

Microphone Preamplifiers

500 SERIES MICROPHONE PREAMPLIFIER 502

500 Series Modular MIDAS Microphone Preamplifier with Classic XL4 Filters

- High performance, compact 500 Series premium MIDAS microphone/line preamplifier
- Award-winning MIDAS amp has been enhanced with quad discrete ultra low noise input transistors
- Legendary MIDAS input allows up to +24 dBu signal levels with no pad while featuring the much loved soft clipping characteristic
- Classic MIDAS XL4 swept low and high pass filters with independent selection switches
- Switchable electronic or discrete transistor driven transformer balanced output for sonic flexibility
- Unique twin precision 11 segment LED circular input and output level metering
- High accuracy rotary switch gain control with 60 dB range in 5 dB steps
- Output gain trim with ± 20 dB range controls input and output stage colouration
- Total gain range is an amazing -20 dB to +80 dB easily accommodating low output mics
- Large gain trim knobs provide precise control of input and output gains
- Illuminated switches for filters, +48V, polarity reverse and electronic/transformer output select



In response to the many customer requests received over the years, the award-winning MIDAS Microphone Preamp is now available as an add-on to any mobile or recording system. When used in conjunction with the LEGEND L10 or L6 500 Series Rackmount Chassis, the MICROPHONE PREAMPLIFIER 502 provides the ideal solution for users seeking the legendary MIDAS sound in a modular format that boasts upgraded, premium-quality performance. Additionally, the 502 module utilises the same swept low and high pass filters found in the iconic XL4 Live Performance Mixing Console.



Award-Winning Mic Preamp

The MIDAS Microphone Preamplifier is considered by leading live sound and recording engineers as the very essence of the famous MIDAS sound. Decades of design experience paired with premium-grade components is the foundation of that acclaimed warmth and depth, which brings out subtle ambience, maintains spatial positioning, and more effectively captures a precise sound image. That warm and organic MIDAS sound has been heard by millions of concert goers – and recorded for posterity on countless live albums. The award-winning mic preamplifier in the 502 module has even been upgraded via the



implementation of four discrete ultra low noise input transistors for even more transparent and ultra low noise performance.

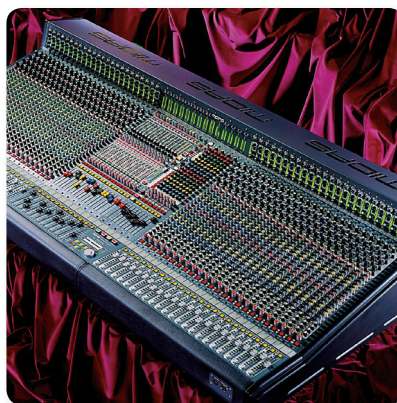
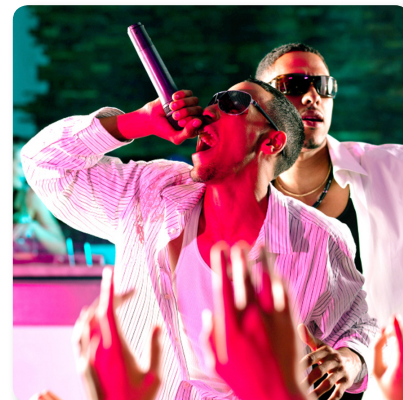
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- Power up mute relays prevent switch on thumps
- Premium quality components throughout for a crystal-clear audiophile signal path
- 10-Year Warranty Program*
- Designed and engineered in the U.K.

Sweet Forgiveness

Over the years, many mix engineers have found this robust and overload-tolerant preamp design takes on a whole new dimension when driven hard. The 502 module's input stage allows up to +24 dBu signal levels with no pad requirement, while featuring the much loved soft clipping characteristic that provides crystal-clear audiophile reproduction with just the right amount of harmonics.



Classic MIDAS XL4 Filters

Our XL4 mixers are legendary for their uncompromising sonic characteristics, impressive versatility, and ease of use. The 502 mic preamp honours that legacy by bringing back the low and high pass filters that helped make the XL4 so popular. The low pass filter control adjusts the filter frequency from 1 kHz to 40 kHz, while the high pass filter control adjusts from 10 Hz to 400 Hz (both -3 dB points).

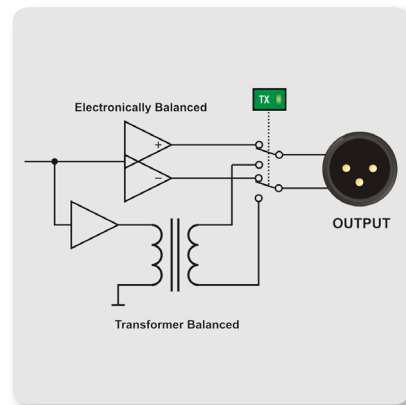
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Selectable Balanced Outputs

The default output of the 502 module is the same electronically balanced output you will find on most MIDAS mixing consoles. This configuration provides an extremely clean signal even when operating at very high signal levels. But you also have the option of selecting a discrete transistor-driven transformer balanced output stage by engaging the TX switch. 502's transformer provides galvanic isolation and generates a more vintage sound, and becomes saturated at lower frequencies to add colour when driven hard. The output levels of the electronic and transformer outputs are matched to allow true A-B comparisons on the fly.



Precision LED I/O Metering

A mic preamp of this calibre requires equally accurate I/O metering – and the 502 delivers in a big way. The high precision 11-segment rotary LED meter reads the signal post amplifier/pre filter, providing input metering from -20 dBu to + 20 dBu in 4 dB steps. A similar meter is provided for output trim adjustment from -20 dBu to + 20 dBu in 4 dB steps.

High Accuracy I/O Rotary Controls

Gain control is provided by a large precision 12-position rotary switch with gain settings from 0 (unity gain) to +60 dB in 5 dB increments, while a fully variable potentiometer is provided for the output trim across a ± 20 dB range. When used in combination, total maximum gain is an impressive + 80 dB, more than enough to accommodate even low level ribbon microphones. Additionally, the output trim control can be: used to control colouration; set high to allow output transformer saturation (TX switch selected); or turned down to prevent the output level from running too high – and the input gain can be increased to take advantage of the overload tolerant mic amplifier.



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Illuminated Switches

All of the 502 modules push-button switches feature LED illumination when activated for fast and easy status verification. Switches include the low pass filter IN switch, which inserts the low pass filter into the signal path; the high pass filter IN switch, which inserts the high pass filter (both post input-gain/pre output-trim); the phase reverse switch, which inverts signal phase 180°; the 48V switch, which supplies +48 Volts phantom power via the 500 Series Rackmount Chassis; and the output transformer (TX) selector. Add this to the 502's brilliant metering and you have instant at-a-glance confirmation of all preamp parameters.

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.

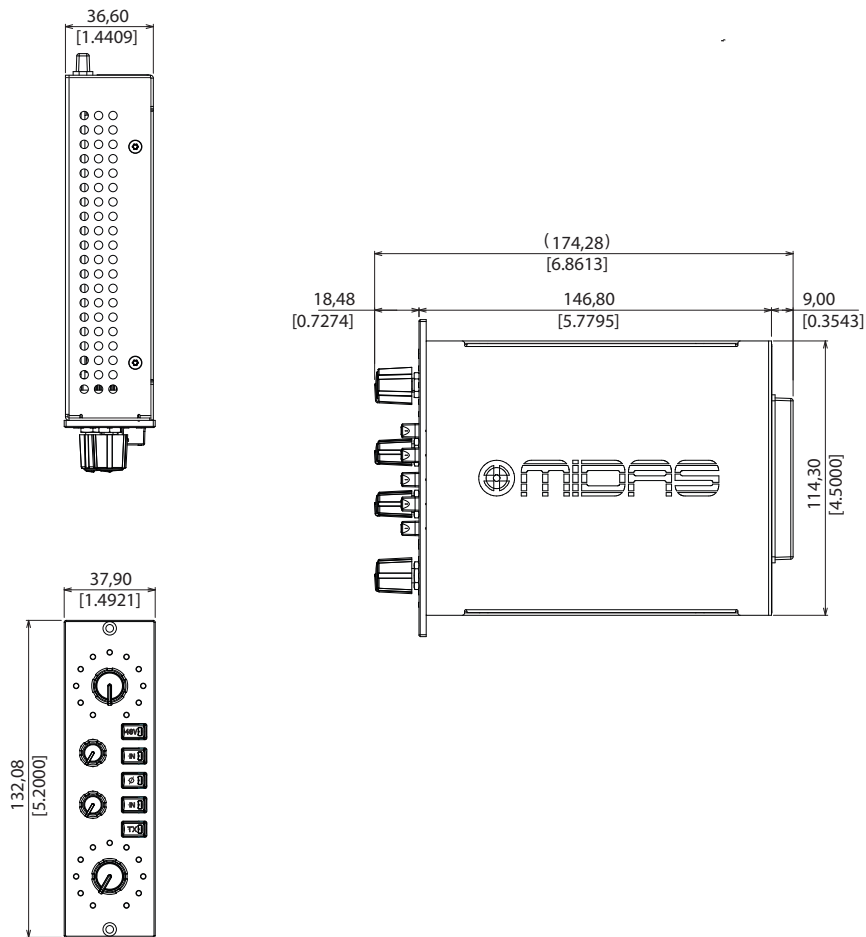


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Dimensions



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Technical Specifications

Controls

Phantom power	48 V switch
Input gain, mic/line	12 position rotary switch, 0-60 dB knob
Polarity	0/180 degrees switch
Low pass filter	In/out switch, frequency knob
High pass filter	In/out switch, frequency knob
Output trim / line gain trim	+/-20 dB knob
Output type (electronic or transformer)	Electronic/transformer switch

Input and Output

Input	Mono, balanced mic or line
Output	Mono, balanced via electronic or transformer

System

Noise

Noise at unity gain	-97 dBu (22 Hz - 22 kHz)
Mic EIN noise at +60 dB gain, 150 Ohm source	-127 dBu (22 Hz - 22 kHz)

CMRR

Unity gain, 1 kHz	-70 dB (typical)
+60 dB gain, 1 kHz	-100 dB (typical)
Input impedance, 1 kHz	10 k Ω

Frequency Response, Unity Gain

Electronic output	20 Hz - 40 kHz +/- 0.5 dB
Transformer output	20 Hz - 20 kHz +/- 0.5 dB

Distortion, Electronic Output at Unity Gain, 1 kHz

0 dBu	<0.005%
+10 dBu	<0.005%
+20 dBu	<0.01%

Distortion, Transformer Output at Unity Gain, 1 kHz

0 dBu	<0.01%
+10 dBu	<0.01%
+20 dBu	<0.01%
Maximum Input Level, 1 kHz	+24 dBu

Maximum Output Level, 1 kHz

Electronic output	+26 dBu
Transformer output	+21 dBu
Output impedance, 1 kHz	50 Ω

Filters

Low pass	1 kHz to 40 kHz, slope = 12 dB per octave
High pass	10 Hz to 400 Hz, slope = 12 dB per octave

Meters

Input meter	11 segment, -20 dBu to +20 dBu in 4 dB steps
Output Meter	11 segment, -20 dBu to +20 dBu in 4 dB steps

Power Requirements

Voltage	+16 V and -16 V, +48 V (phantom power)
Power consumption	100 mA, 3.2 W

Physical

Dimensions (H x W x D)	132 x 38 x 174 mm (5.2 x 1.5 x 6.9")
Weight	0.7 kg (1.5 lbs)

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Architecture & Engineering Specifications

The Midas 502 module shall provide a single channel mic/line preamplifier in a standard format 500 series single width module.

The 502 module shall provide a 12 position rotary gain switch with mic/line input gain settings of 0, +10, +15, +20, +25, +30, +35, +40, +45, +50, +55, +60 dB

The 502 module shall provide a fully variable output gain trim potentiometer with a gain range of +/- 20 dB

The 502 module shall provide a fully variable low pass filter with a frequency range of 1 kHz to 40 kHz (-3 dB points) with an independent in / out pushbutton switch.

The 502 module shall provide a fully variable high pass filter with a frequency range of 10 Hz to 400 Hz (-3 dB points) with an independent in / out pushbutton switch.

The 502 module shall provide a +48V pushbutton switch which enables phantom power to the 500 series rack input connector.

The 502 module shall provide a phase pushbutton switch that reverses the signal polarity by 180 degrees.

The 502 module shall provide a TX pushbutton switch which changes the default electronically balanced output to a transformer balanced output.

The 502 module shall provide input and output 11 segment peak reading LED meters with a range of -20 dBu to +20 dBu in 4 dB steps.

The 502 module shall provide a power up relay to prevent switch on thumps at the output.

The 502 module shall provide an electronically balanced audio input with an impedance of 10 k Ω connected to a standard 500 series rack via the modules 15 pin edge connector.

The 502 module shall provide a balanced audio output with an impedance of 50 Ω connected to a standard 500 series rack via the modules 15 pin edge connector.

The 502 module shall be powered from a standard 500 series rack unit and requires +/- 16 VDC @ 100mA and a +48 VDC supply to enable phantom power.

The 502 module dimensions shall be 132 mm high x 38 mm wide x 174 mm deep (5.2 x 1.5 x 6.9"). The nominal weight shall be 0.7 kg (1.5 lbs).

The mic/line preamp shall be the Midas model 502, and no other alternative shall be acceptable.

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