PELCO

by **Schneider** Electric

INSTALLATION

Next Gen Sarix®
Enhanced
IBE Series
Bullet Cameras

Installation Manual
C1334M 2/17

Contents

Important Notices

For more information about Pelco's product-specific important notices and thereto related information, refer to *www.pelco.com/legal*.

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.

Radio and Television Interference

This equipment has been tested and found to comply with the limits of 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 and modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commission's rules.

CAN ICES-3(A)/NMB-3(A).

Korean Class A EMC

이 기기는 업무용 (A 급) 전자파 적합기기로서 판매자 또는 사용자는
이 점을 주의하시길 바라며 , 가정 외의 지역에서 사용하는 것을 목적
으로 합니다 .

Warranty Statement

For information about Pelco's product warranty and thereto related information, refer to *www.pelco.com/warranty*.

Installation in Environmental Air Space, 4.7.3.1

The following statement or equivalent shall be marked on the product or provided in the Installation Instructions: "Suitable for use in environmental air space in accordance with Section 300-22(C) of the National Electrical Code, and Sections 2-128, 12-010(3) and 12-100 of the Canadian Electrical Code, Part 1, CSA C22.1."

UL Safety Notices

This product is intended to be supplied by a Listed Power Unit marked "L.P.S." (or "Limited Power Source") and rate output 24Vac, 50/60Hz, 1.28 minimum or 48 Vdc, 0.35A minimum.

The product shall be installed by a qualified service person and the installation shall conform to local codes.

Replaceable Batteries

CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions.

Introduction

The Next Gen Sarix® IBE Series IP cameras feature SureVision 3.0 technology that seamlessly deliver advanced low-light performance with Pelco's Wide Dynamic Range (WDR) and anti-bloom technologies that operate simultaneously. They are part of Pelco's Enhanced (E) range of cameras, providing industry-leading image quality and performance.

The Next Gen IBE Series Bullet Camera is easy to install, offers flexible mounting options, and uses a standard Web browser for easy remote setup and administration.

The Next Gen IBE Series Bullet Camera easily connects to Pelco IP and hybrid systems such as VideoXpert™, Endura® version 2.0 (or later), and Digital Sentry® version 7.3 (or later). The camera is also conformant with ONVIF Profile S, Profile G, and Profile Q for connection with third-party software. Pelco offers an Application Programming Interface (API) and Software Developer's Kit (SDK) for interfacing with Pelco's IP cameras.

This document describes the installation and initial setup procedures to begin operating the camera. For more information about operating your camera, refer to the operation manual specific to the product.

NOTE: For additional information about product documentation in English and other languages, go to www.pelco.com/sarix and navigate to the Next Gen IBE Series Bullet Camera website.

Models

IBE129-1I	Indoor, 3 ~ 9 mm focal range, with IR illumination, 1MPx, white
IBE129-1R	Environmental, 3 ~ 9 mm focal range, with IR illumination, 1MPx, light gray
IBE229-1I	Indoor, 3 ~ 9 mm focal range, with IR illumination, 2MPx, white
IBE229-1R	Environmental, 3 ~ 9 mm focal range, with IR illumination, 2MPx, light gray
IBE222-1I	Indoor, 9 ~ 22 mm focal range, with IR illumination, 2MPx, white
IBE222-1R	Environmental, 9 ~ 22 mm focal range, with IR illumination, 2MPx, light gray
IBE329-1I	Indoor, 3 ~ 9 mm focal range, with IR illumination, 3MPx, light gray, white
IBE329-1R	Environmental, 3 ~ 9 mm focal range, with IR illumination, 3MPx, light gray
IBE322-1I	Indoor, 9 ~ 22 mm focal range, with IR illumination, 3MPx, white
IBE322-1R	Environmental, 9 ~ 22 mm focal range, with IR illumination, 3MPx, light gray

Recommended Mounts

IBEPLMT-E	Pole mount, environmental, light gray
IBEWLMT-E	Wall mount, environmental, light gray
IBEWLMT-I	Wall mount, indoor, white

Getting Started

Before installing your device, thoroughly familiarize yourself with the information in the installation section of this manual.

NOTES:

- Pelco recommends connecting the device to a network that uses a Dynamic Host Configuration Protocol (DHCP) server to address devices.

- Do not use a network hub when configuring the network settings for the device.

- To ensure secure access, place the device behind a firewall when it is connected to a network.

Bullet Camera Models

Supplied Parts List

Qty	Description
1	Bullet camera
1	Power terminal block
1	Alarm terminal block
5	M4 self-tapping screws
5	Plastic screw anchors
1	Torx T20 security bit
1	Next Gen IBE Series Bullet Camera Installation Manual
1	Important Safety Instructions sheet
1	Resources sheet

User-Supplied Parts List

In addition to the standard tools and cables required for a video security installation, you will need to provide the following items:

Qty	Description
1	Cat 5 (or higher) cable with RJ-45 connector; ensure that the cable is terminated for your application (PoE or non-PoE)
1	#2 Philips screwdriver
1	microSD card, up to 128 GB SanDisk Extreme® PLUS SDHC™ UHS-I microSD card
1	Driver for included security bit (1/4" hex drive)
1	Alarm cable (optional)
1	Audio cable (optional)

Product Label

The product label lists the model number, date code, serial number, and Media Access Control (MAC) address. This information might be required for setup. A product label is located on the bottom of the camera and on the side the product box.

Product Overview
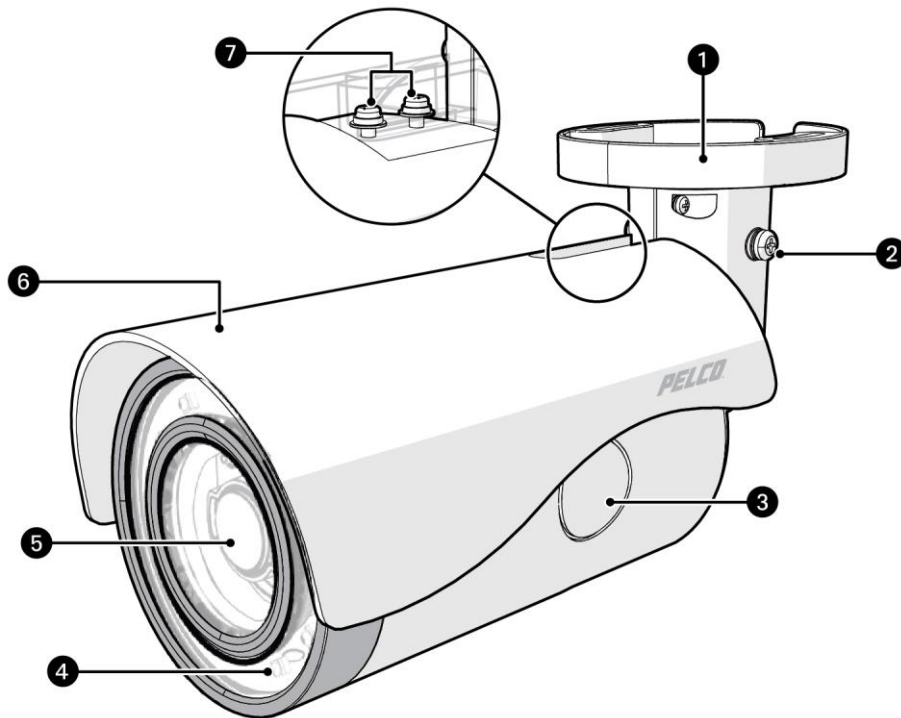
Next Gen IBE Series Bullet Camera

(1)   Mounting Base: Use the mounting base to surface mount the camera or mount with one of the optional mounting accessories (pole mount or wall mount).

(2)   Set Screws: One of two set screws to secure after aiming the camera.

(3)   SD Card Access: Onboard micro SD card storage up to 128 GB.

(4)   Infrared and Camera Status LEDs: The Next Gen IBE Series Bullet Camera includes adaptive IR illumination up to 30 meters. There are LED lights in a circle along the outer edge of the camera.

The Next Gen IBE Series Bullet Camera also includes a Camera Status LED which appears red at power on, changes to flashing green through boot up, and then it turns off when the camera is in normal operation.

(5)   Camera Lens: Built-in, varifocal, 3-9 mm or 9-22 mm lens.

(6)   Sun Shield: Plastic sun shield shades light while helping with heat control.

(7)   Screws: Two screws to fix the sun shield after adjustment.
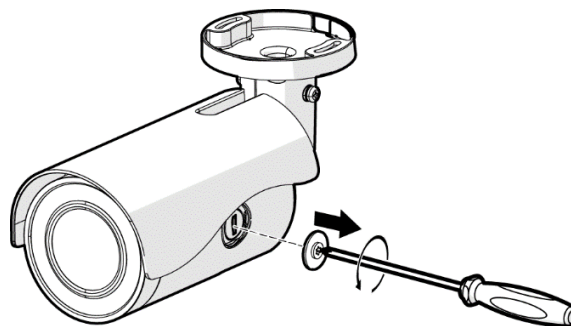
Installation

MicroSD Card Slot and Default Button

Insert the microSD card into the card slot to store videos and snapshots. Do not remove the microSD card when the camera is powered on.

1. Use a flathead screwdriver to remove the round cap covering the access hole on the side of the camera.
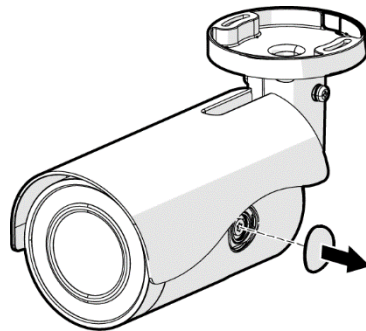

2. Using a Torx screwdriver, unscrew the internal cover.

NOTE: To record 24/7 continuously with the microSD card, contact the manufacturer of the microSD card for information regarding its reliability and life expectancy.

The **Default Button** is located under the internal cover along with the microSD card slot. Use this button to reset the camera to factory defaults.
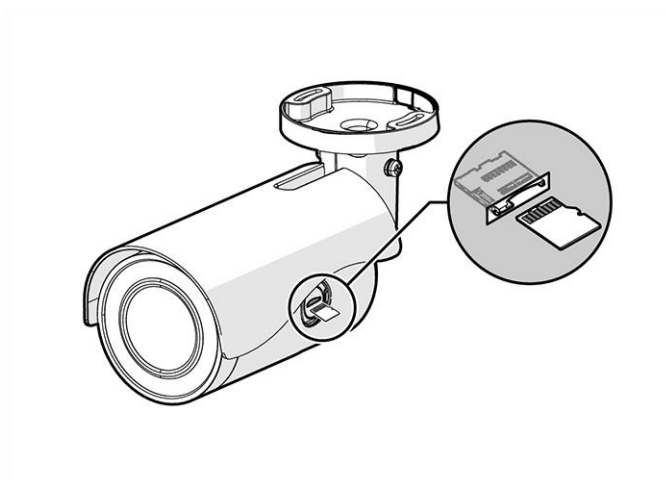
3. With the camera powered on, press and hold the **Default Button** with a proper tool for at least 20 seconds to restore the camera to factory default settings. Re-attach the internal metal cap and exterior round cap.

All-In-One Cable
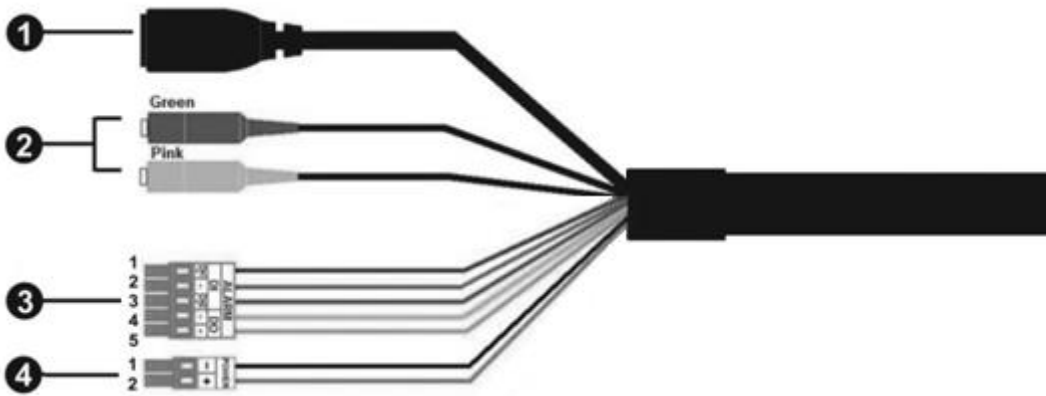
No	Cable	Pin	Definition		Remarks
1	Ethernet	–			
2	Audio I/O	Green	Audio Out		Two-way audio transmission
		Pink	Audio In		
3	Alarm I/O (5-position Terminal Block)	1	Alarm In 2 +		Alarm connection
		2	Alarm In – (common)		
		3	Alarm In 1 +		
		4	Alarm Out –		
		5	Alarm Out +		
4	Power (DC 12V / AC 24V) (2-position Terminal Block)	1	DC 12V –	AC 24V	Power connection
		2	DC 12V +	AC 24V	

Camera Cabling

Before connecting cables, make sure that all cables and the power adaptor are placed in dry and well-waterproofed environments (e.g. waterproof boxes).

Power Connection:
Connect a DC 12V / AC 24V adapter to the 2-pin terminal block of the All-In-One cable and the power outlet. Or, connect the Ethernet cable to the Ethernet connector of the All-In-One cable, and plug the other end of the cable into a PoE supply. It is not recommended to use dual power.

Ethernet Cable Connection:
Connect one end of the Ethernet cable to the Ethernet connector of the All-In-One cable, and plug the other end of the cable to the network switch or PC.

NOTE: When connecting the camera directly to a PC, you may need to use an Ethernet crossover cable.

NOTE: Check the status of the link indicator and the activity indicator LEDs. If the LEDs are unlit, please check the LAN connection. A green link light indicates a good network connection. An orange activity light flashes to indicate network activity.

Mounting the Camera

You can install the Next Gen IBE Series Bullet Cameras using one of the following mounting methods:

1. Camera can mount directly to the wall.

    - Refer to the section **Surface Mount: Ceiling or Wall**.

2. Installation using a wall mount junction box (optional accessory).

    - Refer to the section **Wall Mount Accessory: Installation with Indoor (IBEWLMT-I) and Environmental (IBEWLMT-E) Wall Mount**.

3. Installation using a pole mount junction box (optional accessory).

    - Refer to the section **Pole Mount Accessory: Installation with Environmental (IBEPLMT-E) Pole Mount**.

Surface Mount: Ceiling or Wall

Installation Guide

The Next Gen IBE Series Bullet Camera can be installed directly on a wall or ceiling with the integrated 2-axis adjustable bracket mount.

1. Place the camera at the installation location. On the ceiling or wall, mark the position of the two screw holes of the camera.

If the screw holes are blocked by the camera body, loosen the three screws shown in the pictures below, but do not detach the screws. Then rotate the camera body to reach the screw holes.

2. At the center of the two marked holes, draw a cable entry hole with 30 mm diameter and drill the cable entry hole. Then drill a hole for the screw (or supplied plastic screw anchor if necessary).
3. Thread the All-In-One cable through the cable entry hole. Refer to Camera Cabling section for cable connections.

4. Match the camera with the holes (or plastic screw anchors). Fasten the camera with the supplied M4x31 self-tapping screws.

5. Use a Torx screwdriver to loosen the two screws indicated in the picture below. Do not detach the screws. Rotate the camera and point the camera to a desired direction. Lastly, tighten the two screws to secure the camera.

Wall Mount: Installation with Indoor (IBEWLMT-I) and Environmental (IBEWLMT-E) Wall Mount

Supplied Parts List

| Qty	Description
1	Wall mount junction box
3	Plastic screw anchors
3	M4 x 25mm self-tapping screws
5	M4 x 12mm machine screws
3	Waterproof washers

User-Supplied Parts List

| Qty	Description
1	Bullet camera
1	Ethernet cable
1	Power cable (necessary if PoE is not available)
2	Alarm cable (optional)
3	Audio cable (optional)
1	Torx T20 security bit (supplied with camera)
1	Tool for drilling
1	Phillips and flathead screwdriver
1	Driver ¼" hex for security bit

Installation Guide

1. Loosen the two screws in the picture below with a screwdriver and detach the wall mount junction box (IBEWLMT-I or IBEWLMT-E) cover.


2. Place the wall mount junction box at the preferred installation location. On the wall, mark the position of the two screw holes indicated in the picture below. Drill a hole on each marked screw hole and insert the plastic screw anchors (if necessary) into the drilled holes.
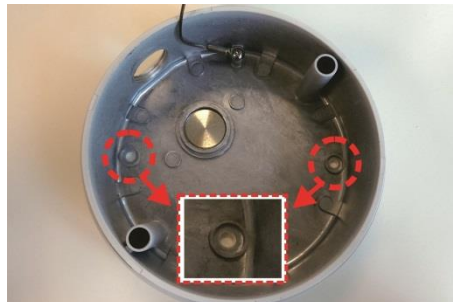

3. Place the supplied waterproof washers on the two screw holes. Match the two screw holes on the wall mount junction box with the plastic screw anchors (if used) at the installation location. Then, fasten the wall mount junction box to the wall with the supplied M4 self-tapping screws.
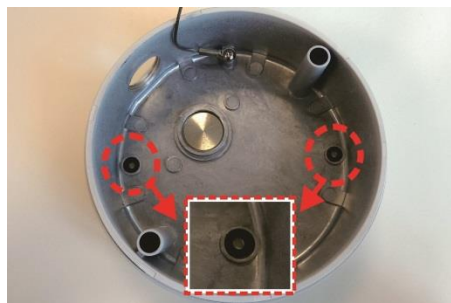
4. Loosen the cable clamp slightly. Remove the internal portion of the rubber plug from the cable entry hole of the wall mount junction box cover.
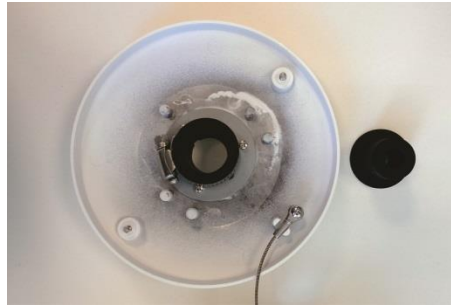
5. Thread the connectors of the All-In-One cable of the camera one-by-one through the cable entry hole.
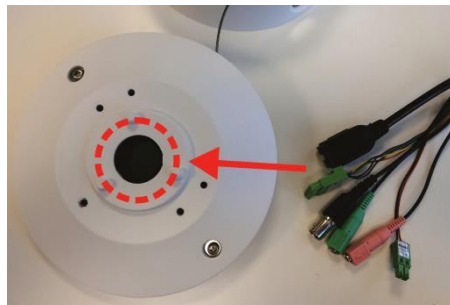
6. Open the rubber back plug. Place over the cable and insert the rubber plug back to the cable entry hole and use a flathead screwdriver to tighten the stainless steel clamp by turning the knob clockwise. Make sure there is no gap between the All-In-One cable and the cable entry hole.
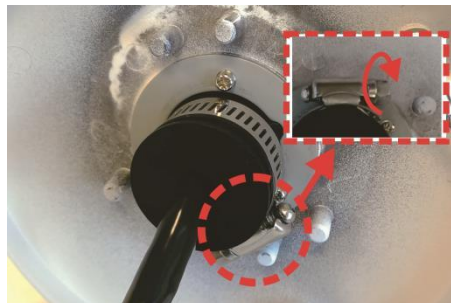
7. Route the exterior cables into the box from the side or back conduit hole. If necessary, unscrew the coin plug to access a conduit hole. Move the plug to the unused conduit hole. Connect the cables.
8. Seal the conduit to the wall mount junction box cover.
9. Arrange the All-In-One cable neatly.

10. Adjust the position of the wall mount junction cover properly and fasten the two screws to tighten the cover.

NOTE: When securing the wall mount junction box cover, you must align the two arrow marks with each other to ensure the cover is properly aligned.

11. Align the two screw holes on the camera with the screw holes on the wall mount junction box cover and fasten the camera with the M4 machine screws. The drainage hole should point down when installing horizontally.
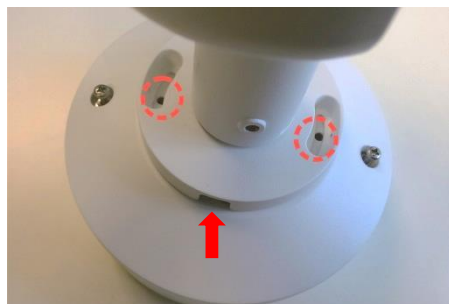
12. Rotate and point the camera to a desired direction and tighten the two set screws as shown below. The wall mount junction box installation is complete.

Pole Mount: Installation with Environmental (IBEPLMT-E) Pole Mount

Supplied Parts List

| Qty	Description
1	Pole mount junction box
5	M4 x 12mm machine screws
2	Stainless steel rings

NOTE: The supplied stainless steel rings apply to poles with the diameter from 70 to 180mm.

User-Supplied Parts List

Qty	Description
1	Bullet camera
1	Ethernet cable
1	Power cable (necessary if PoE is not available)
1	Alarm cable (optional)
1	Audio cable (optional)
1	Phillips and flathead screwdriver

Installation Guide

1. Loosen the two screws in the photo below and detach the pole mount junction box cover.
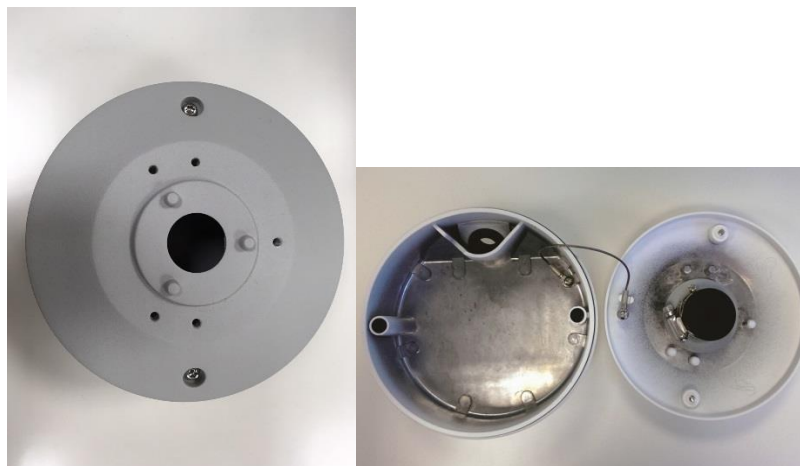
2. Remove the internal rubber plug from the cable entry hole of the pole mount junction box cover.
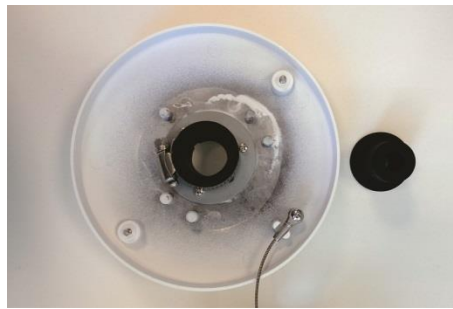

3. Thread the connectors of the All-In-One cable of the camera one by one through the cable entry hole.

4. Insert the rubber plug back to the cable entry hole and use a flathead screwdriver to tighten the stainless steel ring by turning the knob clockwise. Make sure there's no gap between the All-In-One cable and cable entry hole.

5. Connect the required cables (e.g. Ethernet cable) (#1 and #2 in the picture below) to the connectors of the All-In-One cable.
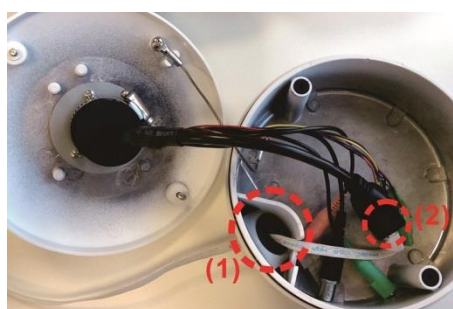
6. Arrange the All-In-One cable neatly.

7. Adjust the position of pole mount junction box cover properly and fasten the two screws to tighten the cover.

NOTE: When securing the pole mount junction box cover, you **must** align the two arrow marks with each other to ensure the cover is properly fixed.

8. Align the two screw holes of the camera with the screw holes on the pole mount junction box cover and fasten the camera with the M4 machine screws. The drainage hole should point down when installing horizontally.
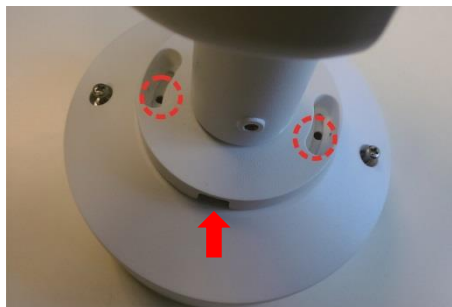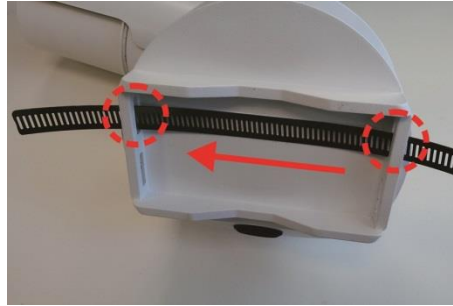

9. Loosen the knobs on the stainless steel rings by turning them counterclockwise with a flathead screwdriver.

10. Insert the stainless steel rings into the holes on the back of the pole mount junction box.

NOTE: When installing the pole mount junction box on the pole, the cable entry hole **must** be at the bottom side to ensure it is waterproof.

11. Place the pole mount junction box at the preferred installation location. Circle around the pole with the stainless steel rings and turn the knobs clockwise with a flathead screwdriver until the stainless steel rings are firmly tightened.


12. Rotate and point the camera to a desired direction and tighten the screws as shown below. The pole mount junction box installation is completed.

Cable Terminations

Ethernet Wiring Requirement for PoE

Connect a Cat5 cable or higher (Cat5e, Cat6) cable (not supplied) to the RJ-45 network connector. The 8-pin port includes video over Ethernet, and PoE for the camera. PoE injects power over the same cabling that carries the network data, eliminating the need for a separate power supply. This simplifies the installation and operation of the camera without affecting network performance.
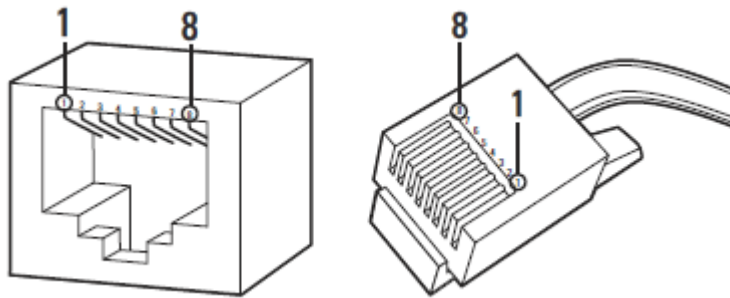
Table 1 Pin Definition

PoE Mode A			PoE Mode B		
Pin	Function		Pin	Function	
1	TxRx A +	DC +	1	TxRx A +	
2	TxRx A -	DC +	2	TxRX A -	
3	TxRx B +	DC -	3	TxRx B +	
4	TxRx C +		4	TxRx C +	DC +
5	TxRx C -		5	TxRx C -	DC +
6	TxRx B -	DC -	6	TxRx B -	
7	TxRx D +		7	TxRx D +	DC -
8	TxRx D -		8	TxRx D -	DC -

IP Address Settings

If the camera is connected to a Dynamic Host Configuration Protocol (DHCP) network and DHCP is set to On, the server automatically assigns an IP address to the camera. The default setting for the camera is DHCP On. To set the camera's IP address manually, set DHCP to Off.

NOTE: When DHCP is on, but a DHCP server cannot be found:

- Next Gen Sarix Enhanced cameras will simultaneously support two IP addressing schemes: 169.254.x.x and 192.168.0.x (starting from 192.168.0.20).

    o The default IP address on subnet mask 255.255.0.0 is automatically assigned as 169.254.x.y where x and y will take a value from 0 to 255 randomly. Please note cameras on the same subnet will not be assigned the same IP address to avoid IP conflicts.

    o The device defaults to an address of 192.168.0.20 on a 255.255.255.0 subnet. If 192.168.0.20 is already in use on the network, the Sarix device will increment the address by one until it finds an unused address (for example, 192.168.0.21 if 192.168.0.20 is in use).

Logging On to the Camera

After logging on to the camera, you can view video from the Web user interface.

1. Open the Web browser.

2. Type the camera's IP address in the browser address bar. If you do not know the camera's IP address, you can locate it using the Pelco Device Utility software.

3. When accessing the device in its initial out-of-the-box state, you will be prompted to set the initial administrator account credentials.

NOTE: The initial out-of-the-box state is also called "Factory Default State."

Factory Default State:

The ONVIF Profile Q specification requires that the camera accept any commands without authentication when in a Factory Default State. In this initial state there are no users defined and accessing the camera through the web interface will result in a prompt to set the initial administrator account.

Once the initial administrator account is created, the camera should immediately request login credentials and should begin requiring credentials for ONVIF API requests.

Clicking the **Cancel** button when setting the initial administrator account prompt will cause the initial login process to be temporarily bypassed, allowing you to continue to configure the camera without credentials. When the session becomes inactive (e.g. times out) or another session is started, the camera will once again prompt you to set up the initial administrator account.

4. Click Log In.

Pelco Troubleshooting Contact Information

If the instructions provided fail to solve your problem, contact Pelco Product Support at 1-800-289-9100 (USA and Canada) or +1-559-292-1981 (International) for assistance. Be sure to have the serial number and model number available when calling.

Do not try to repair the unit yourself. Leave maintenance and repairs to qualified technical personnel only.

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