

# INSTALLATION



## HD35/HD3515 Series Heater and Defroster Kit



**C2400M-B (1/06)**

# Important Safety Instructions

---

Prior to installation and use of this product, the following WARNINGS should be observed.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Do not use this apparatus near water.
5. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
6. Only use attachments/accessories specified by the manufacturer.
7. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
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. Apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases shall be placed on the apparatus.
10. **WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
11. Installation should be done only by qualified personnel and conform to all local codes.
12. Unless the unit is specifically marked as a NEMA Type 3, 3R, 3S, 4, 4X, 6, or 6P enclosure, it is designed for indoor use only and it must not be installed where exposed to rain and moisture.
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. **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 contained in the operating instructions unless you are qualified to do so.
15. Use only replacement parts recommended by Pelco.

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



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. Please thoroughly familiarize yourself with the information in this manual prior to installation and operation.

<b>CAUTION:</b>
<b>RISK OF ELECTRIC SHOCK. DO NOT OPEN.</b>

Please thoroughly familiarize yourself with the information in this manual prior to installation and operation.

# Description

---

Heater and defroster kits in the HD35/HD3515 Series are designed for enclosures in the EH3500 Series and EH3515L Legacy® Series. The HD35 heater and defroster kit is designed for enclosures only in the EH3508 Series and EH3512 Series. The HD3515 heater and defroster kit is designed for enclosures only in the EH3515 Series and EH3515L Legacy Series.

These kits contain a thermostatically controlled heater and a continuous-duty defroster. The heater turns on when the temperature drops to 50°F (10°C) and turns off when the temperature reaches 80°F (27°C).

The heater and defroster are attached to a bracket that replaces the window brackets currently used to hold the viewing window in place. Because of this bracket, the viewing window size is reduced to a two-inch (5.08 cm) diameter circle.

The HD3515 heater and defroster kit contains two heaters. You install one heater in the front of the enclosure and the other heater in the rear of the enclosure. The rear heater is attached to a rear heater bracket, and the rear heater bracket attaches to the rear of the enclosure. If you are also installing a blower kit, you install the rear heater bracket between the blower and rear of the enclosure.

## MODELS

HD35-1	Heater and defroster kit for EH3508 and EH3512 enclosures; 120 VAC; 25 watts
HD35-2	Heater and defroster kit for EH3508 and EH3512 enclosures; 24 VAC; 20 watts
HD35-3	Heater and defroster kit for EH3508 and EH3512 enclosures; 230 VAC; 43 watts
HD3515-1	Heater and defroster kit for EH3515 and EH3515L enclosures; 120 VAC; 25 watts
HD3515-2	Heater and defroster kit for EH3515 and EH3515L enclosures; 24 VAC; 20 watts
HD3515-3	Heater and defroster kit for EH3515 and EH3515L enclosures; 230 VAC; 43 watts

# Installation

---

The following items are supplied:

- 1 Heater and defroster attached to the front heater bracket
- 1 Heater attached to the rear heater bracket (HD3515 Series and HD3515L Series only)
- 1 PC board

Hardware to attach the heater bracket(s):

EH3508/EH3512 Series	EH3515/EH3515L Series
4 3/8-inch screws	4 3/8-inch screws
4 #6 nylon washers	4 #6 nylon washers
	2 1/4-inch Phillips pan head screws
	2 #6 lock washers

Hardware to attach the PC board (EH3508/EH3512/EH3515 only):

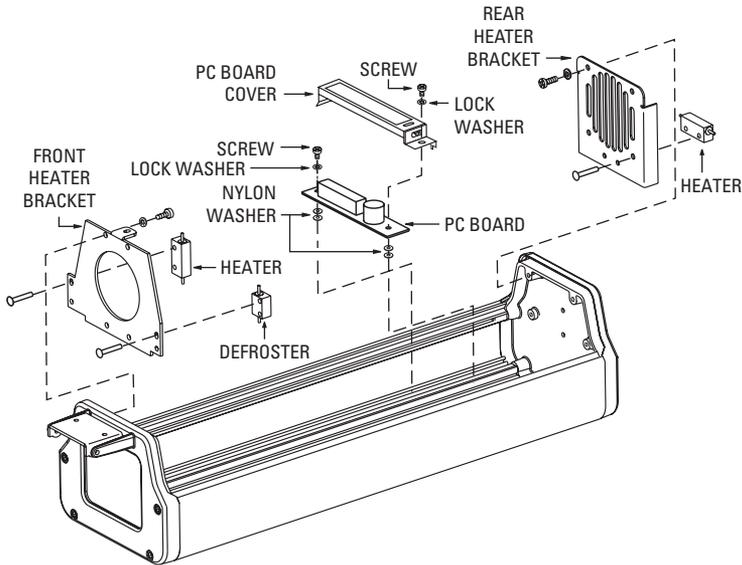
- 2 6-32 x 3/8-inch Phillips pan head screws
- 4 #6 nylon washers
- 2 #6 lock washer
- 1 PC board cover

Perform the following steps to install the heater and defroster kit.

1. Disconnect all sources of power from the enclosure.
2. Unlatch and open the lid.
3. Remove the camera and camera sled.
  - a. Disconnect the power and video from the camera.
  - b. Loosen the screws that hold the camera sled in place.
  - c. Slide the sled forward so it can be lifted out over the screws. *Do not lift the sled out yet.*
  - d. Retighten the screws so the sliding bar under the sled lip will not move. This will assure that you reinstall the camera and sled in the same place.
  - e. Remove the camera and sled.
4. If there is a heater pad installed in the bottom of the enclosure or a defroster pad installed around the viewing window, disconnect and remove these pads.
5. Remove the bottom window bracket, and then remove the top window bracket.

**NOTE:** Do not try to reinstall the top and bottom window brackets.

6. Attach the heater bracket (with heater and defroster attached) to the inside face of the window using the screws provided (refer to Figure 1).



**Figure 1. Heater and Defroster Kit Installation**

7. If you are installing the HD3515 heater and defroster kit, perform the following steps:
    - a. If a blower was previously installed in the enclosure, remove the blower now.
    - b. Place the rear heater bracket (with attached heater) at the rear of the enclosure (refer to Figure 1). Be sure the heater is at the bottom of the enclosure and faces the rear of the enclosure.
    - c. Do one of the following:
 

If a blower was previously installed, place the blower against the rear heater bracket and attach to the enclosure using the screws previously removed from the blower. Be sure the arrow on the blower housing is pointing toward the viewing window.

Or...

Using the screws provided, attach the rear heater bracket to the rear of the enclosure.
  8. Do the following only for enclosures in the EH3512 Series and EH3515 Series:
    - a. Place the PC board at the rear of the enclosure in front of the blower (if installed) and heater bracket. Lay the PC board across the bottom of the enclosure with the thermostat and connectors facing up.
- NOTE:** If a blower is not installed, place the PC board approximately 1.5 inches in front of the rear heater bracket.
- b. Using the two 6-32 x 3/8-inch self tapping screws, two lock washers, and four nylon washers provided, attach the PC board to the slots running along the bottom of the enclosure (refer to Figure 1).

9. Route the heater and defroster wires from the front of the enclosure so they will be underneath the camera sled or between the track rail and body of the enclosure.
10. Do one of the following depending on the model number of the enclosure:

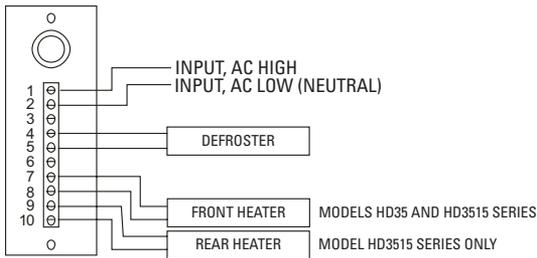
- **EH3512 Series and EH3515 Series**

To connect the heater and defroster to power, you will need to access the PC board. To remove the PC board cover, insert a screwdriver into the slot on top of the cover and lift the cover off.

Connect the heater and defroster wires to the PC board (refer to Figure 2). If required, connect ground to the stud on the bottom of the enclosure just in front of the PC board.

Replace the PC board cover, making sure it snaps securely back into place.

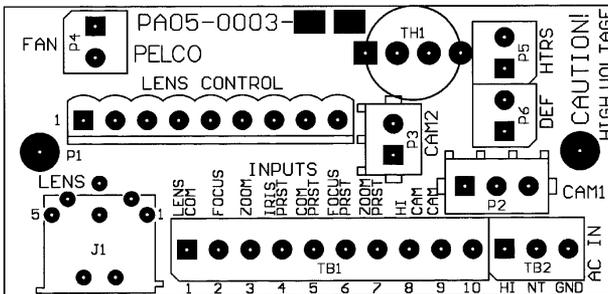
Be sure the wires are not obstructing other accessories within the enclosure. If you are installing HD3515-2 heater kit (24 VAC), refer to Table A.



**Figure 2.** Wiring Diagram for 24/120/230 VAC Models

- **EH3515L Legacy Series**

Connect the front and rear heater wires to the HTRS connector (P5) on the circuit board and the defroster wires to the FAN connector (P4) (refer to Figure 3). You are installing a lower wattage defroster. You must connect the defroster to FAN (P4) on the PC board to operate continuously. If you have a blower installed (which is also connected to P4), splice the defroster wires to the fan wires. If you are installing HD3515-2 heater kit (24 VAC), refer to Table A.



**Figure 3.** PC Board Component Locations

11. Reinstall the camera and sled.

**WARNING:** If the wiring is routed underneath the camera sled, be sure you do not bind the wiring when reinstalling the camera sled and camera.

12. Close the enclosure lid, and latch.
13. Reconnect power to the enclosure.

**Table A. 24 VAC Wiring Distances**

The following are the recommended maximum distances for 24 VAC applications and are calculated with a 10 percent voltage drop. (Ten percent is generally the maximum allowable voltage drop for AC powered devices.)

		Wire Gauge						
		20	18	16	14	12	10	
Total VA consumed	10	283 (86)	451 (137)	716 (218)	1142 (348)	1811 (551)	2880 (877)	Maximum distance from transformer to load
	20	141 (42)	225 (68)	358 (109)	571 (174)	905 (275)	1440 (438)	
	30	94 (28)	150 (45)	238 (72)	380 (115)	603 (183)	960 (292)	
	40	70 (21)	112 (34)	179 (54)	285 (86)	452 (137)	720 (219)	
	50	56 (17)	90 (27)	143 (43)	228 (69)	362 (110)	576 (175)	

**Example:** An enclosure that requires 30 VA and is installed 94 feet (28 m) from the transformer would require a minimum wire gauge of 20 AWG.

**NOTE:** Distances are calculated in feet; values in parentheses are meters.



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.

**REVISION HISTORY**

Manual #	Date	Comments
C2400M	6/99	Original version.
C2400M-A	7/99	Revised HD3515 series wattage. Revised Legacy wiring instructions.
C2400M-A	8/99	Revised parts lists. Revised Figure 1.
C2400M-B	2/06	Revised to new format. Added cover photo. Updated per ECO 04-10624, which added PCB cover and ground stud

Pelco, the Pelco logo, Camclosure, Esprit, Genex, Legacy, and Spectra are registered trademarks of Pelco.  
 Endura and ExSite are trademarks of Pelco.  
 DLP is a registered trademark of Texas Instruments, Inc.

©Copyright 2006, Pelco.  
 All rights reserved.

## PRODUCT WARRANTY AND RETURN INFORMATION

---

### WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship **for a period of one year** after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years on FT/FR8000 Series fiber optic products.
- Three years on Genex® Series products (multiplexers, server, and keyboard).
- Three years on Camclosure® and fixed camera models, except the CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models, which have a five-year warranty.
- Three years on PMCL 200/300/400 Series LCD monitors.
- Two years on standard motorized or fixed focal length lenses.
- Two years on Legacy®, CM6700/CM6800/CM9700 Series matrix, and DF5/DF8 Series fixed dome products.
- Two years on Spectra®, Esprit®, ExSite™, and PS20 scanners, including when used in continuous motion applications.
- Two years on Esprit® and WW5700 Series window wiper (excluding wiper blades).
- Two years (except lamp and color wheel) on Digital Light Processing (DLP®) displays. The lamp and color wheel will be covered for a period of 90 days. The air filter is not covered under warranty.
- Eighteen months on DX Series digital video recorders, NVR300 Series network video recorders, Endura™ Series distributed network-based video products, and TW3000 Series twisted pair transmission products.
- One year (except video heads) on video cassette recorders (VCRs). Video heads will be covered for a period of six months.
- Six months on all pan and tilts, scanners or preset lenses used in continuous motion applications (that is, preset scan, tour and auto scan modes).

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to Pelco, Clovis, California. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800) 289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

1. Model and serial number
2. Date of shipment, P.O. number, Sales Order number, or Pelco invoice number
3. Details of the defect or problem

If there is a dispute regarding the warranty of a product which does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

### RETURNS

In order to expedite parts returned to the factory for repair or credit, please call the factory at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair).

All merchandise returned for credit may be subject to a 20% restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid. Ship to the appropriate address below.

*If you are located within the continental U.S., Alaska, Hawaii or Puerto Rico, send goods to:*

Service Department  
Pelco  
3500 Pelco Way  
Clovis, CA 93612-5699

*If you are located outside the continental U.S., Alaska, Hawaii or Puerto Rico and are instructed to return goods to the USA, you may do one of the following:*

If the goods are to be sent by a COURIER SERVICE, send the goods to:

Pelco  
3500 Pelco Way  
Clovis, CA 93612-5699 USA

If the goods are to be sent by a FREIGHT FORWARDER, send the goods to:

Pelco c/o Expeditors  
473 Eccles Avenue  
South San Francisco, CA 94080 USA  
Phone: 650-737-1700  
Fax: 650-737-0933

---

**Worldwide Headquarters • 3500 Pelco Way • Clovis, California 93612 USA • [www.pelco.com](http://www.pelco.com)**  
USA & Canada • Tel: 800/289-9100 • Fax: 800/289-9150  
International • Tel: 1-559/292-1981 • Fax: 1-559/348-1120