



PROFESSIONAL STUDIO EQUIPMENT

MODEL JH-16

A Convertable One Inch/Two Inch Professional Recording System



Modern engineering design principles combined with MCI's years of experience in the professional recording industry combine to make the JH-16 a unique Multi-track, professional recording system. Fool-proof control logic system, fully remotable function switching, and an optional automatic rewriter save time and allow the engineer to concentrate on program material. Simplicity of design and accessibility of component systems reduce the possibility of failures and increase serviceability.

The JH-16 is housed in a decorative, steel cabinet with aluminum and walnut vinyl trim. The automatic rewriter and remote function controls are housed in a brushed, anodized aluminum case with a cradle for table top mounting.

FEATURES

TRANSPORT

- * Quick one inch/two inch conversion
- * Automatic tape lifter
- * Automatic dual head shield
- * Constant tape tension
- * Fully interlocked control logic
- * Dynamic braking
- * Rigid roller guides
- * Unconditional failsafe braking
- * Digital rewriter and tape logger
- * Tilt access deck mounting

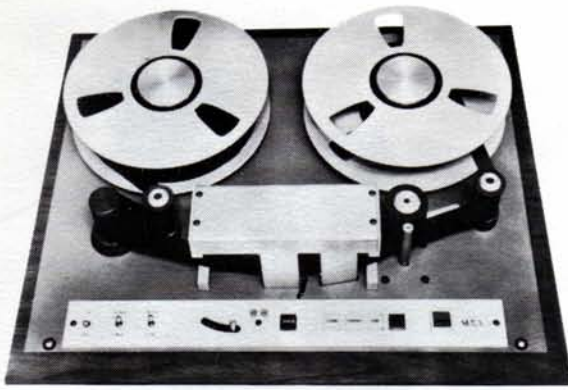
ELECTRONICS

- * Plug-in record, reproduce, and bias boards
- * Plug-in equalizers
- * Built-in remote overdub switching
- * Automatic input/tape switching
- * Channel/bus board construction
- * Balanced inputs/outputs
- * Fully remotable function controls
- * Remote control standard equipment
- * Readily serviceable packaging
- * Noiseless record in/out switching



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OPERABILITY



The operating controls of the JH-16 are designed to give the operator maximum flexibility and ease of operation. The fully interlocked control logic of the JH-10 transport allows selection of any command at any time without fear of tape spillage. The photocell activated head shield, threading idle, and clear tape path facilitate easy tape threading. Servo driven reels provide constant tension in the play mode.

The JH-16 is supplied with a remote control as standard equipment. The remote provides full remote control of all deck and electronics functions. Duplicate deck functions include: Fast forward, Rewind, Stop, Play, and Record. Master function pushbuttons select reproduce, input, auto-cue, and auto-cue/input modes of operation. Channel switches allow individual tracks to operate in input or auto-cue modes. The optional Automatic Locator, housed in the remote, maintains tape log, automatically rewinds tape, and provides a running time clock.



All adjustments vital to daily maintenance are accessible through the doors in the front of the JH-16 console. The adjustments are conveniently grouped vertically by channel as integral parts of the modules in the card rack. Controls can be categorized as follows:

Equalization

Reproduce	(High Frequency (Low Frequency)	High Speed
	(High Frequency (Low Frequency)	Low Speed
Record	(High Speed (Low Speed)	

Level Sets

- Reproduce
- Record
- Cue
- Erase Peaking
- Bias

Calibrate

- Record
- Bias

Switches

- VU meter Bias Check

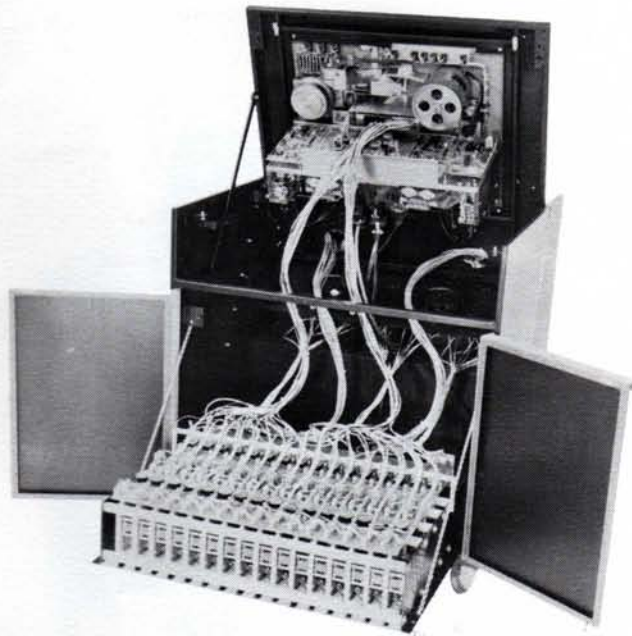


SERVICEABILITY

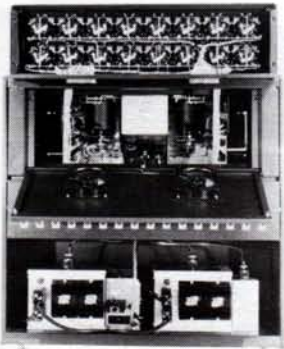
Serviceability was an important factor in the design of the JH-16 System. Particular attention has been paid to the layout of component parts so that no involved procedures are required if removal is necessary. Active components are located on plug-in printed circuit boards and mechanical sub-assemblies are built as complete units. Hand wiring has been greatly reduced through the use of bus board construction. Each channel has an individual bus board which mates with the channel modules and an eight unit master bus board.

The JH-16 console is designed so that it opens up to allow easy access to all component systems. The deck plate swivels around a horizontal axis and latches in two convenient service positions.

Electronics card rack folds out between the front doors to allow access to the channel bus boards.



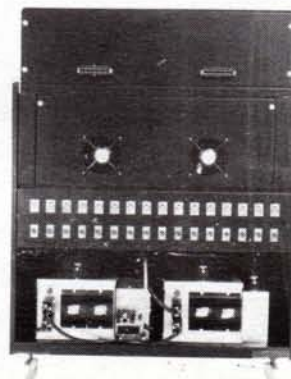
Both sections of the remote control are separately removable for ease of servicing. Overdub and safe-ready switches are P.C. mounted with easily removable plug-in lamps. Relamping is accomplished by removing the lower wrap panel. The Auto-Locator unit is self-contained and plugs into the function remote section.



Interfacing connectors are located on the rear of the JH-16 console.

XLR connectors are provided for audio in/out terminations. The remote control connects to two sockets on the rear of the meter panel and one socket on the auto locator power supply. All power supplies are located on the shelf in the rear of the console. Two Ultra-quiet fans cool the system. All access panels are fastened in place with quarter-turn fasteners.

Two rear panels in the JH-16 cabinet fold down to provide access to the rear of the transport and the meter housing. The lower panel permits access to the transport connector panel and the reeling motors. Printed circuit bus boards in the meter housing reduce point-to-point wiring and facilitate re-lamping.



SPECIFICATIONS

DECK

Tape Width and Head Configuration	One Inch — 8 Tks (12 Tks) Two Inch — 16 Tks
Tape Tension	One Inch — 4.0 oz. Two Inch — 6.0 oz. ± 2% for line variations from 105 to 140 vac.
Tape Speeds	15 Ips. 30 Ips.
Long Term Speed Stability (beginning to end of tape)	Less than 10 Hz. of 15-Khz. Recorded tone
Flutter and Wow (15 and 30 Ips.)	Weighted — Less than .05% Peak (DIN) Unweighted — Less than .15% Peak (DIN)
Start Time (To meet Flutter and Wow)	3.0 sec. (Max.)
Reel Sizes	6" to 10.5" — NAB Hubs
Rewind Time (For 2400' reel)	55 Sec.

ELECTRONICS

Frequency Response (15 and 30 Ips.)	Reproduce — 30 Hz to 16-Khz. ± 2-Db Cue — 30 Hz to 16-Khz. ± 3-Db
Signal to Noise (Unweighted)	Reproduce — 64 Db below ± 4 Dbm Cue — 60 Db below ± 4 Dbm Record and Erase — Less than 3 Db (Increase over bulk erased tape)
Input	Level — -20 Dbm (Minimum) Impedance — 20K (Nominal) Balanced
Output	Level — 0 VU = +4 Dbm Impedance — 600 Ohm Balanced Line Amp Clipping — +24 Dbm
Equalization	NAB — Automatically Switched by Deck Speed Switch
Bias Oscillator	Frequency — 120 Khz — (Located in Deck)
IM Distortion	At Standard Rec Level — 3%

SYSTEM

Size	Console — 33" Wide, 30" Deep, 45" High Remote — 11½" Wide, 5" Deep, 8" High
Weight	405 Lbs. (Shipping)
Power	117 vac, 8 Amp, 60 Hz. (50 Hz. Opt.)
Temperature Range	5 to 45° C

9/30/7



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