



MM-1000 Series Recorder/Reproducer

SPECIFICATIONS

AMPEX

The Sound Revolution has brought with it sweeping changes in approach. Mastering now calls for much greater operational flexibility in recording equipment. And the MM-1000, a multichannel recorder/reproducer from Ampex, was conceived to lead the revolution.

The MM-1000 is a professional audio tape recorder designed to handle one-inch or two-inch tape with remarkable reliability. It is basically a 16-channel machine, available in both 8-channel and 24-channel configurations as well. Machines can be expanded or reduced by eight-channel increments to any of the three configurations.

SPECIFICATIONS

Tape Speeds (Dual):

7.5 and 15 ips or 15 and 30 ips

Number of Channels:

8-, 16- or 24-channels

Signal-to-Noise Ratio:

7.5/15 ips or 15/30 ips;
8- and 16-channel, 60 dB min.
24-channel, 55 dB min.

Peak record level to unweighted noise (30 Hz to 18 kHz). Includes bias, erase, and playback amplifier noise using Ampex 404 Series tape or equivalent.

Frequency Response (Overall):

30 ips: ± 2 dB, 50 Hz to 20 kHz
15 ips: ± 2 dB, 30 Hz to 18 kHz
7.5 ips: ± 2 dB, 40 Hz to 15 kHz

Erase (Selective erasure on each channel):

7.5/15 ips and 15/30 ips:
8- and 16-channel, 70 dB
24-channel, 50 dB

Flutter:

15 and 30 ips below 0.08% rms
7.5 ips below 0.1% rms
percentage of total flutter is measured by the methods of the ASA
257.1-1-1954, in a band 0.52200 Hz, while reproducing an Ampex flutter test tape (flutter on test tape less than 0.03%)

Third Harmonic Distortion:

7.5/15 ips and 15/30 ips: below 1.1% at normal operating level.

Crosstalk:

50 dB minimum, 8- and 16-channel at 500 Hz.
45 dB minimum, 24-channel at 500 Hz.

Playback Output:

+4 dBm into 600 ohms, restrapable for +8 dBm output, balanced or unbalanced. Maximum +28 dBm before clipping.

Record Input:

100K unbalanced bridging with dummy plug supplied or 20K balanced bridging with plug-in transformer supplied with each electronics.
-17 dBm to produce recommended operating level.

Electronic Adjustments:

Accessible from front: equalization, reproduce level, record level, record calibration, reproduce calibration, bias adjustment, bias calibration, erase adjust, SEL-SYNC®* system level and bias trap adjustments.

Heads:

8-track head stacks have adjustable azimuth, 16- and 24-track head stacks are fixed azimuth.

Indicators:

1. Illuminated transport controls.
2. "Red" record, "Yellow" non-record, "Green" SEL-SYNC system.

(Specifications continued on overleaf.)

*SEL-SYNC is an Ampex trade name.

Timing Accuracy:

±0.1% (±1.8 seconds in 30 minute record time) for a reel of tape recorded, rewound and played back on the same unit; ±0.2% from unit to unit.

Tape Position Index:

Reads hours, minutes, and seconds with repeat accuracy of ±0.1% (15 ips only).

Timing Reference:

If capstan is driven from ac motor, ac line is standard. If dc capstan motor is used, the reference is an external frequency standard, or an internal crystal accurate to 0.01%. Variable frequency accessory is available.

Tape Width:

One-inch and two-inch wide NAB reels. Ampex Series 434 (1.5 mil) or 444 (1.0 mil) low-noise mastering tape recommended.

Equalization:

All standard models supplied with NAB or IEC (CCIR) equalization.

Rewind Time:

1.4 minutes to rewind 10½-inch reel using 2-inch, 1.5-mil tape.

Start Time:

Tape at full speed in less than 0.5 second.

Power Requirements:

117 volts, 50 or 60 Hz.

MM-1000-8 0.65 KVA MAX.

MM-1000-16 0.85 KVA MAX.

MM-1000-24 1.1 KVA MAX.

Dimensions:

Height: 65.0 inches

Width: 42.3 inches

Depth: 27.5 inches

Sidecar rack for MM-1000-24:

Height: 65.0 inches

Width: 25.0 inches

Depth: 25.0 inches

Weight:

MM-1000-8 approximately 500 lb

MM-1000-16 approximately 630 lb

MM-1000-24 approximately 750 lb

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