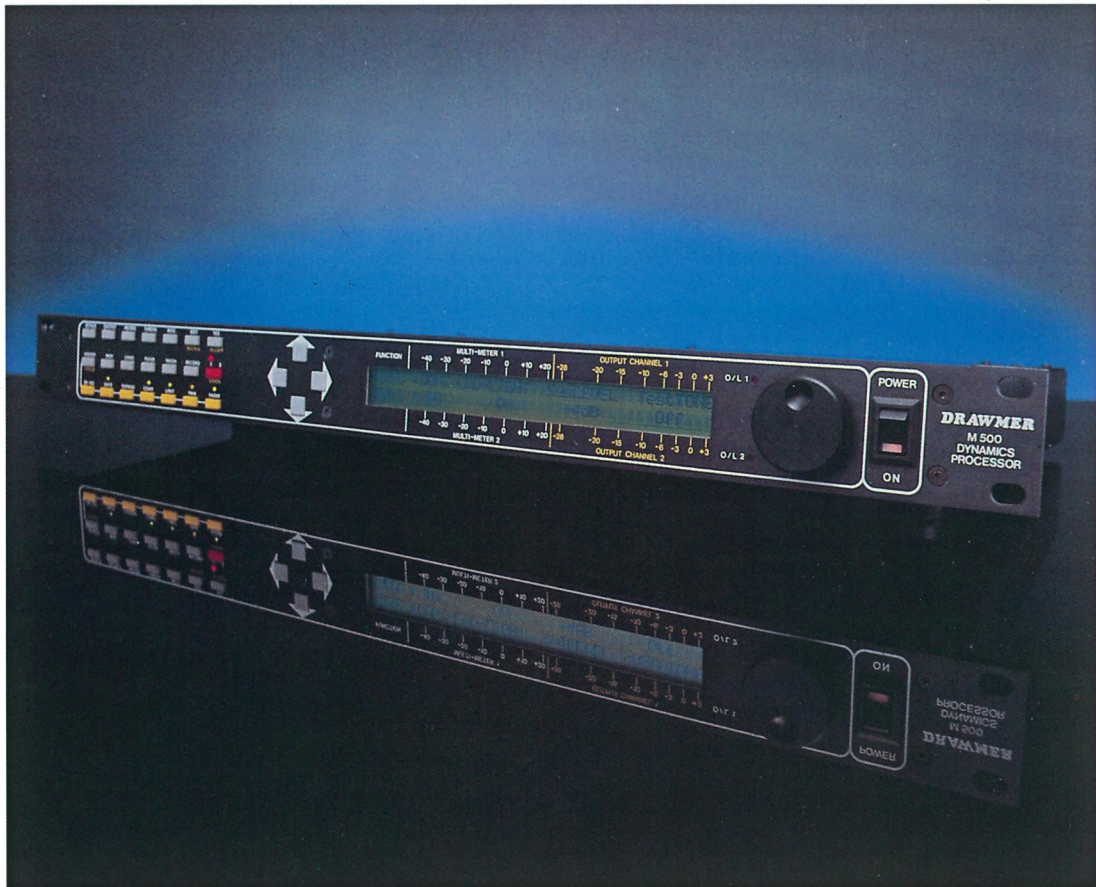


Drawmer



M 5 0 0

d y n a m i c s

p r o c e s s o r



ingenuity (,ɪndʒɪˈnjuːɪti) *n.*, *pl. -ties.* 1. inventive talent; cleverness. 2. an ingenious device, act, etc.

The Drawmer M500 is a unique dual channel dynamics processor which is able to combine several effects simultaneously.

Seven different effects are available: De-esser, Gate/Ducker, Expander, Compressor, Limiter, Panner and Auto-Fader.

Any logical combination of up to five of these effects can be implemented at one time, and a different combination can be assigned for each channel. The current order can be displayed for each channel and re-assigned to remove or add different effects. All the parameters of operation of each effect can be adjusted by a single rotary encoder for total control.

The result is a highly versatile processor of exceptional quality, which does not suffer from the disadvantages of limited bandwidth, noise build-up, and time delay associated with multiple signal processing.

The M500 offers 128 memory functions (Patches) for ease of use when implementing multiple effects. There are 78 factory pre-set memories which are programmed to provide a wide variety of functions, including the simulation of many well known signal processing devices. Once any factory pre-set is chosen the operating parameters can be 'fine tuned' and then instantly compared to the original pre-set. If desired the modified factory pre-set can then be stored in one of the 50 'user' memories. The 50 'user' memories can also be used to store any of the effects created while the M500 is in operation. This enables the engineer to create complex dynamic programs for the most exacting recording and broadcast applications, store them for further use, or even 'download' them to another engineer's M500. All memory patches are accessible via MIDI.

The M500 is extremely 'user friendly', but has a depth and breadth of capabilities that will challenge creative instincts. The addition of Peak Attack, Trigger, Pre-delay, and Re-trigger add further flexibility for the engineer. The development of a unique 'Dynamic Envelope Transfer' function opens new domains of creativity.

Designed for ease of operation with a key pad for function selection, a rotary control knob for easy parameter adjustment, and a new backlit 'supertwist' LCD for better readability from any viewing angle, the M500 becomes the ultimate dynamic creative tool.

M 5 0 0 F U N C T I O N S

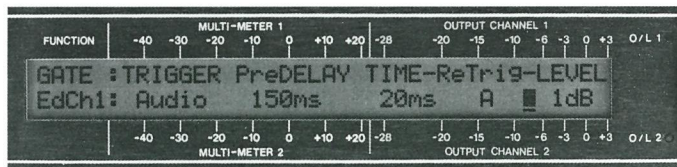
FREQUENCY CONSCIOUS NOISE GATE with peak attack, trigger, pre-delay, re-trigger and 'Dynamic Envelope Transfer'.

Parameters: Threshold, attack, hold, decay, range, peak level, peak time, peak decay, trigger, pre-delay, re-trigger mask, re-trigger type, re-trigger threshold, filter routing, gate action and gate type.

Meters displayed: Input level, output level and gain reduction.

Up to 16 envelope memories are available for 'Dynamic Envelope Transfer'. The dynamic envelope (amplitude) of any external sound can be simply recorded and imposed onto any audio signal passing through the gate.

The unit performs Gating or Ducking.



EXPANDER

Parameters: Threshold, ratio, attack, hold, release and range.

Meters displayed: Input level, output level and gain reduction.

COMPRESSOR

Parameters: Threshold, ratio, attack, hold, release and type (hard or soft knee). Selectable auto threshold, attack and release. Auto-gain make up.

Meters displayed: Input level, output level and gain reduction.

LIMITER

Parameters: Threshold, attack, hold and release. Selectable auto release.

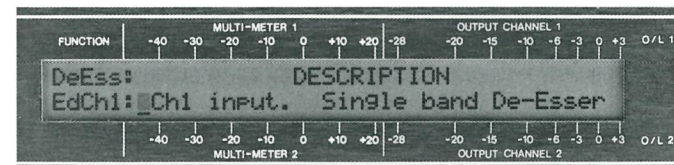
Meters displayed: Input level, output level and gain reduction.

DE-ESSER with four selectable types, full band, single band, two band and two band complex.

Parameters: Threshold, ratio, attack, hold, release, type (hard or soft knee), compression band and frequency.

Meters displayed: Input level, output level and gain reduction.

A programmable compression band allows simultaneous de-essing and de-popping.



AUTO PAN

Parameters: Rate, range, wave phase, re-trigger delay, trigger threshold, trigger source, envelope attack and envelope decay.

Meters displayed: Pan gain reduction, and output level channel 1 (left).

Pan gain reduction, and output level channel 2 (right).

A choice of 8 pre-programmed pan waves are triggerable from any source including MIDI, with a 99 second pan time available. Pan on one channel only is equal to a tremolo effect.

AUTO FADER

Parameters: Fade up time, fade down time, range and trigger source.

Meters displayed: Fader gain reduction, and output level channel 1 (left).

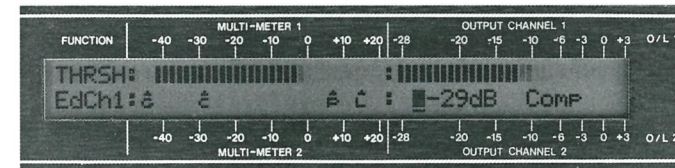
Fader gain reduction and output level channel 2 (right).

Up to 99 second fade time is available and can be triggered from the front panel, MIDI switches and MIDI stop/start.

S P E C I A L F E A T U R E S

● A visual indication of metering of input level, output level and any applicable gain reduction is available at any point in the audio chain.

● Simultaneous display and adjustment of thresholds for Gate, Expander, Compressor, Limiter and Pan trigger can be achieved on the threshold screen.

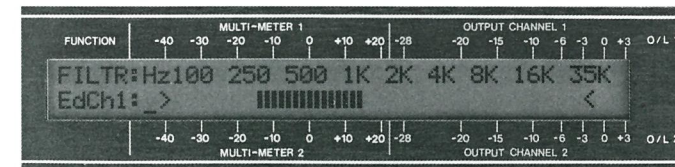


● A MISC button offers setting of the LCD contrast, the overall system level (-10dB or +4dB) and variable Test Tone frequency. A second screen displays the current internal battery voltage (for memory protect), and the mains voltage.

● Offers complete control of all functions by "dynamic/real time" MIDI including: Assignment of MIDI channel and receive mode for each channel of the M500; selection of high and low key split points; system exclusive transmissions, etc; and the setting of Master or Slave mode, allowing the unit to control or be controlled by another M500 or MIDI device.

● Specific links can be assigned to effects modules for easy stereo operation. When an effect link is selected suitable parameters are adjusted together to save editing each channel separately. Audio levels are linked for stereo operation. Additionally, the M500 can be switched to operate in any of the following modes: Stereo in/Stereo out; Stereo in/Mono out; Mono in/Stereo out or Dual Mono operation.

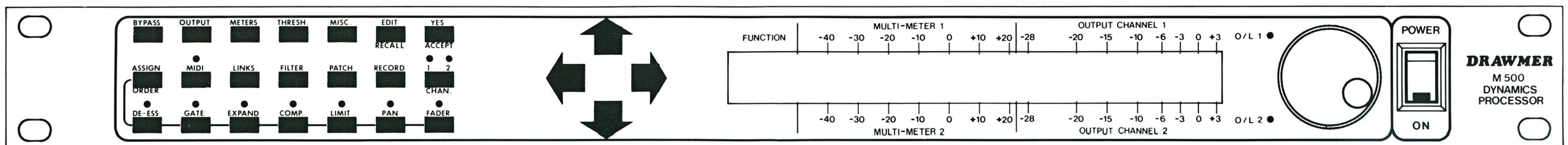
● A high pass and low pass filter can be adjusted for each channel and the display screen shows a graphic representation of the filter action.



● The M500 will not allow distortion to occur through parameter abuse and will default to the maximum permissible pre-distortion setting. An LED on each channel indicates when this has occurred.

FACTORY PRE-SET PATCHES

Gate Snare
Gate Kick
Gate Tom
Gate Cymbal
Gate Reverse Cymbal
Gate Bass
Gate with Peak
Gate Flam effect
Gate Repeat
Gate Echo Left
Gate Echo Right
Voice Over Duck
Gate Short
Gate Once (with Re-Trigger Mask)
Recorded Gate (for use with recorded Gate envelopes)
Expand Speech
Expand Vocal
Expand Up (De-Compress)
Expand Drums
Expand Guitar
Expander Long Release
Expander/Gate
Auto Compressor (60 second hold)
Auto Compressor (10 second hold)
Auto Compressor (2 second hold)
Compressor/Limiter (1 second hold)
Soft Knee Compressor
Slow Soft Knee Compressor (Long Attack)
Auto Level (Long release compressor with gain make-up)
Compressor Stereo (Gentle compressor for mixdown)
Compressor 2 Band Stereo (combined with Patch 82)
Compressor 2 Band Stereo (combined with Patch 81)
De-ess Vocal (Full Band)
De-ess Music Stereo (Hi-band, combined with Patch 85)
De-ess Music Stereo (Gentle compressor for mixdown)
De-Middle Stereo (combined with Patch 87)
De-Middle Stereo (combined with Patch 86)
De-Pop Stereo (combined with Patch 89)
De-Pop Stereo (combined with Patch 88)
Limit Auto (+6dB Limiting with Auto Release)
Limit Hold (As above, with medium Release and Hold)
Pan Sine (Sine wave Pan)
Pan Trig 1 (Synchronised Duo-Sine Pan)
Pan Trig 2 (Synchronised Sine Wave Pan)
Pan Zoom
Pan Echo
Fade 2:45 (Auto Fade at 2 min 45 sec from first signal above -10dB)
Fade Record (Stores Fade down start time for Auto Fade)
Compressor/Limiter
Soft Knee Compressor/Limiter
Expander/Compressor
Gated Compressor/Limiter
Expander/Compressor/Limiter
Stereo Compressor with Pan
Pan Duo-Sine
Pan Tri-Sine
Stereo Shimmer (combined with Patch 108)
Stereo Shimmer (combined with Patch 107)
Piano Pan
Stereo Filter Pan (combined with Patch 111)
Stereo Filter Pan (combined with Patch 110)
Stereo Filter Phasing Effect (combined with Patch 113)
Stereo Filter Phasing Effect (combined with Patch 112)
MIDI Gate (with Peak, triggered by note C3)
MIDI Slow Gate (Standard Long Gate, triggered by notes C3 to C4)
MIDI Recorded Gate (User Envelope Gate, triggerable by notes C3 to C4)
MIDI Clock Gate (Normal Gate with Peak, will open every beat)
MIDI Gate Echo (Fast Clock generated echo from Gate)
MIDI Rhythm 1 (Gate and Pan effect every 2 beats)
MIDI Rhythm 2 (Gate every beat and Pan effect)
MIDI Rhythm 3 (Pan effect every 4 beats)
MIDI Rhythm 4 (Gate and Pan effect every 4 beats)
MIDI Pan/Gate
MIDI Pan Position
MIDI Pan Envelope
MIDI Clock Fade (for Fade up/Fade down)
MIDI Pan/Fade
MIDI Key Fade



Drawmer

M 5 0 0
s p e c i f i c a t i o n

AUDIO SPECIFICATION

Operating level for Line and Key Inputs	– 10dB or + 4dB (software switchable)
Operating level for Side Chain Input/Output	– 6dB, Ring = Send Output, Tip = Return Input
Line inputs (both channels)	Balanced XLR 50K ohm impedance
Key inputs (both channels)	Unbalanced 1/4" Jack (Type A) 22k ohm impedance
Side chain inserts (both channels)	Stereo 1/4" Jack (Type A) Tip = Return, Ring = Send 22K input impedance
Side chain impedance	10K ohms
Headroom	+ 17dB above + 4dB operating level
Frequency Response	22Hz to 22KHz (– 1dB)
Noise level (Ref to + 4dBu)	– 91dB (22Hz to 22KHz) unweighted – 91dB CCIR (ARM) – 95dB IECA
Dynamic Range	108dB
Distortion at 0dB	@ 100Hz 0.06% @ 1kHz 0.06% @ 10kHz 0.08%
Distortion at – 20dB	@ 1kHz 0.07%
Outputs (both channels)	Balanced line XLR (100 Ohm impedance)
MIDI	In, Out/Merge and Through
POWER	Switchable 240/220V to 110/120V on rear panel



PRESENTED BY: