

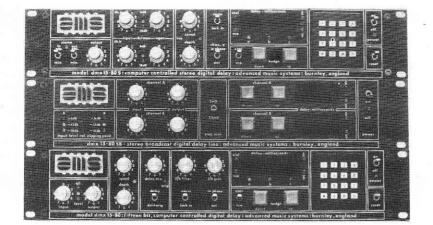
## advanced music systems

The A.M.S. range of audio equipment has now been expanded to meet the needs of everyone, anywhere, requiring high quality audio signal processing, whether the requirement be for a budget priced analog system like the DM 2-20 flanger and effects generator or the ultimate in quality like the new 16 bit linear 27kHz bandwidth disc mastering delay line.

A.M.S. offer custom service to studios, musicians and broadcast stations providing "one-off" systems for specialist applications. Typical of this are profanity DDLs with specialist software to minimise programme interference if a "dump" is used, or even 12 second units supplied to the BBC for live editing of broadcasts

The company's philosophy of continually upgrading existing products whilst introducing new ones has meant that outdating is no longer necessarily inevitable. Hence additional delay and additional outputs as well as special effects processors such as pitch change or reverberation cards may by plugged into existing mainframes as and when available. Any software updates are offered free of charge to all owners of our systems.

# DMX 15-80 SERIES



DMX 15-80S

## DMX 15-805B

**DMX 15-80** 

#### THE DMX 15-80 PROGRAMMABLE DIGITAL DELAY LINE/HARMONISER

The DMX 15-80 is a microprocessor controlled digital delay line of high technology and sophistication. It is a totally modular, effective 15 bit encoded system which lends itself to being built up into the most versatile audio processor available. Any delay or effect generated by this system will have a bandwidth of 18kHz, a signal to noise ratio of 90dB and give typical distortion of only 0.025%. A microprocessor controlled harmoniser is available for the unit.

Data entry may be made quickly and effectively by means of a keypad to any one of nine stereo stores which will hold both delay and special effects information. The front panel also allows control of feedback, feedback filtering, original/delay/effects mixing, VCO speed and depth, phase relationship selection, delay lock in, and incremental "nudge" control of delay and pitch change settings.

The unit accepts either 100mS or 400mS delay cards and can offer 4 seconds maximum of delay internally, although interface to external memory makes the maximum delay limitlesss. The system may also be interfaced to mixdown computers.

Specifications apart, the DMX 15-80 is world-renowned for its exceptionally "Clean" sound.

### THE DMX 15-80S STEREO DIGITAL DELAY LINE/HARMONISER

The DMX 15-80S is a true stereo version of the 15-80 offering two independent delay lines which may be programmed separetely. All other features including specifications and front panel data entry and control are exactly the same as for the tested and proven DMX 15-80.

One of the most attractive features of this unit is the fact that the engineer effectively has two "boxes" virtually for the price of one.

Also, it is now possible to incorporate two pitch change modules in the 15-80S for multiple harmonising effects.

#### THE DMX 15-80SB STEREO BROADCAST DELAY LINE

The DMX 15-80SB has identical specifications to the DMX 15-80S although the front panel control functions are different. The unit does not have the keyboard; delays are entered by means of two sets of incremental "nudge" controls which can operate in 1 or 20mS steps. The system has two displays showing the delays on each channel at any one time. This unit again accepts either 100mS or 400mS delay cards offering a maximum delay of 2 seconds per channel and was designed and built to specifications laid down by the BBC.

#### MEMORY BACKUP

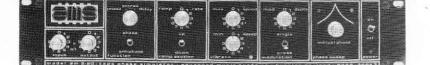
A new card is available to preserve the contents of the stores over mains switch-off.



#### DIGITAL LOOP EDITING SYSTEM

DMX 15-80 series systems can now be fitted with a "Loop Editing System". L.E.S. is the friend of every engineer who has spent hours editing and splicing tapes to create vocal/backing/drum loops. With L.E.S. musical information can be captured in the system memory and non-destructively edited via the keypad. Loops may be run continuously, or triggered for special effects and drop-ins. It is also possible to "varispeed" the loop for tempo or pitch corrections.





#### THE DM2-20 TAPE PHASE SIMULATOR

The DM 2-20 is the original A.M.S. delay system. It is an analog unit based on independent delay lines allowing exact "over the top" simulation of the phasing/flanging effect produced originally by use of multiple tape machines. It incorporates V.C.O. sections, single or cross modulation and phase control allowing "flanging", "tunnel-ling", "cardboard-tube" and "chorus" effects to be generated.

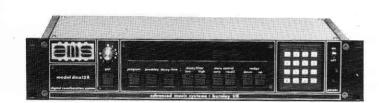
By use of the stereo outputs the system becomes a very effective "auto-panner" due to psycho-acoustic image shifting associated with the continually changing delays. The system also offers a maximum delay of 20mS although a memory module is now available to increase this to 80mS.



This system is a 16 bit linear encoded system offering impeccable specifications, namely a bandwidth of 27kHz or 23kHz and distortion figures of better than 0.02%. Excellent phase performance is ensured by use of Butterworth filters.

The unit may have both analog and digital inputs/outputs and has two exactly phase matched channels. Three preset delays may be summoned from the unit's non-volatile memory by the keyboard, or delays may be directly keyed in. The unit automatically calibrates OdB and an operating level control may be used to maintain overall system gain.

A maximum delay of 1.6 seconds may be housed in the unit although further memory expansion to 10 seconds is possible. Peak latching or tracking LED level display may be selected and again the modularity of the system and software control ensure compatibility with all current and future foreseeable digital standards.



### **DMX 15R**

DM 2-20

### THE DMX 15R DIGITAL REVERBERATION SYSTEM

The New DMX 15R is capable of interface to any of the DMX 15-80 range of audio processors. It utilises the expensive digital converters, sampling and filtering circuitry common to all the 15-80 units and hence the 15R is an extremely high quality low priced add-on peripheral. Its specifications and performance are astounding in comparison to any system presently available.

Operation of the system is straightforward - on selection of any one of up to nine programs the unit will provide a reverberant field, the parameters of which are shown on LED displays. Any or all of these fundamental parameters may be altered - the variables being pre-delay, decay time and high and low frequency decay profiles. Any alteration to the program variables may now be stored in memory locations which are not lost on power-down of the 15R.

As with the 15-80 series, keypad entry ensures ease of entry of parameters as well as producing accurately repeatable effects. A remote interface will also be available for the system.

The 15R is an exciting new concept - clean, natural pre-programmed reveberation may be selected with the greatest simplicity, or complex permutations of parameters may be accurately constructed, stored and recalled at will to obtain specific or unnatural reverberation effects.

# SPECIFICATIONS

#### DM 2-20 DMX 15-80 SERIES Input impedance: 10Kohm. electronically balanced. Input Impedance: 10kohm, unbalanced. Output impedance: 150ohm, electronically balanced. Output Impedance: 150ohm, unbalanced, two channels. Maximum output level: +24dBV. Number of outputs: 2 maximum, independent. Frequency response: 20Hz to 15kHz. Dynamic range: 90dB. Signal/Noise ratio: 75dB at manual phase centre position. Frequency Response: 15Hz to 18kHz, -3dB. Distortion: better than 0.025%. Delay Paths: Two - allowing "through infinity flanging". VCO Control: 0.05 to 20Hz, continuously variable Max Phasing Frequency: Infinity. (not SB version). Maximum Delay: 4 seconds (15-80), 2 seconds (15-80S/SB) Phasing Range: 8 octaves within the audio bandwidth, at full bandwidth, by use of 102mS or continuous sweep. 400mS cards. Delay Time: 20mS max, continuously variable tapped at Computer Control: Time entry by numeric keypad, 9 half delay. presettable stores, LED numeric readout, remote drive capability. EXPANSION Additional Delay: 102mS or 400mS delay cards. DM 2-28 Additional Output: 15-80 may have one or two outputs. Pitch Change Cards: Module(s) may be installed for harmonising (15-80/15-80S) As DM 2-20 above, but with maximum delay of 80mS Reverberation: A reverberation module may be fitted to all DMX series units.

Input Impedance: 10kohm, electronically balanced.

Output Impedance: 150ohm, electronically balanced.

Frequency response: Version 1 - 10Hz to 27kHz +0.5dB/-2dB 10Hz to 24kHz +/-0.5dB

Version 2 - 10Hz to 22kHz +0.5dB/-2dB 10Hz to 20kHz +/-0.5dB

Dynamic Range: 16 bit/~ 96dB.

DM-DDS

Distortion: Better than 0.02% at 1kHz, full output. Peak display hold: 100mS or indefinitely; switchable. Gain: Unity.

Analog level control: Automatic calibration to 0dB.

MECHANICAL

Height: 3.5", 88mm.(2U) Width (Front Panel): 19", 458mm Width (Chassis): 17", 432mm Depth: 12.5", 317mm Signal Connections: XLR 3-31 (input), XLR 3-32 (output) Power Requirements: 110/220/240 VAC, 40-60Hz, 30VA max. Power Connector: IEC

Internal electronics: Fully isolated from chassis

Secondary Protection: Secondary Protection is provided on all dangerous voltages.

Manufactured by:

## ADVANCED MUSIC SYSTEMS

U.K. Worsthorne Village, Burnley Lancashire, England Tel. 0282 36943 Telex 63108



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