



## **DF8A Series Fixed Indoor Dome**



**C1448M-F (9/08)**



# Important Safety Instructions

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1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources, such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Only use attachments/accessories specified by the manufacturer.
10. 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.
11. 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, the apparatus does not operate normally, or the apparatus has been dropped.
12. Apparatus shall not be exposed to dripping or splashing, and no objects filled with liquids, such as vases, shall be placed on the apparatus.
13. Warning: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
14. To reduce the risk of shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.
15. The installation method and materials should be capable of supporting four times the weight of the unit and equipment.
16. Only use 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>

# Description

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The DF8A Series fixed dome is for indoor use in hard ceiling or standard 2 x 2 ft (6 x 61 cm) suspended ceiling installations. Products in the DF8A Series have an aluminum back box and a plastic, hemispherical viewing dome. The back box includes an adjustable camera mount.

## MODELS

- DF8A Viewing dome is smoked bronze, f/1.0 light loss
- DF8A-0 Viewing dome is opaque black with a smoked viewing slot for the camera lens, f/0.7 light loss
- DF8A-1 Same as the DF8A except the viewing dome is opaque black with a clear viewing slot

# Installation

## PARTS LIST

Qty	Description
1	Back box, trim ring, and dome
1	Compass tool
1	Safety chain bracket
1	1/4-20 x 1/2-inch bolt
1	1/4-inch flat washer
1	1/4-inch lock washer

## HARD CEILING

1. Locate the center point of the mounting location. Drill a hole in the ceiling using a 3/32-inch drill. Insert the compass tool into the hole. Use a pencil and the compass tool to draw a circle on the ceiling. Carefully cut out the circle.

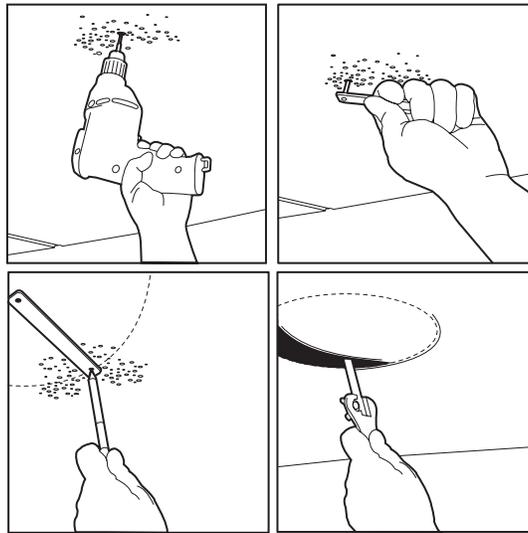


Figure 1. Preparing the Ceiling

2. Attach a conduit fitting (not supplied), lock nut (not supplied), and safety chain bracket. Install a safety chain/cable (not supplied) that will support up to 16 pounds (7.3 kg). Install one end of the safety chain/cable to the safety chain bracket and the other end to a support structure in the ceiling.
3. Prepare the wiring for camera and lens power; refer to Table A on page 6 and Table B on page 7 for wiring distances. Pull the wiring into the back box through the conduit fitting.
4. Compress the spring clips on the back box and push it through the hole until the clips spring back. Tighten the screws until you hear a clicking noise.

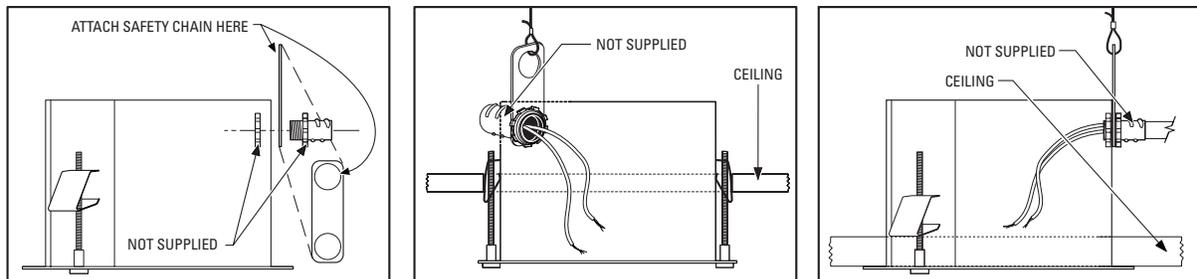
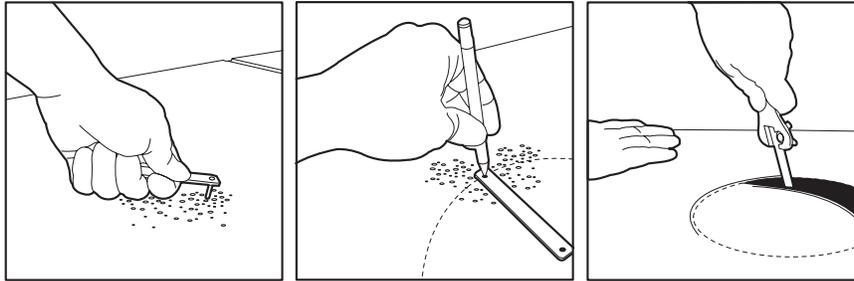


Figure 2. Installing the Back Box

## SUSPENDED CEILING

1. Remove the ceiling tile from the ceiling. Insert the compass tool (supplied) into the center of the tile. (If necessary, use a 3/32-inch bit to drill a hole.) Draw a circle on the tile using the compass tool and a pencil. Carefully cut out the circle.

**NOTE:** The ceiling tile cannot be thinner than 0.50-inches (1.27 cm) or thicker than 1.75 inches (4.45 cm).



**Figure 3.** Preparing the Ceiling Tile

2. Attach a conduit fitting (not supplied), lock nut (not supplied), and safety chain bracket. Attach to the bracket one end of a safety chain/cable (not supplied) that will support up to 16 pounds (7.3 kg). Do not attach the other end yet.
3. Compress the spring clips on the back box and push it through the hole until the clips spring back. Tighten the screws until you hear a clicking noise. Reinstall the ceiling tile.
4. Remove an adjacent ceiling tile. Prepare the wiring for camera and lens power; refer to Table A and Table B on page 7 for wiring distances. Pull the wiring into the back box through the conduit fitting. Attach the safety chain to a support structure (refer to Figure 2 on page 5). Replace the adjacent ceiling tile.

**Table A.** Video Coaxial Cable Requirements

<b>Cable Type*</b>	<b>Maximum Distance</b>
RG59/U	750 ft (229 m)
RG6/U	1,000 ft (305 m)
RG11/U	1,500 ft (457 m)

\*Minimum cable requirements:  
 75-ohm impedance  
 All-copper center conductor  
 All-copper braided shield with 95% braid coverage

Table B shows 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.)

**Table B. VAC Wiring Distances**

	Wire Gauge						
	20	18	16	14	12	10	
Total VA consumed	10	283 (86)	451 (137)	716 (218)	1142 (348)	1811 (551)	2880 (877)
	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)
	60	47 (14)	75 (22)	119 (36)	190 (57)	301 (91)	480 (146)
	70	40 (12)	64 (19)	102 (31)	163 (49)	258 (78)	411 (125)
	80	35 (10)	56 (17)	89 (27)	142 (43)	226 (68)	360 (109)

Maximum distance from transformer to load

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

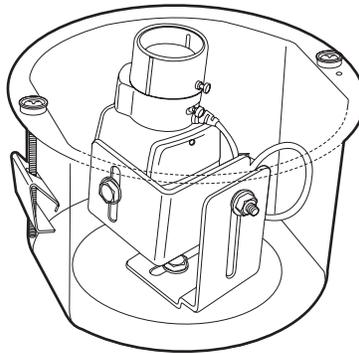
For example, an enclosure that requires 80 VA and is installed 35 ft (10 m) from the transformer would require a minimum wire gauge of 20 AWG.

## CAMERA AND LENS

1. Extend the lens to the maximum length before installing it in the back box.
2. Attach the camera to the tilt table with the 1/4-20 screw and washers (supplied).

**NOTE:** The torque applied to the camera mounting bracket nut should not exceed 40 pound-inches.

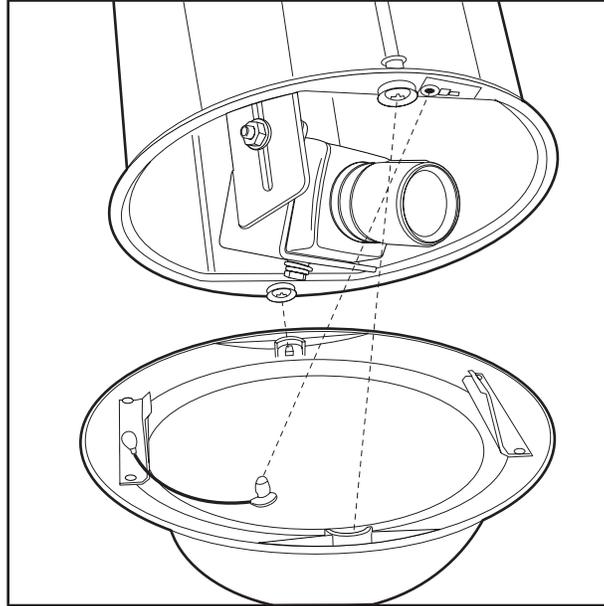
3. To ensure that the lens will not touch the lower dome:
  - Place the lower dome over the back box with the camera and lens installed (do not attach the dome).
  - If the lens touches the lower dome, adjust the tilt table assembly.
4. Refer to the manual supplied with the camera and lens for the following information:
  - How to connect power and video wiring
  - How to make camera and lens adjustments



**Figure 4. Installing the Camera and Lens**

## LOWER DOME

1. Snap the clip, on the end of the trim ring leash, into the hole on the lip of the back box.
2. Install the dome by pushing the two ball studs on the trim ring into the retaining clips on the back box.
3. If you have a dome with black or white opaque finish, turn the dome so that the viewing slot is in front of the lens.



**Figure 5.** Installing the Lower Dome

# Maintenance

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Clean the acrylic dome as needed. Be careful not to scratch the surfaces of the dome.

## EXTERIOR SURFACE

Clean the dome's exterior surface with a nonabrasive cleaning cloth and agent that is safe for acrylic plastic. Either liquid or spray cleaner/wax suitable for fine furniture is acceptable.

## INTERIOR SURFACE

### SMOKED OR CLEAR

To clean the interior of smoked or clear domes, use the same instructions as the exterior surface.

### CHROME OR GOLD

The inside surface of a chrome or gold dome is easily scratched. Use the following precautions to maintain the dome's surface.

- Always handle the dome from the outside of its circular flange.
- Never touch the coated inside surface. The acid in your fingerprints will eventually etch the coating if the fingerprints are not carefully removed according to the information in *Recommended Cleaning Procedure*.
- If dust or other contaminants accumulate on the dome's interior, remove the debris with compressed air. Compressed air cans are available from photographic equipment or electronic supply dealers.
- If heavy residue accumulates and cannot be removed with air pressure, rinse with water and immediately dry with air pressure so that water spots will not remain. Avoid wiping the coated surface with direct hand pressure; it will easily abrade unless extreme care is taken. If scratched, the dome cannot be repaired.

### RECOMMENDED CLEANING PROCEDURE

If internal wiping is necessary, avoid hand rubbing. Instead, make a wick as follows:

1. Use a very soft paper towel. Roll a section into a tightly wound tube.
2. Tear the tube in half, and wet the fuzzy end of the wick with a solution of isopropyl alcohol diluted with water.
3. Hold the dome with its opening facing downward. Wipe the interior of the dome with the wet end of the wick, using a circular motion, start from the outside and spiral into the center.
4. Use a new wick for every two passes over the dome.

# Specifications

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## GENERAL

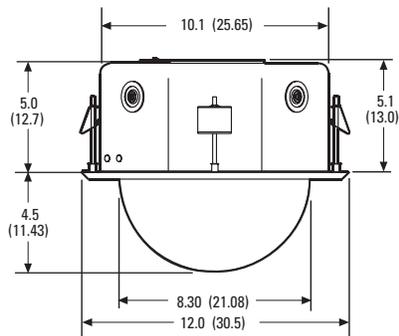
Construction	
Back Box	Aluminum
Mounting Bracket	Steel
Lower Dome	Acrylic
Trim Ring	Aluminum
Environment	Indoor
Operating Temperature	32° to 120°F (0° to 49°C)
Weight (without camera)	3.1 lb (1.4 kg)

## CAMERA

Maximum Camera and Lens Size      The following dimensions are specified according to fixed camera mount position and include allowance for the BNC connector. Actual length may vary if width and height of camera and lens are different.

Horizontal:	7.25" L x 2.75" W x 2.60" H (19.05 x 6.99 x 6.60 cm)
15° Angle:	7.75" L x 2.75" W x 2.6" H (20.32 x 7.62 x 7.62 cm)
30° Angle:	8.75" L x 2.75" W x 2.6" H (22.86 x 7.62 x 7.62 cm)

*(Design and product specifications subject to change without notice.)*



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

## 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 fiber optic products and TW3000 Series unshielded twisted pair (UTP) transmission products.
- Three years on Spectra® IV products.
- Three years on Genex® Series products (multiplexers, server, and keyboard).
- Three years on DX Series digital video recorders, DVR5100 Series digital video recorders, Digital Sentry® Series hardware products, DVX Series digital video recorders, NVR300 Series network video recorders, and Endura® Series distributed network-based video products.
- Three years on Camclosure® and Pelco-branded 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 PMCL200/300/400 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 III™, Spectra Mini, Esprit®, ExSite®, and PS20 scanners, including when used in continuous motion applications.
- Two years on Esprit Ti and TI2500 Series thermal imaging products.
- 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.
- Two years on Intelli-M® eIDC controllers.
- 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 (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 a Pelco designated location. 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 that 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

To expedite parts returned for repair or credit, please call Pelco 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) and designated return location.

All merchandise returned for credit may be subject to a 20 percent 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.

9-11-08

 The materials used in the manufacture of this document and its components are compliant to the requirements of Directive 2002/95/EC.



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
C1448M	6/96	Original version.
	7/96	Added models DF8-2 and DF8-3.
	7/97	Maximum camera and lens dimensions changed per PAR 97031.
	2/98	Added DF8-1 model. Revised Sections 3.0, 4.0 and 5.0. Updated manual to new format.
C1448M-A	1/99	Extensive revisions resulting from the redesign of the DF8 back box to the DF8A back box.
C1448M-B	8/00	Added note per ECO 00-6161. Changed instructions and layout to new format.
C1448M-C	8/02	Added certifications and Important Safeguards and Warnings.
C1448M-D	9/06	Updated F-stop values per ECO 06-1416.
C1448M-E	11/06	Added <i>Specifications</i> section and corrected format.
C1448M-F	9/08	Updated manual to indicate that conduit fittings and lock nuts are no longer supplied.

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