



# The 500 Series Amplifier

## User Guide

Check our website for the most recent user guides, firmware, and drivers:  
[www.msbtechnology.com](http://www.msbtechnology.com)

Technical support email is:  
[techsupport@msbtech.com](mailto:techsupport@msbtech.com)

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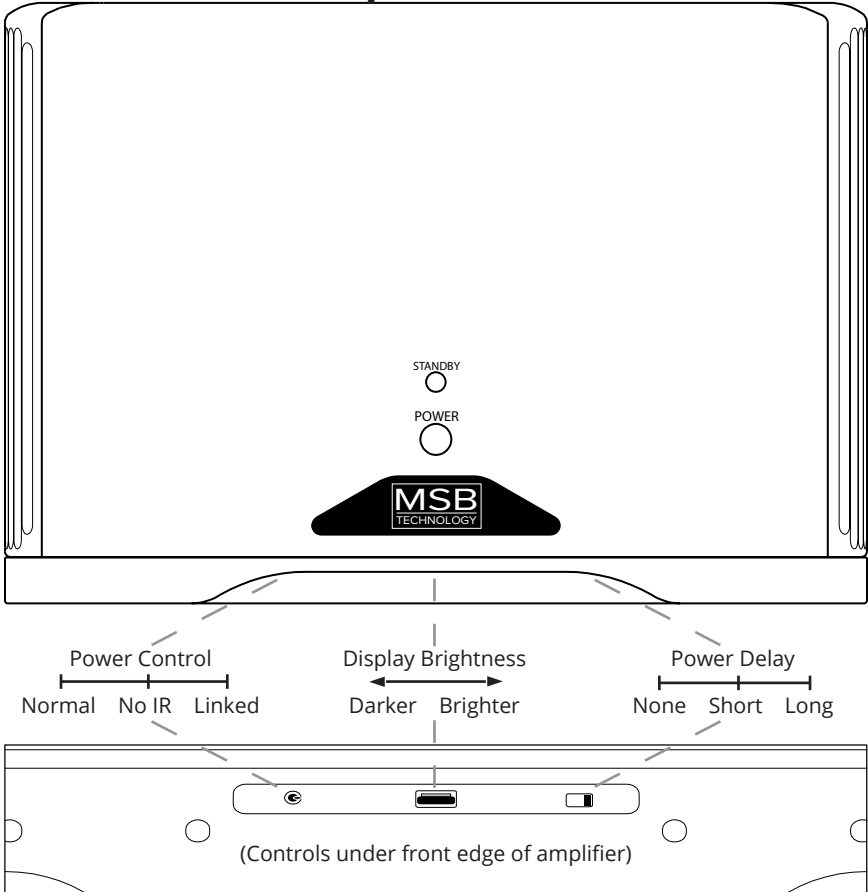
## Technical specifications

	<b>S500</b>	<b>M500</b>
Static Power Consumption	270 Watts On Less than 2 watts in standby	150 Watts On Less than 2 watts in standby
Input	2x XLR Input	1x XLR Input
Output	1x Binding post sets per channel	2x Binding post sets per channel
Cont. Power Output (4Ω) < 1% distortion	900 W	1000 W
Cont. Power Output (8Ω) < 1% distortion	500 W	
Frequency Response (20 to 20kHz)	±0.025dB	
Signal to Noise (20 to 22kHz)	>134dB (>137dBA)	
Equivalent Input Noise (22kHz BW)	0.5μV	
Low Gain (75Ω source impedance)	16.2dB	
Medium Gain (75Ω source impedance)	22.2dB	
High Gain (75Ω source impedance)	28.2dB	
Input Impedance (User Selectable)	75Ω / 300Ω / 1.2kΩ	
Output Impedance (20 to 20kHz)	0.07Ω	
Operating Voltage Range	100V or 105-130V/210-260V	
Fuse	1/4"x1-1/4" 15A 250V Slow Blow	
Controls	Gain Switch Input Impedance Switch On/Off Button Standby Button Display Dimmer Delay/Mode Switch 2x MSB 12V Trigger	

## Technical specifications (continued)

Chassis Dimensions (Per Chassis)	Width: 15 in (381 mm) Depth: 23.25 in (590 mm) Height: 10.5 in (267 mm) Weight: 135 lbs (61.25 kg) Product Feet: M6X1 Thread
Shipping Dimensions (Per Chassis)	Width: 23 in (585 mm) Depth: 35 in (889 mm) Height: 21 in (534 mm) Weight: 194 lbs (88 kg)
Included Accessories	User Manual IEC C19 Power Cord Rubber Feet

## 500 Series amplifier front controls



# Amplifier Interface

There are two buttons on the front of the amplifier as well as three control features just under the front of the amplifier.

Display Modes	<p>All display modes will be displayed at full brightness when a display status is changed and then fade to the brightness set by the user.</p> <p><b>White</b> - Power on.</p> <p><b>Red</b> - Power off.</p> <p><b>Pulsing Amber</b> - Standby (pressing the power button from this state will shut the amplifier off, pressing the standby again will turn it back on)</p> <p><b>Flashing Red</b> - Overheating Protection (Unit will not turn on until it has reached an acceptable temperature)</p> <p><b>Flashing Amber</b> - Over-voltage protection.</p>
Remote Trigger Switch	<p><b>Normal</b> - This sets the unit as the 12 volt trigger master.</p> <p><b>No IR</b> - Remote commands disabled.</p> <p><b>Linked</b> - This sets the powerbase as the 12 volt trigger slave. The 'master' unit will control this units power and standby with link cable installed.</p>
Display Brightness	<p>This is a rolling wheel to control the brightness of the power indication display</p>
Delay switch	<p><b>No Delay</b> - The amplifier will have no delay before switching on.</p> <p><b>Short Delay</b> - The amplifier will have a short delay before switching on.</p> <p><b>Long Delay</b> - The amplifier will have a long delay before switching on.</p>

## Power

When plugging in power, the amplifier detects the input voltage and automatically switches between 120 or 240 volt operation. It is also available in a non-switching 100 volt permanent configuration.

# Connecting to your Amplifier

Connect your analog interconnects to the amplifier and attach your speaker cables following the appropriate method below. MSB recommends to always unplug your amplifier when connecting or changing anything associated with your speaker lugs.

## - The M500 Mono Amplifier

Each M500 is equipped with two identical sets of audio lugs to allow flexibility in any set up. You only need to make connections to one set to use the amplifier.

## - The S500 Stereo Amplifier

The S500 is equipped with a 'Right' channel and a 'Left' channel set of lugs. Connect your speakers to the associated set of lugs.

## Grounding Connections

On each of the 500 Series amplifiers there is chassis ground available just below and to the inside of each set of output lugs. These grounding connections are labeled with a ground symbol. These are intended as a simple way to finish the grounding chain setup from an MSB Powerbase or to attach any shielded audio interconnect grounds. Never attach any ground wire to the negative terminal of the output lugs.

## Input impedance switch

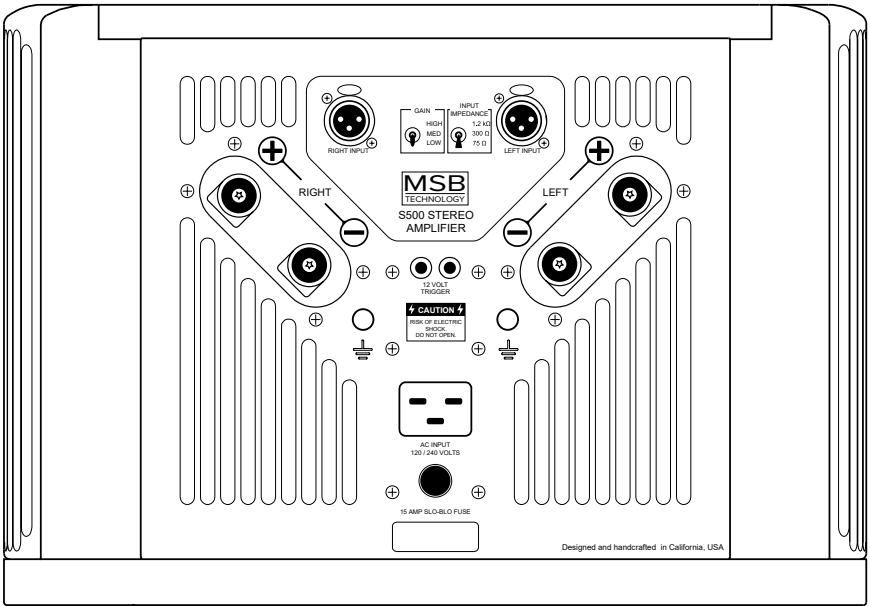
To select the correct input impedance setting follow the table below.

75Ω	<b>MSB Select DAC</b> <b>MSB Reference DAC</b> <b>MSB Premier DAC</b>
300Ω	<b>MSB Discrete DAC</b>
1.2kΩ	<b>All non-MSB Products</b> (Lower impedance settings can be used, but contact your products manufacture first to ensure that a lower impedance setting will not damage the product)

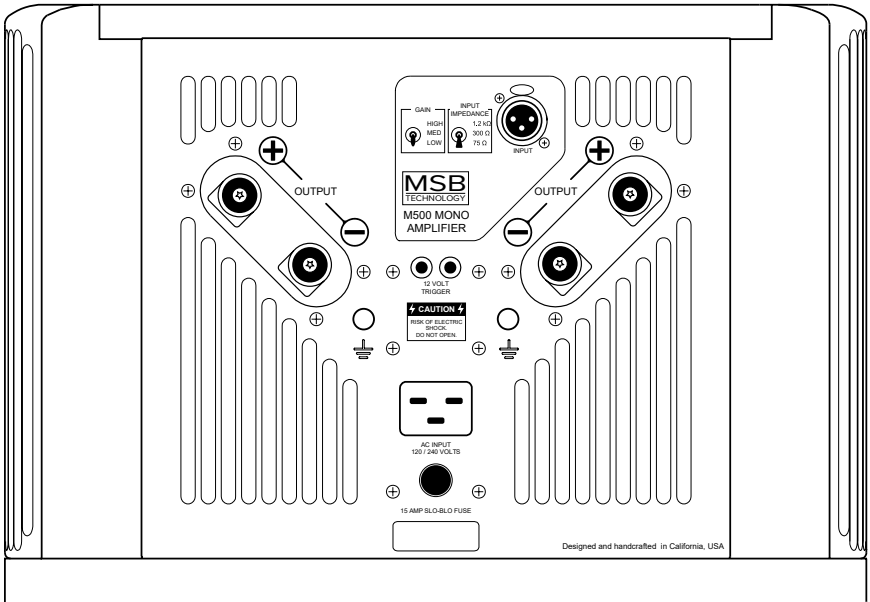
## Gain setting

To find the proper gain setting for your system, start with the switch set to the 'Low' setting. If you find yourself consistently listening at over 100 volume on your MSB DAC, then move the switch up to the next gain setting. For best performance you should always use the lowest gain setting that allows you reach a loud enough level for listening while trying to stay under 100 on your MSB DAC. The gain switch is intended to achieve optimal matching with your speakers efficiency.

# S500 Stereo Amplifier Jack Panel

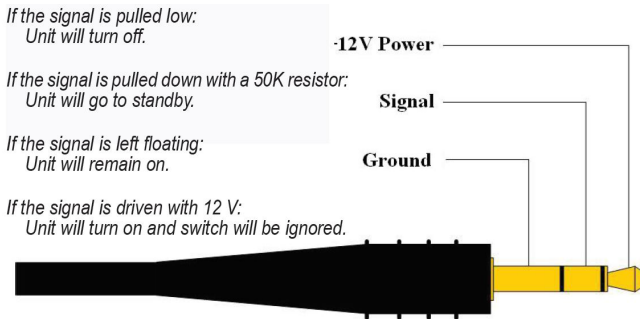


# M500 Mono Amplifier Jack Panel

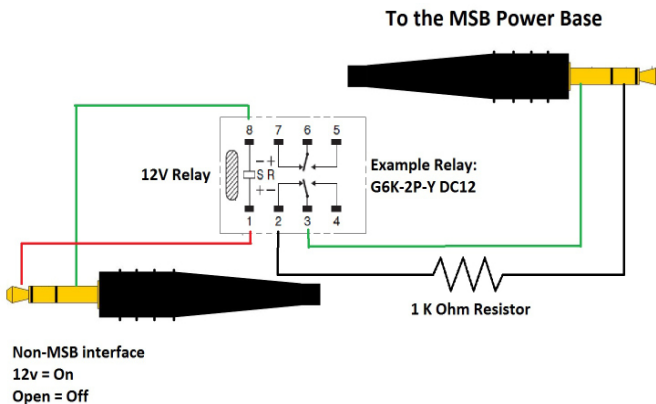


# 12 Volt Remote Trigger

This amplifier is equipped with a remote trigger for use with other MSB products. The trigger uses a 3 pin mini jack. When any MSB product is turned off, the other products connected will also turn off and vice-versa. This trigger can also be used with other products. Products may use this trigger differently, so you may need to rewire a cable or use an interface relay. The connector is wired as shown. If you connect "signal" to "ground", all MSB products will turn off. If you connect "signal" to "12 V" or leave it open, all MSB products will turn on. MSB amplifiers can also communicate standby when the 'signal' is pulled down using a 50K resistor. Use the power delay switch to stagger the powering on of the amplifiers



12 Volt Remote Trigger wiring.





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# Technical Support

If you are experiencing any issues with your MSB product, please contact your nearest dealer or try our support page at [www.msbtechnology.com/support](http://www.msbtechnology.com/support). Please be sure you have the most current edition of your products firmware installed. If your issue persists please feel free to contact MSB directly. Emails are usually responded to in 24 - 48 hours.

**Email:** [techsupport@msbtech.com](mailto:techsupport@msbtech.com)

## MSB Return Procedure (RMA)

If a customer, dealer, or distributor has a problem with an MSB product, they should email tech support before sending anything back to the factory. MSB will do their best to respond within 24 hours. Should it be clear that a product must be returned, tech support should be informed and all the following relevant information should be provided:

1	Product in question
2	Serial number
3	Exact configuration when symptom is observed along with a list with the input used, source material, system connections, and amplifier
4	Customer name
5	Customer shipping address
6	Customer phone number and email
7	Special return shipping instructions

MSB will issue an RMA number and create an invoice with all details outlined except the final price as the product has not yet been seen. This invoice will be emailed so all the above information can be checked and verified by the customer.

The product should be returned with the RMA number present on the box. Work can then begin immediately and the product can be sent back quickly.

Any repair that is difficult and cannot be completed in two weeks will be identified and the customer will be informed when it is to be expected. Otherwise the majority of repairs should be shipped back within two weeks if all the required information is present on the invoice.

### Link to page:

<http://www.msbtechnology.com/faq/msb-product-return-procedure/>

# The 500 Series Amplifier Limited Warranty

Warranty includes:

- MSB warrants the unit against defects in materials and workmanship for a period of **5 years** from the date the unit was originally shipped from MSB.
- This warranty covers parts and labor only, it does not cover shipping charges or tax/duty. During the Warranty period, there will normally be no charge for parts or labor.
- During the warranty period, MSB will repair or, at our discretion, replace a faulty product.
- Warranty repairs must be carried out by MSB or our authorized dealer. Please contact your dealer if your unit requires service.

Warranty excludes:

- The Warranty does not cover standard wear and tear.
- The product is misused in any way.
- Any unauthorized modifications or repairs were performed.
- The product is not used in accordance with the Operating Conditions stated below.
- The product is serviced or repaired by someone other than MSB or a authorized dealers.
- The product is operated without a mains earth (or ground) connection.
- The unit is returned inadequately packed.
- MSB reserves the right to apply a service charge if the product returned for warranty repair is found to be operating correctly, or if the product is returned without a returns number (RMA) being issued.

Operating Conditions:

- Ambient temperature range: 32F to 90F, non-condensing.
- The supply voltage must remain within the AC voltage specified near the products AC jack.
- Do not install the unit near heat sources such as radiators, air ducts, power amplifiers or in direct strong sunlight. This may cause the product to overheat.