

MDM-TA3

TIME-ALIGN[®] MONITOR



CALIBRATION STANDARD INSTRUMENTS

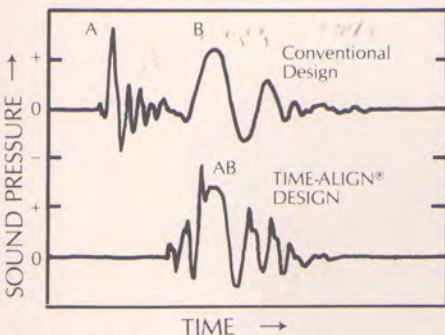


TIME-ALIGN* FOR CLARITY

The MDM-TA3 will allow you to hear the effects of limiters, compressors, noise reduction systems, digital recorders, splices, drop-outs, and many other things to a degree that you have never before experienced. You will also hear more detail, at a distance, in poor acoustic environments. This means that you will be able to exercise more control over your recordings than you have been able to in the past. The reason that the MDM-TA3 is superior to any other compact monitor is TIME-ALIGN*.

WHAT IS TIME-ALIGN*?

TIME-ALIGN* requires that the fundamental and overtones of a complex, TRANSIENT, 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.

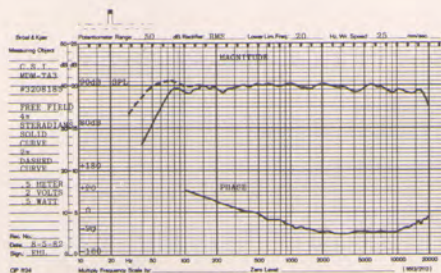


THE SOUND OF A HAND-CLAP

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-TA3 is subjected to over 24 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-TA3 MAGNITUDE AND PHASE TRANSFER FUNCTION

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, plus the "mirror image" configuration of the pairs, causes the stereo imaging of the MDM-TA3 to be exceptional. The latest version of the MDM-TA3 features PROTEKT*, a protection system which allows amplifiers of up to 300 watts to be used. C.S.I. is committed to doing everything we can to make improvements available as retrofits and any earlier MDM-TA3 may be retrofitted with PROTEKT*.

ORIGINAL RECORDINGS AND FINAL PRODUCT

Special switches are provided which allow different settings to be used for monitoring original recording and broadcast material from those used for monitoring final product. This allows appropriate equalization of the original material to compensate for losses due to the medium. When listening to test pressings or "off-the-air" broadcasts, the switches are set differently to simulate how the final product will sound to an "end listener".



THE MDM-TA3 SWITCH & FUSE PLATE

The MDM-TA3 is designed to be used against or flushed into a wall and so the three fuses for the bass, midrange and treble drivers are also mounted on the front plate. Only the input terminals are mounted on the rear. The enclosure for the MDM-TA3 is made of high density particle board with interlocking construction and veneered on all six sides with special thick plastic laminate. This greatly reduces enclosure coloration effects. Such attention to detail has made the MDM-TA3 the choice of professional engineers, producers and performers since 1979, when it was first introduced.

SPECIFICATIONS

FREQUENCY RESPONSE	± 3dB 45Hz to 20kHz (2π Steradians)	IMPEDANCE	8 Ohms nominal, 5 Ohms minimum
MATCHED PAIR RESPONSE	± .5dB	SYSTEM TYPE	TIME-ALIGN* Three-way, Dual Woofer, Ported (32Hz tuning)
TIME-OFFSET	± 15 microseconds 200Hz to 16kHz	CROSSOVER	TIME-ALIGN* Equalizer/Filter 1.8kHz, and 7kHz. Bass to port at 68Hz
SENSITIVITY	82dB SPL/Volt/Meter	DRIVERS	Two CSI BD16/102A Bass, 160mm One CSI MD7/38 Midrange, 70mm One CSI TD2/3 Treble, 19mm
POWER REQUIRED	1 Watt for 91dB at 1 Meter	ENCLOSURE VOLUME	37 Liters (1.3 Cubic Feet)
POWER RECOMMENDED	100 Watts per channel minimum	ENCLOSURE DIMENSIONS	483mm x 406mm x 298mm 19" x 16" x 11¾"
POWER HANDLING	40 Watts continuous (below 1kHz) 160 Watts instantaneous (above 1kHz) 15 Watts continuous (below 1kHz) 60 Watts instantaneous (above 1kHz)	FINISH	Rosewood laminate on all surfaces
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	16 kgm Net, 19 kgm Shipping 35 lbs Net, 42 lbs Shipping

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

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