



## CM8500 Series Matrix MICROPROCESSOR-BASED CROSS-POINT VIDEO SWITCHER, 32 X 16



### Product Features

- 32 Inputs x 16 Outputs (Fully Configured)
- Compatible with Coaxitron® and Legacy® Receiver/Drivers
- 16 Programmable Sequences (32 Steps Each, Including Presets)
- All Programming Done Via Easy-To-Use On-Screen Programming Windows
- Preset, Pattern and Zone Capability Standard
- Easy-Access Windows Provide Quick Camera and Monitor Selection
- Single Compact CPU, Card Cage and Power Supply Requires 5.25 Inches (13.33 cm) of Rack Space
- Eight Keyboard Capability
- Password Protection Prevents Unauthorized Access
- Up to 32 Alarm Inputs and 32 Relay Outputs
- 8 Tours, Event Scheduling

The **CM8500 Series Matrix System** is a microprocessor-based cross-point video switcher designed for use in small to medium-sized facilities. Powerful and flexible, the **CM8500** can meet the needs of any complex CCTV system.

The **CM8500** system can accept up to 32 video inputs and is compatible with Coaxitron® and Legacy® receiver/drivers.

Individual input/output cards allow expansion to 16 monitor outputs (when using CM8503A-1 card cage). This modular approach enables you to meet today's requirements while offering the flexibility to expand in the future. The system also supports up to 8 keyboards.

All system programming is accomplished via the easy-to-use keyboard and on-screen programming windows. Individuals with a valid user identification can access the system from any keyboard, with access to specific programming windows being defined by each individual's user profile.

Up to 16 different user profiles may be defined, with each profile containing information such as the user's password, priority level and camera access. Additional standard features such as presets, sequencing, pattern scanning and zone definitions are also user programmable and accessed via the keyboard.

The **CM8500 Series** matrix is a user-friendly system designed to ease installation and enhance operation and management of the most demanding CCTV systems.



CM8502A-1 CPU/CARD CAGE



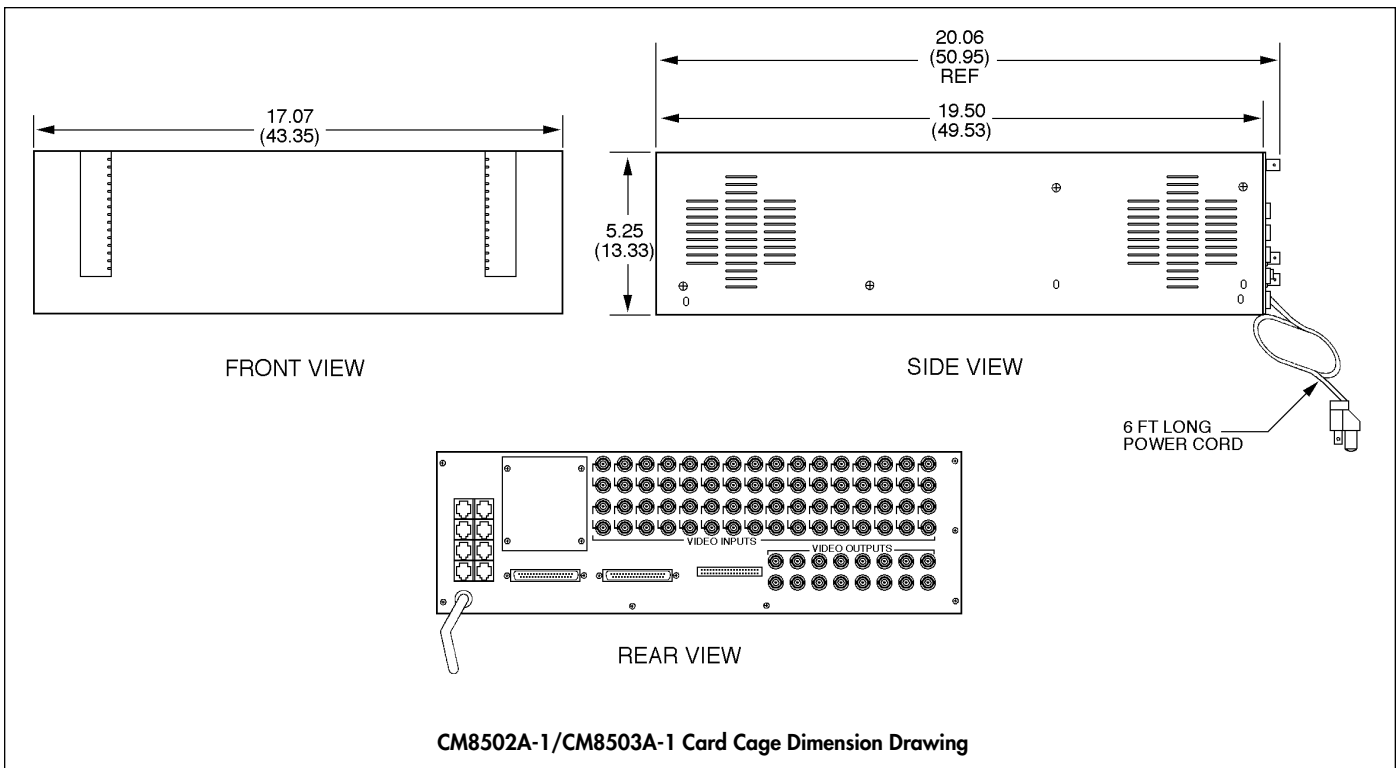
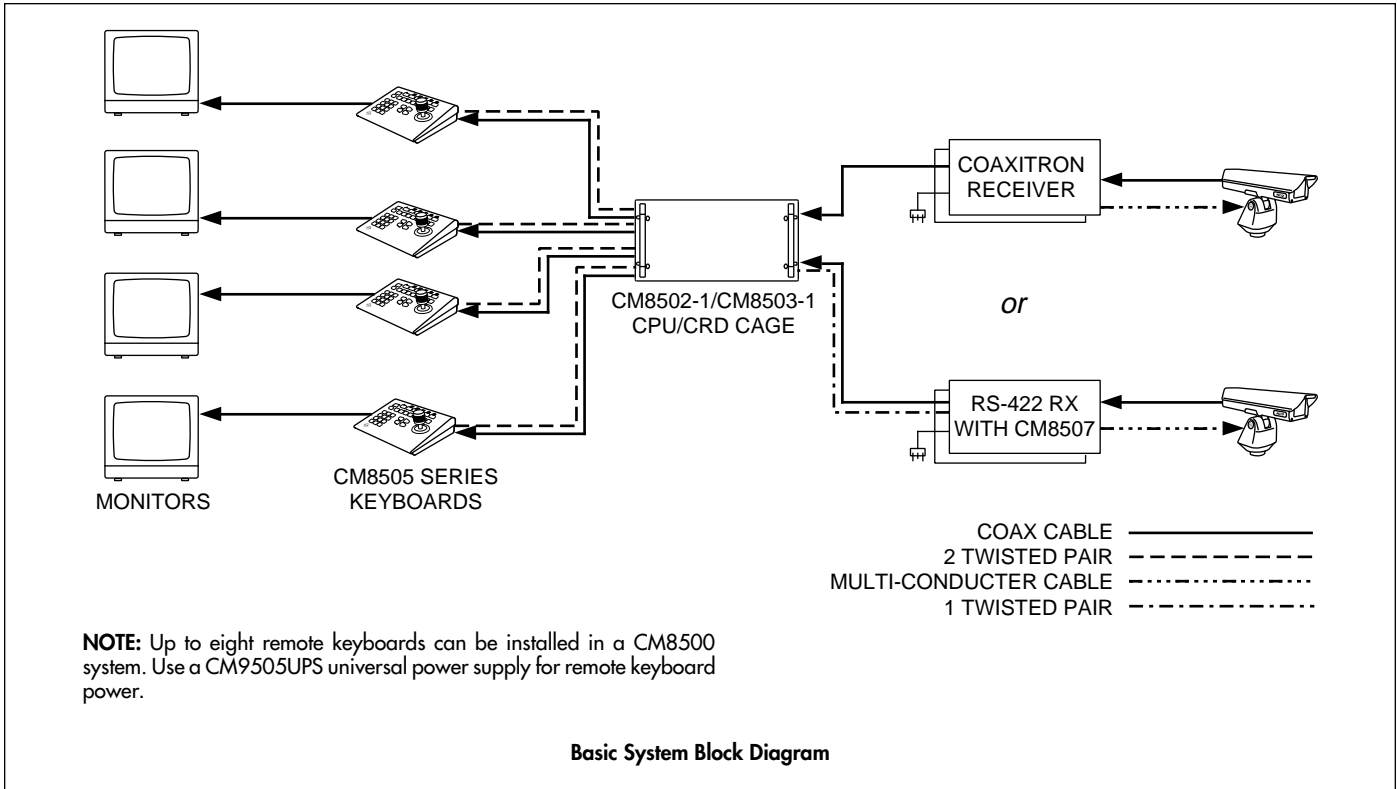
CM8505D KEYBOARD CONTROL



CM8505R KEYBOARD CONTROL



# TECHNICAL SPECIFICATIONS





# TECHNICAL SPECIFICATIONS

## CARD CAGE

### GENERAL

Programmable Switching Duration	Min. 1 second
Programmable Number of Steps/Sequence	32
Maximum Number of Sequences	16

### VIDEO INPUTS

Number of Inputs	1-32
Type	75-ohm unbalanced terminating or looping; jumper selectable
Level	1V peak-to-peak (+6 dB)
Connector Type	Panel-mount BNC

### VIDEO OUTPUTS

Number	1-8 or 1-16
Type	75-ohm unbalanced
Level	1V peak-to-peak nominal
Video Fail Detection Type	Vertical sync detector
Action	Switch to back up sync generator
Connector Type	Panel-mount BNC

### VIDEO SPECIFICATIONS

Frequency Response	± 3 dB 20 Hz - 10 MHz
Gain	Zero dB (± 0.5 dB)
Differential Gain	Typical 0.5% - Max. <1.0%
Differential Phase	Typical 0.5° - Max. <1.0°
Field Tilt	Typical 0.3% - Max. <0.5%
Line Tilt	Typical 0.25% - Max. <0.5%
Hum	<-60 dB (Below <1V p-p)
Signal to Noise	> 60 dB
Crosstalk (input-to-input)	>-60 dB @ 10 MHz
Feedthrough (input-to-output)	> 60 dB @ 10 MHz

### CHARACTER GENERATOR

Display	White with black border
Programmable Label Descriptions	20 Alphanumeric characters max.

### KEYBOARD INTERFACE

Protocol	Balanced RS422
Number of Ports	8
Number of Independent Keyboards	8 max.
Baud Rate	9600
Connector Type	RJ-45 8-pin modular (female)
Cable Type (supplied)	25-ft (7.62 m) flat unshielded (may be shielded)
Programmable	Yes; on-screen, menu-driven

### ALARM INTERFACE INPUTS

Number of Inputs	32
Connector Type	Two 37-pin "D" type female
Sensing	Normally open

### RELAY FOLLOW OUTPUTS

Number of Outputs	32
Connector Type	Two (2) 50-pin "D" type female
Contact Configuration	Double pole, normally open or normally closed
Contact Rating	1 amp (60W AC/30W DC)

### POWER SUPPLY

Input Voltage	CM8500 120/230 VAC/60 Hz (NTSC); CM8500/PAL 120/230 VAC/50 Hz (PAL/CCIR)
Power Consumption	70 W
Ambient Operating Temperature Range	20°F to 120°F
Humidity	80% max.
Fusing	1.5A @ 230 VAC; 3A @ 120 VAC
Power On/Off Switch	Rocker type

### PHYSICAL SPECIFICATIONS

Dimensions	See dimension drawing
Shipping Weight	Fully-Configured 37 lb (16.8 kg) Card Cage Only 27 lb (12.3 kg)
Construction	Cover Steel, gray polyester powder coat

### KEYBOARD

#### GENERAL

Numeric Keypad	12 key; 0-9, CLEAR, SELECT
Function Keypad	12 key; ESCAPE, SEQ, TOUR, FLIP, NEXT, CAM, MON, ALARM ACK, RELAY TRIGGER, PREV, PATTERN, PRESET
Lens Function Switch Block	6 momentary switches; ZOOM WIDE, ZOOM TELE, FOCUS NEAR, FOCUS FAR, IRIS CLOSE, IRIS OPEN
Joystick	Vector-solving, variable-speed

#### KEYBOARD ELECTRICAL SPECIFICATIONS

Input Voltage	±12 VDC
Power Consumption	7W
Ambient Operating Temperature	20°F to 120°F (-6.67°C to 48.89°C)
Humidity	80% max
Connector Type	RJ-45 8-pin modular (female)

#### KEYBOARD COMMUNICATIONS

Protocol	Balanced RS422
Number of Ports	1
Baud Rate	9600 baud
Connector Type	RJ-45 8-pin modular (female)

#### PHYSICAL SPECIFICATIONS

Dimensions	CM8505D 4.10" H x 11.82" W x 8.86" D (10.41 cm x 30.02 cm x 22.50 cm)
	CM8505D-PAL 4.10" H x 11.82" W x 8.86" D (10.41 cm x 30.02 cm x 22.50 cm)
	CM8505R 3.45" H x 19.0" W x 7.10" D (8.76 cm x 48.26 cm x 18.03 cm)
Shipping Weight	CM8505D 6 lb (2.7 kg) CM8505D-PAL 6 lb (2.7 kg) CM8505R 9 lb (4.1 kg)
Construction	Injection-molded plastic
Shielding	EMI and RFI shielded

#### CERTIFICATIONS

- ◆ CE compliant (CM8500-DT-X, CM8502A-1-PAL, CM8503A-1-PAL, CM8504, CM8505D-PAL, CM8505R-PAL, CM8532, CM9505UPS-X and CM9505UPS-422X only)



## TECHNICAL SPECIFICATIONS

### CPU/CARD CAGE/POWER SUPPLY

CM8502A-1	Coaxitron Matrix 8500 card cage capable of 32 inputs and 1 monitor output. Can be expanded to 8 monitor outputs. Order one (1) CM8504 input/output card for each additional monitor output desired.
CM8502A-1-PAL	Same as CM8502A-1 except 230 VAC input
CM8503A-1	Coaxitron Matrix 8500 card cage capable of 32 inputs and 1 monitor output. Can be expanded to 16 monitor outputs. Order one (1) CM8504 input/output card for each additional monitor output desired.
CM8503A-1-PAL	Same as CM8503A-1 except 230 VAC input

### VIDEO OUTPUT MATRIX CARD

CM8504	1 output video matrix card for output expansion in CM8502 and CM8503 card cage
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### KEYBOARD CONTROLLERS

CM8505D	Full-function desktop keyboard. Provides vari-speed joystick control for pan/tilt functions, lens control switches, auxiliary function switches, numeric data entry keypad. Derives power from main CPU/card cage. Connects to CPU utilizing integral RJ-45 8-pin modular female connector. 25-foot (7.62 m) interconnect cable included
CM8505D-PAL	Same as CM8505D except for use with 230 VAC system (CM8502A-1-PAL or CM8503A-1-PAL)
CM8505R	Same as CM8505D except rack mount keyboard.
CM8505R-PAL	Same as CM8505D-PAL except rack mount keyboard
CM9505UPS	Remote power supply for CM8505 keyboards. For use when power supplied from CPU is inadequate due to excessively long wire runs or when CPU derived power is impractical or impossible (i.e., fiber-optic transmission of RS422 keyboard data). (Required for each additional keyboard if more than two (2) are used. CPU will only power two keyboards.)
CM9505UPS-X	Same as CM9505UPS except 230 VAC operation
CM9505UPS-422	Same as CM9505UPS except has RS422 repeater
CM9505UPS-422X	Same as CM9505UPS-422 except 230 VAC operation
CM9505J	Junction box set to adapt keyboard RJ-45 8-pin male modular cord/connector to multi-conductor cable. Set of two (2). Barrier strip to RJ-45 8-pin female modular connector. Also includes one pre-assembled 25-foot (7.62 m) cable for CPU
CM9505IC-50	50-foot (15.24 m) keyboard-to-CPU extra length cable pre-assembled with modular RJ-45 connectors

### OPTIONAL FEATURE CIRCUIT CARDS

CM8506	Discontinued
CM8507	Discontinued
CM8532	32 alarm/32 relay circuit card kit to allow direct monitoring of 32 alarms and the use of 32 relay outputs programmable in software. Mounts to back plane of CM8502/CM8503. Includes panel mount "D" connectors. Must use with CM8500-APNL-2/-10 and CM8500-RPNL-2/-10 breakout panels.

### BREAKOUT PANELS

CM8500-APNL-10	Alarm breakout panel for up to 16 alarm inputs. 10-foot (3.05 m) ribbon cable supplied
CM8500-APNL-2	Same as CM8500-APNL-10 except supplied with 2-foot (.61 m) cable
CM8500-RPNL-10	Relay breakout panel for up to 16 outputs/panel. 10-foot (3.05 m) ribbon cable supplied
CM8500-RPNL-2	Same as CM8500-RPNL-10 except supplied with 2-foot (.61 m) cable
CM8500-WPNL-10	Discontinued
CM8500-WPNL-2	Discontinued

### RELATED PRODUCTS

CM8500-DT	ASCII translator; translates programmed ASCII messages sent from an access control device or device capable of sending valid ASCII messages. 120 VAC input. Same as CM8500-DT, 230 VAC input. Coaxitron (standard) receiver/drivers. (See C554 spec)
CX8500-DT-X	Discontinued
CX9000RX Series	Discontinued
CX9504RX Series	Discontinued
DRD08AXX or DRD08DXX	Discontinued
DRD14AXX or DRD14DXX	Discontinued
LRD41A11 Series	Legacy® fixed speed receiver/driver, Coaxitron compatible. (See C553 spec)
LRD41C21 Series	Legacy® fixed speed receiver/driver, Coaxitron/RS422 compatible with up to 64 presets. (See C557 spec)
LRD41C22 Series	Legacy® variable speed receiver/driver, Coaxitron/RS422 compatible with up to 64 presets. (See C557 spec)
WX8000 Series	Discontinued

Specifications subject to change without notice.  
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