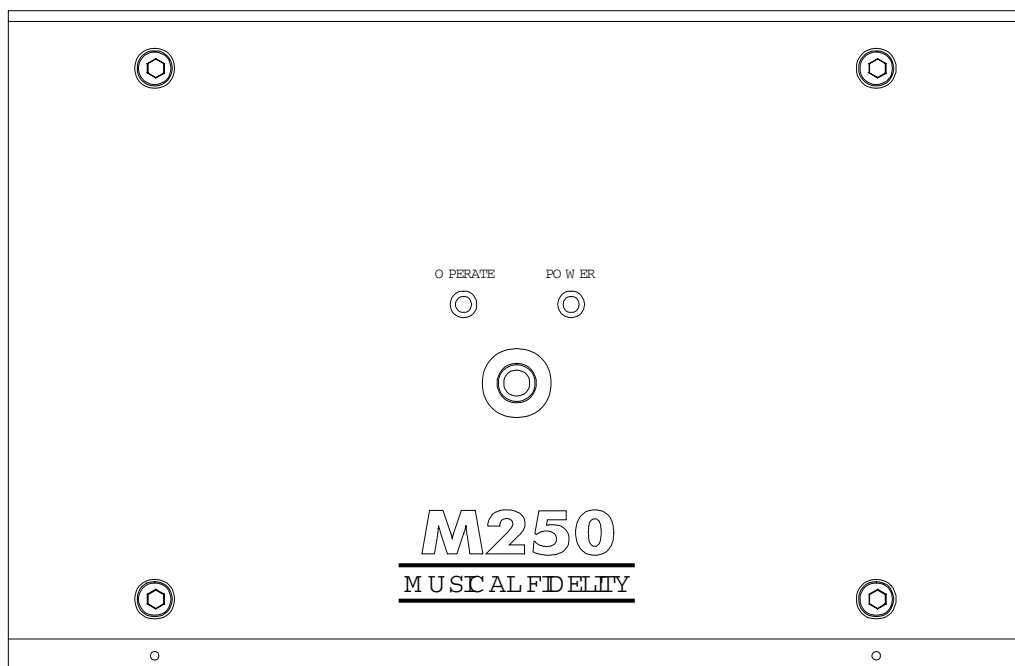


# M250

## MONOBLOC AMPLIFIER



### ***INSTRUCTIONS FOR USE***

*Thank you for purchasing the Musical Fidelity M250 monobloc power amplifier.*

*Used properly and carefully, it should give you many years of outstanding musical reproduction.*

*Dust regularly with a soft duster or soft brush, but be careful when using cleaning or polishing agents - they may harm the surface finish.*

*If you have any questions about your audio system, please consult your dealer who is there to help and advise.*

**MUSICAL FIDELITY**

# SAFETY INFORMATION

## IMPORTANT! (U.K. only)

This unit is supplied in the U.K. with a mains lead fitted with a moulded 13 amp plug. If, for any reason, you need to cut off this plug, please remove the fuse holder and dispose of the plug safely, out of reach of children. ***It must not be plugged into a mains outlet.***

The wires in the mains lead supplied with this appliance are coloured in accordance with the following code:

Green and yellow.....Earth  
Blue.....Neutral  
Brown.....Live

### **WARNING - This appliance must be earthed**

As the colours of the wires of the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the letter E or coloured green or green-and-yellow, or by the earth symbol:



The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

If connecting to a BS1363 plug, a 13 amp fuse must be used.

### **WARNING:**

**The M250 is a powerful amplifier and must necessarily supply high voltages through the loudspeaker terminals. Therefore, to avoid any possibility of an electric shock DO NOT TOUCH THE SPEAKER TERMINALS when the unit is being used.**

**To comply with BSEN60065 safety regulations, the 4mm “banana” plug holes have been fitted with plastic blanking pieces. Removal of these will invalidate any electrical safety approval of this product.**

### **WARNING:**

**Any modifications to this product not expressly approved by Musical Fidelity who is the party responsible for standards compliance could void the user’s authority to operate this equipment.**

# GENERAL ADVICE

## INSTALLATION PRECAUTIONS and USER INFORMATION

Your new M250 power amplifier is designed and built to provide trouble-free performance, but as with all electronic devices it is necessary to observe a few precautions:

*Heed all warnings shown on the back of the product.*

*Only connect the M250 amplifier to a mains outlet having the same voltage as marked at the back of the unit.*

*Always ensure that when disconnecting and reconnecting your audio equipment the mains supply is switched off.*

*Position the mains lead and signal interconnects where they are not likely to be walked on or trapped by items placed on them.*

*Do not use near water, or place water-filled containers on the amplifier; for example, flower vases or potted plants. **If water does spill into the player, immediately pull out the mains plug from the wall socket and inform your dealer, who should then check the unit before further use. Entry of liquid into the amplifier is dangerous, and may cause electric shock or fire hazard.***

*Do not place the unit near heat sources such as radiators, direct sunlight or other equipment. The case of this amplifier can run at high temperatures - operate the unit in a well ventilated area, and do not touch the side heatsink fins after periods of use at high output power.*

*Do not remove covers or try to gain access to the inside. There are no internal user adjustments. Refer all service work to an authorised Musical Fidelity agent.*

**NOTE: Unauthorised opening of the equipment will invalidate any warranty claims.**

*There are fuses inside the M250 Amplifier. In the unlikely event that one blows, refer the unit to your audio dealer. Do NOT try to replace the fuse yourself as this will invalidate the warranty.*

*Dust regularly with a soft duster or soft brush, but be careful when using cleaning or polishing agents - they may harm the surface finish.*

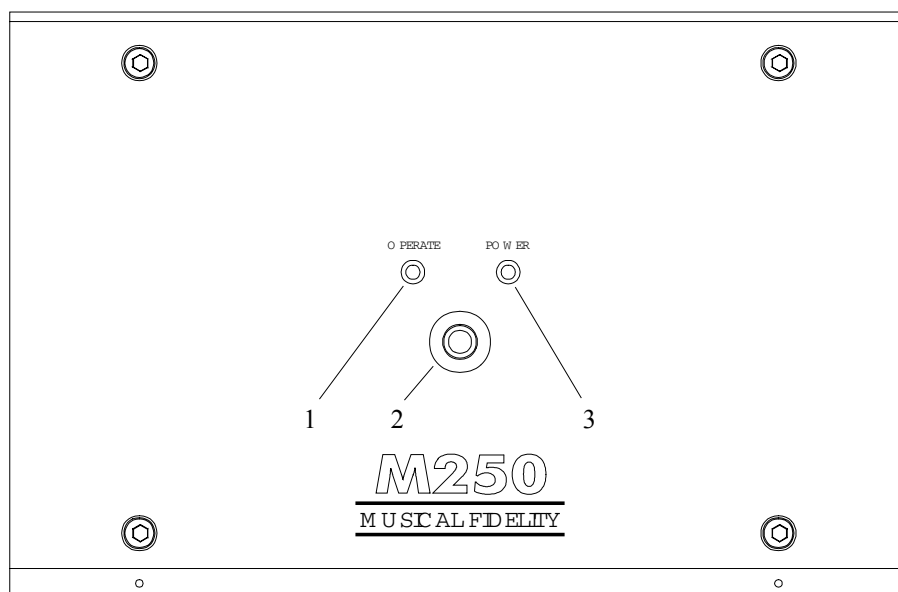
The electronics in modern hi-fi equipment is complex and may, therefore, be adversely affected or damaged by lightning. For protection of your audio system during electrical storms, remove the mains plugs and disconnect any aerial lead.

If after-sales service is required, to help your dealer identify the M250 please quote the serial number located on the rear panel of the unit.

## RADIO FREQUENCY INTERFERENCE (R.F.I)

This product has been tested to ensure that its operation is not adversely affected by normal background levels of R.F.I., and that it does not itself generate excessive amounts of interference. However, if a problem persists, please contact your Musical Fidelity agent.

# CONNECTIONS AND FACILITIES

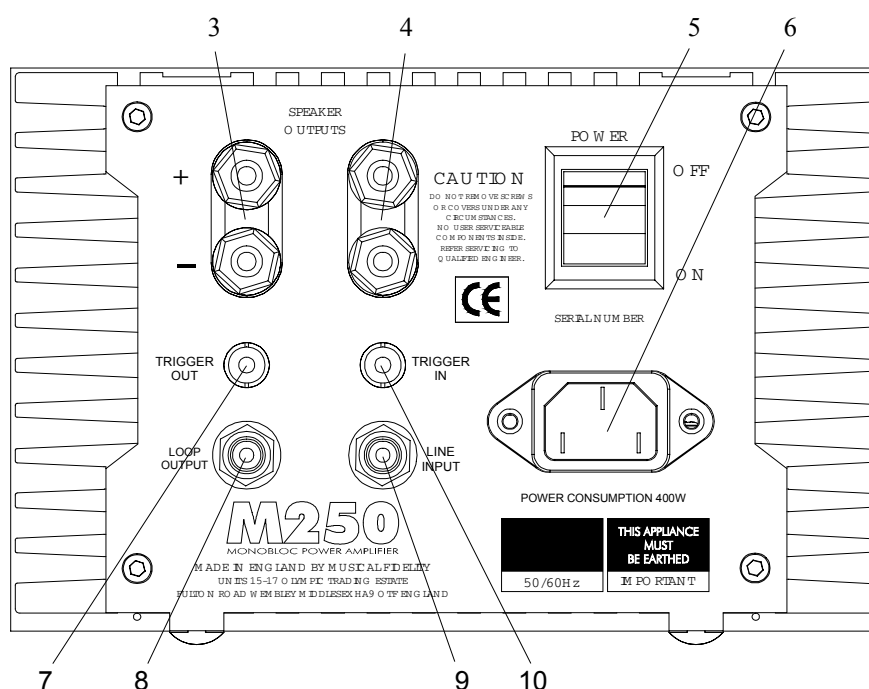


## Front panel layout

- 1 **OPERATE** indicator LED (blue)
- 2 Power status button (see page 6)
- 3 **POWER-on** indicator LED (orange)

## Back panel layout

- |   |                             |    |                                    |
|---|-----------------------------|----|------------------------------------|
| 3 | Speaker output (see page 5) | 7  | Trigger output (see pages 5 and 6) |
| 4 | Speaker output (see page 5) | 8  | Audio loop output (see page 5)     |
| 5 | Power switch                | 9  | Audio line input                   |
| 6 | IEC type mains inlet socket | 10 | Trigger input (see pages 5 and 6)  |



# CONNECTIONS

All input, output and power connections should be made with the mains power switched OFF.

## INPUT CONNECTIONS

As the M250 is a mono power amplifier, two are required for stereo operation, and further units can be used for multi-channel surround systems or bi-amplification etc.

The M250 can be used with a preamplifier or any audio line level source which has a volume control.

Connect your pre-amplifier or other line level source to the RCA socket on the back panel marked **LINE INPUT**.

For the best results we recommend either Musical Fidelity X-LINX "no-nonsense" cables for this connection or the highly rated Nu-Vista leads with integral RFI suppression. Various lengths are available in the Nu-Vista interconnect range. Please contact your local dealer for more information.

## BI-AMPLIFICATION

The M250 has a **LOOP OUTPUT** socket to allow "bi-amping" of a speaker with suitable active or passive crossover networks. This socket is directly linked inside the amplifier to the **LINE INPUT** socket to enable onward connection to a further unit, such as another M250.

In this arrangement, typically one M250 is used to drive the "tweeter" (high frequencies), and one to drive the "woofer" (low frequencies) of each loudspeaker enclosure. Thus, four M250s would be needed for a stereo pair.

Taking the left channel connections, the pre-amp's left output is connected to the first M250's **LINE INPUT** (used for the woofer, or low frequencies), and then the first M250's **LOOP OUTPUT** is connected to the **LINE INPUT** of the second M250 (used for the tweeter, or high frequencies).

Repeat this process for the right channel.

If you are in any doubt about bi-amping, please contact your dealer, who will be able to advise.

## TRIGGER CONNECTIONS

Two 3.5mm jack sockets on the rear panel marked **TRIGGER IN** and **TRIGGER OUT** are provided for electronically switching the "audio sense" mode - see page 6. These are directly linked together inside the amplifier, to enable onward connection to a further unit, such as another M250.

## OUTPUT CONNECTIONS

Connect your loudspeaker to the terminals marked **SPEAKER OUTPUTS**.

Two sets are provided for parallel operation or "bi-wiring", **but note that the combined load impedance must not be less than 4 ohms**.

## BEFORE SWITCHING ON. . . .

Plug the accessory IEC mains lead into the rear panel socket, then the other end into a wall outlet.

Turn the volume control on your preamplifier to minimum, and switch on its power.

# OPERATION

## OPERATION

Press the **POWER** rocker switch on the rear panel - the orange **POWER** LED on the front panel will light confirming that the unit is ready for use.

### Audio Sense Mode

The M250 is now in “audio sense” mode, and will turn on when an input signal is detected.

When an audio signal is received the amplifier will turn on, and the blue **OPERATE** LED will be lit. If there has been no audio input for about 15 minutes the amplifier will turn off and the **OPERATE** LED will go out.

The M250 may be turned on or off manually by pressing the power status button on the front panel.

When the amplifier has been turned on manually by the front button it will revert to “audio sense” mode if there has been no audio input for about 15 minutes.

When the amplifier has been turned off manually by the button it will stay off, even if audio input is present, until there has been no audio for about 15 minutes, when it will revert to “audio sense” mode.

If there is an audio input signal present when mains power is applied to the M250, it will turn on immediately with the **OPERATE** LED lit.

### Trigger Mode

The M250 responds to a “trigger on” control voltage of between 5 and 12 volts positive or negative, received via the 3.5mm **TRIGGER IN** socket on the rear panel.

The first trigger pulse received after applying mains power will turn the amplifier on, and cancel the “audio sense” mode.

When the amplifier senses a “trigger off” pulse (return to zero voltage), the amplifier will turn off.

The M250 may be turned on or off manually with the front panel button at any time.

When the amplifier has been turned on manually by the button, it will turn off if it receives a “trigger on” signal followed by a “trigger off” pulse.

If the amplifier has been turned off manually by the button, it will turn on if it receives a “trigger off” signal followed by a “trigger on” pulse.

To cancel trigger mode and revert to audio sense mode, first remove the trigger source. Then, using the mains switch at the rear of the unit, turn mains power off and after a few seconds, back on again.

### Audio Adjustment

Select the required audio input source on your pre-amplifier, and advance the volume control to obtain the preferred sound level.

# TROUBLESHOOTING

Basic problem-solving with an amplifier is similar to troubleshooting any other electrical or electronic equipment. Always check the most obvious possible causes first. To give you a few ideas of what to look for, check the following:

<i><b>Problem</b></i>	<i><b>Possible Cause</b></i>	<i><b>Remedy</b></i>
No power when <b>MAINS POWER</b> switch is operated	Mains plug not inserted fully into rear socket	Plug in securely
No sound	Tape monitor function has been selected on the pre-amplifier  Wrong connections between pre-amplifier and the M250  Speakers not connected, or incorrectly wired	Switch off tape monitor at the pre-amplifier  Check audio input lead connections  Check speaker cables
In multi-channel use, the sound is not precise, and lacking bass and stereo image	Speakers are connected out of phase	Ensure speakers are connected correctly

If none of these actions effect a cure, please contact your dealer, or an authorised Musical Fidelity service agent. Remember, never open the case of the M250 power amplifier yourself, as this will invalidate the guarantee.

# ***M250***

## ***Monobloc Amplifier***

Output voltage, RMS peak	45 Volts 20Hz to 20kHz 127 Volts
Power output	250 Watts into 8 Ohms (24dBW) 450 Watts into 4 Ohms
Peak-to-peak output current	72 Amps
Damping factor	180
Output devices per channel	6
Total Harmonic Distortion + noise	0.006% at 1kHz up to 90% power, into 4 or 8 Ohms
Intermodulation distortion	0.004% at 12.5 Watts into 8 Ohms
Frequency response	20Hz to 20kHz $\pm 0$ dB 10Hz to 100kHz $+0 / -1.5$ dB
Audio gain	30dB (31.5 times) nominal
Input impedance	31K Ohm
Input sensitivity for full power output into 8 Ohms	1.42 Volts
Signal / noise ratio, reference full power output	> 115dB "A"- weighted
Input	1 RCA connector
Outputs	1 amplifier channel via 2 pairs of speaker binding posts 1 RCA loop output socket
Power requirements	100 / 115 / 230V AC, 50 / 60Hz (factory preset) 1000 Watts maximum into 8 Ohms load 70 Watts idle
Dimensions	192 mm, 7.6 inches wide 125 mm, 4.9 inches high including feet 460 mm, 18.1 inches deep including terminals
Weight	12 kg, 26.4 lbs unit only, unboxed 14 kg, 30.8 lbs in shipping carton
Standard accessories	IEC type mains lead



*Musical Fidelity reserves the right to make improvements which may result in specification or feature changes without notice.*