

MPT9000 Series Control

FIXED SPEED COAXITRON®

Product Features

- 120 VAC Input
- Extremely Flexible
- For use with 24 VAC or 120 VAC (Non-Preset) Coaxitron® Receivers
- Single Coax Cable Controls All Functions
- Up to 16 Remote Control Functions
- Single PC Board Integrates All Operational Functions
- Auto/Random Scan Capability
- Desktop or Rack Mount Models Available



MPT9000CZ TRANSMITTER/CONTROL

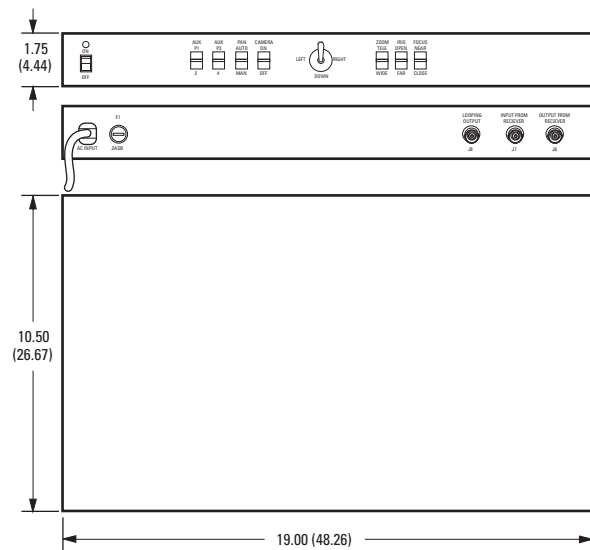
The **MPT9000 Series** offers a versatile transmitter/controller that can be used in a variety of applications for controlling pan/tilts and cameras.

The desktop or rack mount units have an eight-position joystick for operating pan/tilts, and switches for control of camera zoom, focus, and iris functions. There also are switches for auxiliary functions to control such things as lights or doors. The transmitter/controller is compatible with random interlace and 2:1 interlace cameras.

The **MPT9000 Series** is capable of auto/random scan operation when used with an appropriate receiver, such as the IRD2024 or ERD2200.

The **MPT9000 Series** uses Pelco's Coaxitron® system to send control signals to pan/tilt receivers. Coaxitron allows control signals to be sent over the video coaxial cable, eliminating the need for separate control wiring between a transmitter and receiver. The control pulses are superimposed upon the video signal during the vertical blanking interval where they are not noticeable on the monitor.

The **MPT9000 Series** can be used in short or medium distance applications when equalization of cable losses is not required. For longer distances an equalization amplifier (EA2000) can be used.



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



SYSTEM OVERVIEW

BASIC COAXITRON SYSTEM

In the simplest form, the Coaxitron system consists of the control/transmitter, coaxial cable, and receiver. Up to 16 separate functions (up to 10 simultaneously) are transmitted over the coaxial cable to the remotely located receiver.

These signals are then converted to drive voltages or relay switching for the appropriate accessory equipment being controlled.

The basic Coaxitron is extremely flexible in that it can be expanded to control multiple camera sites with the addition of certain switching devices such as Pelco manual switchers, non-amplified bridging sequential switchers, VS5004/VS5008 sequential switchers, and Coaxitron matrix switching systems.

MULTIPLE CAMERA COAXITRON SYSTEM

The multiple camera Coaxitron system is an expansion of the basic Coaxitron system. In this example, a manual video switcher has been added. The selected camera signal is fed to the Coaxitron transmitter, which then feeds the monitor.

When a camera selection is made, that video line is dedicated to the transmitter, which allows the associated Coaxitron receiver to be controlled.

Functions such as auto/random scan are latching and will remain on until turned off by the transmitter.

MULTIPLE CONTROL STATION COAXITRON SYSTEM

In the absence of an assertive control command, the transmitter is inactive. This allows several transmitters to control one receiver. If two transmitters are activated simultaneously, more than the allowable number of pulses will be detected by the receiver and the simultaneous commands will be ignored.

The video cable from the receiver is looped through the Coaxitron transmitters and is terminated at the final control station.

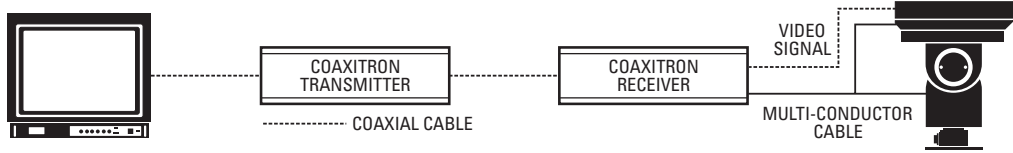
MULTIPLE CONTROL STATIONS AND CAMERAS

This system represents the most sophisticated of the Coaxitron systems. In this particular example multiple transmitters control multiple receivers.

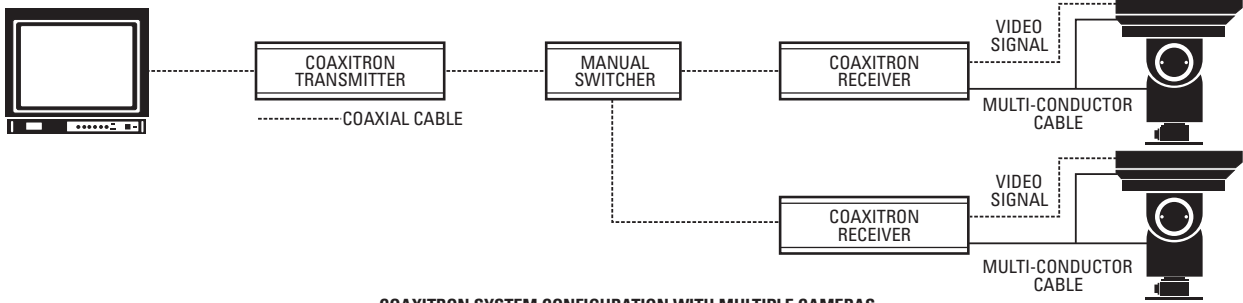
Video cables from the receivers are looped through the first control station to the second. At the first control station, a bridging, looping-type sequential switcher is used. The monitor 2 output is a hard contact switch, otherwise known as the bridged output, for continuous viewing or control selection. This monitor may also be used for sequential viewing.

In multi-control, multi-receiver systems, any one control can assume control inasmuch as there is no priority provision. If two or more control units are activated simultaneously, erroneous responses are prevented by error detection circuitry in the associated receiver. Any control may assume control of any receiver at any time.

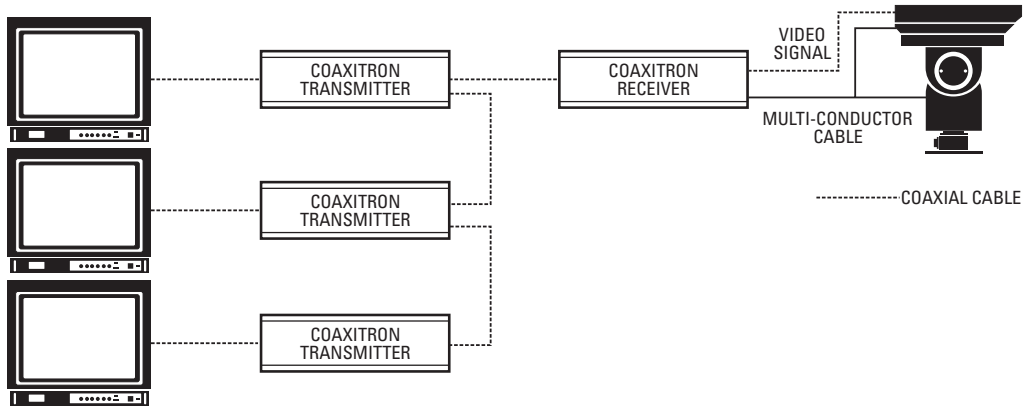
SYSTEM OVERVIEW



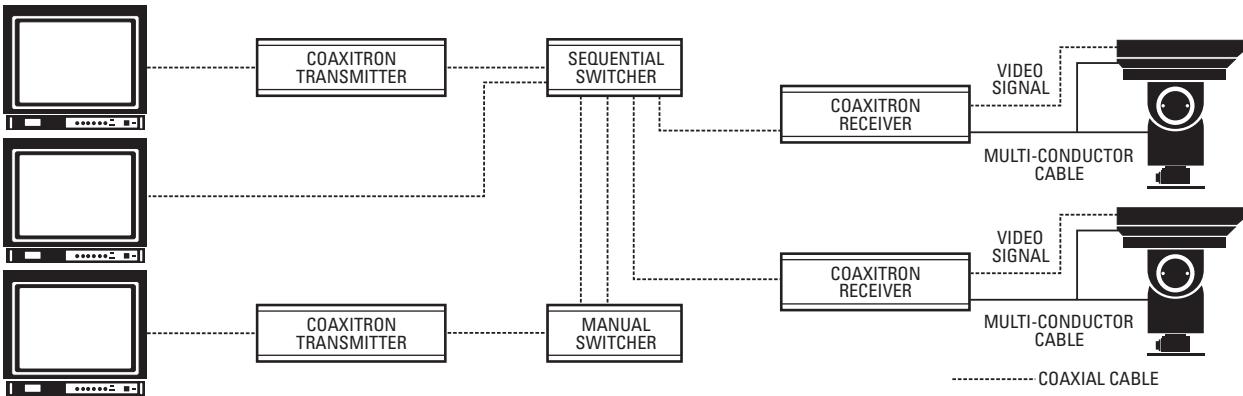
BASIC COAXITRON SYSTEM CONFIGURATION



COAXITRON SYSTEM CONFIGURATION WITH MULTIPLE CAMERAS



COAXITRON SYSTEM CONFIGURATION WITH MULTIPLE CONTROL STATIONS



COAXITRON SYSTEM CONFIGURATION WITH MULTIPLE CAMERAS AND CONTROL STATIONS

TECHNICAL SPECIFICATIONS

MODELS

MPT9000CZ	Coaxitron desktop transmitter/control with pan/tilt joystick and zoom lens control capabilities. 120 VAC input
MPT9000PZ	Same as MPT9000CZ except ready to install in a standard 19-inch EIA rack or console. (1 RU)

Note: Four optional accessory functions (1 latching, 2 momentary; or, 4 momentary if using Aux1/Aux2 as momentary functions) are available. Please consult factory for details.

RELATED PRODUCTS

IRD2024	Indoor, fixed speed, Coaxitron receiver.
ERD2200	Outdoor, fixed speed, Coaxitron receiver.
LRD41A11 Series	Legacy® fixed speed receiver, Coaxitron compatible.

ELECTRICAL

Input Voltage	120 VAC, 50/60 Hz
Power Consumption	
Transmitter/Control	2.5 VA
Receiver	5 VA (120 VAC or 24 VAC)
Pan/Tilt Supply	140 VA (120 VAC) maximum 50 VA (24 VAC) maximum
Lens Supply	0-4 VA maximum
Camera Supply	15 VA (typical)
Control Method	15-pulse train (pulse width modulated) superimposed upon the video signal during the vertical interval by the control transmitter. Pulse train occupies one TV line period
Pulse Amplitude	Approximately 1 Vp-p added to video signal; 333 kHz nominal
Connectors	
Control	3 BNC connectors
Fuse Protection	3 AG type
Power Cord	3-wire grounded, 18 AWG (control and receiver)
Operating Distance	Up to:
RG59/U	750 feet (229 m)
RG6/U	1,000 feet (305 m)
RG11/U	1,500 ft (457 m) (75-ohm coaxial cable required)

CONTROLS

Power On/Off	Rocker switch
Pan/Tilt	8-position joystick
Zoom	Paddle switch, TELE/WIDE
Focus	Paddle switch, NEAR/FAR
Iris	Paddle switch, OPEN/CLOSE
Pan Auto/Man	Paddle switch (latching function in receiver)
Camera On/Off	Paddle switch (latching function in receiver)
Aux 1, 2	Paddle switch (receiver provides open collector output that can be used as one latching function or two momentary functions)
Aux 3, 4	Paddle switch, two momentary functions (logic levels in receiver)
Pilot Lamp	Long life neon

GENERAL

Environment	Indoor; 32° to 120°F (0° to 49°C)
Dimensions	
MPT9000CZ	1.75" H x 17.60" W x 10.50" L (4.44 cm x 44.70 cm x 26.67 cm)
MPT9000PZ	1.75" H x 19.00" W x 10.50" L (4.44 cm x 48.26 cm x 26.67 cm)
Unit Weight	
MPT9000CZ	7.23 lb (3.28 kg)
MPT9000PZ	7.54 lb (3.42 kg)
Shipping Weight	
MPT9000CZ	9 lb (4.07 kg)
MPT9000PZ	10 lb (4.53 kg)

CERTIFICATIONS/RATINGS

- UL Listed
- FCC, Class B
- Meets NEMA Type 1 standards

OPTIONAL ACCESSORIES

LRD41TLC	Test local control module. Plug-in module for IRD2024, ERD2200, and LRD41A11 Series receivers for on-site testing.
EA2000	Half-duplex equalizing amplifier maintains control signal up to 3,000 feet (914 m) using RG59/U coaxial cable.



Pelco Worldwide Headquarters:
3500 Pelco Way, Clovis, California 93612-5699 USA
USA & Canada Tel: (800) 289-9100 • FAX (800) 289-9150
International Tel: (559) 292-1981 • FAX (559) 348-1120
www.pelco.com

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