

M204 Monoblock

User Manual

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M204 Amplifier user manual

A Simple Approach

These monoblocks provide a simple but effective approach to good sound. An amplifier does two things, it increases the voltage of an audio signal and it increases the current. Class A amplifiers completely overlap the positive and negative signals providing great performance but with huge power losses. Class A-B overlap only a little with much lower power use but compromised performance. The MSB amplifier uses a fully CLASS A stage to increase the voltage signal, and a CLASS A-B stage with no voltage gain to increase the current supplied. This unique hybrid gives the best of both - a great performance with reduced power requirements.



Setup and Quick Start:

This is easy. Plug it in and go. The power switch has three positions:

1. ON > Green,
2. STANDBY > Amber,
3. OFF > Red.

Power:

The power requirement depends on the speakers being driven. The amplifiers will both run off a single 120V, 20A circuit easily with a standard 8 ohm speaker load. With a 4 ohm load, they will still run off a 20A circuit, but with a 2 ohm load, each amp must be on a separate 120V, 20A circuit.

Inputs:

Single-ended RCA
Balanced XLR

Outputs:

Connect directly to your speakers.



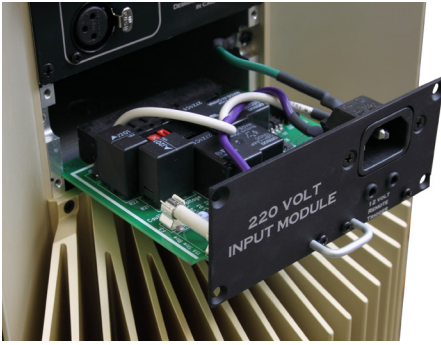
Burn-In

The concept of burn-in is little understood. Does it take your ears some time to get used to the incredibly detailed and life like sound of an MSB product or is something actually changing. The feedback we receive leads us to recommend at least 100 hours of burn-in on this amplifier. Customers generally recommend one month.

Heat and Bias Setting

These amplifiers will get quite warm. They should be used in an open air-conditioned room with nothing covering them. Operation in extreme conditions will cause failure. Heat is not reduced in stand-by mode. If your listening room is subject to high temperature when you are not using these amplifiers, please turn them off when not in use.

The Bias switch on the cover allows you to use the amps in two modes. In high bias you get the best performance but the amp will be warmer to the touch. Normal bias sounds almost as good and runs quite a bit cooler.



Fuse and Voltage

To meet the world-wide AC power specifications, three different input power modules are available. These are not switchable so Amplifiers cannot be moved between regions without changing the input module. The rest of the Amplifier is identical.

- USA Model requires 120VAC +/- 10V, 50 or 60 Hz
- Japan Model requires 100VAC +/- 10V, 50 or 60 Hz
- International model requires 240VAC +/- 20V, 50 or 60 Hz

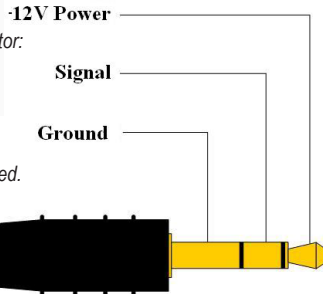
The amplifier uses a 15A SLOW BLOW fuse. It is an input fuse only. The amplifier does not have output fuses.

If the signal is pulled low:
Unit will turn off.

If the signal is pulled down with a 50K resistor:
Unit will go to standby.

If the signal is left floating:
Unit will remain on.

If the signal is driven with 12 V:
Unit will turn on and switch will be ignored.



12 Volt Remote Trigger wiring.

12 Volt Remote Trigger

This power supply is equipped with a remote trigger for use with other MSB products. The trigger uses a headphone jack. When any MSB product is turned off, the other products connected will also turn off and vice-versa. The connector is wired as shown. If you connect "signal" to "ground", all MSB products will turn off. If you let the signal float (12 V), all MSB products will turn on.



Input Details

A toggle switch by the inputs selects between three modes. The RCA and XLR are connected together. The signal of the RCA input is connected to the non-inverted input of the XLR. The RCA case is connected to the XLR inverted input.

The toggle switch changes the ground connections and gain as follows:

- Top position is the RCA mode. In this case the amp is in the normal gain mode. The RCA connector case is connected to the AMP ground. This is the normal RCA input setting.
- Middle position is a special mode. The gain is still in the normal gain mode. The RCA connector case is NOT connected to the XLR ground. This setting can be used with either the RCA or XLR input as follows. When the RCA input is used, both the case and signal pins are floating. An external ground must be hooked up to the ground pin of the XLR. This can be handy in solving some ground hum problems. If the XLR input is used, the gain is twice what one would expect. This mode is handy when your output levels are very low.
- Lower position is the XLR mode. In this mode the ground connections are the same as the middle position but the output is reduced by 6 db, making this the normal input mode for balanced inputs.

For best results, do not plug in both cables at the same time.

Power Supply LED Color Table

Green:	The unit is on and operating
Amber:	The switch for the unit is on, but the 12V trigger has turned it off, OR, the switch for the unit is on, but the protection has shut it off because of overheating or over voltage.
Red:	The switch is in the Off position.
Off:	The switch for the unit is off but the 12 V trigger has turned the unit on, overriding the switch, OR, there is no power due to a blown fuse or no power connection.

Warranty

All MSB products carry a one year warranty in the country of origin. No returns accepted without an RMA. Upon receipt, MSB will repair or replace any defective product. All product shipped FOB Aptos. Shipping and shipping damage is the responsibility of the consignee.