



I N S T A L L A T I O N

ExSite[®] Enhanced Series Explosionproof Camera



For EXF1230 (Fixed) Models

C1346M (8/19)

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Schedule Document

This document cannot be changed without prior regulatory review.

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. To reduce the risk of ignition of hazardous atmospheres, disconnect the equipment from the supply circuit before opening. Keep assembly tightly closed when in operation.
6. The maximum ambient temperature range is -76° to 140°F (-60° to 60°C).
7. Only use attachments/accessories specified by the manufacturer.
8. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
9. Installation should be done only by qualified personnel and conform to all local codes.
10. Use only installation methods and materials capable of supporting four times the maximum specified load.
11. Use stainless steel hardware to fasten the mount to outdoor surfaces.
12. **CAUTION:** Use Fasteners with yield stress greater than or equal to Class 70.
13. AN ALL-POLE MAINS SWITCH with a contact separation of at least 3 mm in each pole shall be incorporated in the electrical installation of the building.
14. A readily accessible disconnect device shall be incorporated in the building installation wiring.
15. **CAUTION:** These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.
16. For Zones based installations, a certified flameproof "db," "tb," and IP66 sealing device, such as a stopping box with setting compound, shall be provided either in the flameproof enclosure or immediately at the entrance thereto.
17. Use wires suitable for at least 75°C . For ambient temperatures below 14°F (-10°C) use field wiring suitable for both minimum and maximum ambient temperature.
18. For marine installations, ensure that the camera is installed at least 5 meters from the ship's magnetic compass.
19. The AC Mains unit shall be connected to a circuit breaker rated maximum 15A or 20A.
20. This product requires a surge protector device (SPD) or surge arrester as part of the installation to address transient overvoltages exceeding Overvoltage Category II, 2500 Vpk.

Standards, Certificates, and Warnings

STANDARDS







EN 60079-0: 2012 / A11: 2013	IEC 60079-0: 2011
EN 60079-1: 2014	IEC 60079-1: 2014
EN 60079-28: 2015	IEC 60079-28: 2015
EN 60079-31: 2014	IEC 60079-31: 2013
UL 60079-0 6th	CSA C22.2 No 60079.0: 2015
UL 60079-1 7th	CSA C22.2 No 60079-1: 2016
UL 60079-31 2nd	CSA C22.2 No 60079-31: 2015
UL 60079-2nd	CSA C22.2 No 60079-28: 2016

CERTIFICATES

CLASS II, GROUPS E, F, G, T6
CLASS I, ZONE 1, AEx db op pr IIC T6
AEx tb op pr IIIC T85°C
IECEX UL 17.0011X
Ex db op pr IIC T6 Gb X
Ex tb op pr IIIC T85°C Db X
DEMKO 17 ATEX 1834X
CE 0539 II 2 G Ex db op pr IIC T6 Gb
II 2 D ex tb op pr IIIC T85°C Db

WARNINGS

The product and/or manual may bear the following marks:

-  **WARNING:** This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.
-  This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.
-  **WARNING:** HAZARDOUS MOVING PARTS. KEEP FINGERS AND OTHER BODY PARTS AWAY
-  **WARNING:** Potential Electrostatic Charging Hazard
Clean the enclosure surface by gently wiping it with a damp, lint-free cloth before handling or performing maintenance.
-  **WARNING:** Optical fiber cable must meet local codes and requirements for installation and connector must be secured by a latch.
-  **WARNING:** Do not repair joints.

CAUTION:
RISK OF ELECTRIC SHOCK. DO NOT OPEN.

WARNING: TO REDUCE THE RISK OF IGNITION OF HAZARDOUS ATMOSPHERES, DISCONNECT THE EQUIPMENT FROM THE SUPPLY CIRCUIT BEFORE OPENING. DO NOT OPEN WHEN AN EXPLOSIVE GAS/DUST ATMOSPHERE IS PRESENT. KEEP ASSEMBLY TIGHTLY CLOSED WHEN OPERATING. TO REDUCE THE RISK OF IGNITION OF HAZARDOUS ATMOSPHERES, ALL CONDUIT RUNS MUST HAVE A SEALING FITTING PLACED WITHIN 2" OF THE ENCLOSURE. REFER TO MANUAL FOR INSTALLATION.

PERIGO. PARA REDUZIR O RISCO DE IGNIÇÃO EM ATMOSFERAS POTENCIALMENTE EXPLOSIVAS DESCONECTE O EQUIPAMENTO DO SISTEMA DE ALIMENTAÇÃO ANTES DE ABRI-LO. MANTER O CONJUNTO CUIDADOSAMENTE FECHADO DURANTE A OPERAÇÃO TODOS OS CONDUITOS DEVEM POSSUIR UNIDADE SELADORA INSTALADA ATÉ 5.0CM DO INVOLUCRO PARA INSTALAÇÃO REFERIR SE O MANUAL.

AVERTISSEMENT: AFIN DE RÉDUIRE LE RISQUE D'INCENDIE DANS DES ATMOSPHÈRES DANGEREUSES, DÉBRANCHEZ L'ÉQUIPEMENT DU CIRCUIT ÉLECTRIQUE AVANT DE L'OUVRIR. NE PAS OUVRIR EN PRÉSENCE DE GAS EXPLOSIF OU DANS UNE ATMOSPHÈRE POUSSIÈREUSE. FERMEZ BIEN L'ASSEMBLAGE AVANT TOUTE UTILISATION. AFIN DE RÉDUIRE LE RISQUE D'INCENDIE DANS DES ATMOSPHÈRES DANGEREUSES, TOUS LES CONDUITS DOIVENT ÊTRE ÉQUIPÉS D'UN RACCORD D'ÉTANCHÉITÉ SITUÉ À 5,0 CM DU BÔÎTIER. REPORTEZ-VOUS AU MANUEL POUR OBTENIR LES INSTRUCTIONS D'INSTALLATION.

Description

ExSite® Enhanced Series is an explosionproof integrated positioning system with a built-in 1000Base-TX/100Base-TX network interface for live streaming using a standard Web browser. The integrated ExSite Enhanced power module supplies power in 48 VDC or 100 to 240 VAC models.

MODELS

Model Number	PTZ/Fixed	Camera / Lens	Input Voltage
EXF1230-4N	Fixed	1080p 30x	48 VDC
EXF1230-7N		1080p 30x	100-240 VAC

PARTS LIST

The following parts and tools are supplied:

Qty Description

- 1 ExSite Enhanced Series Explosion Proof Camera System
- 4 Bolts, M10 x 16 mm, stainless steel
- 4 Lock Washers
- 1 Power Connector
- 1 20-Pin Alarm/Relay Connector
- 2 Ground Ring Terminal
- 2 M4 x 8 mm Pan Head Slotted Ground Screw
- 1 5mm Hex Bit, 1/4" Shank
- 1 8mm Hex Bit, 1/4" Shank
- 1 Wire Tie
- 1 Ferrite for Power Cable (Type 28A0640-0A2)
- 2 Ferrites for Alarms/Relays and Ethernet Cables (Type 28A2024-0A2)
- 2 M6x12mm Bolts, stainless steel
- 2 M6 Lock Washers, Stainless steel

USER SUPPLIED PARTS LIST

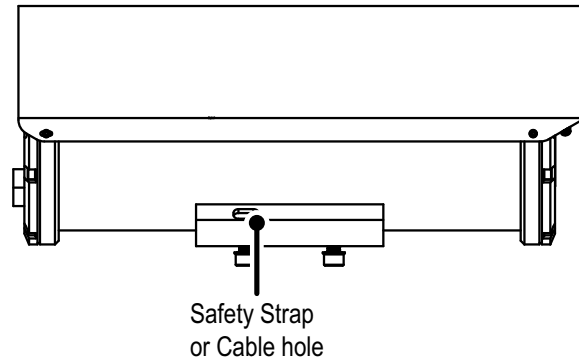
You may or may not need a pipe nipple depending on the type of gland(s) you use. You will need one or two sealing glands depending on whether you use one or both of the unit's cable entries. If using a single cable entry, you must provide a suitably-rated stopping plug for the other entry. Refer to the installation instructions for more information about plug selection.

- 1-2 Pipe Nipples, 3/4-inch NPT, 1-3/8-inch L
 - 1 3/4" NPT Conduit Plug (if not using both conduit entries)
 - 1 Conduit Sealing Fitting, 3/4-inch NPT, F/F, Metric Adapter (if needed)
 - 1 Conduit Fitting Sealant
 - 1 Safety Strap or Cable

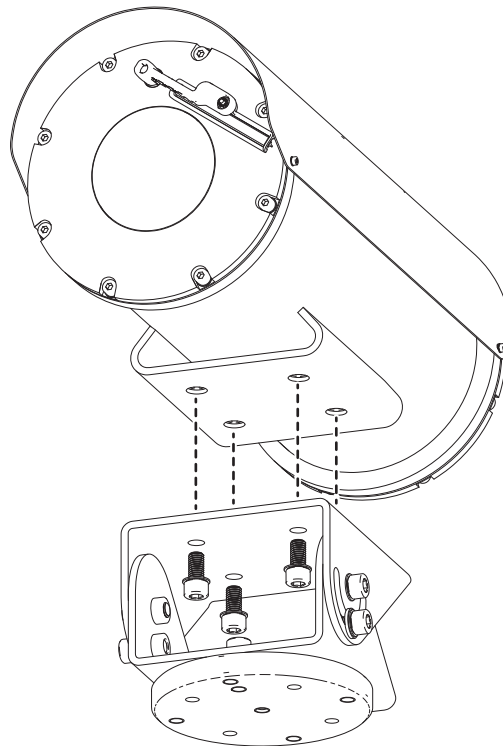
For Zones based installations, the pipe nipple, stopping plug and/or conduit sealing fitting must be certified flameproof "db," "tb," and IP66, IP67, and IP68.

Installation (ExSite Enhanced Fixed)

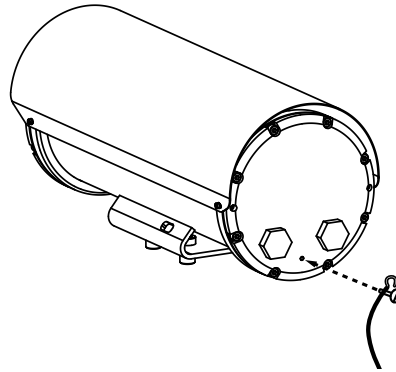
1. Attach a safety strap or cable (not supplied) in the hole shown below. Use a safety strap or cable during installation, when attaching the camera on a mount, or in case there is ever a screw or mount failure. Attach the camera to the mounting surface. Use only installation methods and materials capable of supporting four times the maximum specified load of the system.



2. Secure the camera to the mounting surface with the four M10 x 16 mm stainless steel bolts and lock washers (supplied). Make sure the threads on the underside of the camera and the threads of the four M10 x 16 mm stainless steel bolts (supplied) are free of dirt and debris.



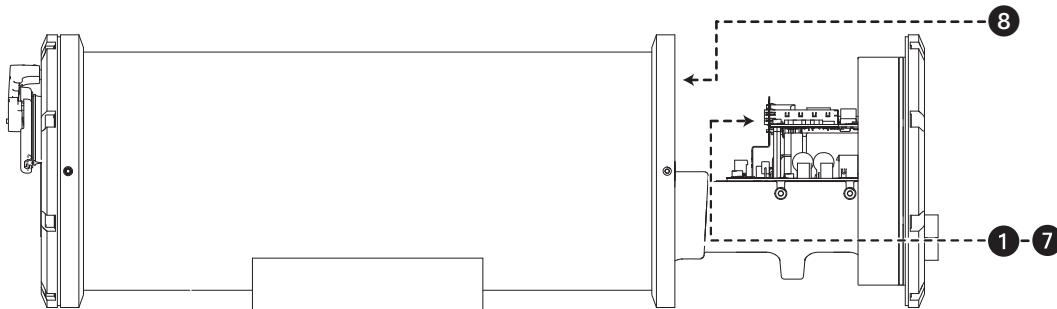
- Using the 8 mm Allen wrench, tighten the bolts to 25 to 27 ft-lb (34 to 37 N-m).
- Using a Ground Ring Terminal and M4 x 8mm Slotted Pan Head Ground Screw (supplied), attach a minimum, 12 AWG copper stranded wire to the bonding attachment point on the unit using a Ground Ring Terminal and M4 x 8mm Slotted Pan Head Ground Screw (supplied). Connect the bonding attachment point on the unit to an appropriate grounding location for your installation.



- Use the supplied 5mm allen bit to remove the eight bolts around the cap access door, then unfasten the 2 bolts inside the cap by alternating between screws 1 to 2 turns at a time.
- Remove the plastic plug protecting the 3/4" NPT conduit entry point(s).

NOTE: Do not use the plastic plugs to seal a conduit entry. If only using a single conduit entry, you must use a suitably-rated EX sealing gland to seal the other entry point.

- Slide the cap access door away from the camera.
- Route the power, Ethernet, relays, and alarm cabling through the a cable gland and seal using recommended gland installation practices at the rear of the unit; connections are on the inside of the unit, so you will need to run cabling up to the connections as associated with numbers 1-7 in the diagram below. For more information about wiring and inserting a micro SD card, see *Wire/Cable and Micro SD Card Connections* on page 10



- Clamp ferrites on each cable in use (one for ethernet, one for alarms/relays, and one for power). Each cable should make two turns through the ferrite, except for the AC mains power cable, which will pass through the ferrite just once.

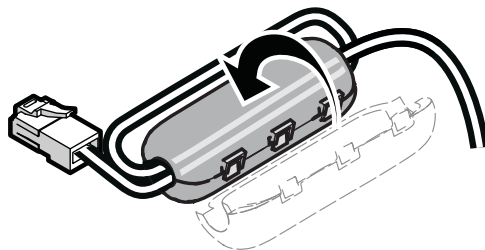


Figure 1. Clamping Ferrites Using Two Turns

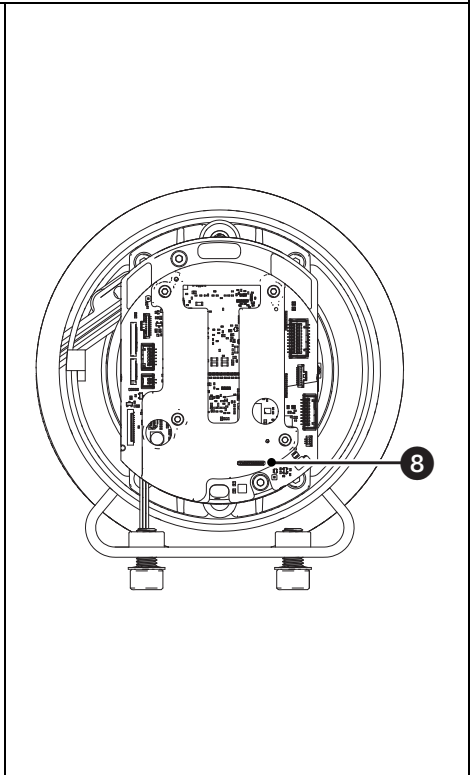
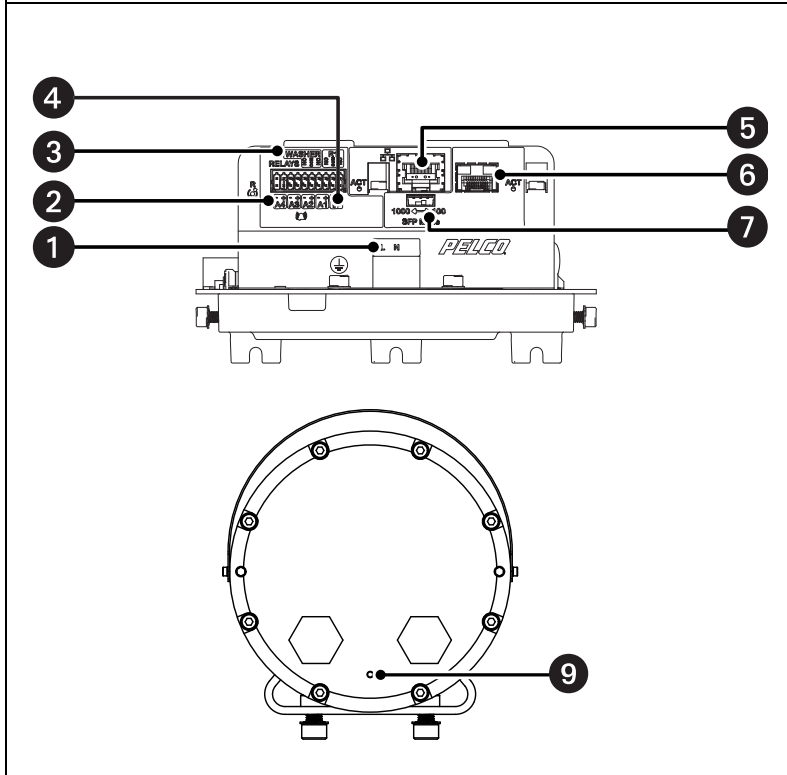
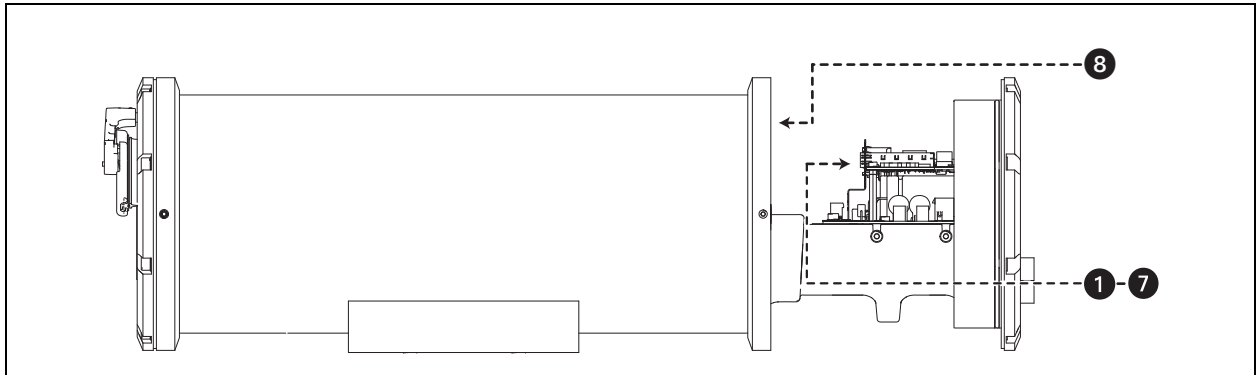
10. Connect the wiring and insert a micro SD card (optional). See *Wire/Cable and Micro SD Card Connections* on page 10 for more information.
11. When you have wired the camera, fully fasten the 2 screws used to aid in the cap removal and slide the cap access door back into the camera housing.
12. Insert the eight bolts you removed in previous steps to the cap access door, and tighten them to 8N-m using the supplied allen bit.

Wire/Cable and Micro SD Card Connections

⚠ WARNING: Be sure to seal the cable entry conduit fitting with the appropriate sealant (not supplied) during installation.

NOTES:

- Relay 2 is allocated specifically for an external washer (not supplied by Pelco).
- All relays are specified for 30 VDC, 50 mA (signal only)
- To connect the ground wire: Crimp a 12 AWG Ground wire to the Ground Ring Terminal (supplied). Secure the Ring Terminal to the chassis using the M4 x 8 mm Slotted Pan Head Ground Screw (supplied).
- Two wires can be connected to the connector's remote reset pins (See Table A) and routed to an external switch/button in a non-hazardous location in order to remotely reset the unit.



1	Power	5	1000Base-TX / 100Base-TX
2	Alarms	6	FSFP/Integrated Transmission
3	Relays	7	Input FSFP Transmission Speed Toggle
4	Remote Reset	8	Micro SD Card Slot
9	Bonding Attachment Hole		

Table A. Relay and Alarm Connections (20-26 AWG)









	Designation	Function
Relays		Relay 2 N.C. (washer only)
		Relay 2 COM (washer only)
		Relay 2 N.O. (washer only)
		Relay 1 N.C.
		Relay 1 COM
		Relay 1 N.O.
Remote Reset		Reset +
		Reset -
Alarms 		Alarm 1 +
		Alarm 1 -
		Alarm 2 +
		Alarm 2 -
		Alarm 3 +
		Alarm 3 -
		Alarm 4 +
		Alarm 4 -

Table B. 48 VDC Wire Descriptions

Label	Function
+	+48 VDC
-	-48VDC

Table C. 100 to 240 VAC Wire Descriptions


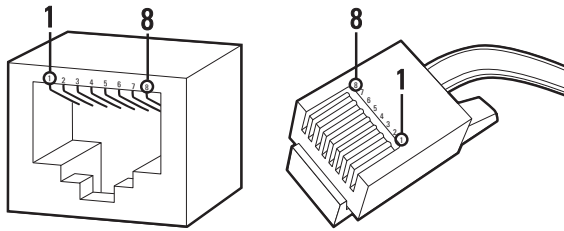
Label	Function
L	Live
N	Neutral
	Earth Ground

Table D. RJ-45 Network Connector Pin Descriptions

10/100BASE-TX		1000BASE-TX	
Pin	Function	Pin	Function
1	TX+	1	BI_DA+
2	TX-	2	BI_DA-
3	RX+	3	BI_DB+
4	Not used	4	BI_DC+
5	Not used	5	BI_DC-
6	RX-	6	BI_DB-
7	Not used	7	BI_DD+
8	Not used	8	BI_DD-



NOTE: Connect a Cat5 or higher cable (Cat5e minimum for 1000Base-TX) to a RJ-45 network connector.

CONNECTING AN FSFP MODULE FOR INTEGRATED TRANSMISSION (FIBER, ETC)

The FSFP sub-module installs in the connector cage located on the unit corresponding to the port assignment to be used. The sub-module is keyed and can only be installed in one orientation; it uses a bale clasp to secure the FSFP sub-module in a connector cage.

To install an FSFP Module:

1. Flip the module's bale clasp up.
2. Line the FSFP sub-module with the port, and slide it into place. The module will lock into place, indicating that it is installed properly.
3. When you are ready to attach the optical fiber cable, remove the rubber plugs from the sub module and save for future use.
4. Use the FSFP switch to set the internal transmission speed (1000 or 100 Mbps).

NOTE: If using a FSFP that is not optical fiber, you will need to Clamp 1 ferrite on the cable in use. The cable should make two turns through the ferrite.

NOTE: Optical fiber cables shall be used provided by additional armouring, conduit, cable tray, or raceway.

NOTE: Pelco FSFP modules are only compatible with LC and SC type fiber connectors.

INSTALLING A MICRO SD CARD

The unit must be powered off with the wiring cap open for you to insert an micro SD card. The micro SD card slot is opposite the wiring panel. You should use an unformatted micro SD card for best results.

Accessing the Camera

By default, users do not have to log in to view video; anyone who accesses the camera can view live video. If you want to prevent users from viewing video without logging in, you must change the permissions for public users.

The recommended browsers for your camera are the latest version of Internet Explorer®, Microsoft™ Edge™, Google Chrome™ browser or Mozilla® Firefox®. For supported browser versions, refer to the Specification Sheet for your product.

1. Open a web browser.
2. Type the camera's IP address (192.168.0.20) or host name in your browser's address bar, and then press Enter.

NOTE: You can obtain your camera's IP address or access the camera using the Pelco Device Utility or VxToolbox software. If DHCP is enabled but a DHCP server is not on the network, the camera automatically assigns itself both an IPv4 link local address(169.254.x.x, where the lower two octets are random) and a 192.168.0.20 address. Additional cameras will assign themselves different IPv4 link local addresses and the next available 192.168.0.x IP addresses in sequential order. For example, if three cameras are connected to a network without a DHCP server, the first camera to connect assigns itself the IP address 192.168.0.20, the second camera assigns itself 192.168.0.21, and the third camera assigns itself 192.168.0.22.

3. Click login.
4. If needed, type your user name and password.
 - In its out-of-the-box configuration, the camera has no user name and password assigned. For security purposes, it is recommended that you set an administrative user name and password after initial configuration of the camera. Creation of an administrative user name changes the state of the camera to its "operational mode," where credentials must be provided in order to change its configuration.
 - There is no provision for recovering a forgotten administrator user name or password. The camera can be restored to its out-of-the box, no-password configuration by powering down, depressing the reset button with an object such as a paper clip, and holding the button down for at least five seconds while powering the camera back up. This can only be performed in a safe environment which means it cannot be opened in a hazardous atmosphere. Alternatively, the remote reset function can be used as long as the camera was wired for this (See Table A).
 - If a user name and password exist, a Login link appears in the upper right area of your web browser.
5. Click Log In.

Mounts

The ExSite Enhanced Series (Fixed models) includes several mount options.

- WXM200 Wall mount designed to mount the ExSite Enhanced Series system directly to a load-bearing vertical surface.
- CMXM200 Corner adapter for use with the WXM200 to mount an ExSite Enhanced Series system to the corner of a structure.
- PAXM200 Pole adapter for use with the WXM200 to mount a system to a horizontal pole.
- PXM200 Pedestal mount designed to mount an ExSite Enhanced Series system directly to a horizontal surface in either an upright or inverted position.
- AXM200 Adjustable mount for ExSite Enhanced Models that enables pan/tilt adjustment.

Model	Supplied Hardware	Mounting Surface	Recommended Hardware
WXM200	None	Solid Concrete*	Five 3/8-16 x 1-9/16-inch long stainless steel drop-in anchors and five 3/8-16 x 1.0-inch thread length, stainless steel hex head bolts with stainless steel lock washers
		Steel I Beam**	Five 3/8-16 x 1.0-inch thread length, stainless steel hex head bolts with stainless steel lock washers and 3/8-16 stainless steel nuts
CMXM200	Five M10x1.5x20 mm thread length, stainless steel socket head bolts with lock washers to attach the adapter to the WXM200 wall mount	Solid Concrete*	Six 1/2-13 x 2-inch stainless steel drop-in anchors and six 1/2-13 x 1.0-inch thread length, stainless steel hex head bolts with stainless steel lock washers
		Steel I Beam**	Six 1/2-13 x 1.0-inch thread length, stainless steel hex head bolts with stainless steel lock washers and 1/2-13 stainless steel nuts
PAXM200	Four 5/8-inch wide x 40-inch (101.6 cm) long stainless steel straps to attach the adapter to a pole Five M10x1.5x20 mm thread length, stainless steel socket head bolts with lock washers to attach the adapter to the WXM200 wall mount	Steel pole with a diameter between 4 and 9 inches (10.16 to 22.86 cm)	Supplied
PXM200	None	Solid Concrete*	Five 3/8-16 x 1-9/16-inch long stainless steel drop-in anchors and five 3/8-16 x 1.0-inch thread length, stainless steel hex head bolts with stainless steel lock washers
		Steel I Beam**	Five 3/8-16 x 1.0-inch thread length, stainless steel hex head bolts with stainless steel lock washers and 3/8-16 stainless steel nuts
AXM200	M10x1.5x20 mm stainless steel socket head bolts and lock washers	Solid Concrete*	Industry standard 101.6 mm Bolt circle for use with M8 countersunk screws (not supplied).
		Steel I Beam**	Four M10x1.5x16 mm thread strength, stainless steel socket cap head bolts and lock washers are supplied for use with WXM200 or PXM200.

*Recommended strength of concrete is 3,600 psi or 25 Mpa.

**Minimum of 1/8-inch wall.

Installation (Mounts)

WXM200 WALL MOUNT

To install the WXM200 refer to Figure 2 and perform the following steps:

1. Determine the mounting location. The mounting surface should be able to support four times the combined weight of the mount and ExSite Enhanced system.
2. Using the flanged end of the wall mount as a template, mark the five fastener hole positions onto the mounting surface. Set the WXM200 mount to the side and prepare the holes for the fasteners.
3. Position the wall mount over the mounting holes. Attach the mount to the mounting surface with the appropriate hardware (not supplied).
4. Secure the ExSite Enhanced power module to the WXM200 with the 8 mm Allen wrench and four M10 x 16 mm stainless steel bolts supplied with the power module. Tighten the bolts to 25 to 27 ft-lb (34 to 37 Nm).
5. Complete the ExSite Enhanced system installation following the instructions supplied with the equipment.

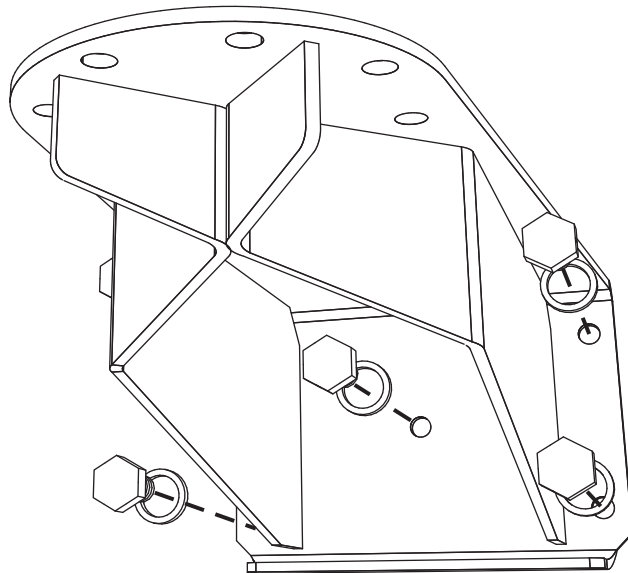


Figure 2.

WXM200 Installation

CMXM200 CORNER MOUNT ADAPTER

To install the CMXM200 refer to Figure 3 and perform the following steps:

1. Attach the corner mount adapter to the mounting surface with the appropriate hardware (not supplied). The mounting surface should be able to support four times the combined weight of the corner mount adapter, WXM200 mount, and ExSite Enhanced system.
2. Attach the WXM200 wall mount to the corner mount adapter with the supplied five M10x1.5x20 mm thread length, stainless steel socket head bolts and stainless steel lock washers. Tighten bolts to 25 to 27 ft-lb (34 to 37 Nm).
3. Secure the ExSite Enhanced power module to the WXM200 with the 8 mm Allen wrench and four M10 x 16 mm stainless steel bolts supplied with the power module. Tighten the bolts to 25 to 27 ft-lb (34 to 37 Nm).
4. Complete the ExSite Enhanced system installation following the instructions supplied with the equipment.

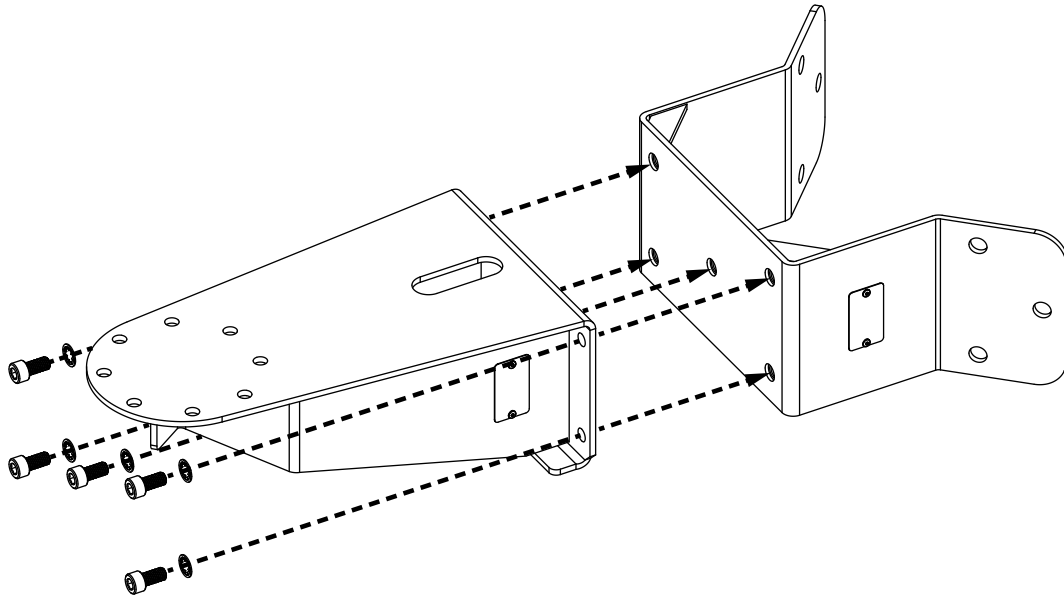


Figure 3.

CMXM200 Installation

PAXM200 POLE MOUNT ADAPTER

Install the PAXM200 to a steel pole with a diameter between 4 and 9 inches (10.16 to 22.86 cm). Refer to Figure 4 and perform the following steps:

1. Attach the pole mount adapter to the pole with the four stainless steel straps (supplied). Tighten the clamps of the straps to 6.25 to 7.5 ft-lb (8.5 to 10.2 Nm).
2. Attach the WXM200 wall mount to the pole mount adapter with the supplied five 3/8-16 x 1.0-inch thread length, stainless steel socket head bolts and stainless steel lock washers. Tighten to 25 to 27 ft-lb (34 to 37 Nm).
3. Secure the ExSite Enhanced power module to the WXM200 with the 8 mm Allen wrench and four M10 x 16 mm stainless steel bolts supplied with the power module. Tighten the bolts to 25 to 27 ft-lb (34 to 37 Nm).
4. Complete the ExSite Enhanced system installation following the instructions supplied with the equipment.

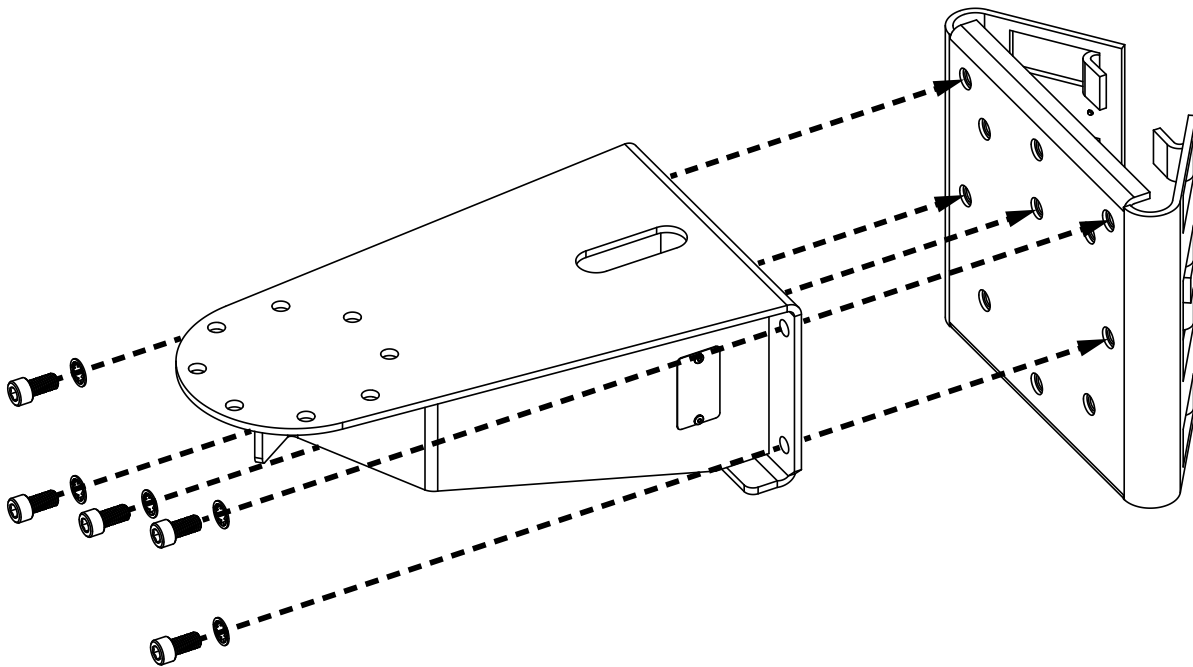


Figure 4.

PAXM200 Installation

AXM200 ADJUSTABLE MOUNT

The AXM200 mount is an adjustable mount that enables manual pan/tilt adjustment. To install the AXM200 refer to the following steps:

1. Attach the baseplate to the mounting surface with M8 flat head screws of suitable length. Alternately, attach the baseplate to the Wall Mount Adapter (WXM200) (Figure 5) or Pedestal Plate (PXM200) (Figure 6) using the supplied M10x1.5x16 mm socket cap head bolts. Tighten the bolts to 34 to 37 Nm.

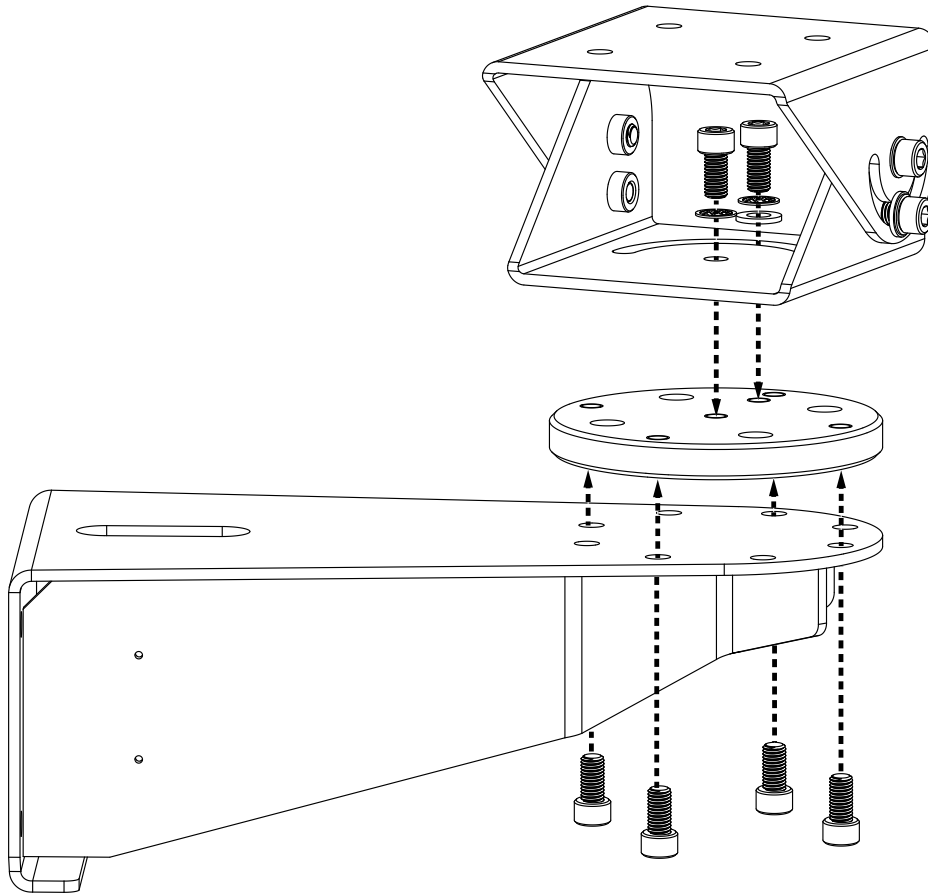


Figure 5.

AXM200 Installation with WXM200

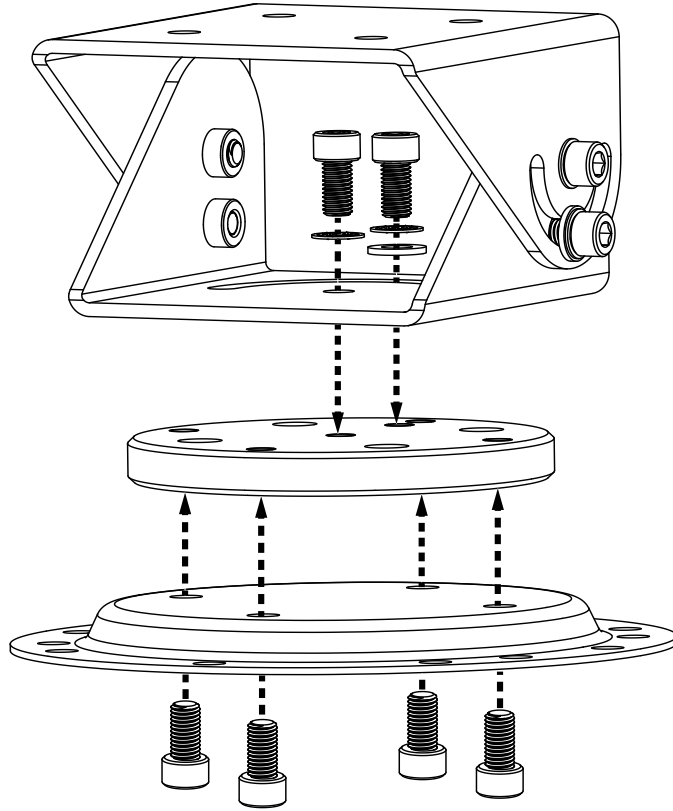



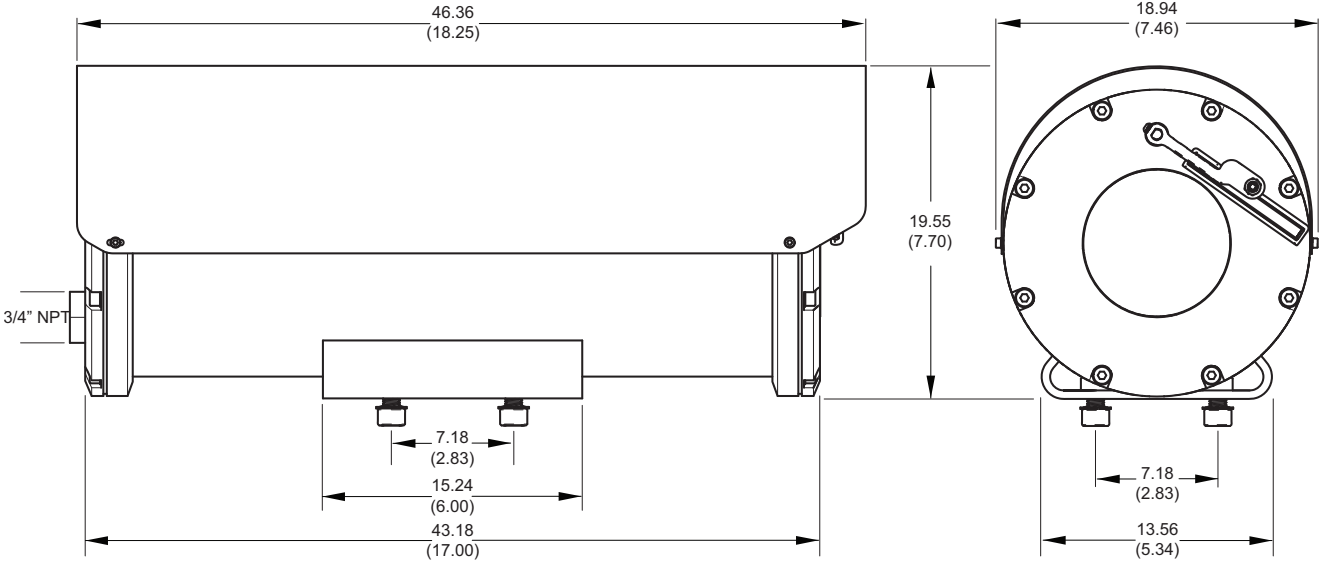
Figure 6.

AXM200 Installation with PXM200

2. Attach the swivel bracket to the baseplate using the supplied M10x1.5x20 mm socket cap head bolts and lock washers. the flat washer should be used with the bolt going through the slotted hole. Do not fully tighten the bolts.
3. Adjust the swivel bracket to the desired position. Tighten the six securing bolts to 34 to 37 Nm.
4. Complete the ExSite Enhanced system installation following the instructions with the supplied equipment.
5. Readjust the swivel bracket, if needed, and re-tighten the bolts to 34 to 38 Nm.

Dimensions

 NOTE: VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS.



WARRANTY STATEMENT

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



This equipment contains electrical or electronic components that must be recycled properly to comply with Directive 2002/96/EC of the European Union regarding the disposal of waste electrical and electronic equipment (WEEE). Contact your local dealer for procedures for recycling this equipment.

PELCO™

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