

MDM-4

MIX DOWN MONITOR

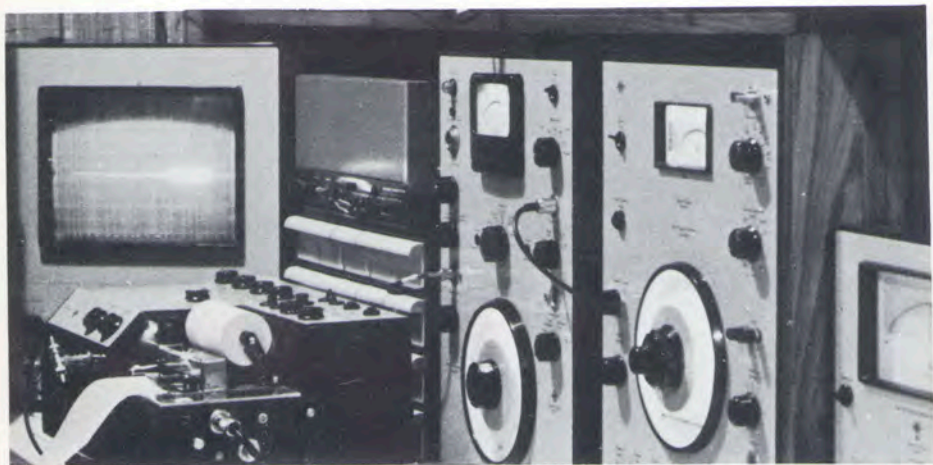


WITH CALIBRATION CURVE

Professionals expect precision in the alignment tapes, test records and electronic test instruments which are used to insure that their consoles, tape machines and associated electronic devices are capable of optimum performance. The MDM-4 MIX-DOWN-MONITOR is the first precision monitoring loudspeaker which is individually calibrated and documented for use by professionals.

Each MDM-4 is subjected to over 20 special procedures and tests to insure uniformity. The drivers used in the MDM-4 are carefully built and individually tested, using special quality control equipment developed by E.M. Long Associates. They are not standard, commercial drivers. The crossover networks are also carefully built and tested. After each system has been completely assembled it is thoroughly tested for phasing, power handling, system resonance, frequency response and impedance. It is auditioned against an MDM-4 reference standard using pink noise input. Any MDM-4 which does not pass these tests is rejected and reworked until it does pass. Each MDM-4 which passes these difficult tests is assigned a serial number. A free field, anechoic frequency response curve is then run using Brüel & Kjaer acoustic measuring equipment. This frequency response curve is then packed with the particular MDM-4.

This curve is calibrated against the internationally accepted sound pressure reference level standard. More complete documentation of individual MDM-4, MIX-DOWN-MONITORS, including axial response, impedance curve, 2nd and 3rd harmonic distortion components at low level and high level and system resonance are available on special order for nominal extra cost.



The MDM-4 has been designed for accurate, smooth response when operated in the 4π steradian mode, away from walls, ceiling and floors. The MDM-4 should be placed as close as practical to the listening position. This will reduce the effects of the room upon the acoustic response and result in the best reproduction of the original sound. The MDM-4 was designed to operate at relatively low levels without "fade out" especially in the bass register. This allows extended listening without the temporary threshold shift that occurs when monitoring at higher levels. The MDM-4 may be stacked and operated in parallel for 6 dB more acoustic output. The MDM-4 should be positioned with the longest dimension in the horizontal plane for the broadest, most symmetrical dispersion.

The MDM-4 MIX-DOWN-MONITOR will fit easily at the ends of the mixing console. In this position, the uniform dispersion of the MDM-4 produces the most accurate location of sources, using pan-potting, that you've ever experienced.

When used for editing and quality assurance, the clarity and articulation of the MDM-4 midrange is uncanny in the way it reveals drop-outs, splices and tape background noise level changes.

Compactness and lightweight allow a pair of MDM-4 MIX-DOWN-MONITORS to be placed easily into a car trunk or back seat for field monitoring.

Electronic Crossover Bi-Amplification techniques can be used easily with the MDM-4 Mix-Down-Monitor. In addition to the normal binding posts, two, twin circuit, phone jacks are provided on the rear input panel for easy access to the low and high frequency drivers. Using a standard "stereo" phone plug, the "tip" connects to the driver, the "ring" connects to the output of the internal crossover and the "sleeve" connects to the common of both. More detailed information is available regarding the use of electronic crossovers.

The rear input jacks may be used to provide separate high and low frequency driver fusing. The fuse is connected between the "tip" and "ring" of a stereo plug which is then inserted into the appropriate jack. Use a 1.25A AGC fuse for the high frequency plug and a 3.0A fuse AGC for the low frequency plug.

FEATURES

- INDIVIDUALLY CALIBRATED FREQUENCY RESPONSE CURVE
- DUAL, MUTALLY COUPLED LOW FREQUENCY DRIVERS (206 cm²)
- POLYMER LAMINATE CONES
- HIGH-MID FREQUENCY DRIVER WITH SEPARATE CHAMBER
- PHASE CONTROL EQUALIZER-FILTER CROSSOVER NETWORK
- FULL ONE OCTAVE OVERLAP BETWEEN DRIVERS
- PROVISION FOR ELECTRONIC CROSSOVER
- PROVISION FOR SEPARATE HIGH (1.25A) AND LOW (3.0A) FREQUENCY FUSING
- INTEGRAL FUSING (2.0A)
- FLAT ACOUSTIC OUTPUT IN 4 π STERADIAN MODE, SUSPENDED OR ON FLOOR STAND, AWAY FROM WALLS
- DESIGNED FOR STACKED, PARALLEL OPERATION (412 cm² EQUIVALENT TO 12" DRIVER)
- COMPACT AND LIGHTWEIGHT

APPLICATIONS

- MIX-DOWN-MONITORING
- RE-MIX-MONITORING
- LOCATION RECORDING
- TAPE EDITING
- DISC CUTTING
- QUALITY ASSURANCE
- FOLDBACK MONITORING
- MEASUREMENT SOURCE

PERFORMANCE SPECIFICATIONS:**FREQUENCY RESPONSE**

±3 dB 60 Hz to 17 kHz (4 π steradians, free field)

±5 dB 50 Hz to 20 kHz (4 π steradians, free field)

POWER REQUIREMENTS

10 watts for 97 dB per 1000 cubic feet of room volume

1 watt for 89 dB SPL @ 1 meter (free field)

POWER HANDLING

40 watts continuous, 100 watts instantaneous below 1 kHz

15 watts continuous, 40 watts instantaneous above 1 kHz

DEMAGNETIZATION LEVEL

315 watt low frequency pulse will result in a permanent 1 dB output reduction in the piston band of the bass drivers

SENSITIVITY

80 dB SPL/volt/meter

DISTORTION

Less than 5% THD or I.M., 50 Hz to 20 kHz

Typically less than 1% 100 Hz to 20 kHz

94 dB SPL at 1 meter

IMPEDANCE

8 ohms nominal, 6 ohms minimum

DESIGN SPECIFICATIONS:**SYSTEM TYPE**

Dual woofer, 2-way sealed system

DRIVERS

Two 16 cm (6¼") Low Frequency

One 9 cm (3½") Mid-high Frequency

CROSSOVER

Equalizer Filter type at 1500 Hz

ENCLOSURE VOLUME

27 Liters (.95 cubic feet)

ENCLOSURE DIMENSIONS

48 cm x 33 cm x 24.8 cm

19" x 13" x 9 3/4"

ENCLOSURE FINISH

Rosewood, Vinyl or Laminate

GRILLE

Reticulated poly-urethane

SYSTEM WEIGHT

9.5 kgm. net, 10.4 kgm. shipping

21 lb. net, 23 lb. shipping

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