



MPS5DT, MPS524DT,
MPS524DT/220
Scanner Controls

Installation/
Operation Manual

C545M-E (2/02)



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IMPORTANT SAFEGUARDS AND WARNINGS

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

1. Installation and servicing should only be done 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 or moisture.
3. Only use 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 and 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. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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

DESCRIPTION

The MPS5DT and MPS524DT Scanner Controls provide precise and reliable control of Pelco PS20 and PS20-24 Series Scanners. The controls can still be used with older scanner models such as Pelco PS7, PS7-24, PS30A, and PS30-24.

An additional line is available to power the PS20 scanner and camera/enclosure eliminating the need for power at the scanner location.

The front panel switches operate left and right control, and automatic scan control.

These controls can be used as desktop models or up to three units can be rack mounted in a R300 Rack Kit.

Use the RB24 Relay Box to extend the control's operating distance up to 13,000 feet using 16 AWG.

MODELS

| | |
|--------------|---|
| MPS5DT | Desktop control for 120 VAC scanners (PS20, PS30A) UL |
| MPS524DT | Desktop control for 24 VAC scanners (PS7-24, PS20-24, PS30-24) UL |
| MPS524DT/220 | Same as MPS524DT except with 230 VAC input; Desktop control for 24 VAC scanners (PS7-24, PS20-24, PS30-24) CE |

OPTIONS

| | |
|-------|---|
| R300 | Rack mount kit. Up to three units can be racked horizontally in a single rack kit. |
| RB115 | Low voltage relay box for use with 24 VAC control and 120 VAC scanners. Extends operating distance (control to relay box) up to 13,000 feet using 16 AWG. |
| RB24 | Low voltage relay box for use with 24 VAC control and 24 VAC scanners. Extends operating distance (control to relay box) up to 13,000 feet using 16 AWG. |

INSTALLATION

The following items are supplied:

- MPS5DT, MPS524DT, or MPS524DT/220
- 6-pin mating connector with pins
- 2 screws

CONNECTOR ASSEMBLY

The first thing you must do is assemble the mating connector. The following steps apply to all AMP style connectors regardless of pin size or pin number. Refer to Figure 1 during assembly.

1. Slide the connector clamp assembly over the conductor cable.
2. Determine the size of wire to use. Refer to the *Specifications* section.
3. Prepare the wires from the conductor cable as follows:
 - a. Strip at least 1" from the cable jacket to expose the wires. You may need to strip more from the cable jacket if you have more wires.
 - b. Strip 1/8" from each wire.
 - c. Using an AMP-style crimper, crimp the wires and their insulation to the connector pins. Refer to Detail A in Figure 1.
4. Slide the connector pins into the appropriate holes in the connector body until they snap into place. You can see the pin assignments in Table A.

Table A. PIN Assignments

| PIN | FUNCTION |
|-----|--|
| 1 | Common/AC Low |
| 2 | Right |
| 3 | Left |
| 4 | Auto |
| 5 | 120 VAC HI for PS20 scanner and camera power or 24 VAC HI for PS20-24 scanner and camera power |
| 8 | Chassis Ground |

NOTE: Pin 5 is not used with PS7 and PS30 Series Scanners.

5. Push the connector clamp assembly towards the connector body and screw it onto the connector body. Be careful not to disturb the wires.
6. Attach the appropriate clamp with the screws provided and tighten.

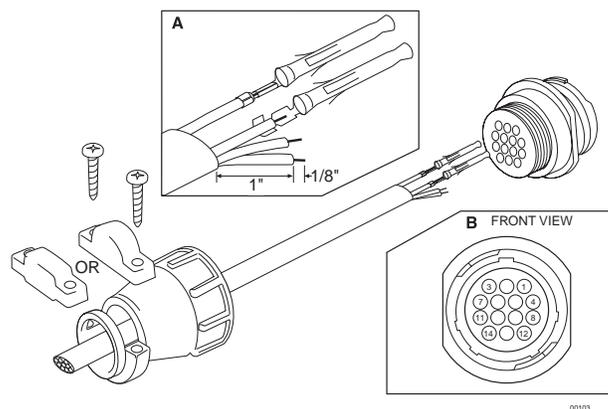


Figure 1. Connector Assembly

COMPLETING THE INSTALLATION

1. Attach the mating connector to the connector on the rear of the scanner control.
2. Attach the other end of the cable to the scanner.
3. Plug the power cord on the back of the scanner control into a 120 VAC outlet (MPS5DT and MPS524DT models) or a 230 VAC outlet (MPS524DT/220 model).

OPERATION

Turn the control on and test its operation using the following procedures:

MANUAL OPERATION

Move the rocker switch to the "MANUAL" position.

When you move the other rocker switch to the "LEFT" position, the scanner pans to the left. When you move it to the "RIGHT" position, the scanner pans to the right.

AUTO SCAN OPERATION

Move the rocker switch to the "AUTO" position.

The scanner pans to the right until it reaches its limit, then pans to the left.

The scanner automatically continues right/left panning until the "MANUAL" switch is set again or the scanner is turned off.

SPECIFICATIONS

CONTROLS

Left/Right: Rocker switch, LEFT/RIGHT
Auto Scan: Rocker switch, AUTO/MANUAL
Power: Rocker switch, ON/OFF
Pilot Lamp: Long life neon

ELECTRICAL

Input Voltage

MPS5DT, MPS24DT: 120 VAC, 50/60 Hz
MPS524DT/220: 230 VAC, 50/60 Hz

Output Voltage

MPS5DT: 120 VAC
MPS24DT: 24 VAC
MPS524DT/220: 24 VAC

Maximum Power Requirements:

| | PS7-24 | PS30-24 | PS30A | PS20 | PS20-24 |
|--------------|--------|---------|---------|-------|---------|
| MPS5DT | — | — | 17.5 VA | 30 VA | — |
| MPS524DT | 8.8 VA | 13 VA | — | — | 20 VA |
| MPS524DT/220 | 8.8 VA | 13 VA | — | — | 20 VA |

Fuse Protection

MPS5DT: 1/4 ASB
MPS524DT: 1/2 ASB
MPS524DT/220: 2/10 ASB

- Power Cord:** Unit is supplied with grounded power cord (either U. S. Standard or Continental European Standard)
- Output Connector:** AMP CPC type, 14 pin (mate supplied)
- Cable Requirements:** 4 conductors for PS7/PS30 models and 6 for PS20/PS20-24 models
- Operating Distances:** The following are the recommended cable distances between the control and the listed scanners. The PS20 and PS20-24 are powered locally and do not use power from the controller.

| | 20 AWG (0.5 mm ²) | 18 AWG (1.0 mm ²) | 16 AWG (1.5 mm ²) |
|---------|----------------------------------|----------------------------------|----------------------------------|
| PS7-24 | 745 ft (227 m) | 1185 ft (361 m) | 1885 ft (575 m) |
| PS30A | 2265 ft (690 m) | 3605 ft (1098 m) | 5720 ft (1743 m) |
| PS30-24 | 115 ft (35 m) | 185 ft (56 m) | 295 ft (90 m) |
| PS20 | 2,300 ft (701 m) | 3,700 ft (1,127 m) | 5,900 ft (1,798 m) |
| PS20-24 | 5,600 ft (1,706 m) | 9,000 ft (2,743 m) | 14,300 ft (4,368 m) |

NOTE: A relay box can be used to extend the maximum operating distance (control to relay box) to 13,000 feet using 16 AWG.

GENERAL

Construction

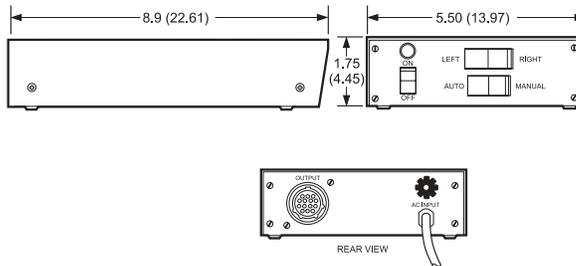
- Cover:** Steel, black polyester powder coat
- Chassis:** Steel, zinc plated
- Panel:** Aluminum, black polyester powder coat with white silkscreen

Unit Size: 5.50 (W) x 1.75 (H) x 8.90 (D) inches (13.97 x 4.45 x 22.61 cm)
Refer to Figure 2.

Unit Weight

- MPS5DT:** 3 lb (1.36 kg)
- MPS524DT:** 4 lb (1.80 kg)
- MPS524DT/220:** 4 lb (1.80 kg)

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



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

Figure 2. Dimension Drawing

REGULATORY NOTICES

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.

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 Pelco manufactured cameras (CC3500/CC3600 and MC3500/MC3600 Series); two years on all other cameras.
- Three years on Genex® Series (multiplexers, server, and keyboard).
- Two years on cameras and all standard motorized or fixed focal length lenses.
- Two years on Legacy®, Camclosure™ Camera Systems, CM6700/CM6800/CM8500/CM9500/CM9740/CM9760 Matrix, DF5 and DF8 Series Fixed Dome products.
- Two years on Spectra®, Esprit™, and PS20 Scanners, including when used in continuous motion applications.
- Two years on WW5700 series window wiper (excluding wiper blades).
- Eighteen months on DX Series digital video recorders.
- 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:
 Service Department
 Pelco
 3500 Pelco Way
 Clovis, CA 93612-5699

If you are located outside the continental U.S., Alaska, Hawaii or Puerto Rico:

| | |
|--------------------------------------|------------------------------|
| <i>Intermediate Consignee</i> | <i>Ultimate Consignee</i> |
| <i>American Overseas Air Freight</i> | <i>Pelco</i> |
| <i>320 Beach Road</i> | <i>3500 Pelco Way</i> |
| <i>Burlingame, CA 94010</i> | <i>Clovis, CA 93612-5699</i> |
| <i>USA</i> | <i>USA</i> |

REVISION HISTORY

| Manual # | Date | Comments |
|----------|-------|--|
| C545M | 3/85 | Original version. |
| C545M | 1/90 | Rev. A. Revised to include MPS524DT/220. |
| C545M | 9/90 | Rev. B. Revised page 2 and Figures 2 and 6. |
| C545M-C | 10/94 | Rev. C. Revised to 2-Column Format. Incorporated new wiring diagrams (Figs. 5 and 6) and updated fuse values per ECO #94-482. Revised Figure 2 and cable assembly instructions in Section 4.1. |
| C545M-D | 6/96 | Rev. D. Figures 5 and 6 revised to include new wire colors and new transformer, part #TRF22282.30.70F. |
| | 3/97 | Fuse value updated in Figure 6. |
| | 5/97 | Manual formatted to new style. Optional R300 Rack mount instructions removed. Figures 4 and 5 updated per ECO #97-125 (wiring colors and connections). |
| C545M-E | 2/02 | Manual formatted to new style. New scanner models added. Figures 2-4 removed. |