



CM9760-CDU-T Code Distribution Unit



C1940M-B (11/06)

Important Safety Instructions

1. Installation and servicing should be done only by qualified service personnel and conform to all local codes.
2. 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.
3. Use only replacement parts recommended by Pelco.
4. After replacement/repair of this unit's electrical components, conduct a resistance measurement between line and exposed parts to verify the exposed parts have not been connected to line circuitry.

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.

CAUTION:
RISK OF ELECTRIC SHOCK. DO NOT OPEN.

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 B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You may also find helpful the following booklet, prepared by the FCC: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402.

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.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Description

The CM9760-CDU-T code distribution unit is a 16-channel RS-422 transmit-only (2-wire and ground) distributor. It was designed as an accessory of the System 9760™, but can be used with any system that uses RS-422 serial communications. The CDU will primarily be used to install pan/tilt and dome receivers in a “star” configuration.

The CM9760-CDU has the following features:

- Two 8-position, RJ-45 connectors in parallel, providing an input from a controller and an output for an additional daisy-chained CDU box
- Sixteen 3-position screw terminal connectors used to output 16 RS-422 transmit only code lines
- Two-pin terminal connector (refer to Figure 3) for an external 10 to 24 VAC/VDC power source
- Standard 100-240 VAC 50/60Hz line input (autoranging)

Product Overview

FRONT VIEW

Figure 1 illustrates the front view of the CM9760-CDU-T unit, which uses the standard panel layout for the 9760 product line. A power LED indicator (green) is located on the left and a data LED (red) is located on the right side of the front panel of the unit. The power LED will light when power is applied to the unit; the data LED will light when a transmission from the controller is received by the CDU-T.

REAR VIEW

Figure 2 illustrates the rear (working side) of the CM9760-CDU-T unit. Note the three-position terminal screw data output lines numbered 1–16, from left to right. Next to that are the RJ-45 female IN/OUT communication ports and the external, two-pin, independent power input. Finally, the standard AC power input cord connection is on the far right.

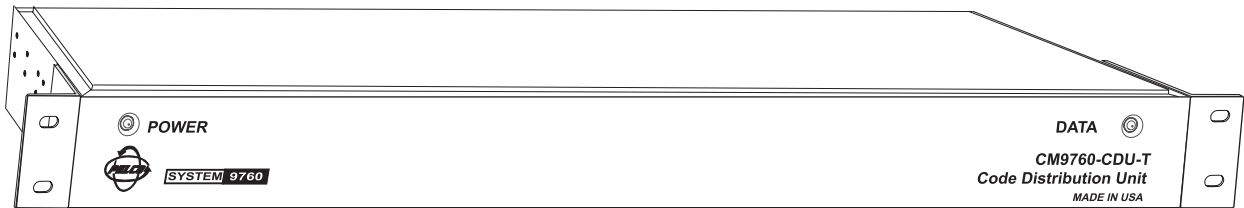


Figure 1. CM9760-CDU-T, Front View

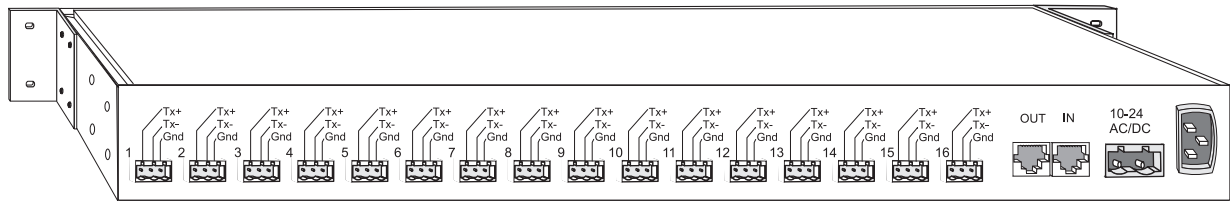


Figure 2. CM9760-CDU-T, Rear View

Figure 3 further details the mating plugs, pin-outs, and so on pictured in Figure 2. Note that for externally supplied power sources, the DC supply hook-up can handle forward or reverse hook-up of the input source. The internal bridge can handle either polarity. There are no polarity concerns with an externally supplied AC power source.

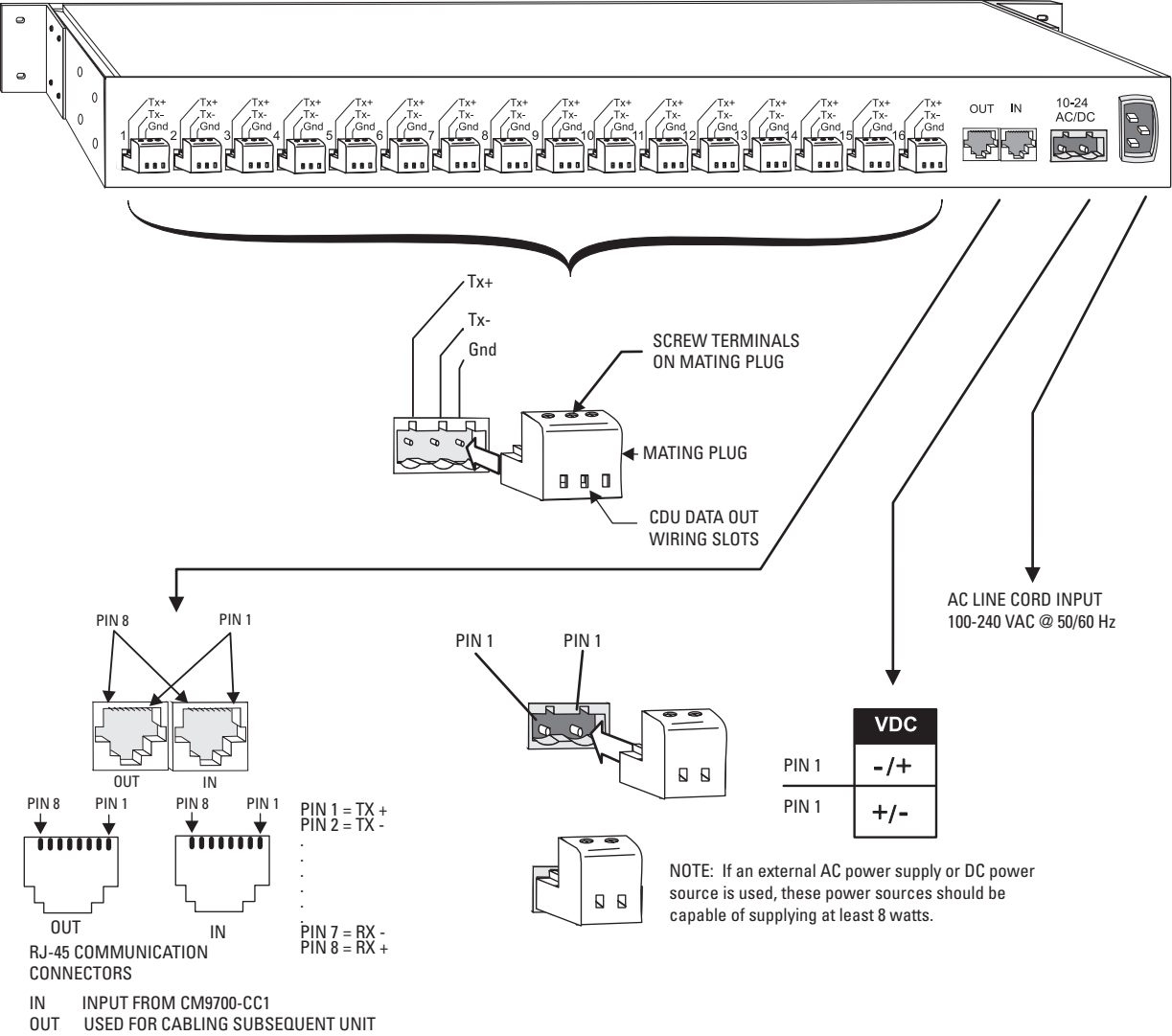


Figure 3. CM9760-CDU-T, Rear View Connector Details

Installation

Installation of the unit is straightforward. The unit is rack/wall mountable and is only 6" deep (15.24 cm). In addition to the 16 lines available for output with one unit, eight CDUs may be daisy-chained together. This will allow 128 receivers (that support 128 address settings) to be connected on a single Sercom port. Figure 4 illustrates two units daisy-chained providing 32 independent drive lines.

NOTE: If external AC transformer is used for power, it must be capable of supplying at least 8 watts. DC source can be hooked up without regard to polarity.

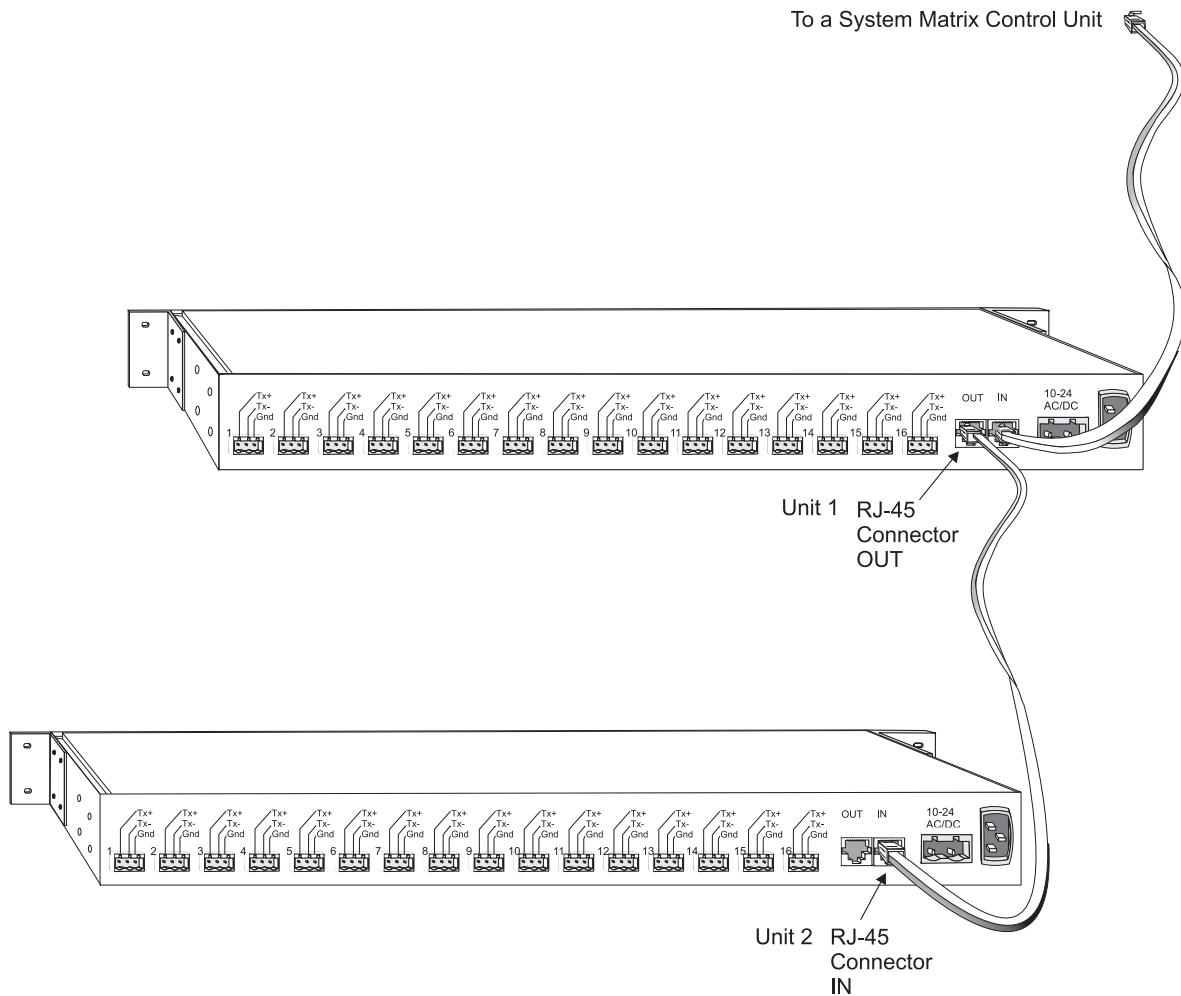


Figure 4. CM9760-CDU-T, Daisy-Chain Configuration

Pictured in Figure 5 is a very simplified block diagram of the system hook-up of a CM9760-CDU from the viewpoint of its transmit capabilities only. The illustration details pin-outs and other hook-up details.

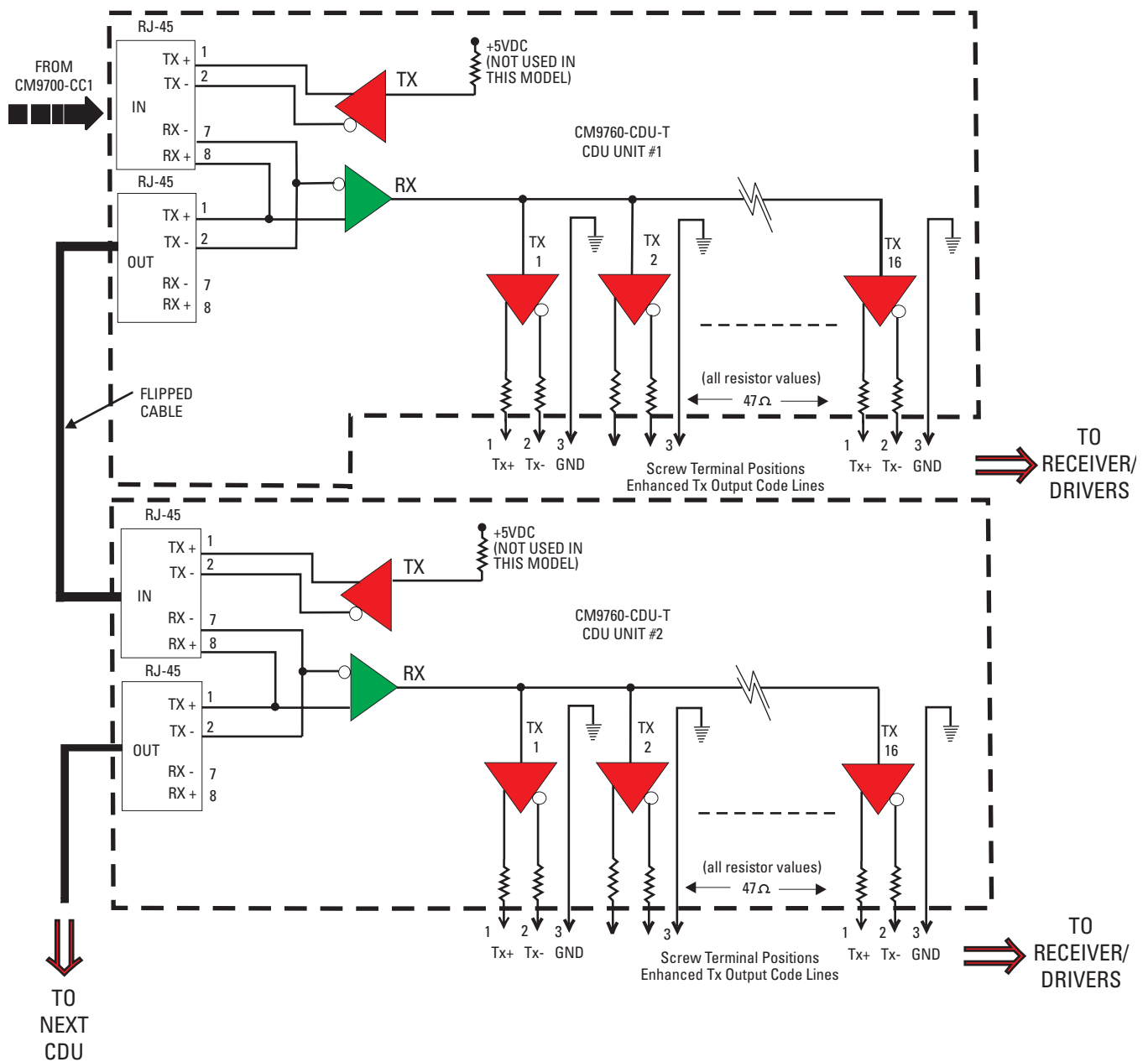


Figure 5. CM9760-CDU System Hook-Up-Block Diagram

Operation

The CM9760-CDU-T unit works as a distribution repeater for expanding one RS-422 communication port into 16 isolated and buffered RS-422 ports. The primary use for the CDU-T is to provide quick, easy, and proper data-line distribution for serial type pan/tilt and dome receivers. In the case of these isolated RS-422 drive lines, the remote devices may be located as far as 4,000 feet (1,219 m) away from the controller, depending on the physical parameters of the connection.

The unit is ideal for use on larger switching systems where it becomes desirable to “home-run” the RS-422 data lines for controlling pan/tilt or dome receivers.

Specifications

ELECTRICAL

Input Voltage	100-240 VAC, 50/60 Hz, autoranging, or independent external source, 10-24 VAC/VDC
Input Current	100 mA
Data Ports	
Input	One RS-422, RJ-45 female connector
Output	One RS-422, RJ-45 female connector
Drive Lines	Sixteen 3-position screw-terminals with mating plugs
Fusing	
Primary (F1)	125 mA, 250 V (time delay)
Secondary (F2)	500 mA, 250 V (time delay)
Indicators	1 power LED, green 1 data LED, red

MECHANICAL

Dimensions	19" W x 1.75" H x 6" D (48.26 cm x 4.45 cm x 15.24 cm)
Operating Temperature	32° to 122°F (0° to 50°C)
Weight	4.2 lb (1.91 kg)

GENERAL

Mechanical Connectors	
Power	AC power cord input, 3-wire, #18 AWG 2-pin screw terminal with mating plug for external power source
RS-422	Two RJ-45, female
RS-422 Breakout Ports	Sixteen 3-pin headers with mating plug; connectors can accept 14-28 AWG
Ratings	Meets NEMA Type I and IP20 standards

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

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 FR/FT/FS Series fiber optic products and TW3000 Series unshielded twisted pair transmission products.
- Three years on Spectra® IV 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 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™, 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, and Endura™ Series distributed network-based video 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

 **Green** 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
C1940M	7/98	Original version
C1940M-A	4/06	Corrected Figures 2-4. Updated format.
C1940M-B	11/06	Revised Input Current and Fusing in Specifications section.

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