8200MB
User Instructions

audiolab

1: Statutory & Safety Information

CAUTION!
RISK OF ELECTRIC SHOCK
DO NOT OPEN

TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER
NO USER-REMOVEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED PERSONNEL

ADVERTISSEMENT: RISQUE DE CHOC ELECTRIQUE-
NE PAS OUVRIR

This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.

Read these instructions.

Keep these instructions. In the event that you pass the product to a third party this instruction manual should be provided along with the product.

Heed all warnings.

Follow all instructions.

Do not use this apparatus near water.

Clean only with dry cloth.

Do not block any ventilation openings.

Install in accordance with the manufacturer's instructions.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wider blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Use only attachments/accessories specified by the manufacturer.

Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

Unplug this apparatus during lightning storms or when unused for long periods of time.

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Warning: To reduce the risk of fire or electrical shock, do not expose this product to rain or moisture. The product must not be exposed to dripping and splashing and no object filled with liquids such as a vase of flowers should be placed on the product.

No naked flame sources - such as candles - should be placed on the product.

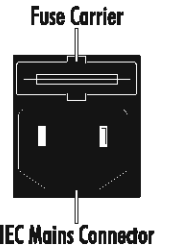
Caution: Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this device.

Mains supply and safety

Mains Supply: The mains voltage of Audiolab units is shown on the rear panel. If this does not match the voltage in your area, consult your dealer. The mains supply fuse is on the rear panel. If it has broken, check for any obvious cause before replacing the fuse with one of the correct rating and type. The fuses for all areas are type T (time lag) AL 20mm.

The fuse values are:

220-230V: 6.3 A **100-120V:** 10A



The fuse is located in a slide-in carrier which also contains a spare fuse. The carrier can only be pulled out after the IEC power cord is unplugged. When the carrier is opened the first fuse is the spare. Remove and safely dispose of the blown fuse before replacing it.

Class II construction double insulated. These products must not be connected to earth.

Power Cord: An AC power cord is normally supplied with a mains plug suitable for your area. If you have any doubts, consult your dealer about obtaining a suitable power cord.

Important notice to UK users

The appliance cord is terminated with a UK approved mains plug fitted with a 10A fuse. If the fuse needs to be replaced, an ASTA or BSI approved BS1362 fuse rated at 10A must be used. If you need to change the mains plug, remove the fuse and dispose of this plug safely immediately after cutting it from the cord.

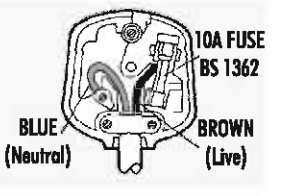
Connecting a Mains Plug

The wires in the mains lead are coloured in accordance with the code:

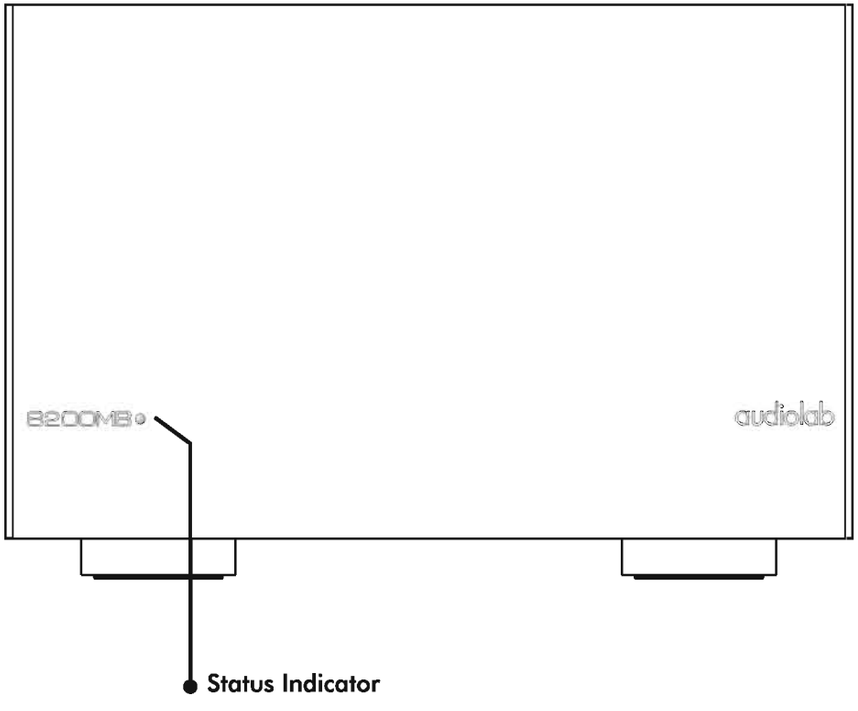
Blue: NEUTRAL; Brown: LIVE:

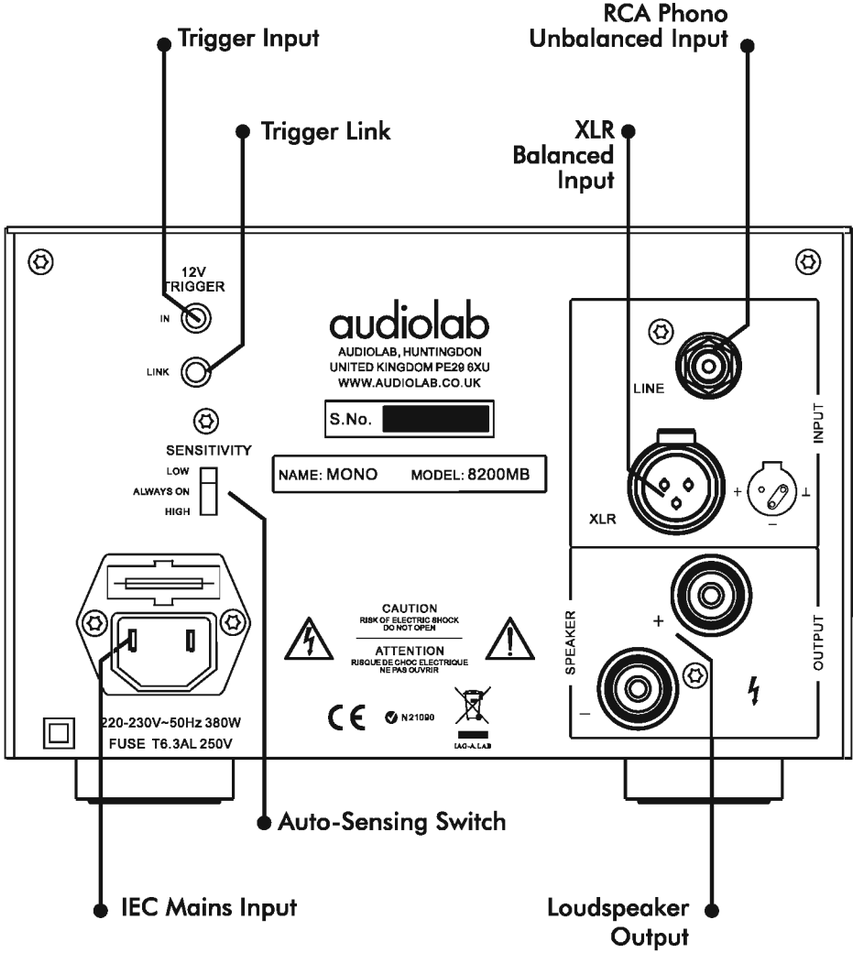
As these colours may not correspond to the coloured markings identifying the terminals in your plug, proceed as follows:

The BLUE wire must be connected to the terminal marked with the letter N or coloured BLUE or BLACK. The BROWN wire must be connected to the terminal marked with the letter L or coloured BROWN or RED.



2: Connectors and Controls





3: Introduction

The 8200MB is an advanced 250W single channel low distortion power amplifier designed to partner loudspeakers of the highest calibre. Each 8200MB can be placed close to its partnering loudspeaker, resulting in extremely short loudspeaker cables, which ensures maximum signal transmission.

Control Sources

To maximise performance the unit is a true slave amplifier i.e. it has no integral mains on/off switch but relies on an external control source. Two means of external control are available.

12 Volt Trigger:

The unit is equipped with a 12V trigger system on a 3.5mm jack input. When a trigger voltage (usually from a control unit trigger) appears at this input the amplifier will come out of standby. The front panel indicator will change from dim red to bright red and the unit will go through it's normal timed start up.If the unit is already fully on this trigger signal will be ignored. The unit will go back into standby when the trigger voltage is changed to 0. A second 3.5mm Jack is provided so that other amplifiers can be linked to the trigger system such that all come on and go off together. The trigger system is isolated from the audio supply to prevent hum problems.

Auto Sensing:

The amplifier has a variable sensitivity auto-sensing input. When no audio is present the amplifier goes into standby. As soon as the amplifier detects an audio input it switches on and stays along as long as there is an audio input present. If the audio input is switched off the amplifier stays active for a short period before reverting to standby.

Signal Inputs

The 8200MB provides both a balanced XLR input and a standard RCA input. The 8200MB will automatically sense the input used.

Single ended RCA input:

A single ended connection sends, as the name implies, the signal via a two conductor cable, one for the signal and one for the ground .When using the single ended connection the XLR shorting link must be fitted (see section 5) The single ended connection is the most commonly used connection type between preamplifiers or AV processors and their power. amplifiers. Although it works extremely well, even over long distances, if several audio devices are connected together it is possible for a current to flow between the ground connections of these units, caused by electro-magnetic input interference or ground potential differences adding a low frequency hum to the signal.

Balanced XLR input

A major advantage of balanced interconnects is the complete suppression of ground-loop problems.

Balanced line inputs use 3 conductors, one for the ground and two for the positive and negative signals. As a result the balanced input at the amplifier does not respond to the voltage between input and ground, but to the difference between the two conductors carrying the signal. The signal is thus inherently 'cleaner' and free from earth-induced currents and other low frequency artefacts.

Output Terminals

The 8200MB uses heavy duty screw terminals. At high power levels there can be a combination of high voltage and high currents so we strongly urge the use of heavy-duty cable either directly clamped to the terminals or cables correctly terminated with spade connectors The use of spade connectors allows the cables to be securely clamped to the amplifier terminal posts with minimal chance of stray cables shorting adjacent terminals.

Amplifier Protection

Control signals are used to switch the amplifier module on/off and to protect it in case an error condition, such as a short circuit in the loudspeaker, is detected. The amplifier is fully protected against overload, overheating and mains failure.

Unpacking

Unpack the product fully. The carton should contain

- The Audiolab 8200MB
- One IEC power cord suitable for your area
- Shorting link for the XLR connector
- This instruction manual

Report any damage or shortage to your dealer as soon as possible.

Retain the packing if possible. If you dispose of the packing, do so with regard to any recycling regulations in your area.

Before You Start

Please read the instructions on the next few pages before connecting and using your equipment. In particular pay attention to the safety notes.

Positioning:

The 8200MB is capable of consuming over 650 Watts of power during demanding presentations. This results in significant heat being dissipated.

- Ensure that there is adequate ventilation above and below the unit.
- The ventilation of the 8200MB should not be impeded by covering the ventilation slots.
- Place the 8200MB on an open flat solid surface. Do not operate the amplifier in a cabinet or on a soft surface such as a carpet.
- Do not place any equipment on top of the 8200MB.

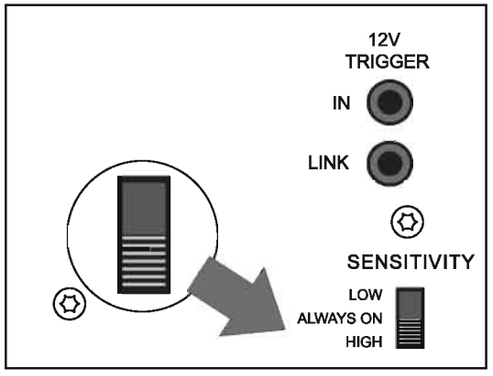
Connecting Cables

- Ensure all connecting cables are protected. Avoid running cables across open floor spaces where they can be a source of danger to people or pets.
- Ensure that long runs of audio signal cable do not run close to and parallel to mains cables. This is especially important when unbalanced connections are used.
- Audio input cables must be low-noise and fully screened. Consult your Audiolab dealer if you are in any doubt.

4: Connecting the 8200MB - Control Connections

If your control unit has a 12V trigger system:

Set the **Auto Sensing Switch** to "High Sensitivity" (lower position).

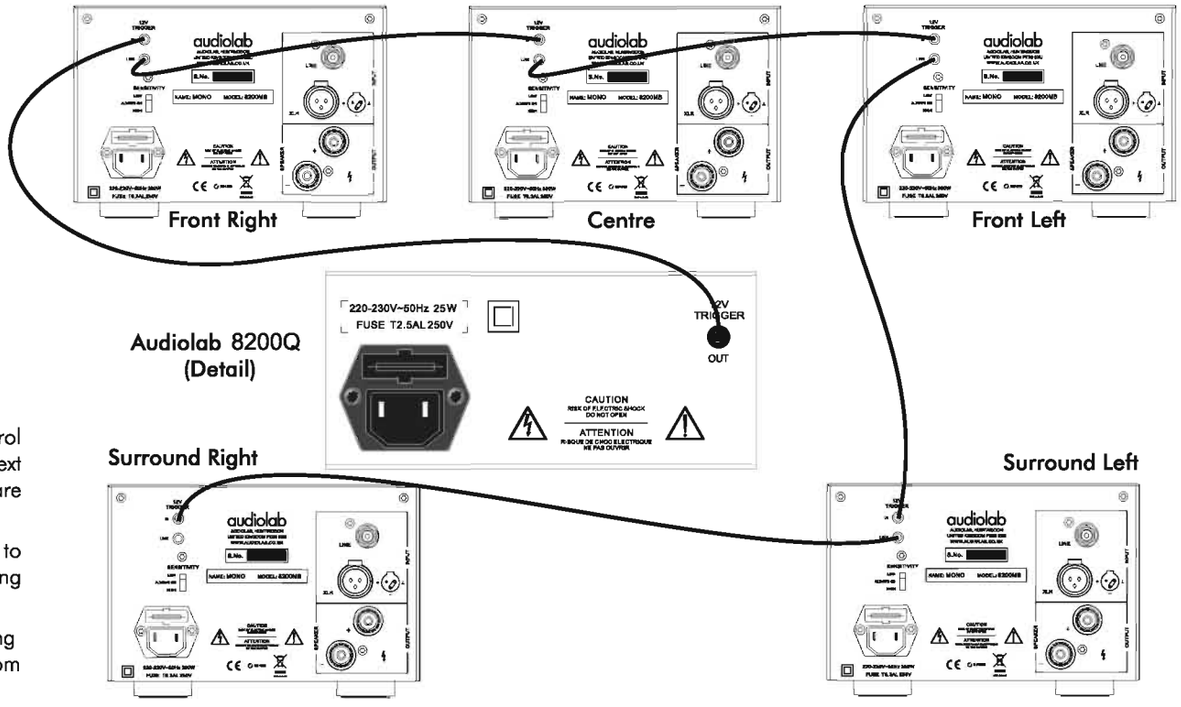


Connect the **12V Trigger** Input to the trigger output of the Control Unit. Connect the **Link** socket to the **12V Trigger Input** of the next 8200MB in the system. Proceed in this way until all amplifiers are connected.

To connect to your Control Unit you will need a cable with one end to match the trigger output of the control unit and the other terminating in a 3.5mm mono jack plug.

If you have an Audiolab 8200Q Pre-amplifier we advise using the trigger. A suitable connection lead is available to order from the Audiolab Service Dept.

Trigger Connection



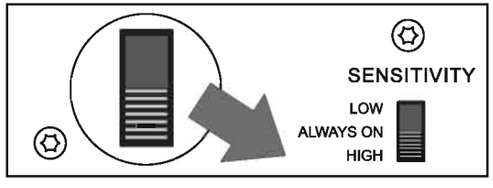
If your control unit does not feature a 12V trigger system:

Set the **Auto Sensing Switch** on all the amplifiers in the system to "High Sensitivity" (lower position).

This ensures that the amplifier will switch on even with a very small audio input signal from the preamplifier. No other external trigger connections are needed.

NOTE: Some houses have noisy mains supplies and/or domestic appliances which are not adequately suppressed. In these conditions the amplifier may trigger on randomly If this happens moving the switch to the "Low Sensitivity" position will help offset these problems.

Switching the amplifier to Always On without connecting a trigger input is NOT recommended as the amplifier will then be permanently powered at all times.

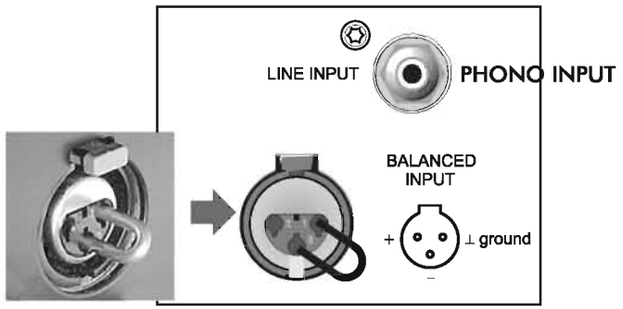


BEFORE MAKING ANY SYSTEM CONNECTIONS ENSURE THAT ALL POWERED EQUIPMENT IS SWITCHED OFF AND UNPLUGGED FROM THE MAINS SUPPLY.

5: Connecting the 8200MB - Signal Connections

Unbalanced RCA Phono Input Connection

When the RCA input is used the XLR shorting link, fitted when you receive the 8200MB from the factory, must be inserted between pin 1 and pin 3 of the XLR input connector. This is necessary to obtain the correct gain and to reduce noise pickup.



The signal connection of the RCA input and the XLR are connected internally.

Do not use both connections at the same time as this might damage your equipment!

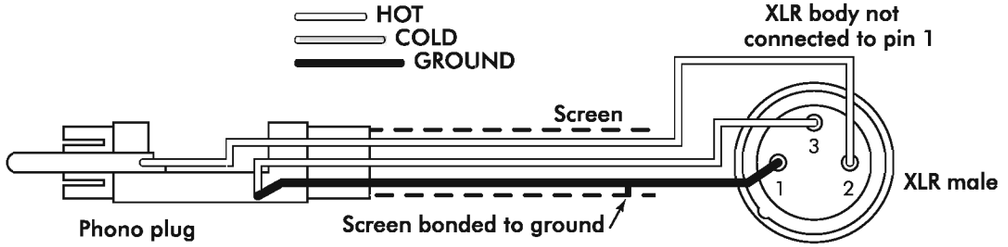
If you connect an RCA output of your av processor or preamplifier to the RCA line input of the 8200MB then you should use a high quality,well screened single RCA phono-RCA phono audio cable.

Using the Balanced Input (XLR)

In order to use the XLR connection you need to ensure the XLR shorting link is removed. (Store the shorting link safely for later use!). If you must use balanced XLR cables, again ensure that the cables are properly terminated and fully screened.

To connect a single ended RCA plug to the balanced XLR input

If you are connecting to equipment with single ended RCA outputs and you would like to use the balanced XLR input for good ground loop suppression, then use a suitably manufactured RCA/XLR adaptor cable. If you cannot obtain such a cable, consult your Audiolab dealer or have one professionally made up. Wiring details of this cable are below.



The important point is that the 'cold' line is connected to ground at the remote (phono) end, and not at the XLR. Thus the balanced inputs at Pins 2 and 3 see only the voltage at the phono plug itself, and any spurious voltages that may exist on the ground line are ignored.

The XLR body, if metal, will have a separate solder tag. Do not join this to ground or Cold as this creates a connection between audio ground and chassis ground, which may affect system performance

Loudspeaker Connections

The contacts of the loudspeaker terminals of this amplifier (marked with the lightning symbol) have hazardous live voltages (in excess of 50V AC) present. If you are in any doubt, consult a qualified electrician before making connection to these terminals.

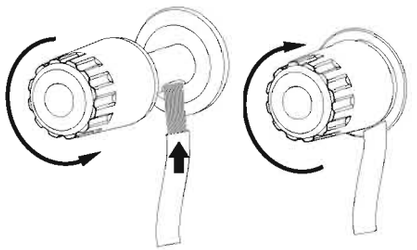
The loudspeaker terminals of the 8200MB are terminals capable of accommodating heavy duty cable. The amplifier has a short term output current capacity of 37 Amps into a 4 ohm load so if your loudspeakers are low impedance designs make sure the cable you use has enough capacity to carry heavy currents.

Connecting loudspeaker terminals.

Connect the red (+) terminal of the loudspeaker to the (+) terminal on the rear panel of the 8200MB. In turn connect the black (–) terminal of the loudspeaker to the (–) terminal on the 8200MB. Make sure that all the amplifiers in the system are connected to their partnering loudspeakers in the same way.

Loudspeaker cable is polarised with the cores either differently coloured or one core identified with a rib or stripe. This enables you to identify the connections more easily. Split the loudspeaker cores and strip 7mm from the end of the cable to expose the wire. If stranded, twist the strands to keep them neat and avoid accidental shorts.

To fit cables: Partially unscrew the loudspeaker terminal. Insert the bared part of the wire into the hole in the terminal shaft. Tighten securely



Note:
Spade connectors may be used as an alternative to bare wires.

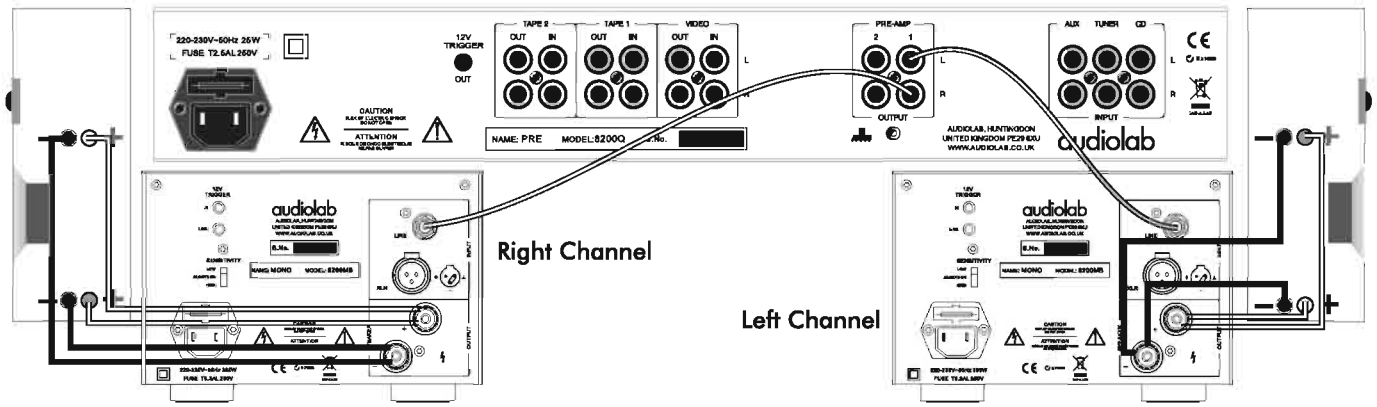
Make sure that there is no chance of connections to the speaker terminals accidentally touching.

Bi-Wiring Loudspeakers

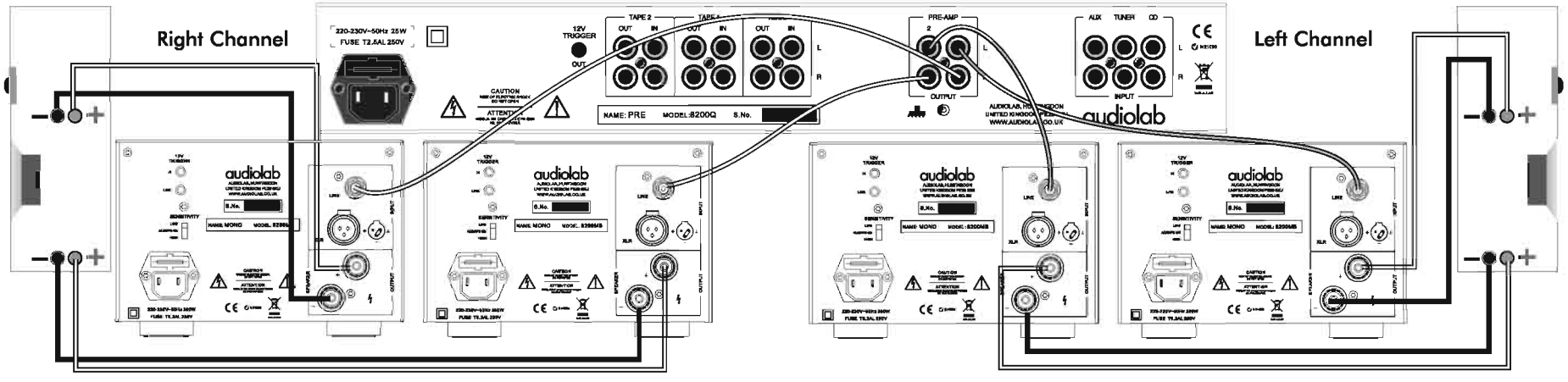
The terminals have enough room to accommodate two cables but we strongly advise you to consider purpose built bi-wiring cable which will do a better job and make connection easier. Your Audiolab dealer will be pleased to advise you.

6: Stereo System Connections

Bi-Wired System with 8200Q Pre-Amplifier

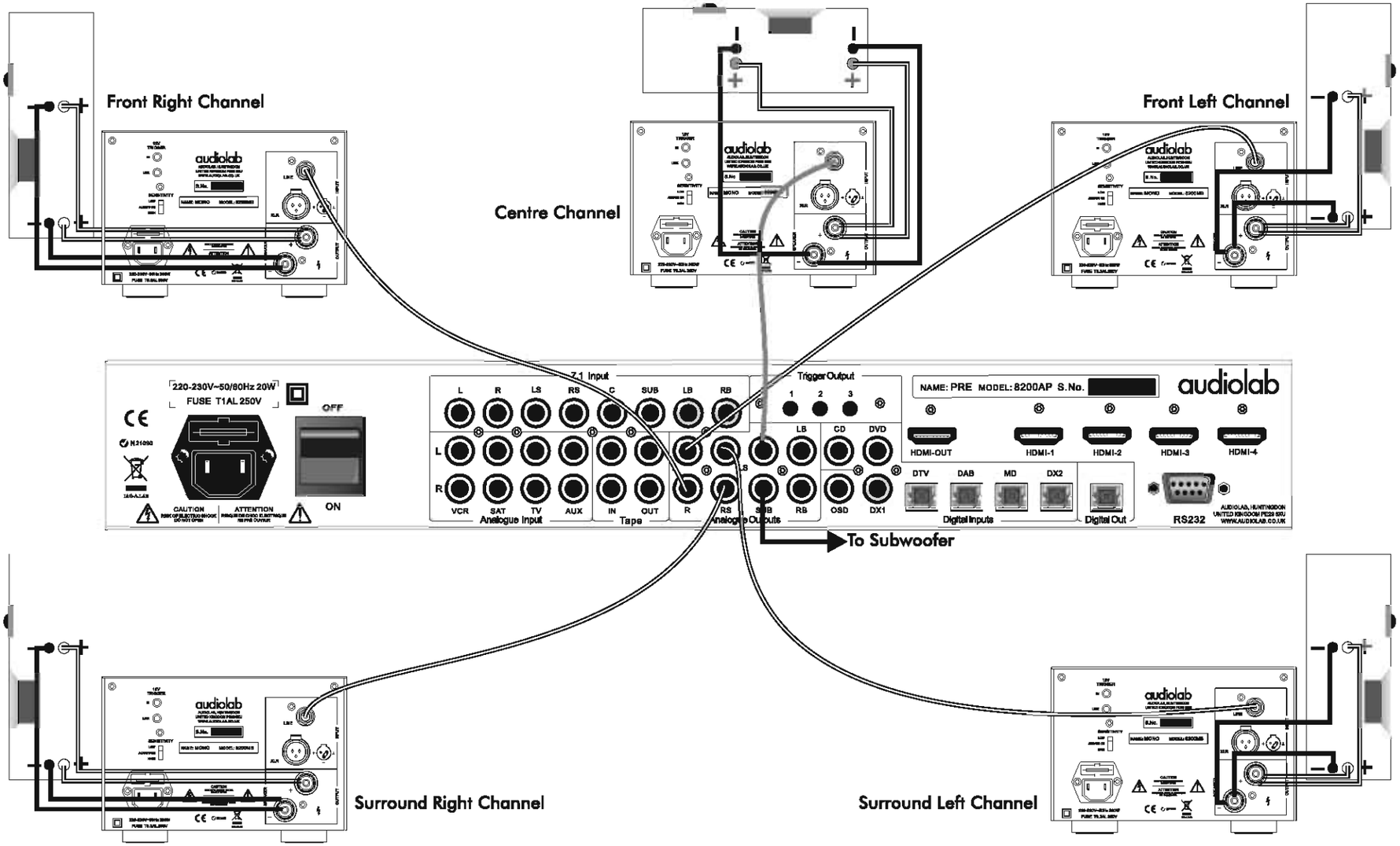


Bi-Amplified System with 8200Q Pre-Amplifier



7: Home Theatre System Connections

5 Channel System with 8200AP Processor



8: Operation

Switching On

Make sure all the signal and loudspeaker connections to and from the amplifiers are secure and correctly made.

- Plug the power cords into the pre-amplifier and the power amplifiers and then into the wall socket .
- Switch on at the mains. Switch on the pre-amplifier

The power indicators on all the units will light showing the system is operational.

If you are using the Trigger System:

The amplifiers will stay on until you switch the pre-amplifier or control unit off.

If you are using Auto-Sensing:

- The amplifiers will stay on provided the pre-amplifier is sending an audio signal.
- During periods of silence the amplifiers will remain operational for a short period. If there is no signal they will then go to standby.
- After the pre-amplifier is switched off the amplifiers will stay operational for a short period before themselves switching off.

Phase

It is essential that the loudspeaker connections are secure and with the positive and negative terminals correctly connected.

This becomes especially important in bi-wired and bi-amplified systems where the effects of one or more incorrectly connected (out of phase) loudspeakers may severely impair the sound and yet be difficult to detect.

If the sound appears muddled and lacking clarity this may be because one or more speaker connections are not correctly made. Always check loudspeaker connections carefully when you have made any alteration to your system.

After Use

Always switch the pre-amplifier off when you are not using the system to put the Amplifiers into Standby.

Maintaining Connections

Connections should be checked periodically. If necessary the plugs should cleaned with a proprietary cleaner or, in the case of loudspeaker connections, freshly re-made.

Fault Indications

The amplifier is inherently stable but in the event of overdrive, overheating or internal failure, the amplifier protection circuitry will trigger.

A fault is indicated by the Standby light flashing.

When this happens the amplifier will try to recover, and, if successful the flashing light will stop.

If there is a sustained fault condition the light will flash continuously until the fault condition is rectified and the amplifier is reset.

If this happens: Switch the entire system off at the mains. Disconnect the mains plug from the amplifier the amplifier and rectify any obvious external fault such as a shorted loudspeaker cable.

Reconnect power to the system and the amplifier. Normal operation should now be resumed.

9: Specifications

8200MB Power Amplifier

Rated Output Power
250W/Channel into 8 Ω,20Hz-20kHz
Input Sensitivity
1.63Vrms for 250W into 8 Ω
Input Impedance:
20kΩ Balanced, 15kΩ unbalanced
Gain
29.0 dB at 1kHz
Signal To Noise Ratio (IHF, rel. 0.dBW)
88dB
Frequency Response
20-20KHz ±0.1dB, 0.1-120KHz-3dB
Total Harmonic Distortion & Noise
Less than 0.03%,20Hz-20kHz

Polarity (Phase)
Non-Inverting
Muting
Muting controlled automatically
Operating Temperature Range
10-35 °C
Power Requirements (Depending on Region)
50-60Hz 100V, 110-120V, and 220-230V models available
Maximum Power Consumption: 380VA
Dimensions (W×H×D)
379*216*150mm
Weight
Net: 9 kg Shipping: 11 kg

Audiolab reserves the right to alter design and specification without notice. Specification may vary for different countries.

Audiolab is a member of the International Audio Group.

Service

Care & Cleaning

While cleaning is in progress the AC power cord must be unplugged from the AC power supply socket.

Grease or dirt on the equipment may be removed with a soft, lint-free cloth slightly moistened with a mild solution of warm water and detergent or washing-up liquid. Do not use any other solutions or solvents.

If you have any queries regarding the use of Audiolab equipment, consult your dealer.

Servicing

Servicing of Audiolab products should only be carried out by authorised service agents. If service is required the equipment should be returned, securely packaged, preferably using original packaging, to your dealer.

In the UK equipment may be returned to the IAG Service Centre.

Always telephone before returning any equipment.

A note should be enclosed giving your name, address, telephone number, and a brief description of the reason for return.

If you require Service outside the Warranty period, do not hesitate to contact your dealer.

Service Address - UK

IAG Service Centre
Unit 4
St Margaret's Way
Stukeley Meadows Industrial Estate
Huntingdon
Cambs
PE29 6EB
England
Tel: +44 (0)1480 452561
Fax: +44 (0)1480 13403

Audiolab
IAG House,
Sovereign Court,
Ermine Business Park,
Huntingdon PE29 6XU
Tel: 01480 447700
Fax: 01480 431767
http://www.audiolab.co.uk
CODE:AH10-MNL0002