



MODEL CR3960

30 HOUR HIGH-DENSITY 960 HOUR VIRTUAL REAL-TIME RECORDER



The CR3960 four-head virtual real-time recorder provides continuous 30 hour recording. With standard time-lapse (SP) and high-density time-lapse (EP) modes, the CR3960 can record up to 960 hours of video, and up to 30 hours of audio using a T-160 tape. For both black-and-white or color applications, the CR3960 provides extensive programming features such as: a time and date search feature for quick, easy recovery, 20 fps in 24-hour mode, adjustable playback speed with shuttle ring, cataloging of all power losses and alarm triggers, and much more.

FEATURES

- Normal-density (SP) & high-density (EP) recording modes up to 960 hours
- Continuous recording at 20 fps in 24-hour mode (24 hours with T-160 tape)
- Audio recording up to 30 hours using a T-160 tape
- Time & date search feature
- RS-232C interface (optional)
- Catalogs all power losses & alarm triggers
- Jog dial/shuttle ring
- 1-year limited warranty on parts & labor, 6-month limited warranty on heads

Our people make a difference.

Choice. Value. Service.

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MODEL CR3960

ELECTRICAL

Video Signal Format	NTSC standard, (525 lines, 60 fields)
Video Record. System	4-head double, azimuth helical scanning system
Luminance Signal	Frequency modulation recording
Color Signal	Low frequency conversion, sub-carrier phase shift recording
Audio Track	1 track
Video Input	1.0Vp-p, 75 ohms, BNC
Video Output	1.0Vp-p, 75 ohms, BNC
Video S/N Ratio	> 42dB
Video Resolution	> 330 horizontal lines B&W > 300 horizontal lines color (SP mode)
Audio Input	-8 dBs, 47kohms, RCA plug
Audio Output	-6 dBs, 1kohms, RCA plug
Audio S/N Ratio	> 43dB
Microphone input	-67dBs, 600 kohms mini mic jack
Audio Freq. Response	70Hz - 7kHz (2-hour mode)
Alarm Recording Time	Timed: 15 sec/30 sec/45 sec/1 min, 2 min/5 min/10 min, Manual 1, Manual 2
Display Format	
Display Mode 1	(Month)-(Day)-(Year) (Hour) : (Minute) : (Second) (Alarm Rec #)
Display Mode 2	(Month)-(Day)-(Year) (Day of Week) (Alarm Rec #), (Hour) : (Minute) : (Second) (Recording Mode)
Display Position	In any position
Timer Program	8 programs, Daily start and stop time for one week
Battery Backup	Lasts 31 days
Elapsed Time Indicator	The maximum of 89,999 hours
Power Source	100 to 230V ac, 60/50 Hz.
Power Consumption	Approx. 20W
Connector Rating:	
ALM/CALL/MODE	Active: "Low Level", max. Current 50mA (+5V DC)/10mA (+24V DC) Non active: open, max. voltage +24V DC
SET/RST/REC	Active: When terminals are short-circuited or "Low" level voltage applied. Non active: open
CLK	Recording: a pulse of the frequency division ratio selected by rear terminal menu

MECHANICAL

Tape Format	VHS 1/2" width high-density video cassette tape
Fast Forward/Rewind Time	Approx. 140 sec. with T-120 tape
Heads Video	4 rotary single crystal heads
Audio/Control	1 stationary head
Erase	1 full track head
Motors	3 motors-drum/capstain direct drive system.

Connectors:	
SET Input	Screw terminal for starting alarm recording
RST Input	Screw terminal for finishing alarm recording
REC Input	Screw terminal for starting/finishing recording
GND	Screw terminal for ground
ALM Output	Screw terminal for alarm output
CLK Output	Screw terminal to command camera switching
MODE Output	Screw terminal for indication of VCR selected mode
CALL Output	Screw terminal for external warning device
REMOTE Jack	Jack for connecting remote control unit (optional)
RS-232C	D-SUB 9-pin connector (Based on RS-232C standard) (optional)
Dimensions	14W x 10.5H x 3.6D in (360W x 270H x 94D mm)
Weight	7.5 lbs (3.4kg)

GENERAL

Ambient Temperature	41°F - 104°F (5°C - 40°C)
Ambient Humidity	Max. 80% (non-condensing)

RECOMMENDED CAMERAS

CCM3400N	1/3" 400 TVL B&W Camera
CCM3600N	1/3" 600 TVL B&W Camera
CCC3300N	1/3" 330 TVL Color Camera
CCC3500N	1/3" 470 TVL Color Camera

RECOMMENDED MONITORS

CMM1400N	14" B&W General Purpose Monitor
CMM2000N	20" B&W High Performance Monitor
CMC1400N	14" Color High Performance Monitor

Design and specifications subject to change without notice.
Conversion: 1" = 25.4mm
Measurement conversions are approximate
9/01v2



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