

MDM-TA2

TIME-ALIGN[®] MONITOR



CALIBRATION STANDARD INSTRUMENTS

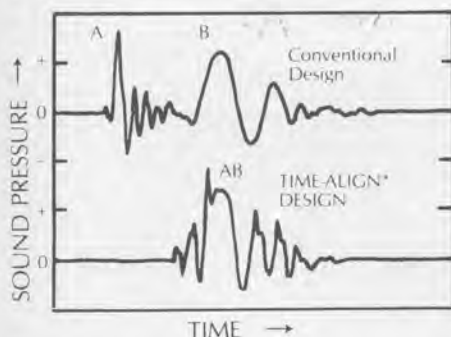


TIME-ALIGN* NEARFIELD MONITOR

The MDM-TA2 is the first TIME ALIGN* monitor designed to be used as a NEARFIELD MONITOR* as well as a distant monitor. Because it is a TIME ALIGN* design, the MDM-TA2 allows you to hear and correct the bad effects of limiters, compressors, noise reduction systems, digital recorders, splices, drop-outs, etc. to a degree never before possible. The MDM-TA2 may be used at 1 meter or less thus overcoming "acoustical noise" caused by room boundaries. Because TIME ALIGN* causes the direct sound to be presented as a tight, coherent package of acoustical energy, you will also hear more detail, at a distance, in poor acoustic environments.

WHAT IS TIME-ALIGN*?

TIME-ALIGN* requires that the fundamental and overtones of a complex, TRANSPARENT, acoustical signal presented to the listener be in the same relationships they had in the electrical signal at the input terminals of the loudspeaker. This is demonstrated graphically in the scope pictures of the sound of a hand-clap.

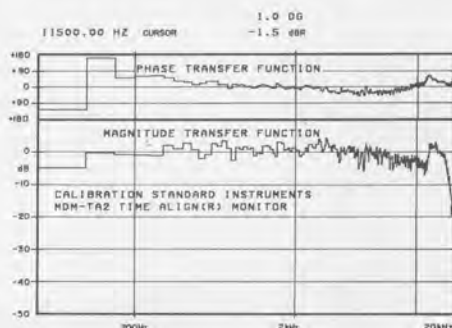


THE SOUND OF A HAND-CLAP

The conventional loudspeaker spreads out the sound. When a rapid series of transients occur, blurring results and detail is lost. With TIME-ALIGN*, the sound of the hand-clap is presented as a tight package of energy, with the same time relationships as the natural sound. This means that a rapid series of transients will be heard clearly.

LABORATORY TESTED MONITORS

Before assembly, drivers and crossovers are tested using computer controlled laboratory grade acoustical measuring equipment and selected to produce matched pairs. The MDM-TA2 is subjected to over 20 tests to insure that each pair is matched to within 1 dB. Besides final tests for distortion, polarity, power handling and distortion, a transfer function test, using a dual channel digital FFT, is made for the linearity of magnitude and phase vs. frequency. A representation of this type of measurement is shown below.



MDM-TA2 MAGNITUDE AND PHASE TRANSFER FUNCTION

The MDM-TA2 is designed for use with amplifiers of up to 300 watts/channel. PROTEKT* provides a dynamic power monitor which also keeps the signal clean. Levels of 108 dB are possible when the MDM-TA2 is used as a NEARFIELD MONITOR*.

MATCHED PAIRS THAT STAY MATCHED

Replacement drivers are available in matched pairs so that field repairs may be made while insuring that the original system matching is maintained. This causes the stereo imaging of the MDM-TA2 to be exceptional. The MDM-TA2 may also be returned to the SERVICE LABORATORY for service and recalibration if desired.

THE "PROGRAM/POSITION" SWITCH AND EQ

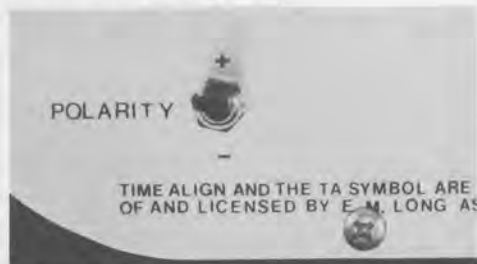
A special "Program/Position" switch on the front panel allows the upper range response of the MDM-TA2 to be adjusted to compensate for both listening position (NFM* or Distant) and program (Original or Final). This switch, which we believe to be the first of its kind, allows appropriate equalization to be applied to the original program to compensate for the slight losses which occur in even the finest recording and broadcast chains.



THE MDM-TA2 "PROGRAM/POSITION" SWITCH

THE ABSOLUTE ACOUSTICAL POLARITY SWITCH

The MDM-TA2 is the first monitor to include an integral polarity switch. This allows the absolute polarity of program material to be checked easily. This is very important when new material must be added to existing material of unknown polarity.



THE MDM-TA2 ABSOLUTE POLARITY SWITCH

SPECIFICATIONS

FREQUENCY RESPONSE	±3dB 60Hz to 20kHz (4 π Steradians)	IMPEDANCE	8 Ohms nominal, 4 Ohms minimum
MATCHED PAIR RESPONSE	±.5dB	SYSTEM TYPE	TIME-ALIGN* Two-way, Ported (50Hz tuning)
TIME-OFFSET	±25 microseconds 200 Hz to 16kHz	CROSSOVER	TIME-ALIGN* Equalizer/Filter 2.5kHz, Bass to port at 78Hz
SENSITIVITY	78dB SPL/Volt/Meter	DRIVERS	One CSI BD16/108 Bass, 160mm One CSI TD2/3A Treble, 19mm
POWER REQUIRED	1 Watt for 87dB at 1 Meter	ENCLOSURE VOLUME	16 Liters (.56 Cubic Feet)
POWER RECOMMENDED	100 Watts per channel minimum	ENCLOSURE DIMENSIONS	406mm x 299mm x 235mm 16" x 11 3/4" x 9 1/4"
POWER HANDLING	40 Watts continuous (below 1kHz) 160 Watts instantaneous (below 1kHz) 15 Watts continuous (above 1kHz) 60 Watts instantaneous (above 1kHz)	FINISH	Rosewood & Black laminate and aluminum trim
DISTORTION	Less than 3% THD or IM, 60Hz to 20kHz. Less than 1% THD or IM 100Hz to 20kHz (94dB SPL at 1 Meter)	SYSTEM WEIGHT	9.1 kgm/unit, 21.8 kgm/pair Shipping 20 lbs/unit, 48 lbs/pair Shipping

TIME-ALIGN, THE TA SYMBOL, NEARFIELD MONITOR, NFM, AND PROTEKT ARE TRADEMARKS OF E.M.LONG ASSOCIATES

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