Equalizers

500 SERIES PARAMETRIC EQUALISER 512

500 Series 4 Band Fully Parametric Equaliser
Based on MIDAS HERITAGE 3000



- Compact 500 Series module with enhanced MIDAS HERITAGE 3000 four band fully parametric equaliser
- Class leading equaliser acclaimed for it's warm and responsive character with fast easy setup
- Precision dual concentric controls give instant access to fully variable gain and frequency settings
- Bass and treble bands with selection switches for bell or shelving responses
- Fully variable bandwidth controls on all four bands in bell mode
- Discrete transistor driven transformer balanced output
- High performance electronically balanced input stage with high common-mode rejection
- Ultra low noise design using premium quality op-amps
- True hardware bypass selection switch removes all circuitry from the signal path when equalisation is not required
- Power up mute relays prevent switch on thumps
- Advanced design with low power consumption gives extended component life
- Premium quality components throughout for a crystal-clear audiophile signal path
- 10-Year Warranty Program*
- Designed and engineered in the U.K.



The PARAMETRIC EQUALISER 512 is a compact 500 Series 4 band fully parametric equaliser based on channel strip originally provided in the legendary MIDAS HERITAGE 3000 mixing console. When used in conjunction with the LEGEND L10, L6, or other standard 500 Series rackmount chassis, the 512 provides the ideal EQ solution for users seeking MIDAS performance in a modular format that boasts upgraded, premium-quality performance.



Class Leading EQ

A parametric equaliser allows the operator to address multiple parameters with high precision when applying filters to an audio signal, i.e., a specific frequency can be cut or boosted by an exact amount across an adjustable bandwidth or "Q". Such surgical-level equalisation enables fine tuning the filter to reduce the gain at frequencies that are prone to feedback, or remove undesirable tonal qualities and their overtones. Conversely, the ability to increase (boost) the gain at certain frequencies provides the ideal way to add punch to bass and kick drum signals, or to add presence to vocal or solo instrument tonalities. The PARAMETRIC EQUALISER 512 utilises 4 overlapping frequency bands to easily and expertly craft professional-grade output signals – both in the studio and during live performance. And when it comes to sound quality, MIDAS products are recognized by engineers the world over as the class leader for their warm and responsive delivery.

*Warranty details can be found at musictri.be.

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Precision Dual Concentric Controls

Built from the bottom up, the 512 EQ strip operates across 4 overlapping frequency bands: Bass (20 Hz to 400 Hz); Lo Mid (100 Hz to 2 kHz); Hi Mid (400 Hz to 8 kHz); and Treble (1 kHz to 20 kHz). The Frequency and Gain (-15 dB to +15 dB) adjustments are provided in the form of stacked dual concentric controls, with Gain on the knob and Frequency on the outer ring. All give instant access to fully variable gain and frequency settings in their respective operating bands.



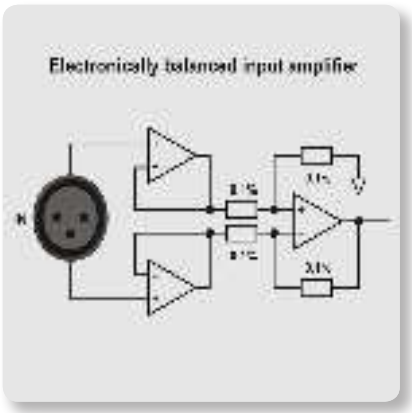


Bass and Treble Bell Switches

512's Bass and Treble Width controls (Q) are non-functional while in traditional MIDAS shelving mode, which is the default (Bell switches disengaged). When the Bell switches are pressed and illuminated, the Bass and Treble Width controls provide parametric operation. The Lo Mid and Hi Mid frequency bands are always in parametric operating mode – so when both Bell switches are engaged, all 4 Width controls provide fully variable parametric equalisation.

High Performance Balanced Input Stage

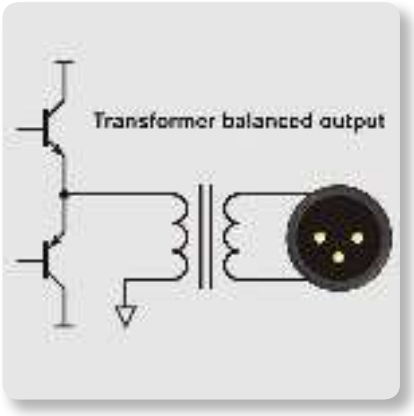
Decades of experience, paired with the premium-grade components that make up every input stage we build, ensures the ultimate in signal integrity that is the very foundation of our design process. That warm and organic MIDAS sound has been heard by millions of concert goers – and recorded for posterity on countless live albums. The input stage of the 512 is second to none with its low noise performance, which boasts an enviable Common Mode Rejection Ratio (CMRR) of -70 dB @ 1 kHz.



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Transistor Driven Transformer Balanced Output

The output stage of any audio processor is the most critical when it comes to maintaining signal integrity, so the 512 utilises discrete bipolar transistors for both their low distortion and noise characteristics. To finalise the balanced output, a premium-quality transformer is employed in order to minimize distortion and maximize clean headroom. 512's transformer also provides galvanic isolation, generates a more vintage sound, and becomes saturated at lower frequencies to add colour when driven hard.



Ultra Low Noise Design

As with all MIDAS consoles and processors, we use only premium quality components throughout our design and manufacturing process, including the ultra low noise op-amps to ensure -97 dBu performance at unity gain from 22 Hz to 22 kHz.



True Hardware Bypass & Power Up Mute

For those occasions when equalisation is not needed, 512's IN switch can be disengaged to remove all circuitry from the signal path via true hardware relay bypass. Additionally, true bypass mode engages should the chassis become accidentally powered down.

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You Are Covered

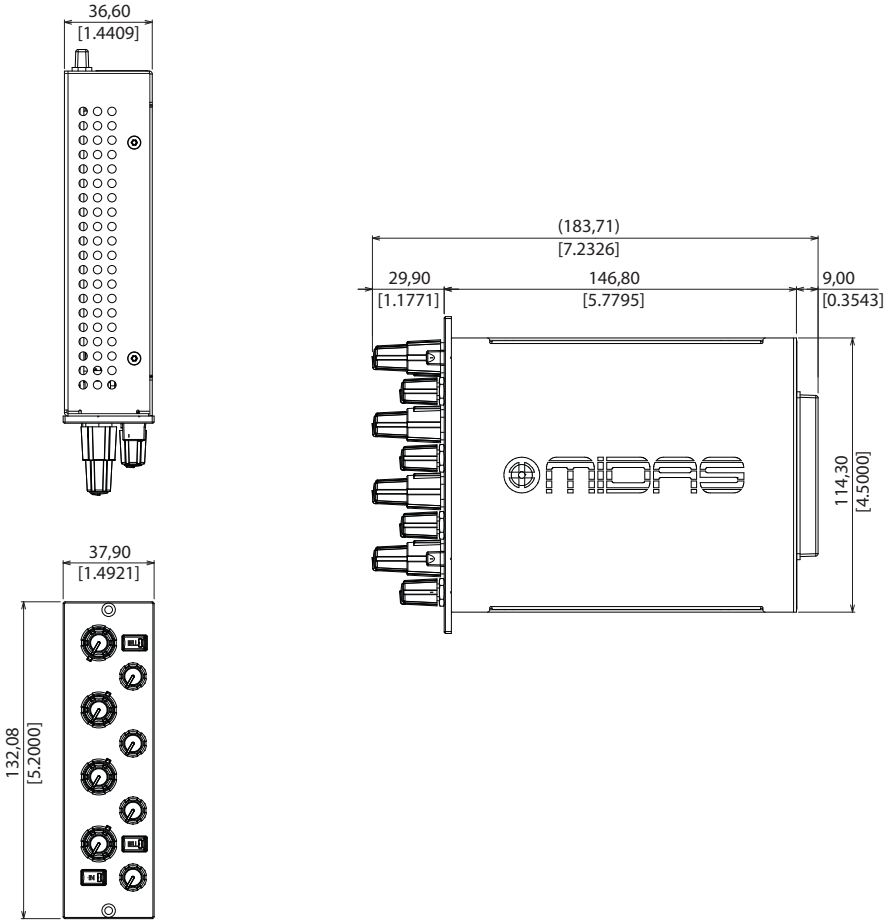
We always strive to provide the best possible Customer Experience. Our products are made in our own MUSIC Tribe factory using state-of-the-art automation, enhanced production workflows and quality assurance labs with the most sophisticated test equipment available in the world. As a result, we have one of the lowest product failure rates in the industry, and we confidently back it up with a generous Warranty program.

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Dimensions



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Technical Specifications

Controls

Treble	Dual freq/gain knobs, shelf/bell switch, width knob (bell mode)
Hi mid	Dual freq/gain knobs, width knob
Lo Mid	Dual freq/gain knobs, width knob
Bass	Dual freq/gain knobs, shelf/bell switch, width knob (bell mode)
EQ in	In/out switch

Input and Output

Input	Mono, balanced line
Output	Mono, balanced via transformer

System

Noise at unity gain	-97 dBu (22 Hz - 22 kHz)
CMRR, unity gain, 1 kHz	-70 dB (typical)
Input impedance, 1 kHz	20 kΩ
Frequency response, unity gain (EQ set flat)	20 Hz - 20 kHz, +/- 1 dB
Distortion, unity gain, 1 kHz	
0 dBu	<0.01%
+10 dBu	<0.01%
+20 dBu	<0.02%
Maximum input level, 1 kHz	+21 dBu
Maximum output level, 1kHz	+21 dBu
Output impedance, 1 kHz	50 Ω

EQ

Treble (shelf mode)	1 kHz to 20 kHz, +/- 15 dB cut/boost, slope = 4 dB per octave
Treble (bell mode)	1 kHz to 20 kHz, +/- 15 dB cut/boost, bandwidth 0.1 - 2 octaves
Hi mid (bell only)	400 Hz to 8 kHz, +/- 15 dB cut/boost, bandwidth 0.1 - 2 octaves
Lo mid (bell only)	100 Hz to 2 kHz, +/- 15 dB cut/boost, bandwidth 0.1 - 2 octaves
Bass (bell mode)	20 Hz to 400 Hz, +/- 15 dB cut/boost, bandwidth 0.1 - 2 octaves
Bass (shelf mode)	20 Hz to 400 Hz, +/- 15 dB cut/boost, slope = 4 dB per octave

Power Requirements

Voltage	+16 V and -16 V
Power consumption	100 mA, 3.2 W

Physical

Dimensions (H x W x D)	132 x 38 x 184 mm (5.2 x 1.5 x 7.2")
Weight	0.7 kg (1.5 lbs)

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Architecture & Engineering Specifications

The Midas 512 module shall provide a single channel 4 band fully parametric equaliser in a standard format 500 series single width module.

The 512 module shall provide a fully variable cut /boost control with +/- 15 dB range and a 0 dB centre detent on the inner knob of the dual concentric potentiometers on all 4 EQ bands.

The 512 module shall provide a fully variable frequency control for the treble band with a frequency range of 1 kHz to 20 kHz on the outer knob of the dual concentric potentiometer.

The 512 module shall provide a fully variable frequency control for the hi-mid band with a frequency range of 400 Hz to 8 kHz on the outer knob of the dual concentric potentiometer.

The 512 module shall provide a fully variable frequency control for the lo-mid band with a frequency range of 100 Hz to 2 kHz on the outer knob of the dual concentric potentiometer.

The 512 module shall provide a fully variable frequency control for the bass band with a frequency range of 20 Hz to 400 Hz on the outer knob of the dual concentric potentiometer.

The 512 module shall provide a fully variable bandwidth control potentiometers with a range of 0.1 to 2 octaves on all 4 EQ bands.

The 512 module shall provide a bell/shelf pushbutton switch on both the bass and treble bands to select between bell and shelving response equaliser curves.

The 512 module shall provide an EQ In pushbutton switch to enable or bypass the equaliser. In the event of power loss true hardware bypass shall be enabled.

The 512 module shall provide power up relays to prevent switch on thumps at the output.

The 512 module shall provide an electronically balanced audio input with an impedance of 20 kΩ connected to a standard 500 series rack via the modules 15 pin edge connector.

The 512 module shall provide a transformer balanced audio output with an impedance of 50Ω connected to a standard 500 series rack via the modules 15 pin edge connector.

The 512 module shall be powered from a standard 500 series rack unit and requires +/- 16 VDC @ 100mA.

The 512 module dimensions shall be 132 mm high x 38 mm wide x 184 mm deep (5.2 x 1.5 x 7.2"). The nominal weight shall be 0.7 kg (1.5 lbs).

The 4 Band PEQ shall be the Midas model 512, and no other alternative shall be acceptable.

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For service, support or more information contact the MIDAS location nearest you:

Europe
MUSIC Tribe Brands UK Ltd.
Tel: +44156 273 2290
Email: CARECrea@music-group.com
CAREEnte@music-group.com
CARELife@music-group.com

USA/Canada
MUSIC Tribe Commercial NV Inc.
Tel: +1 702 800 8290
Email: CARECrea@music-group.com
CAREEnte@music-group.com
CARELife@music-group.com

Japan
MUSIC Tribe Services JP K.K.
Tel: +81 3 6231 0453
Email: CARECrea@music-group.com
CAREEnte@music-group.com
CARELife@music-group.com

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