing inward. For more information, see [\(Optional\) Configuring microSD Card Storage on page 37](#).

**3. Link LED Indicator**

Amber LED indicates if there is an active connection in the Ethernet port, and that the device is receiving power.

**4. Firmware Revert Button**

Use the firmware revert button to reset the device.

**5. Connection Status LED Indicator**

Green LED provides information about device operation. For more information, see [Connection Status LED Indicator on page 39](#).

**6. Lens**

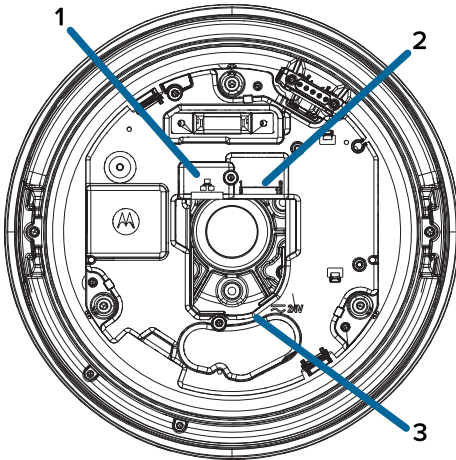
The camera lens is housed behind a protective window.



**NOTE**

The camera LEDs will flash and provide status information when the camera is establishing a network connection. Once the camera starts streaming video, the LEDs will automatically turn off.

## Back Box (Bottom View)



**1. Ethernet port**

Connects the camera to the IP network and supplies power to the camera through the network using Power over Ethernet 802.3bt or 802.3at for indoor models only and ambient temperatures above -10°C.

**2. Alarm, Relay, and Audio In/Out**

An 16-pin connector with four alarms, two relay, and audio in and out. Use a 24 ~ 30AWG multi conductor cable. For more information, see [Connecting to Power and External Devices on page 33](#).

**3. Power Terminal**

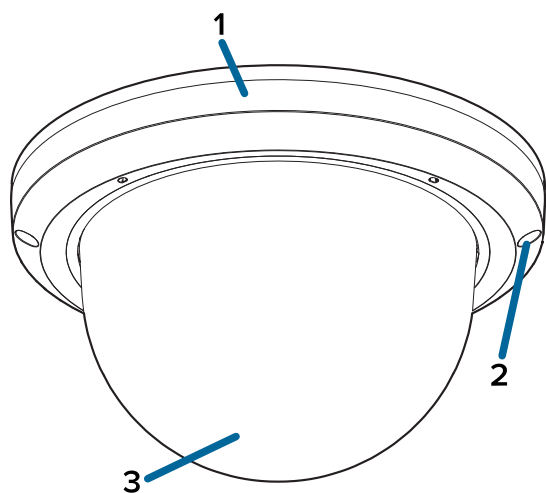
The port is used to connect with a 24 VAC power supply. Use 16 to 20 AWG gage wire.



**NOTE**

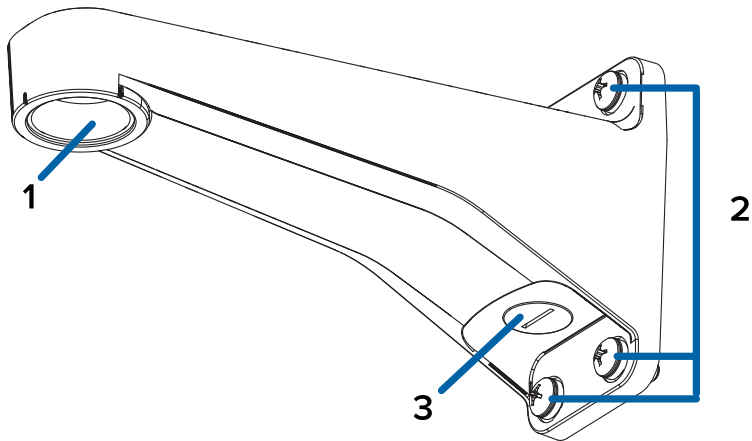
There is no polarity for the power connection.

## Camera Lower Dome



1. **Trim ring**  
Protective ring attached to the lower part of the camera's dome housing.
2. **Tamper resistant screws**  
Star-shaped captive screws to fix the dome cover to the base.
3. **Dome cover**  
Vandal resistant dome cover.

## Pendant Wall Mount



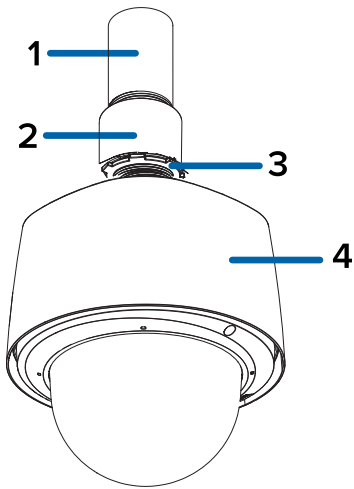
1. **1-1/2" NPS thread mount**  
Female NPS thread mount for pendant camera installations.
2. **Pendant wall mount screws**  
Screws (user supplied) for securing the pendant wall mount to the mounting bracket.
3. **NPT pipe entry hole**  
A 3/4" NPT threaded hole for NPT pipe conduits.



### NOTE

The pendant wall mount is sold separately.

## NPT Mount View



- 1. NPT Pipe**  
NPT pipe for mounting camera.
- 2. 1-1/2" NPT female to NPT-female adapter**  
An adapter for attaching the pendant back box to an NPT pipe.
- 3. Lock nut**  
Locking nut for securing the pendant back box on the NPT-female to NPT-female adapter.
- 4. Pendant mount camera**  
Pendant mount camera.



### NOTE

The NPT pipe and the 1-1/2" NPT-female to 1-1/2" NPT-female adapter is not supplied or sold by Avigilon and should be sourced separately.

# In-Ceiling Mount Installation

## Required Tools and Materials

The following tools are required to complete the installation but are not included in the package:

- Appropriate tool for cutting the entry hole in the mounting surface
- Power drill that can be used as a screwdriver
- Cat 5e (or higher) ethernet cable
- RJ-45 connector to terminate the ethernet cable if not already terminated
- RJ-45 Crimp Tool
- Mini or precision flat head screw driver (optional)
- 24-30 AWG, up to 16 multi conductor cable for alarms, relays, and/or audio (optional)
- 16-20 AWG, 2 conductor cable for 24V auxiliary power (optional)
- One or two Micro SD card capable of a minimum write speed of 10 MB/sec is recommended for recording HD video (optional)
- 3/4" Conduit fittings and pipe (optional)

## Camera Package Contents

Ensure the dome camera package contains the following:

- H6A PTZ Camera
  - In-Ceiling Back box
  - Lower Dome (includes trim ring and bubble)
  - Dome Drive
  - 16-pin terminal block
  - 2-pin terminal block
  - Power Bit Pin-In-Torx T20
  - Grommet
  - Grommet piercing tool for RJ-45 connector
  - Mounting template
  - In-Ceiling Quick Start Guide

## Installation Steps

Complete the following sections to install the device.



## Installing the In-Ceiling Back Box



### NOTE

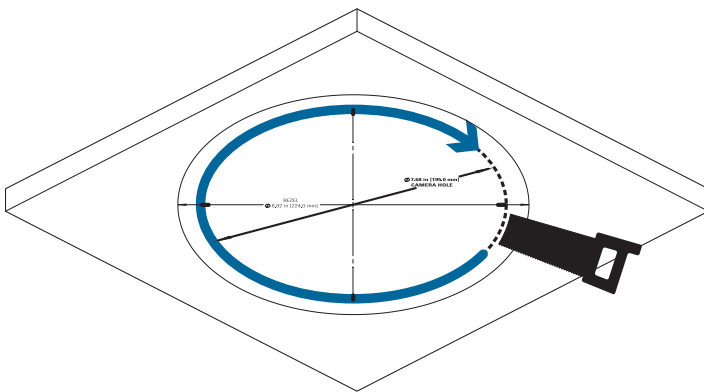
All protective packaging must be removed from the outside of the in-ceiling back box prior to beginning installation.



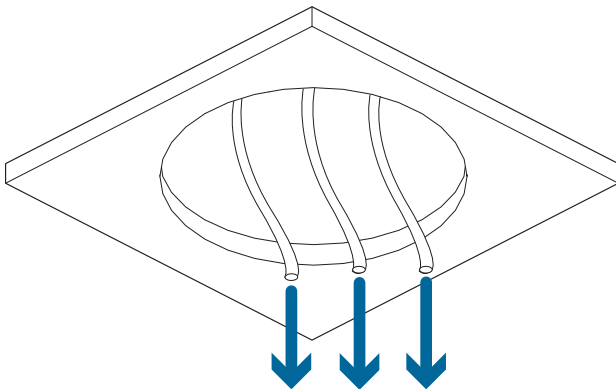
### NOTE

The maximum supported ceiling thickness is 38.1 mm (1.5").

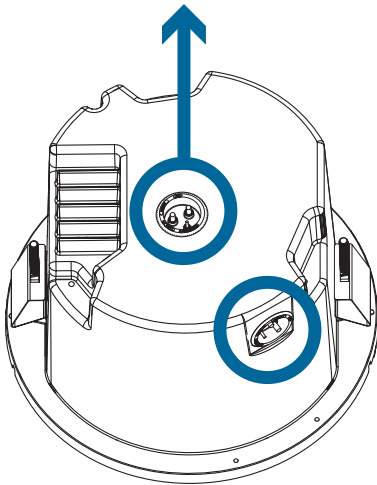
1. Use the in-ceiling mounting template to cut an entry hole for the camera into the ceiling.



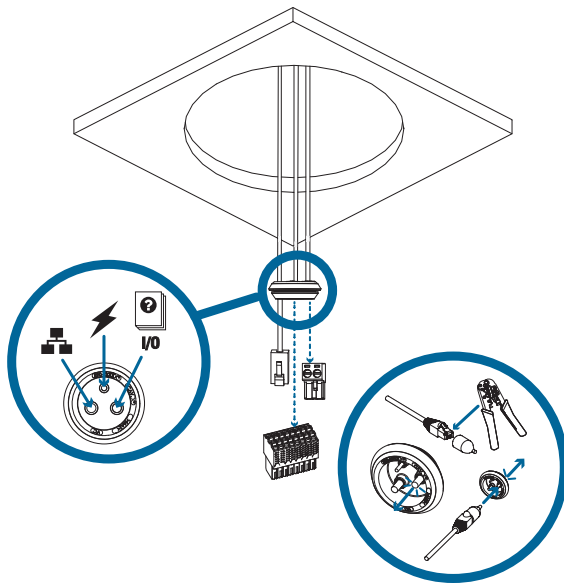
2. Pull the cables through the mounting surface. There will be three cables total. One Ethernet Cable with RJ45, a pair of power cables with stripped leads for 24 VAC/DC applications, and a 1~16 multi-wire cable bundle.



3. Remove a grommet in the back box to feed the cables through. Choose the top or side grommet option. Optional: Grommet(s) can be replaced with 3/4" conduit fittings and pipe (not supplied) for routing of the cables.



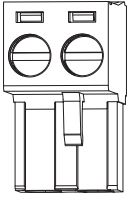
4. First, feed the RJ45 cable through the grommet with the supplied insertion tool. The RJ45 cable has to be the first cable fed through the grommet.
  - a. Two of the grommet holes are the same size and the third is different. Use the third, or smallest, hole for the power cable.
  - b. Use the other two holes for either of the other two cables (e.g. The Ethernet cable can go into either one of the two holes that are the same size.).
  - c. Feed an already terminated Ethernet cable through the grommet using the supplied insertion tool.



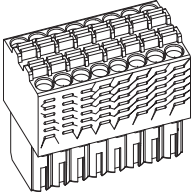
#### NOTE

If the insertion tool is not used, then the Ethernet cable needs to be terminated with an RJ45 connector (not supplied) after being passed through the grommet.

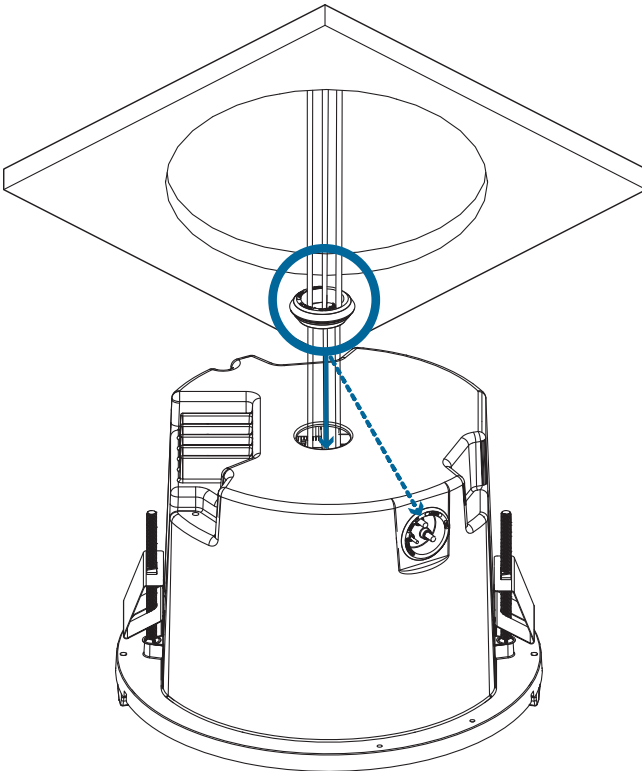
5. Terminate the pair of power cables to the supplied, two-pin, removable header with screw down terminals.



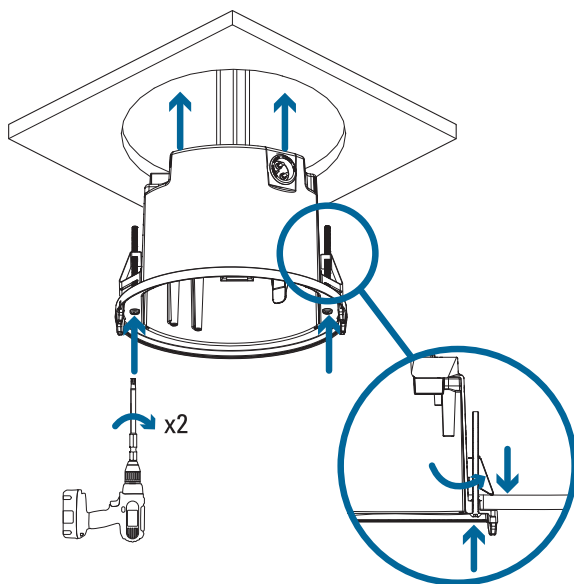
6. Terminate the 1~16 multi-wire cable bundle to the supplied 16-pin removable header with push-in terminals. For more information, see [Connecting to Power and External Devices on page 33](#).



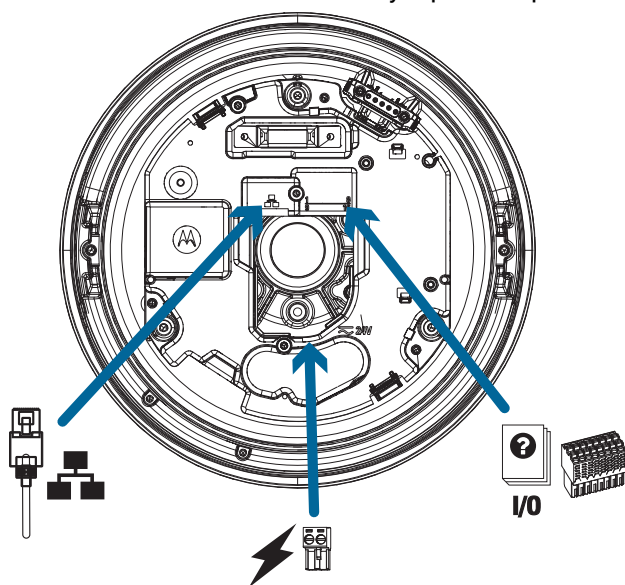
7. Once all of the cables are terminated (after being fed through the grommet), feed that entire bundle through the back box and seat the grommet.



8. Push the back box (with grommet and cables attached), into the ceiling hole. Secure the back box in the ceiling using the two spring clips. Tighten the two screws using the supplied power bit and a power driver or drill.



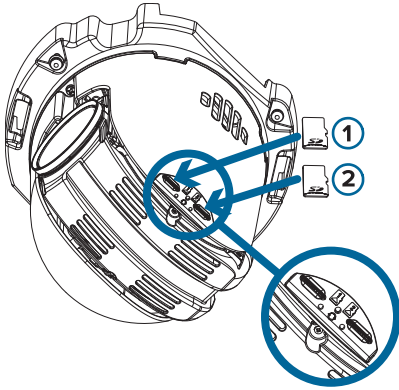
9. Connect the cables to the power supply board's (PCB's) printed circuit board assembly (PCBA) inside the bottom of the back box.
  - a. Connect the cable for network/PoE or network. The connector on the camera is a RJ45.
  - b. Connect the cable for auxiliary power.
  - c. Connect the cable for the auxiliary Inputs/Outputs/Audio.



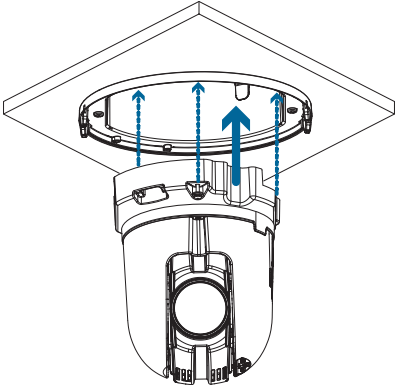
## Installing the Dome Drive into the Back Box (In-Ceiling)

After you install the back box, mount the dome drive to the back box.

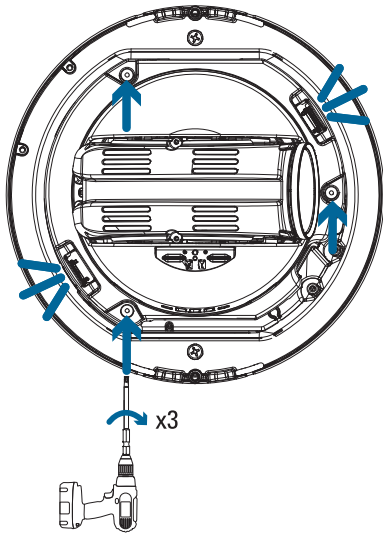
1. Insert one or two SD cards in the slots in the dome drive. For more information, see the [\(Optional\) Configuring microSD Card Storage on page 37](#).



2. Lift the dome drive into the back box.



3. Snap the dome drive into the back box and secure it by fastening the three screws.



## Installing the Dome Cover (In-Ceiling)



### NOTE

Before installing the dome cover, we recommend that you first connect to the camera. For more information, see:

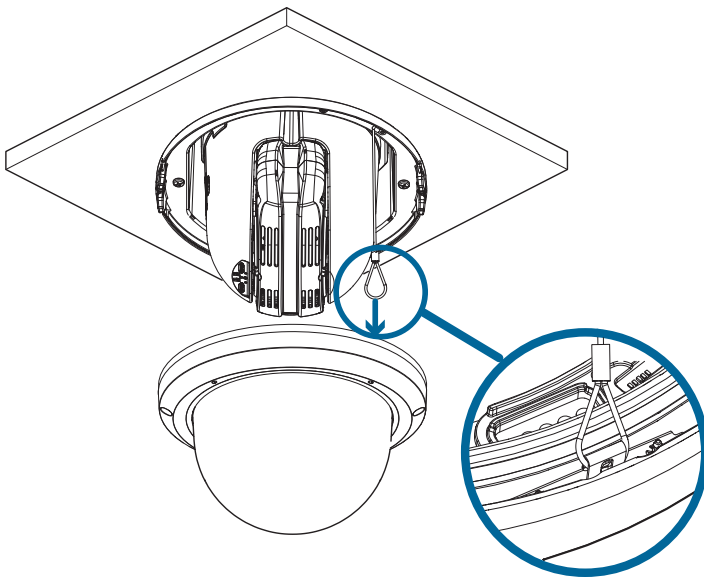
- [Connecting to the Camera on page 35](#)



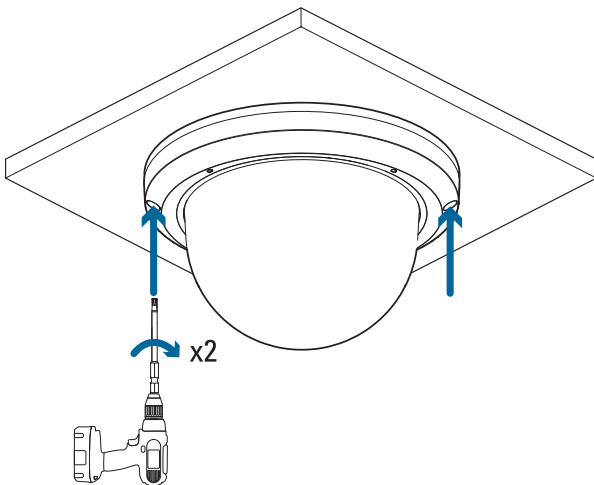
### NOTE

Be careful not to scratch the dome bubble. Do not remove the protective film until after installation.

1. Attach the lanyard to secure the lower dome. There is a post on the back box that the lanyard is bolted to.



2. Hold the lower dome in place and fasten the two screws to secure it. The lower dome has captive screws, so they will hang from the trim ring, but they will not fall off.



3. Remove the protective cover on the outside of the dome bubble.

# Pendant Mount Installation

## Required Tools and Materials

The following tools and materials are required to complete the installation but are not included in the package:

- Appropriate tool for cutting the entry hole in the mounting surface
- Power drill that can be used as a screwdriver
- Tongue and groove pliers
- Cate 5e (or higher) ethernet cable
- RJ-45 connector to terminate the ethernet cable if not already terminated
- RJ-45 Crimp Tool
- Mini or precision flat head screw driver (optional)
- 24-30 AWG, up to 16 multi conductor cable for alarms, relays, and/or audio (optional)
- 16-20 AWG, 2 conductor cable for 24V auxiliary power (optional)
- One or two Micro SD card capable of a minimum write speed of 10 MB/sec is recommended for recording HD video (optional)
- 1-1/2" NPT Female to 1-1/2"NPT Female adapter and 1-1/2" conduit/pipe (optional)
- 3/4" NPT Conduit fitting and pipe (optional)
- Four 5/16" to 3/8" (M8 to M10) diameter fasteners appropriate for the wall mounting substrate. The type of screw, material, and length is dependent on the substrate and the environment and should be selected to support a minimum of 60lbs (30kg). (optional)

## Package Contents

Ensure the dome camera package contains the following:

- Avigilon H6A PTZ Camera
  - Pendant Back box
  - Lower Dome (includes trim ring and bubble)
  - Dome Drive
  - 16-pin terminal block
  - 2-pin terminal block
  - Power Bit Pin-In-Torx T20
  - Grommet
  - Grommet piercing tool for RJ-45 connector
  - Lock nut
  - Teflon tape
  - Pendant Quick Start Guide

For Installation to the Pendant Wall Mount, the following additional items are required (purchased separately):

- Pendant Wall Mount (WLMT-1031 or WLMT-1021)
- Wall Mount mounting template

For Installation to a Pipe, the following user supplied items are required:

- 1-1/2" NPT-female to 1-1/2" NPT-female adapter
- 1-1/2" Conduit or Pipe



### **IMPORTANT**

These items are not supplied by Avigilon and should be sourced separately.

## Installation Steps

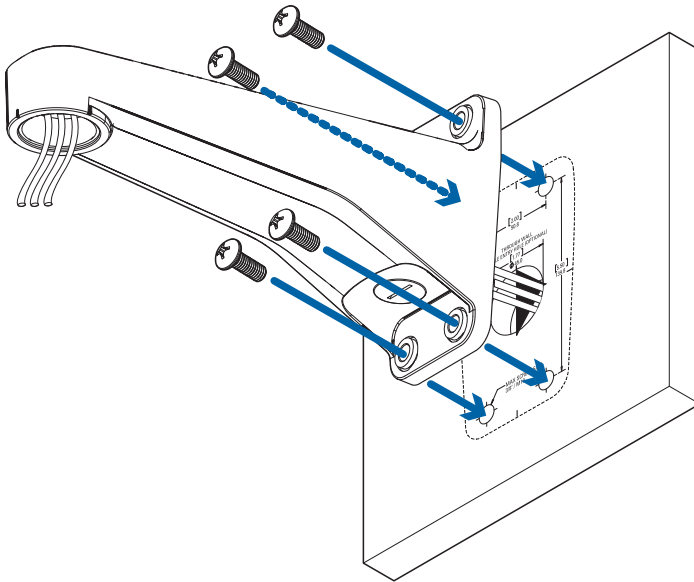
Complete the following sections to install the device.



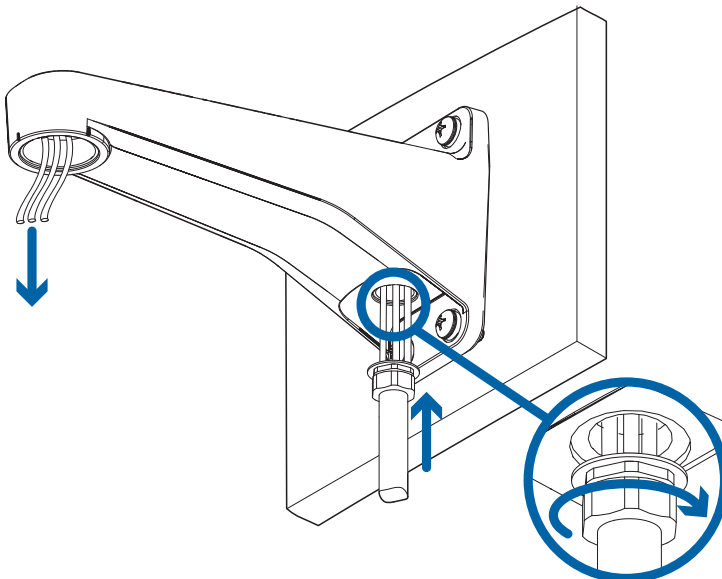
## (Optional) Mounting the Dome Camera to the Pendant Wall Mount

If the dome camera will be using the pendant wall mount, you will need to attach it to the pendant back box.

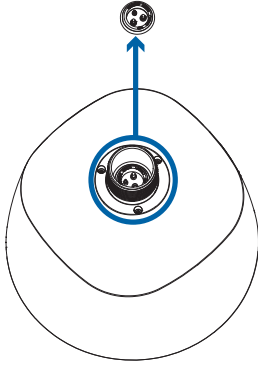
1. Determine where the cables will enter the pendant wall mount.
  - If the cables will be pulled from inside the mounting surface, use the cable entry hole at the rear of the pendant wall mount.
  - If the cables will be coming out of an external conduit pipe, use the 3/4" NPT pipe entry hole on the bottom of the pendant wall mount.
2. Use the provided mounting template to drill four mounting holes into the mounting surface.
  - If you are using the rear cable entry hole, also drill the cable entry hole into the mounting surface.
3. Place the pendant wall mount on the mounting surface and screw it in using the user supplied screws. Pull cables through the wall mount if using rear cable entry.



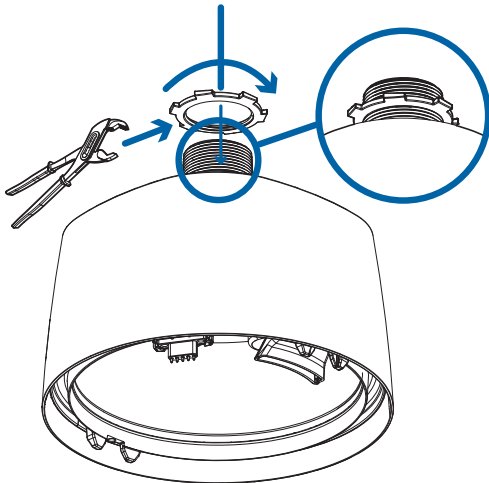
4. If you are using the pipe entry hole, pull the cables through the pipe conduit then the wall mount. Next, apply thread seal tape to the pipe conduit and screw it into the pipe entry hole.



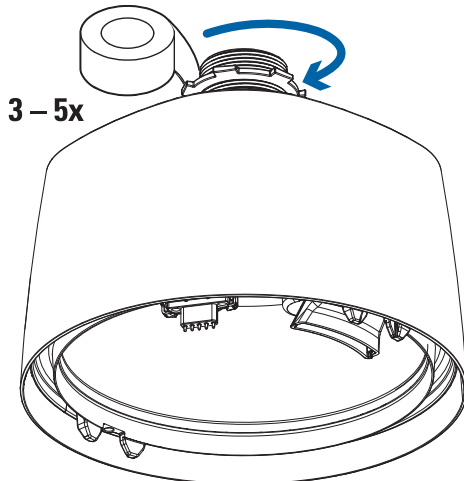
5. Remove a grommet in the back box to feed the cables through.



6. Screw the locknut into the back box. Tighten the locknut using tongue and groove pliers.

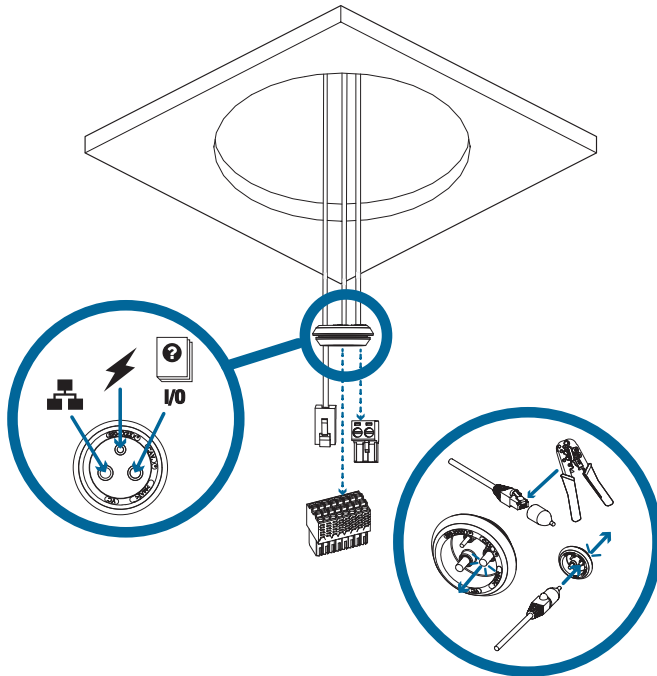


7. Apply the supplied Teflon tape to the threads in the back box.



8. First, feed the RJ45 cable through the grommet with the supplied insertion tool. The RJ45 cable has to be the first cable fed through the grommet.
- Two of the grommet holes are the same size and the third is different. Use the third, or smallest, hole for the power cable.
  - Use the other two holes for either of the other two cables (e.g. The Ethernet cable can go into either one of the two holes that are the same size.).

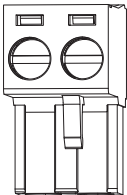
- c. Feed an already terminated Ethernet cable through the grommet using the supplied insertion tool.



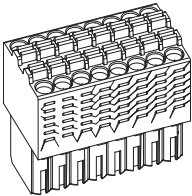
#### NOTE

If the insertion tool is not used, then the Ethernet cable needs to be terminated with an RJ45 connector (not supplied) after being passed through the grommet.

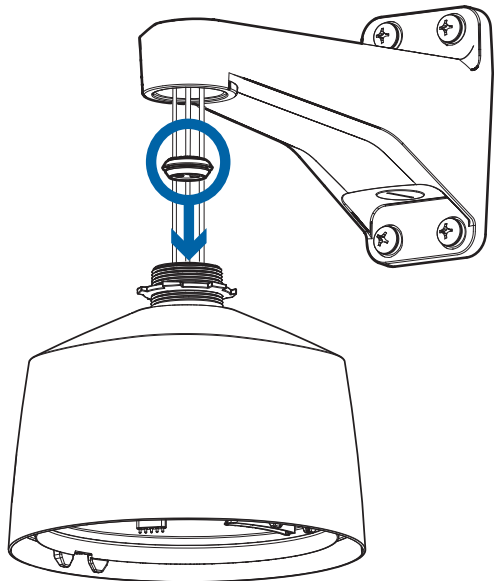
9. Terminate the pair of power cables to the supplied, two-pin, removable header with screw down terminals.



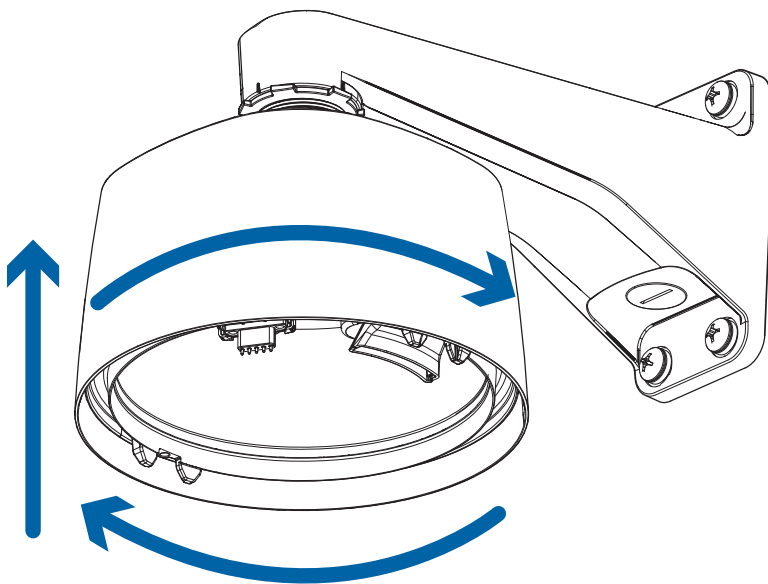
10. Terminate the 1~16 multi-wire cable bundle to the supplied 16-pin removable header with push-in terminals. For more information, see [Connecting to Power and External Devices on page 33](#).



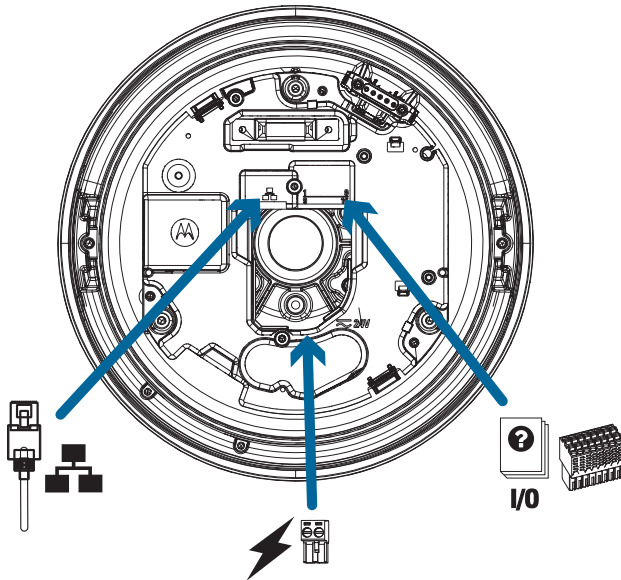
11. Once all of the cables are terminated (after being fed through the grommet), feed that entire bundle through the back box and seat the grommet.



12. Screw the pendant back box into the wall arm and tighten.



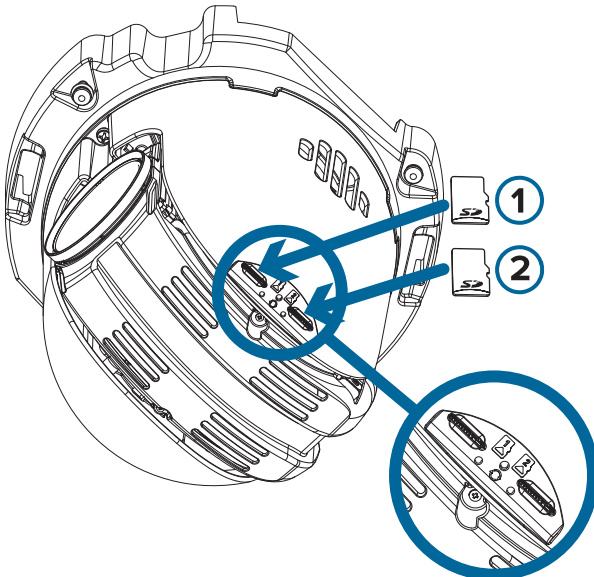
13. Connect the cables to the power supply board's (PCB's) printed circuit board assembly (PCBA) inside the bottom of the back box.
  - a. Connect the cable for network/PoE or network. The connector on the camera is a RJ45.
  - b. Connect the cable for auxiliary power.
  - c. Connect the cable for the auxiliary Inputs/Outputs/Audio.



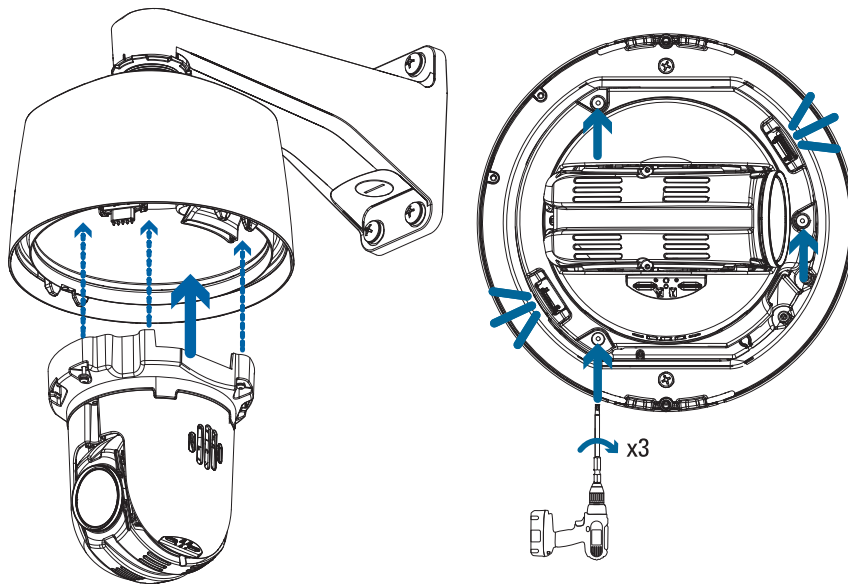
## Installing the Dome Drive to the Back Box (Pendant)

After you install the back box, mount the dome drive to the back box.

1. Insert one or two SD cards in the slots in the dome drive. For more information, see the [\(Optional\) Configuring microSD Card Storage on page 37](#).



2. Lift the dome drive into the back box. Snap the dome drive into the back box and secure it by fastening the three screws.



## Installing the Dome Cover (Pendant)

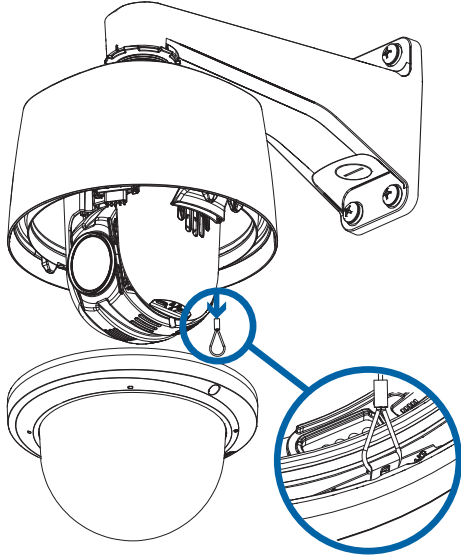


### NOTE

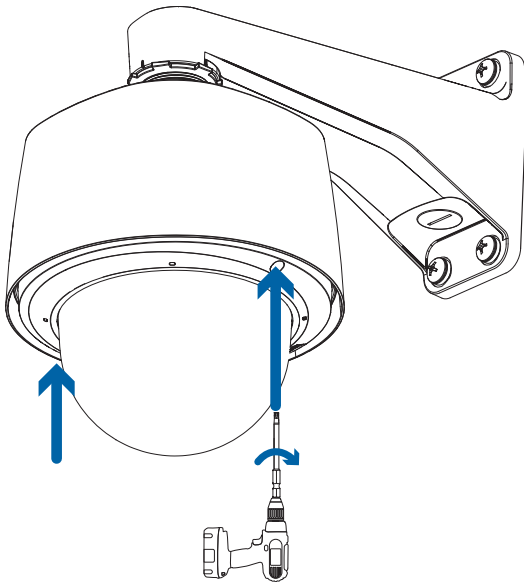
Before installing the dome cover, we recommend that you first connect to the camera. For more information, see:

- [Connecting to the Camera on page 35](#)

1. Attach the lanyard to secure the lower dome. There is a post on the back box that the lanyard is bolted to.



2. Hold the lower dome in place and fasten the two screws to secure it. The lower dome has captive screws, so they will hang from the trim ring, but they will not fall off.



3. Remove the protective cover on the outside of the dome bubble.

## Mounting the Dome Camera to a Pipe



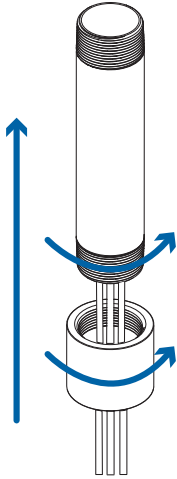
### NOTE

This procedure requires a 1-1/2" NPT-female to 1-12" NPT-female pipe adapter. It is recommended that the NPT adapter be mounted to a 1-1/2" conduit pipe.

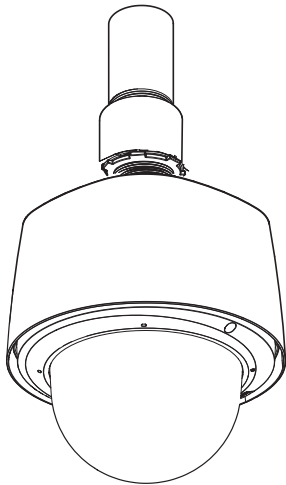
1. Pull the required cables through the NPT conduit pipe.
2. Apply thread seal tape to the pipe and screw on the 1-1/2" NPT female to NPT female pipe adapter.
3. Screw the lock nut onto the pendant back box.
4. Apply thread seal tape to the NPT adapter and screw it into the pipe adapter.

Make sure the parts are assembled in this order from NPT conduit pipe to pendant back box:

- a. NPT conduit pipe
- b. 1-1/2" NPT female to female pipe adapter
- c. Lock nut
- d. Pendant back box



5. Refer to steps 5-13 in this section for more information: [\(Optional\) Mounting the Dome Camera to the Pendant Wall Mount on page 25](#).
6. Verify all connections on the H6A PTZ Camera with pipe mount are assembled correctly.





# Cable Connections

## Connecting to Power and External Devices

The camera may be powered with PoE and/or through the auxiliary power cable using either a 24 VDC or 24 VAC (RMS) auxiliary power source that supports up to 71W or 85VA.

### Seamless Failover

Redundant power with seamless failover is available on the PTZ camera. Seamless failover allows the camera to transition between PoE and auxiliary power sources without any interruption of camera operation. This is mainly useful if you want redundant power sources so that power will be available if one power source goes down. The auxiliary power source takes priority in providing power.



#### NOTE

Seamless failover is only guaranteed when IEEE802.3bt power for outdoor cameras or IEEE803.at power for indoor cameras is available on the PoE port. Auxiliary (Aux) power is always assumed to be sufficient meaning that there is enough power available for all possible camera functions.

To power the camera, use 2-pin plug in connector (supplied with the camera), connect the two power wires to the connector and plug it into camera. The connection can be made with either polarity. 18AWG or heavier wires recommended for most cable runs between the 24VAC/VDC power source and the camera. If a longer cable run is required, a wire gauge table should be consulted to ensure that the voltage at the camera does not drop outside of the specified range when the camera is operating at the maximum rated power draw.

Power supplies and external devices are connected to the camera through the power and I/O wires.



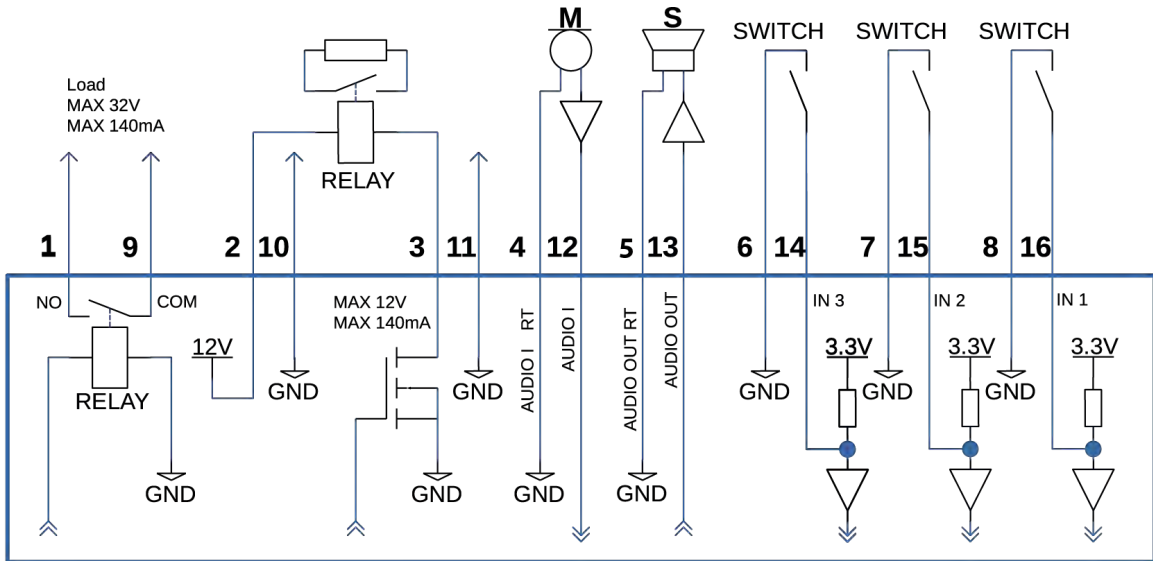
#### WARNING

This product is intended to be powered by a UL Listed Power Unit marked "Class 2" or "LPS" or "Limited Power Source" with output rated:

- In-Ceiling Mount: 24 VAC  $\pm$  10% 55VA, or 24 VDC  $\pm$  10% 35W, or 25.5 W PoE+ IEEE 802.3 at Type 2, Class 4 compliant.
- Pendant Mount: 24 VAC  $\pm$  10%, 85VA or 24 VDC  $\pm$  10% 70W, or IEEE 802.3at Type 2, Class 4 compliant, or IEEE802.3bt Type 3, Class 6 compliant, or IEEE802.3bt Type 4, Class 8 compliant\* (\*Using anything less than a Type 4, Class 8 PSE will result in reduced environmental and pan/tilt speed specifications).

## External Devices Connection

External devices are connected to the camera through the supplied I/O 16-pin plug in connector. The pinout for the I/O connector is shown in the following diagram.



Description	Plastic Cover Pin-Out
RELAY COM	9
RELAY NO	1
12V OUT RETURN (GND)	10
12V OUT	2
DIGITAL OUT RETURN (GND)	11
DIGITAL OUT	3
AUDIO IN	12
AUDIO IN RETURN (GND)	4
AUDIO OUT	13
AUDIO OUT RETURN (GND)	5
ALARM 3 RETURN (GND)	14
ALARM 3	6
ALARM 2 RETURN (GND)	15
ALARM 2	7
ALARM 1 RETURN (GND)	16
ALARM 1	8

# Connecting to the Camera

## 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*.
- Avigilon Control Center software version 7.4 or later, or version 6.14.12 or later: when connecting a device in the factory default state, the client software will ask you to create a new user. For more information, see the *Avigilon Unity Video Client User Guide* or 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 or Camera Configuration Tool before you connect to the 3rd party VMS.

## 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:

- Device's web browser interface: `http://<camera IP address>/`.
- Network Video Management software application (for example, the Avigilon ACC Video software).

## Accessing the Live Video Stream

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

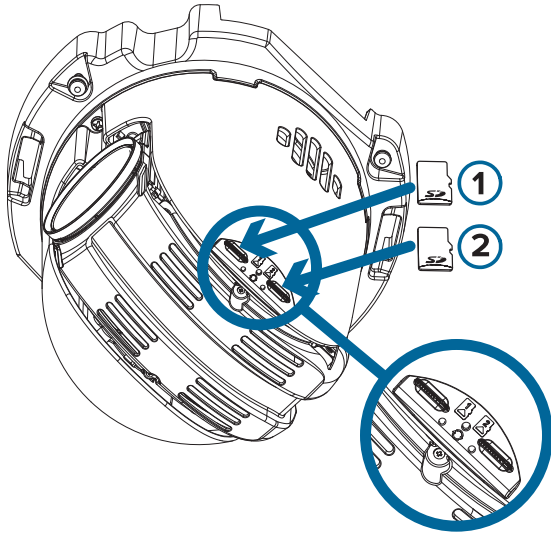
- Web browser interface: `http://< camera IP address>/`.
- Network Video Management software application (for example, the Avigilon Unity Video software).

## (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 V10 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 High Definition H6 IP Camera Web Interface User Guide*.

## Configuring the Camera

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

- 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*.

# Setting the Home Preset Position

The PTZ camera supports self-learning video analytics from the home preset position. The home preset position is typically the field of view the PTZ camera returns to after being used for investigations.


Before you can configure the camera's home position, you must connect the camera to a site in the ACC™ Client software. For more information about adding cameras to a site and the following steps, see the *Avigilon Control Center Client User Guide*.

To set the home preset position, display the live video from the PTZ camera then complete the following steps:




## TIP

Name the preset position "Home" so that it will be easy to find when configuring the camera for other applications.

1. Move the camera's field of view into position.
2. In the **Presets** drop-down list, select a number then click .
3. In the dialog box, enter a name for the preset.
4. Select the **Set as home preset** checkbox if you want this to be the camera's Home preset.
5. Click **OK**.

After you've set the camera's home preset position, you can configure the required video analytics events in the ACC Client software.

## Manually Returning to the Home Position

After the home preset position has been configured, you can set the PTZ camera to return to the configured field of view by clicking .

## Automatically Returning to the Home Position

You can also configure the PTZ camera to automatically return to the home preset position after the camera is left idle for a set amount of time. This can be configured in two ways: through a PTZ tour or a rule.

A PTZ tour can be configured from the camera web interface or in the ACC Client software. To configure the PTZ camera to automatically return to the home position, create a new tour and add only the home position to the preset list. Next, select the Set as default tour checkbox and use the Default Tour Idle Start Time (Minutes) field to define the expected amount of idle time before the camera returns to the home position.

To use the rule method, you must have an Enterprise Edition or Standard Edition version of the Avigilon Control Center system. To configure the PTZ camera to automatically return to the home position, create a rule that includes the following settings:

- On the Select Rule Event(s) page, select **PTZ idle**.
- On the Select Rule Action(s) page, select **Go to Home Preset**.

# 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, a Unity Video Server, 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 <i>Avigilon IP Camera Web Interface User Guide</i> .

## 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 <b>General</b> 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.
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	Perform a factory reset of the camera using the physical firmware

**LED Behavior****Suggested Solution**

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described above

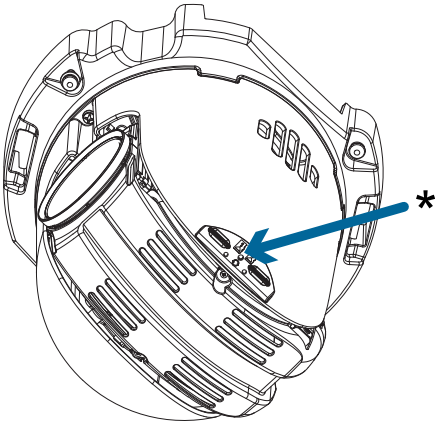
revert button. Resetting through the camera's web interface will not produce the desired result.



# 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:



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.

# 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*
- *Avigilon IP Camera Web Interface User Guide*
- *Camera Configuration Tool User Guide*
- *Designing a Site with Avigilon Video Analytics*

These guides are available on [help.avigilon.com](https://help.avigilon.com) and on the Avigilon website: [avigilon.com/support](https://avigilon.com/support).

# Limited Warranty and Technical Support

Avigilon warranty terms for this product are provided at [avigilon.com/warranty](https://www.avigilon.com/warranty).

Warranty service and technical support can be obtained by contacting Avigilon Technical Support: [avigilon.com/contact](https://www.avigilon.com/contact).