

# **X-AS100**

## **POWER AMPLIFIER**

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

*Thank you for purchasing the Musical Fidelity X-AS100 Power Amplifier. Used properly and carefully, it should give you many years of outstanding musical reproduction.*

*Aesthetically and electronically the X-AS100 matches perfectly with the X-P100 Preamplifier, X-RAY CD player and X-PLORA tuner. Together, they form one of the finest hi-fi systems available.*

*The X-AS100 has been designed to be switched on continuously. The PSU should be positioned as far away from the X-AS100 as possible. We suggest that the PSU is placed on the floor near the mains outlet.*

*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 anything in your audio system, please consult your dealer who is there to help and advise you.*

## IMPORTANT!


This unit is supplied in the UK with a mains lead fitted with a moulded 13 amp plug. If, for any reason, you need to cut off this plug, please observe the following safety precautions. Please dispose of the cut-off plug safely. It **must not** be plugged into a mains power supply.

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 10 amp fuse must be used.

### WARNING - Speaker Terminals

In order to comply with BSEN60-065 safety regulations, the 4mm. banana plug holes have been fitted with plastic blanking pieces. Removal of these will invalidate any safety approval of this unit.

### WARNING - Radio Frequency Interference (RFI)

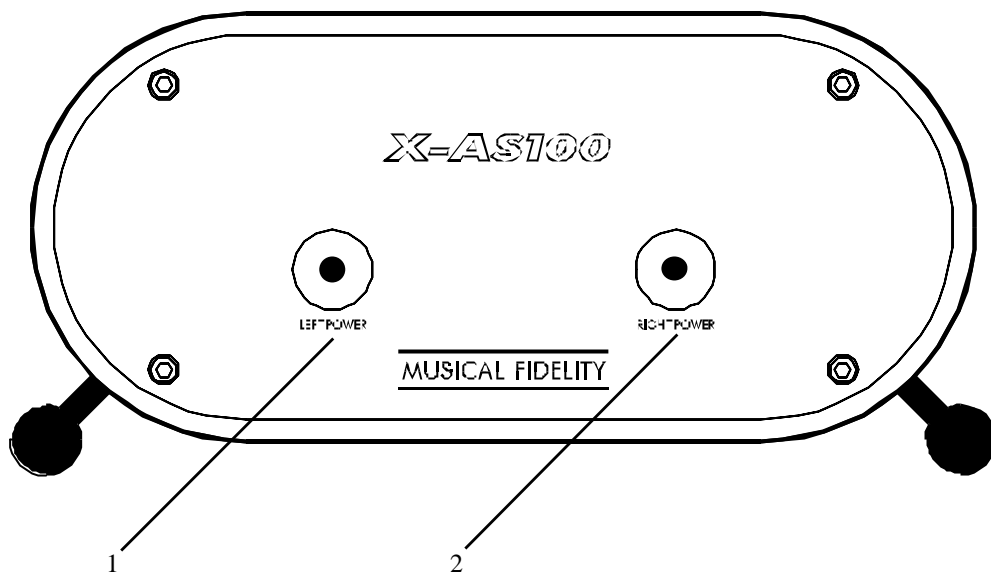
This hi-fi product has been tested to ensure that its operation will not be adversely affected by normal background levels of RFI. It is possible that if this product is subjected to abnormally high levels of RFI the unit may be susceptible and not perform as expected. In the unlikely event of this happening on a regular basis, please contact Musical Fidelity's service department.

The unit has also been tested to ensure that it does not radiate excessive levels of RFI that could affect other pieces of electronic or electrical equipment.

The electronics in modern hi-fi equipment is complex and hence may be damaged by lightning. It is possible that during electrical storms the operation of some equipment may be adversely affected. For complete protection of your hi-fi system during such storms, mains plugs and aerial leads should be disconnected.

Always ensure that when disconnecting and reconnecting your hi-fi equipment the mains supply is switched off.

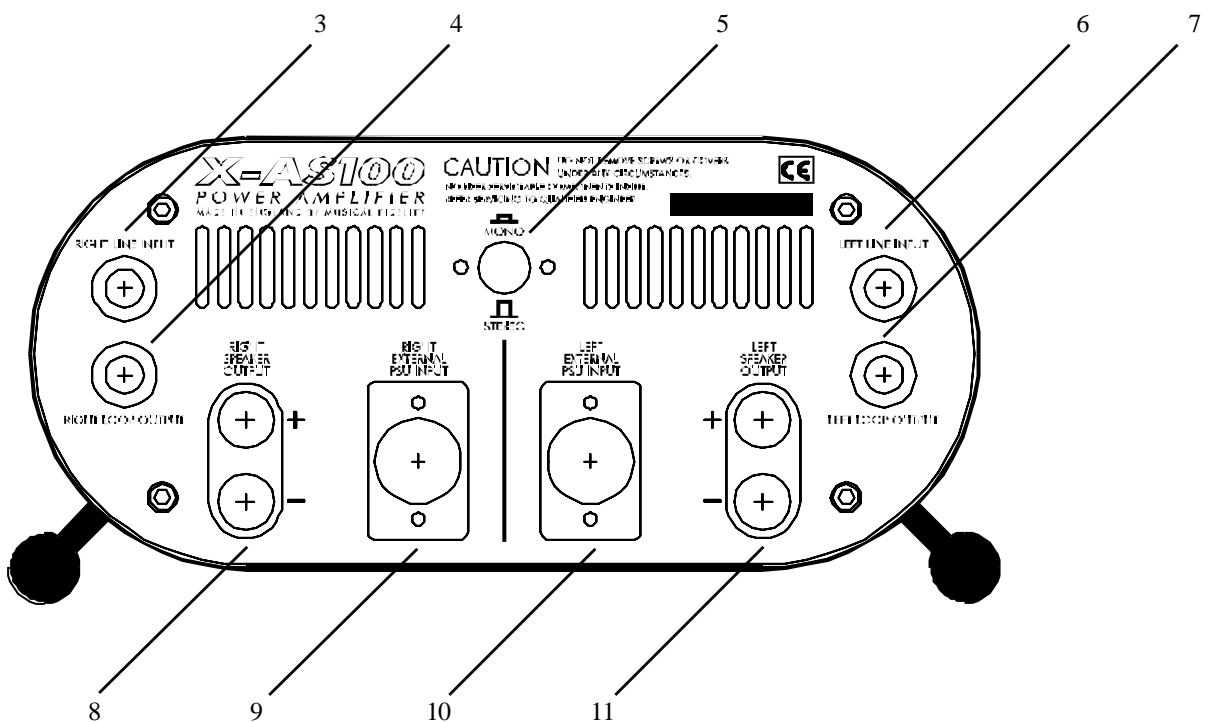
# CONNECTIONS AND FACILITIES



**FRONT VIEW**

**BACK VIEW**

- |   |                               |    |                           |
|---|-------------------------------|----|---------------------------|
| 1 | Left channel power indicator  | 3  | Right channel input       |
| 2 | Right channel power indicator | 4  | Right channel loop output |
|   |                               | 5  | Mono / Stereo button      |
|   |                               | 6  | Left channel input        |
|   |                               | 7  | Left channel loop output  |
|   |                               | 8  | Right loudspeaker output  |
|   |                               | 9  | Right PSU input           |
|   |                               | 10 | Left PSU input            |
|   |                               | 11 | Left loudspeaker output   |



## INSTALLATION PRECAUTIONS

Your new X-AS100 is designed and built to provide trouble-free performance but as with all electronic devices it is necessary to observe a few precautions. Please ensure that you have complied with them before you connect any AC power to your amplifier. Retain this guide for future reference.

- ☒ **Heed all warnings on the back of the unit.**
- ☒ **Place your X-AS100 where there is adequate ventilation.**
- ☒ **Only connect the unit to a power supply of the type marked on the back of the unit.**
- ☒ **Position the power supply lead and signal interconnect leads where they are not likely to be walked on or trapped by items placed on them.**
- ☒ **Do not use near water.**
- ☒ **Do not place the amplifier near direct heat sources such as radiators or other equipment that produces heat.**
- ☒ **Do not remove any covers or try to gain access to the inside. The warranty will be invalid if the unit has been tampered with. There are no user adjustments within. Refer all service work to an authorised Musical Fidelity agent.**
- ☒ **There are fuses in the X-AS100. In the unlikely event that one blows, take your X-AS100 to your audio dealer. Do NOT try to replace the fuse yourself or you will invalidate the warranty.**

## BEFORE YOU SWITCH ON

You should make all connections to the X-AS100 before switching on.

Follow this routine before you listen for the first time, and each time you change any connections.

- 1 Check all the inputs and outputs to the X-AS100.
- 2 Then check again.
- 3 Turn the volume control to nil.
- 4 Now you can switch on the power and carefully advance the volume to the level you want and enjoy the music.

## LOUDSPEAKERS

To get a realistic soundstage and full dynamic range from your X-AS100, use it with loudspeakers of a reasonable efficiency. An average rating for a loudspeaker these days is about 88dB. This should mean that for an input of 1 watt, measured at 1 metre distance, the sound pressure output will be 88dB. This is the minimum efficiency that we recommend you should use. However, in our opinion, even this is not enough to allow for an adequate dynamic range. For proper realistic dynamic range we recommend a loudspeaker efficiency of about 94-95dB such as the Kelly Transducers range. These are an ideal match for the X-AS100 and are highly recommended.

## CONNECTIONS

**All connections should be made with the power OFF before the mains lead is plugged in and the unit switched on.**

The X-AS100 is a stereo amplifier which can if required be mono'd for use in passive bi-amping systems.

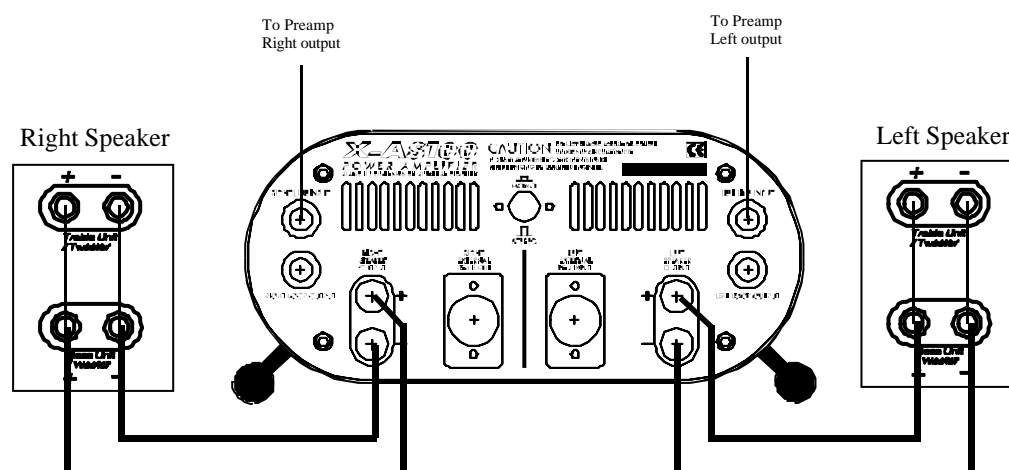
The X-AS100 can be used with a preamplifier or any line level source which has a volume control. We highly recommend the matching X-P100 or Nu-Vista Preamps available from Musical Fidelity as an excellent choice.

### How to connect your X-AS100 for Normal Stereo use

Connect the Left and Right outputs from your pre-amp or other line level source to the phono inputs on the back panel marked as Left and Right Line Inputs. For the best results we recommend that you use Musical Fidelity X-LINX "no-nonsense" interconnect cables for this connection.

Connect your loudspeakers to the loudspeaker terminals situated on the back panel marked as Left and Right Loudspeaker Outputs. Please refer to diagram below.

Once these connections are made, plug in the IEC type mains lead and switch on the unit.



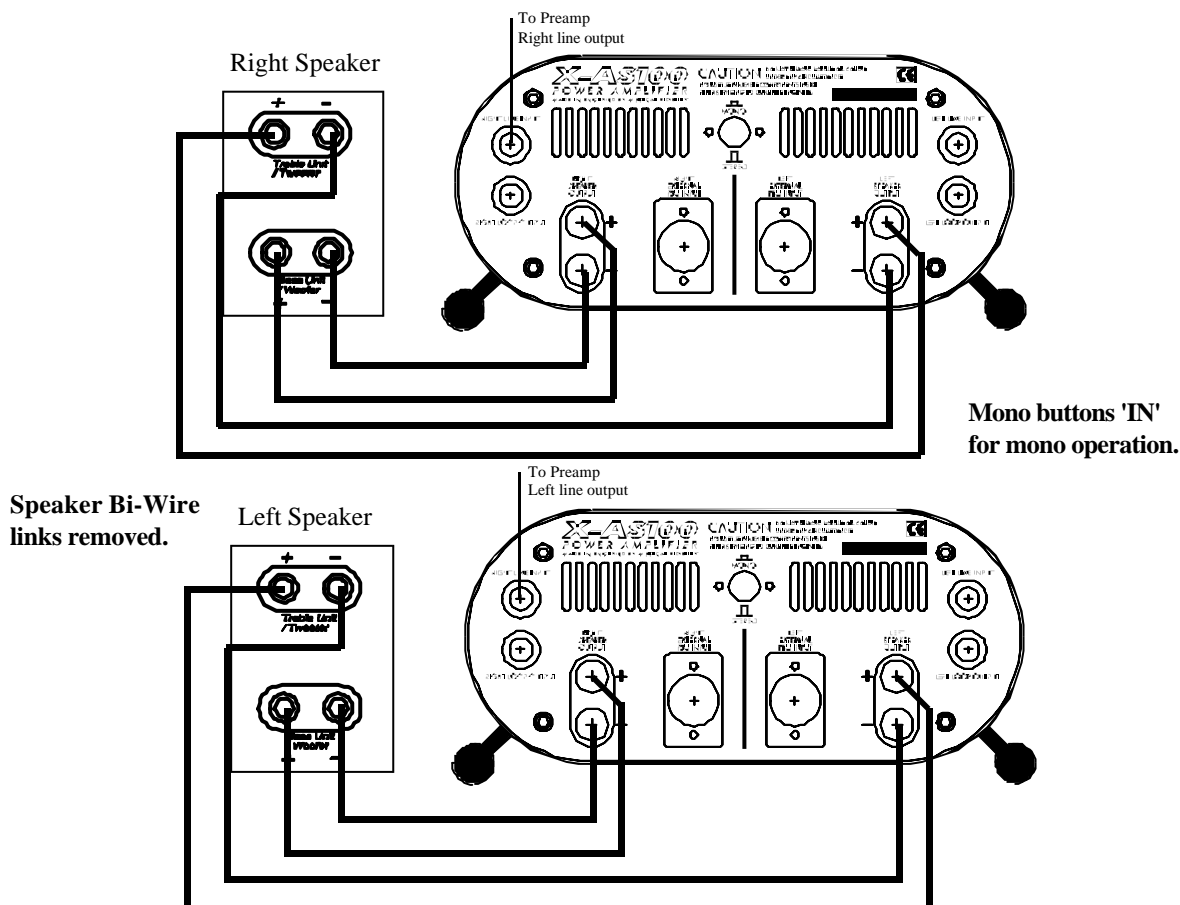
## PASSIVE BI-AMPING

The X-AS100 has both 'Loop Out' connections and a Mono/Stereo button to allow flexible use in various Bi-amping combinations. In these combinations the X-AS100 is used in conjunction with either another X-AS100 or compatible amplifiers **with a gain of 33** such as the X-A50 or X-A200 monoblocs from Musical Fidelity. A pair of bi-wireable speakers is required (and the bi-wire links must be removed) so that one amplifier channel can drive the treble unit (tweeter) and another channel can drive the bass unit (woofer). Please refer to the two examples below.

### Example 1. Two X-AS100s

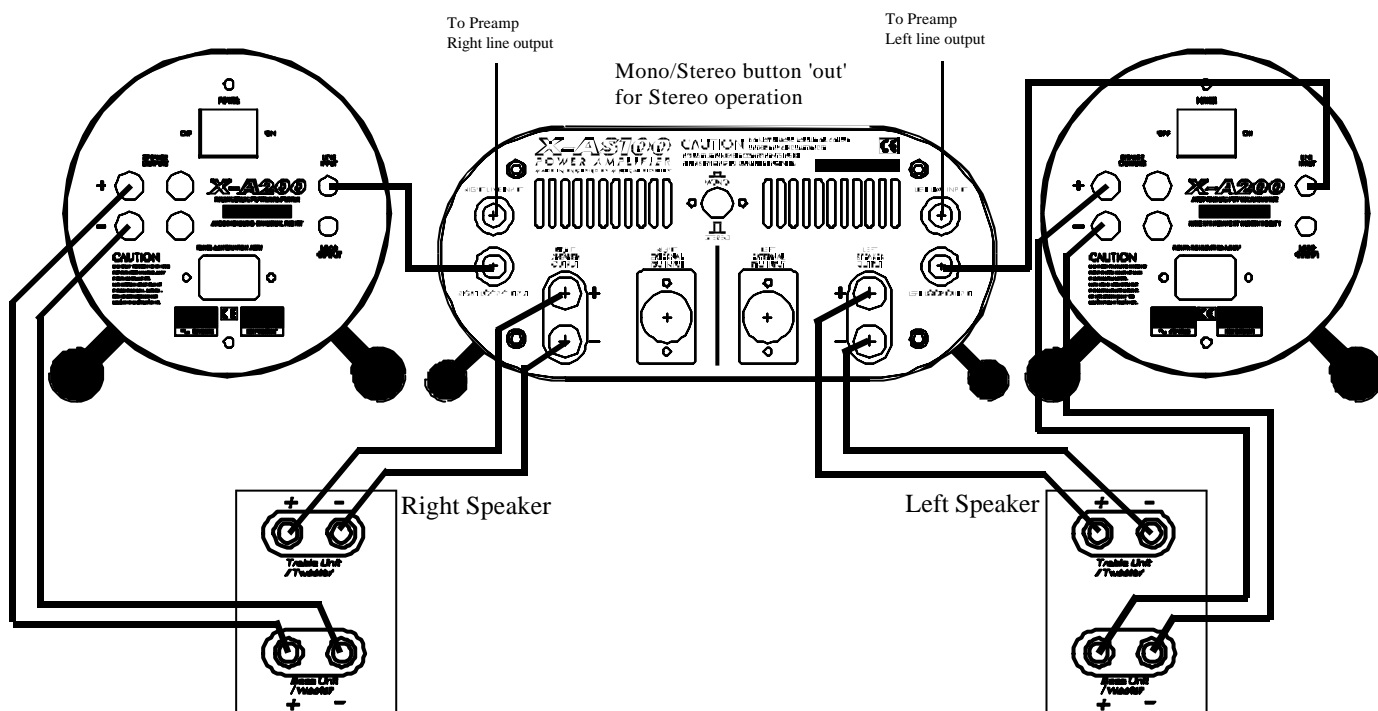
In this example, one X-AS100 is used to drive the left speaker whilst a second X-AS100 drives the right speaker.

The Right output of your preamp is connected to the first X-AS100 to either the Left or Right Line Input (it does not matter which). **The Mono/Stereo Button is then pressed in for Mono operation.** The Right Loudspeaker output is now wired to the Bass unit terminals of the first speaker with a normal speaker wire pair. The Left Loudspeaker output is now wired to the Treble unit terminals of the first speaker, again, using a normal pair of speaker wires. This process is now repeated for the other X-AS100. **Again the Mono/Stereo button must be pressed in for mono operation.** The Left output of the preamp is connected to either of the Line level inputs of the second X-AS100. Then as before one channel of the X-AS100 drives the bass unit of the second speaker and the other channel drives the treble unit. See diagram below:



## Example 2. One X-AS100 with a pair of X-A50s or X-A200s

In our second example, a pair of X-A200s are used to drive the bass unit (woofer) of each channel whilst an X-AS100 is used to drive the treble unit (tweeter) of each channel. The X-AS100 is connected to a preamp in the normal way with a pair of phono leads. Then the line input of each X-A200 (or X-A50) is connected to a 'Loop Out' of the X-AS100 with another set of phono leads. **The X-AS100's Mono/Stereo button must be out for stereo operation.** The X-A200s in this example drive the left and right bass units whilst the X-AS100 drives the left and right tweeter.



If you have any questions regarding passive bi-amping please contact your authorised Musical Fidelity dealer who should be able to help and advise you.

## EXTERNAL POWER SUPPLY

We recommend that the Power Supply Unit be positioned on the floor as far away from the X-AS100 as possible. This ensures that there is no magnetic interaction between the X-AS100 and the power supply unit thus giving best performance.

The X-AS100 has been designed so that it may be left switched on indefinitely if desired.

## WARNING - Heat

**When in use the X-AS100 gives off heat from its casework.**

**Never put anything on top of your X-AS100.**

**Always ensure that the unit has adequate ventilation.**

Basic troubleshooting of an amplifier is similar to troubleshooting of 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>Probable Cause</b></i>	<i><b>Remedy</b></i>
<b>No power when POWER is pressed</b>	Mains plug not inserted correctly	<i>Plug in securely</i>
	PSU unit not connected to main unit	<i>Plug PSU umbilical lead into back of main X-AS100 unit</i>
<b>No sound</b>	Volume control is set to minimum on Preamplifier	<i>Turn up the volume</i>
	Mute is selected on Preamplifier	<i>Press mute button on remote control</i>
	Preamplifier not connected to Power amplifier	<i>Check phono cable connection between units</i>
	Speakers are not connected, or are connected incorrectly	<i>Check speaker cables</i>
<b>Sound is not precise, lacking in bass and stereo image</b>	Speakers are connected out of phase	<i>Make sure that both speakers are connected correctly</i>

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 X-AS100 yourself, as this will invalidate the guarantee.



## X-AS100 POWER AMPLIFIER

Power output	100 watts per channel, 8 $\Omega$
THD	< 0.005% at 1kHz < 0.04% 20Hz - 20kHz unweighted < 0.003% 20Hz - 20kHz 'A' weighted
Frequency response	10Hz - 70kHz $\pm$ 1dB
Input sensitivity	900mV
S/N ratio	> 106dB unweighted (ref 100W) > 117dB 'A' weighted (ref 100W) > 86dB unweighted (ref 1W) > 97dB 'A' weighted (ref 1W)
Channel separation	> 90dB 20Hz-20kHz
Power consumption	450 watts (maximum)
Dimensions	230 x 110 x 330mm (W x H x D) Width and height include feet, depth include terminals
Standard accessories	X-AS100 power supply unit IEC type mains lead



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