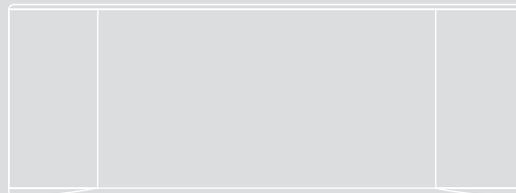


# G Series Power Amplifier

## User Guide



# Important safety instructions

- Read the instructions.
- Keep these instructions.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Install only in accordance with the manufacturer's instructions.
- Refer all servicing to approved service personnel.

**WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.**

This apparatus has been designed with Class 1 construction and must be connected to a mains socket outlet with a protective earthing connection (the third grounding pin).

This apparatus uses a single-pole power switch. As a result it is not isolated from AC mains power when switched off at the rear panel. The apparatus may be isolated from mains power either by unplugging the power connector from the rear of the unit, or by unplugging the connector at the opposing end of the power cord or cable from its supply outlet. As a result, either or both of these connectors should remain accessible

## Safety warnings

- Do not expose the unit to dripping or splashing.
- Do not place any object filled with liquid, such as a vase, on the unit.
- Do not place naked flame sources, such as lighted candles, on the unit.

## To avoid overheating

- Leave at least 10cm around the equipment to ensure sufficient ventilation.

Do not position the product:

- In direct sunlight.
- Near heat sources, such as a radiator.
- Stacked with any other audio products, as the heat it generates may damage the other products.
- On a soft surface, such as a carpet, which would obstruct the ventilation holes in the base.

The sides, base, and top of the G Series Power Amplifier case contain venting holes for the internal heatsinks which should not be obstructed. Ensure that air can flow around them. The product normally runs warm to the touch when not in standby.

## Radio interference

**FCC Warning:** This equipment generates and can radiate radio frequency energy and if not installed and used correctly in accordance with our instructions may cause interference to radio communications or radio and television reception. It has been type-tested and complies with the limits set out in Subpart J, Part 15 of FCC rules for a Class B computing device. These limits are intended to provide reasonable protection against such interference in home installations.

**EEC:** This product has been designed and type-tested to comply with the limits set out in EN55013 and EN55020.



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# Copyright and acknowledgements

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## Product Registration

Register your Meridian power amplifier product at:

[www.meridian-audio.com/support](http://www.meridian-audio.com/support)

and receive Exclusive Meridian News and discover more about the Meridian Collection.

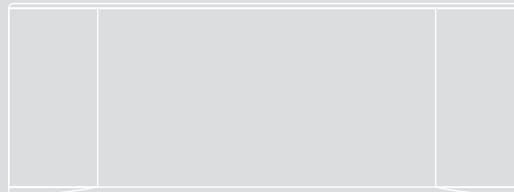
# Introduction

This Installation Guide applies to the G55 Five-channel Power Amplifier and G57 Two-channel Power Amplifier. The main differences between each of these products are explained in the following table:

<b>Product</b>	<b>Channels</b>	<b>Power per channel</b>	<b>Bridged</b>
G55	5	100W into 8Ω, 160W into 4Ω	300W into 8Ω
G57	2	200W into 8Ω, 330W into 4Ω	620W into 8Ω

The G Series power amplifiers provide unbalanced and balanced inputs and are bridgeable.

This guide provides full information about unpacking the power amplifier, and connecting it to the other equipment in the system.



## General features

Each of the G Series power amplifiers is based on modules that feature a symmetrical design with fully electronically-balanced inputs. Both balanced and unbalanced inputs are provided, but in fact the unbalanced inputs are converted to balanced before they enter the amplifier itself, using Meridian's proprietary 'superbal' technology.

The discrete active input components are thermally and electrically matched in pairs, and the amplifiers feature active bias control throughout, with thermal sensing that carefully manages the temperature and current flow at different volume levels.

Fully DC-coupled, the signal path contains no unnecessary capacitors, while those in the power supplies are audiophile grade components.

The amplifiers are of a unique low-feedback design for minimum transient and intermodulation distortion, offering superb clarity and transparency right across the audible range, with an output impedance that is close to zero and suitable for virtually any high-quality third-party passive loudspeaker system.

Special attention has been paid to ensure that the amplifiers can deliver the power that's required at any given moment. Massive low-noise toroidal power transformers provide power to a generous five selected pairs of output devices per channel, carefully temperature-controlled for optimum operating characteristics and efficiency, and with thermal protection for reliability. The result is a clear, open sound with detail as well as punch where it's required.

Trigger and other control signals are optically isolated from the amplifier itself. When in standby mode, a standing voltage is maintained on the power rails and supply components. As a result, you only have to wait for a short time after switching on for optimum performance to be achieved.

Two sets of outputs are provided per channel for bi-wiring, etc, on sturdy binding posts colour-coded for

easy reference and capable of handling large-diameter high-quality loudspeaker cables. The output terminals are connected to the amplifiers by Van Den Hul silver-strand cable to avoid signal losses.

The amplifiers include electronic protection, reset by power-cycling, with full DC and thermal protection.

A front-panel indicator shows when the amplifier is in standby. When the unit is activated, an LED illuminates for each channel. In the event of thermal overload the main indicator goes red and the channel lights go out, showing that the unit is off-line. A push button on the front panel can be used to take the unit in and out of standby, while flexible 5-30V trigger capability allows amplifier power to be controlled remotely along with the rest of a system.

### G55 Five-channel Power Amplifier

The Meridian G55 is a five-channel unit, and delivers a solid 100W RMS per channel continuous into 8Ω.

The outer pairs of channels can be operated in bridge mode by actuating a back-panel rocker switch on the channel 1 and/or channel 5 modules, in which case the first channel input of the pair becomes the bridged input and the upper output terminals are linked, power being derived from the lower terminal pairs.

### G57 Two-channel Power Amplifier

The Meridian G57 is a solid, robust, two-channel unit, delivering a powerful 200W RMS per channel continuous into 8Ω, or up to a full kilowatt bridged into 4Ω.

The amplifier can be operated in bridge mode by actuating a switch on the back panel, in which case the left channel input becomes the input for the bridged pair and the inner output terminals are bridged, power being derived from the outer terminal pairs.

# Specifications

## Audio inputs

- Balanced on XLR and unbalanced on phono.
- Sensitivity: 1.0V RMS phono/per leg balanced.
- Input impedance: 16k $\Omega$  phono, 32k $\Omega$  balanced.

## Audio outputs

- Twin outputs for bi-wiring.
- G55: 5 channels at 100W into 8 $\Omega$ , or 2 channels at >300W into 8 $\Omega$  bridged and 1 channel at 100W.
- G57: 2 channels at 200W into 8 $\Omega$ , >620W into 8 $\Omega$  bridged, 1000W into 4 $\Omega$  bridged.
- Low feedback design.
- Ultra low impedance error corrected output stage.
- DC coupled with no capacitors in signal path.
- Optimised magnetic circuit design.
- Full DC and thermal overload protection.
- Meridian proprietary soft start.

## Output stages

- G55: 25 pairs of 15A output devices and 68,000 $\mu$ F of audiophile-grade PSU smoothing capacitors.
- G57: Dual-mono construction. 5 pairs of 15A output devices. 2 high-quality smoothing capacitors per side (40,000 $\mu$ F used in total).

## Characteristics

- Distortion less than 0.01%.
- Signal/noise better than -100dB.

## Control signals

- Trigger input: 5-30VDC.
- Fan control output for connection to a Meridian rack mount kit.

## Physical

- Dimensions: 440mm x 132mm x 350mm (17.32" x 5.20" x 13.78") (W x H x D).
- Weight: G55 20kg (44lb). G57 24kg (53lb).

## Power

- 100-125; 200-250V AC 50-60Hz.
- 20VA standby; 600VA max.

Meridian Audio reserves the right to amend product specifications at any time.

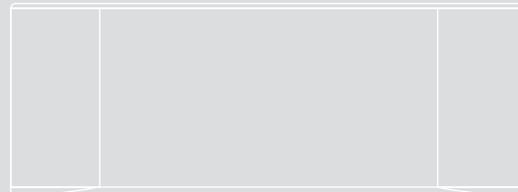
4

Introduction

# Installing the power amplifier

This chapter explains how to install the power amplifier. It describes what you should find when you unpack the product, and how you should connect it to the other equipment in the system.

You should not make any connections to the product or to any other component in the system while the AC power supply is connected and switched on.



## Unpacking

The power amplifier is supplied with the following accessories:

- Power cord.
- Bridge-mode links (G55: 2, G57: 1).
- This manual.

If any of these items are missing please contact your dealer.

**Note:** You should retain the packaging in case you need to transport the unit.

### Siting

During normal operation the internal heatsinks may become quite hot. The power amplifier should therefore be positioned to allow a free flow of air through the cooling vents from the base to the top. Do not place the power amplifier:

- In direct sunlight.
- Near heat sources, such as a radiator.
- Stacked with any other audio products, as the heat it generates may damage the other products.
- On a soft surface, such as a carpet, which would obstruct the ventilation holes in the base.

### Standby

Once set up, the power amplifier can be left in standby as it consumes minimal power in this mode.

To bring the amplifier out of standby press the button on the front panel. Alternatively, the unit can be brought out of standby automatically using the TRIGGER INPUT; see below.

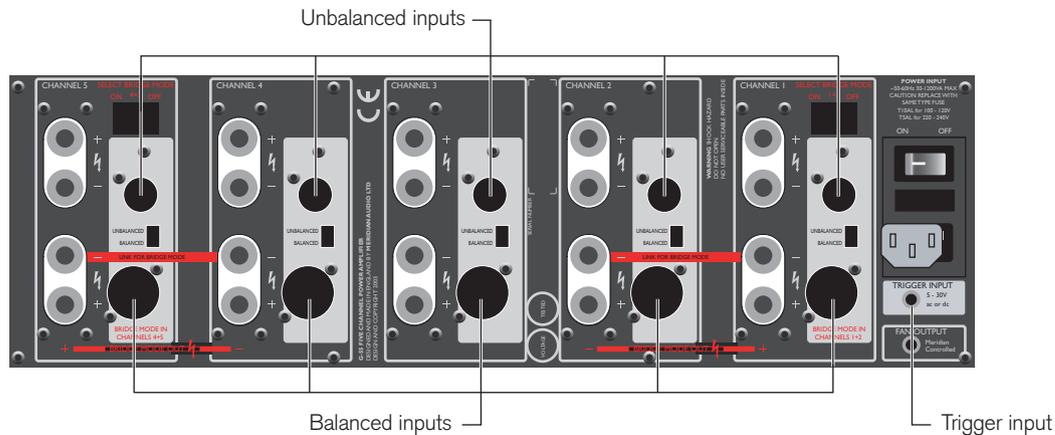
If you are not going to use the power amplifier for a period of several days you should switch off the unit completely, at the back panel and disconnect it from the AC power supply.

### Trigger input

The TRIGGER INPUT can be used to bring the power amplifier out of standby by applying a signal from a control unit.

# Inputs

## G55 Five-channel Power Amplifier

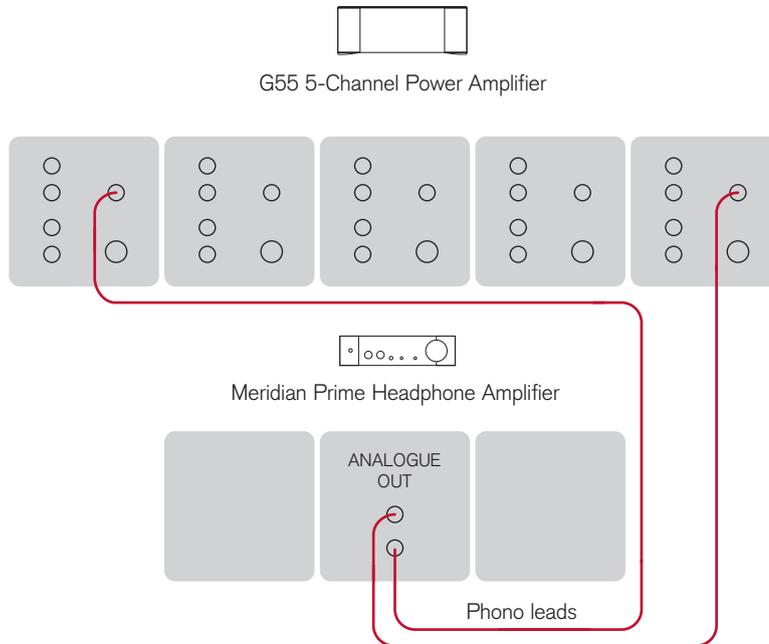


### Use this input To connect to this

UNBALANCED	A preamplifier, using phono connectors and high-quality screened cable.
BALANCED	A balanced analogue output, using XLR connectors: 1 (Green) = GND, 2 (Red) = +ve, 3 (Black) = -ve
TRIGGER INPUT	A mono 3.5mm jack plug input (centre pin hot) that can be supplied with 5-30V AC or DC to bring the power amplifier out of standby. Can be connected to the trigger output on a G Series control unit or digital surround controller.

Select the appropriate input using the UNBALANCED/  
BALANCED selector for each channel.

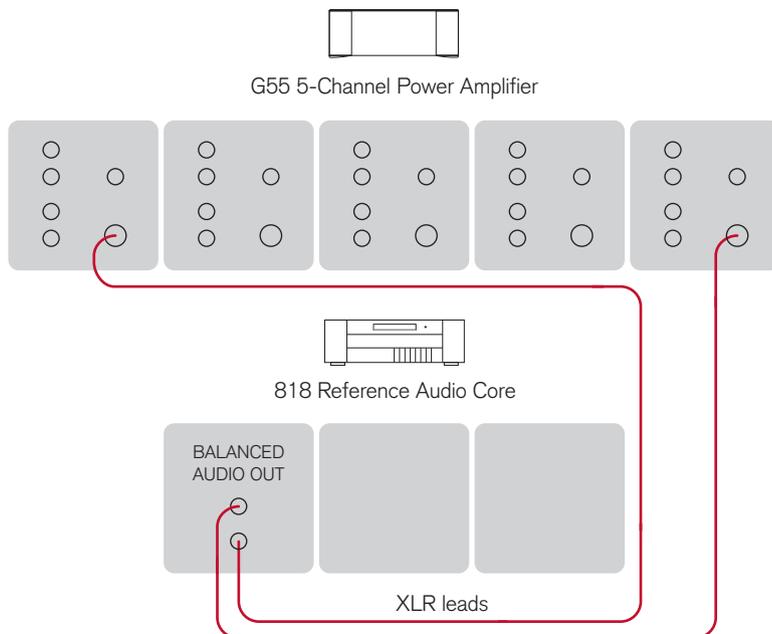
## To connect the G55 to an unbalanced preamplifier (eg Meridian Prime Headphone Amplifier)



- Switch the BRIDGE MODE selectors to the OFF position.
- Connect the UNBALANCED sockets on the power amplifier to the outputs from the preamplifier.
- Switch the corresponding channels to the UNBALANCED position.

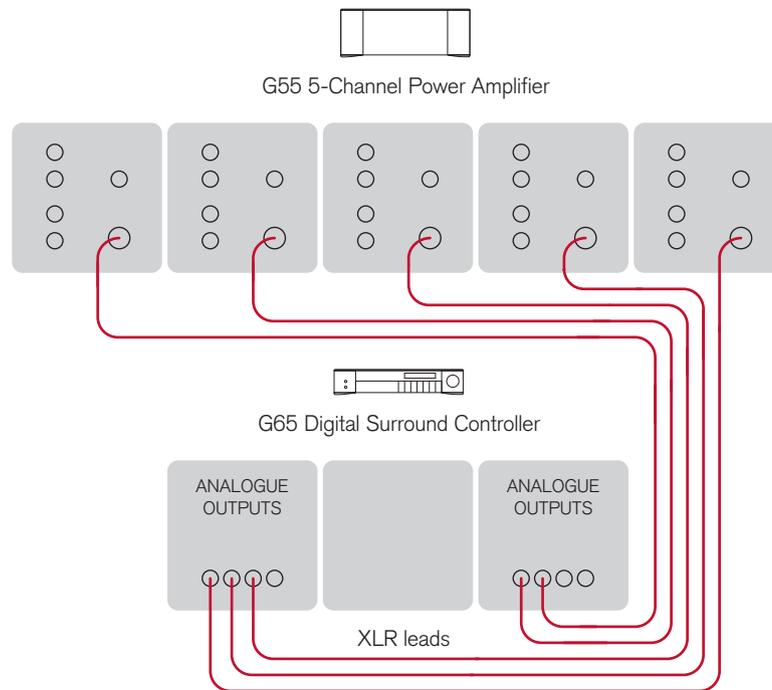
You should either use a twin-screened audio cable, or a pair of single-screened audio cables.

## To connect the G55 to a balanced preamplifier (eg Meridian 818 Reference Audio Core)



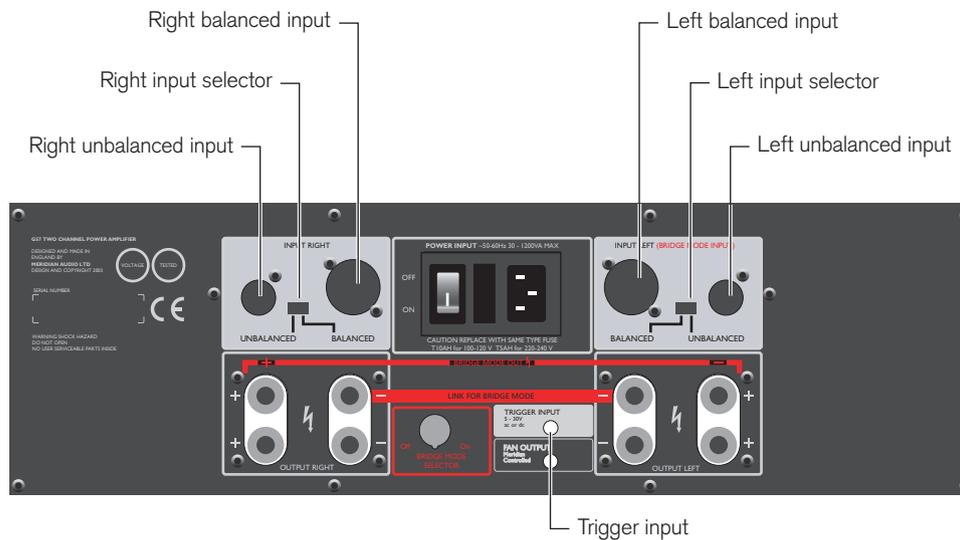
- Switch the two BRIDGE MODE selectors to the OFF position.
- Connect the BALANCED sockets on the power amplifier to the balanced outputs from the preamplifier, using XLR cables.
- Switch the corresponding channels to the BALANCED position.

## To connect the G55 to a G65 Digital Surround Controller



- Switch the two BRIDGE MODE selectors to the OFF position.
- Connect the LEFT, RIGHT, and CENTRE balanced outputs from the G65 to the channel 1, 2, and 3 BALANCED inputs on the G55.
- Connect the REAR-L and REAR-R phono outputs from the G65 to the channel 4 and 5 BALANCED inputs on the G55.
- Switch all channels to the BALANCED position.

## G57 Two-channel Power Amplifier

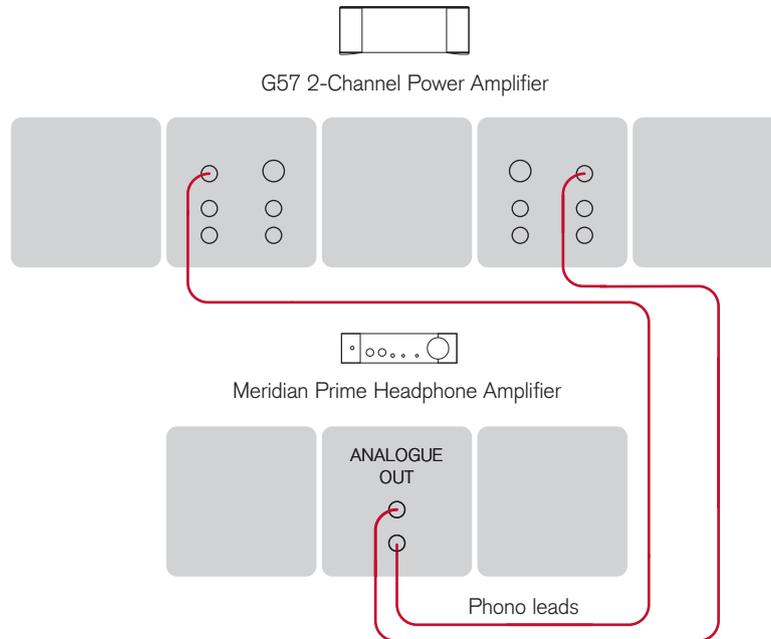


### Use this input To connect to this

UNBALANCED	A preamplifier, using phono connectors and high-quality screened cable.
BALANCED	A balanced analogue output, using XLR connectors: 1 (Green) = GND, 2 (Red) = +ve, 3 (Black) = -ve
TRIGGER INPUT	A mono 3.5mm jack plug input (centre pin hot) that can be supplied with 5-30V AC or DC to bring the power amplifier out of standby. Can be connected to the trigger output on a G Series control unit or digital surround controller.

Select the appropriate input using the UNBALANCED/BALANCED selector for each channel.

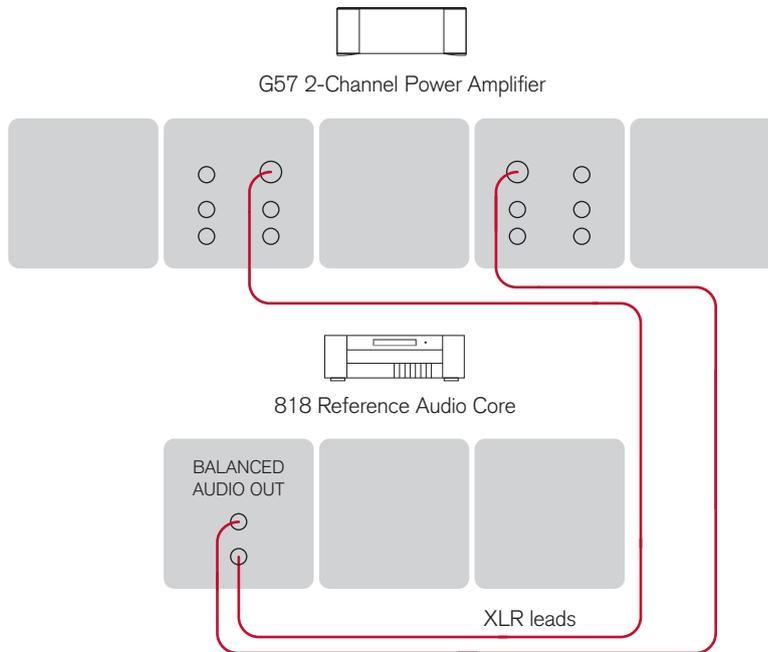
### To connect to an unbalanced preamplifier (eg Meridian Prime Headphone Amplifier)



- Switch the BRIDGE MODE selector to the OFF position.
- Connect the UNBALANCED sockets on the power amplifier to the outputs from the preamplifier.
- Switch the channels to the UNBALANCED position.

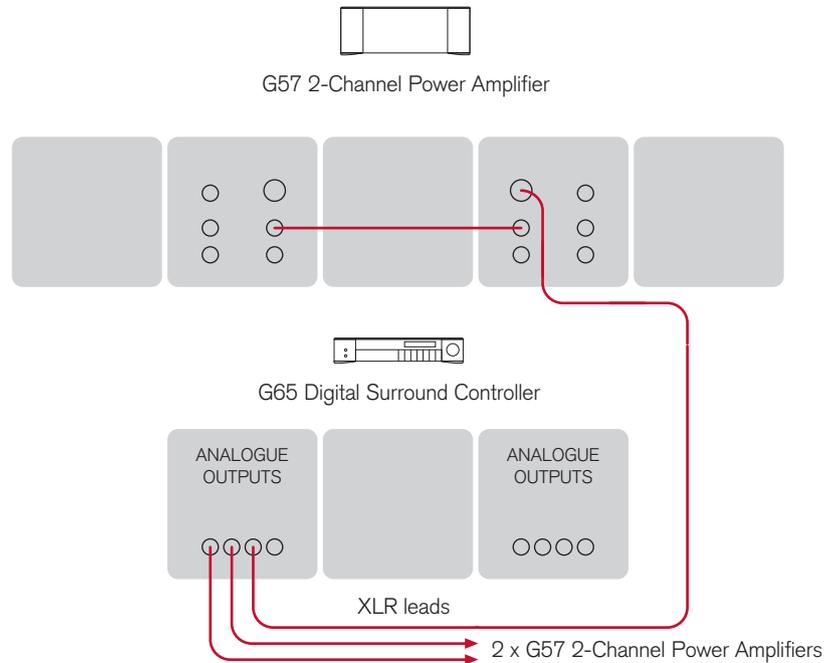
You should either use a twin-screened audio cable, or a pair of single-screened audio cables.

## To connect to a balanced preamplifier (eg Meridian 818 Reference Audio Core)



- Switch the BRIDGE MODE selector to the OFF position.
- Connect the BALANCED sockets on the power amplifier to the balanced outputs from the preamplifier, using XLR cables.
- Switch the channels to the BALANCED position.

## To connect to each channel of a G65 Digital Surround Controller

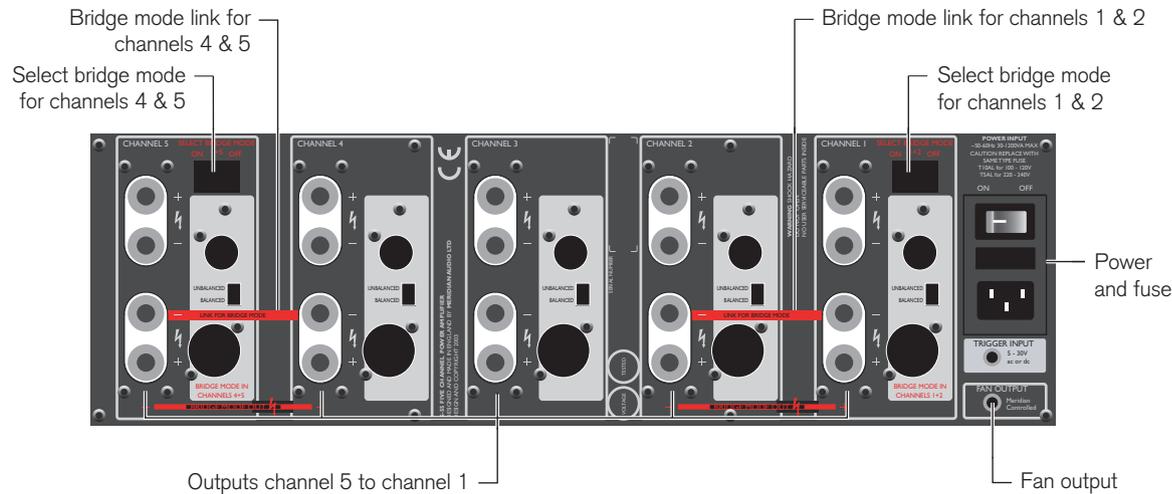


Three G57 Two-channel Power Amplifiers can be used in bridge mode for each of the front channels of a G65 Digital Surround Controller, which are provided as balanced outputs.

- Switch the BRIDGE MODE selector to the ON position.
- Fit the supplied bridge mode link between the left and right negative terminals.
- Connect the LEFT, RIGHT, and CENTRE balanced outputs from the G65 to the left BALANCED input on the G57.
- Switch the channels to the BALANCED position.

# Outputs

## G55 Five-channel Power Amplifier



Use this output	To connect to this
CHANNEL 1 to CHANNEL 5	Loudspeakers of $2\Omega$ to $15\Omega$ , using either plug or bare wire connections.
FAN OUTPUT	A Meridian rack mount kit. This is a proprietary Meridian connection.

The recommended assignment of channels, to make best use of the capacity of each power supply, is as follows:

- Channels 1 & 2 main left and right
- Channel 3 centre
- Channels 4 & 5 rear left and right respectively.

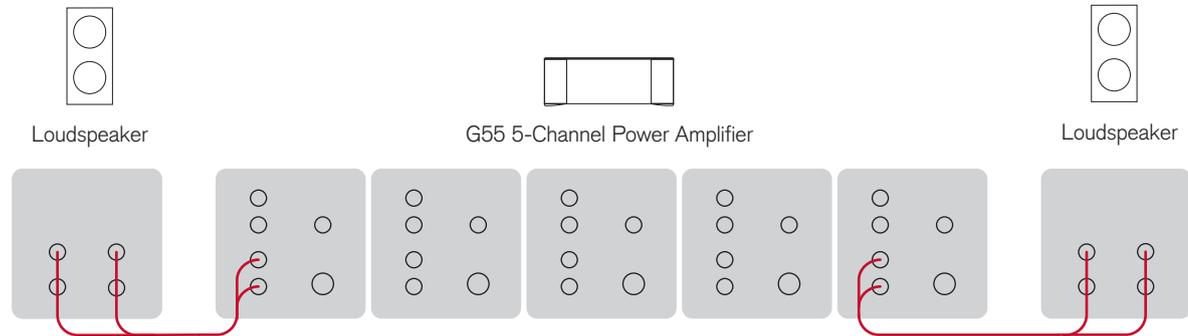
If only two channels are needed use channels 1 & 5. Alternatively, channels 1/2 and 4/5 can be used in bridge output mode; see *To wire to passive loudspeakers in bridge mode*, page 17.

Each channel of the G55 Five-channel Power Amplifier provides twin outputs for bi-wiring. On speakers that provide separate connections to the bass/mid and tweeter units this allows the units to be connected

independently to the power amplifier, for optimum sound quality.

Alternatively, for loudspeakers providing a single pair of inputs, either of the output terminals can be used.

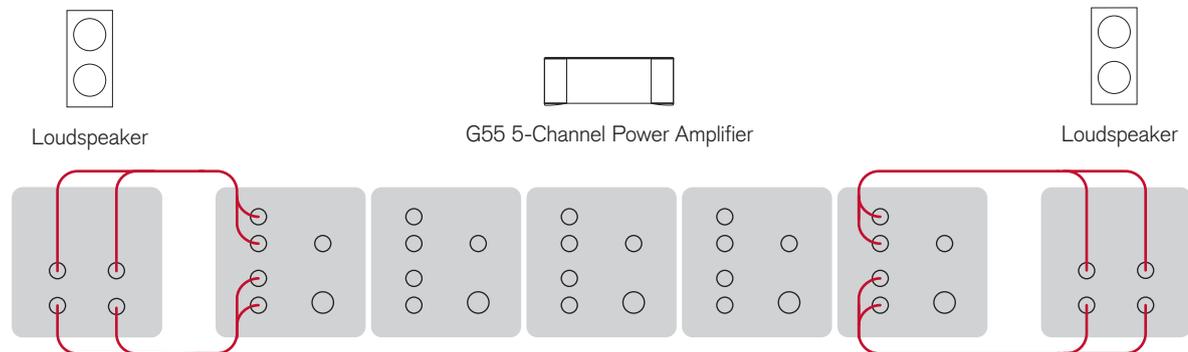
### To connect to passive loudspeakers



- Set the BRIDGE MODE selectors to the OFF position.
- Connect one of each pair of the red and black terminals from the appropriate channel of the power

amplifier to the red and black terminals on the corresponding loudspeaker.

### To bi-wire to passive loudspeakers

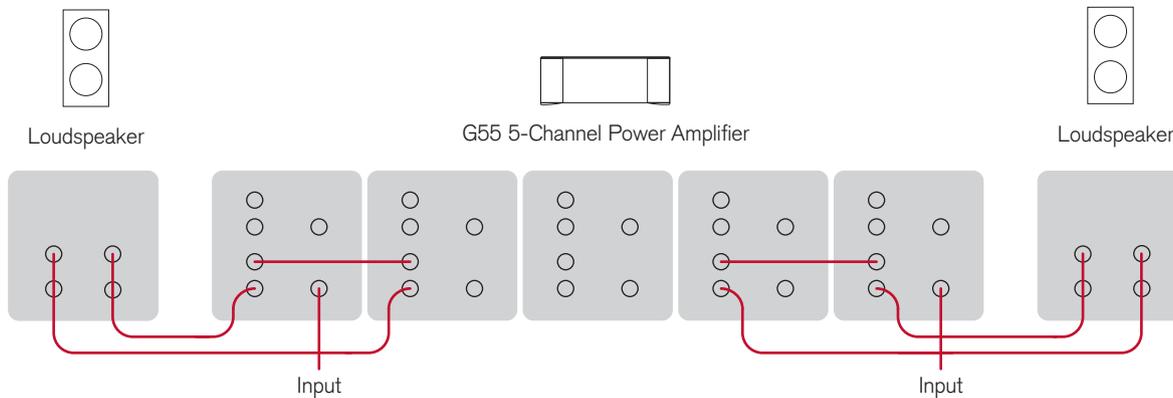


- Set the BRIDGE MODE selectors to the OFF position.
- **Important:** Remove the links bridging the LF and HF terminals on the back of each loudspeaker.
- Connect the LF red and black terminals from each loudspeaker to the red and black terminals on the

appropriate channel of the power amplifier, using twin loudspeaker cable.

- Connect the HF red and black terminals from each loudspeaker to the other pair of red and black terminals on the appropriate channel of the power amplifier.

## To wire to passive loudspeakers in bridge mode

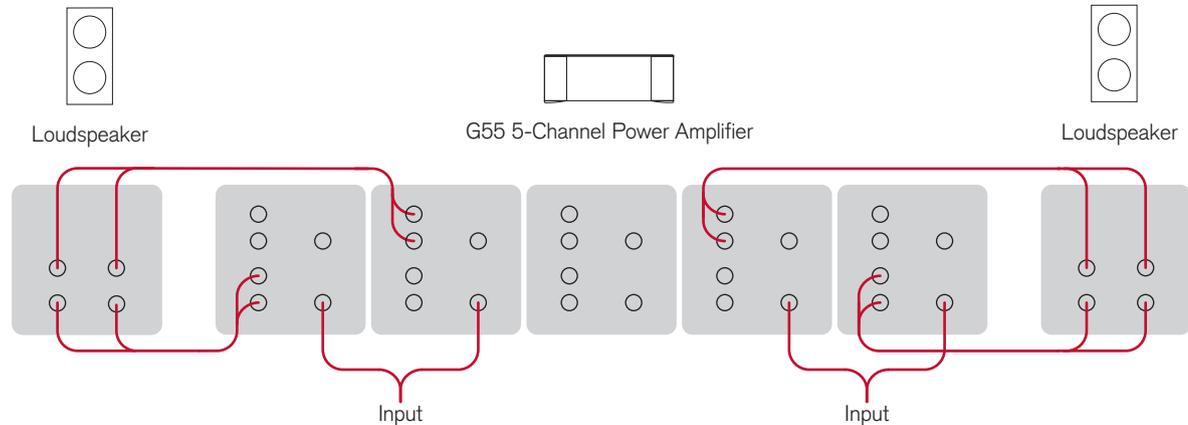


You can wire channels 1/2 and 4/5 in bridge output mode, to obtain more than twice the power output.

- Switch the BRIDGE MODE selectors to the ON position.
- Connect the supplied bridge mode links between the black (–) CHANNEL 1/2 and CHANNEL 4/5 terminals, as marked on the back panel.
- Connect the loudspeakers between one pair of the red (+) CHANNEL 1/2 and CHANNEL 4/5 terminals.
- Connect the audio inputs to the BALANCED or UNBALANCED CHANNEL 1 and CHANNEL 5 inputs, as appropriate.

You can bi-wire in bridge mode by using the other pair of red terminals to connect separately to the loudspeaker treble unit.

## To bi-amp to two passive loudspeakers



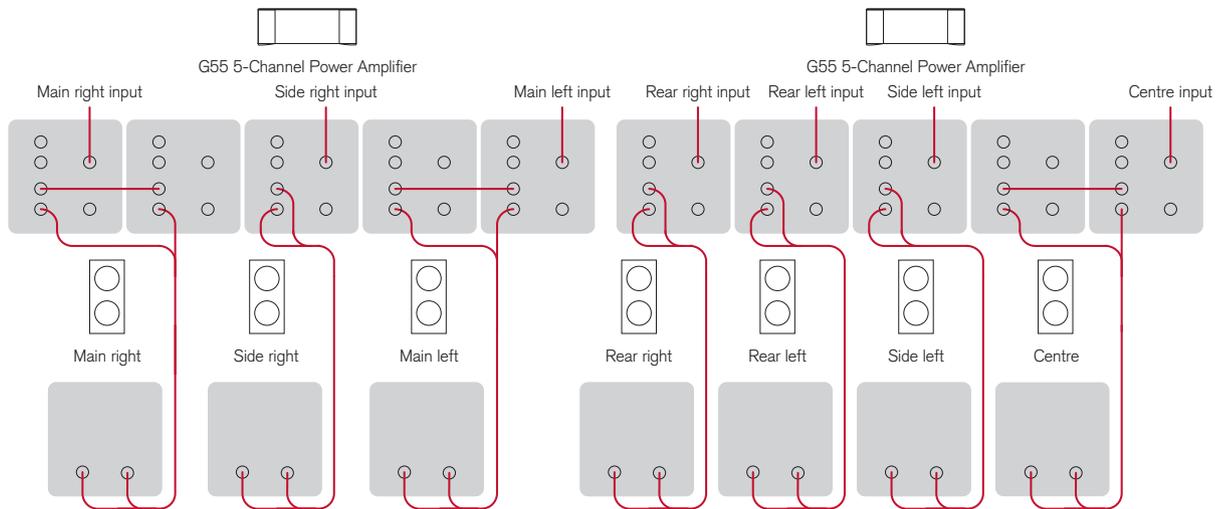
Extremely high sound quality can be achieved using two separate channels of the power amplifier to drive the LF and HF units in each loudspeaker.

- Switch the BRIDGE MODE selectors to the OFF position.

**Important:** Remove the links bridging the LF and HF terminals on the back of each loudspeaker.

- Connect the red and black terminals from the LF and HF units on the left loudspeaker to the red and black terminals on channels 1 and 2.
- Likewise, connect the LF and HF units from the right loudspeaker to channels 4 and 5.
- Connect the left audio output from the preamplifier to both inputs on channels 1 and 2.
- Connect the right audio output from the preamplifier to both inputs on channels 4 and 5.

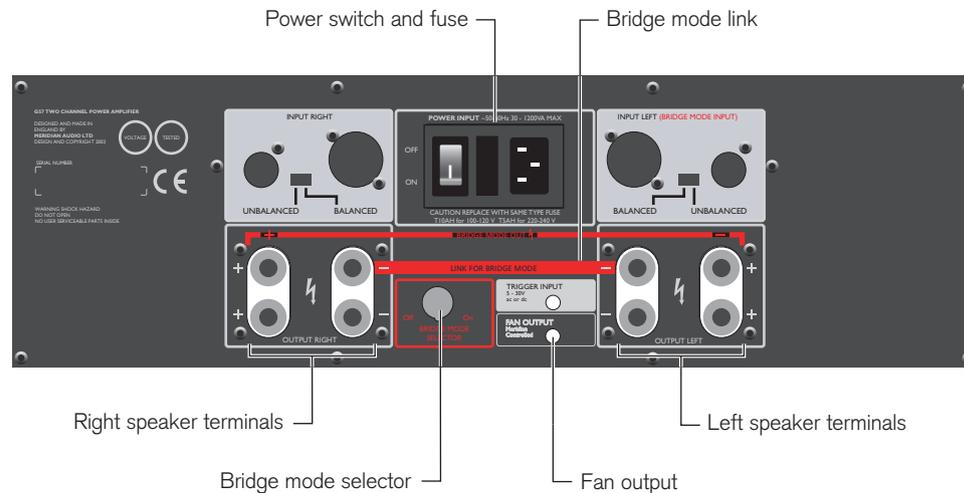
## To connect two G55s to a seven-channel surround system



Two G55 Five-channel Power Amplifiers can be used as the basis of a superb seven-channel surround system, taking advantage of bridge mode operation to give more than twice the power output for the three front channels.

- Switch channels 1/2 and 4/5 of the first G55 to bridge mode, and use these for the main left and right loudspeakers.
- Switch channels 1/2 of the second G55 to bridge mode, and use these for the centre loudspeaker.
- Use the remaining channels for the side and rear loudspeakers, as shown in the diagram.

## G57 Two-channel Power Amplifier



### Use this output

LEFT, RIGHT

FAN OUTPUT

### To connect to this

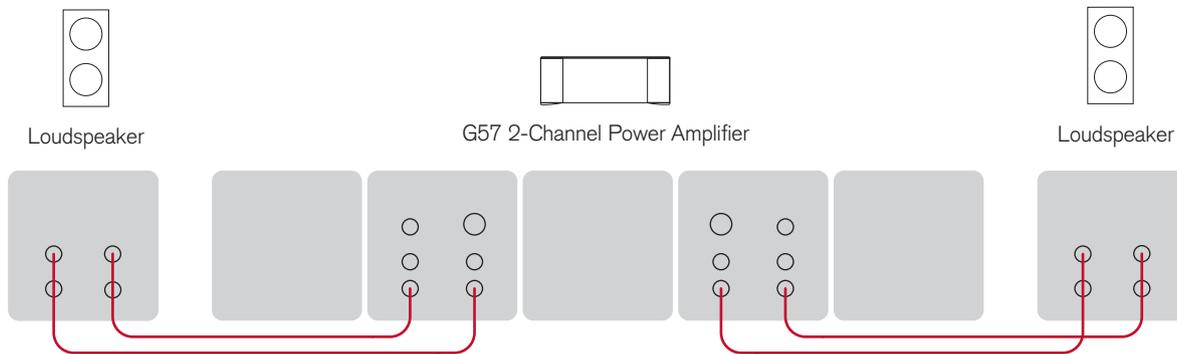
Loudspeakers of  $2\Omega$  to  $16\Omega$ , using either plug or bare wire connections.

A Meridian rack mount kit. This is a proprietary Meridian connection.

Each channel of the G57 Two-channel Power Amplifier provides twin outputs for bi-wiring. This allows separate connections to be made to the bass/mid and tweeter units on speakers that allow bi-wiring, for optimum sound quality.

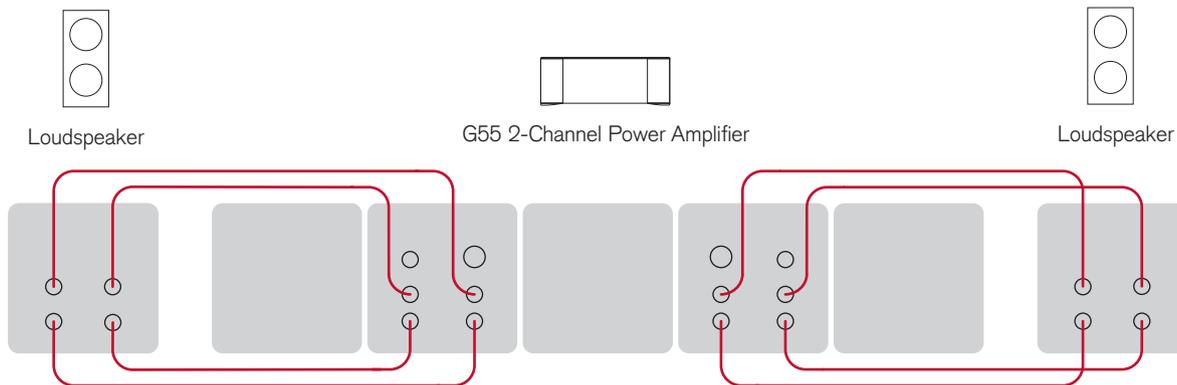
Alternatively, for loudspeakers providing a single pair of inputs, either of the output terminals can be used.

## To connect to passive loudspeakers



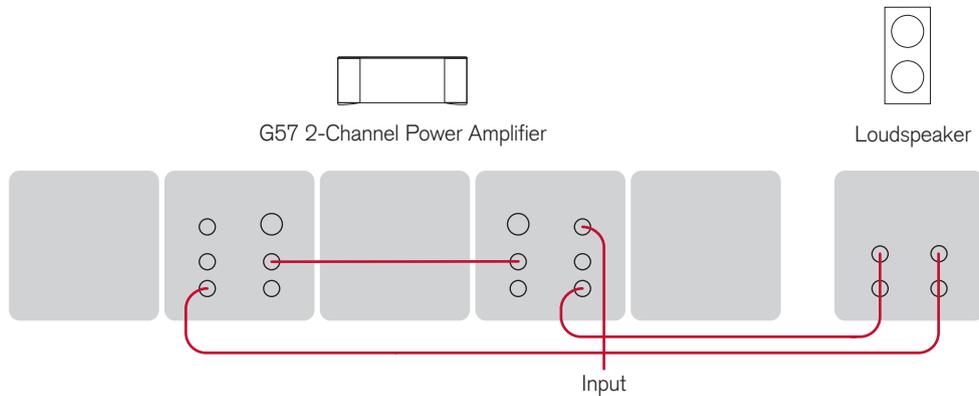
- Set the BRIDGE MODE selector to the OFF position.
- Connect one of each pair of the red and black terminals from the appropriate channel of the G56/G57 to the red and black terminals on the loudspeakers.

## To bi-wire to passive loudspeakers



- Set the BRIDGE MODE selector to the OFF position.
- **Important:** Remove the links bridging the LF and HF terminals on the back of each loudspeaker.
- Connect the LF red and black terminals from each loudspeaker to the red and black terminals on the appropriate channel of the G56/G57, using twin loudspeaker cable.
- Connect the HF red and black terminals from each loudspeaker to the other pair of red and black terminals on the appropriate channel of the G56/G57.

## To wire to a passive loudspeaker in bridge mode

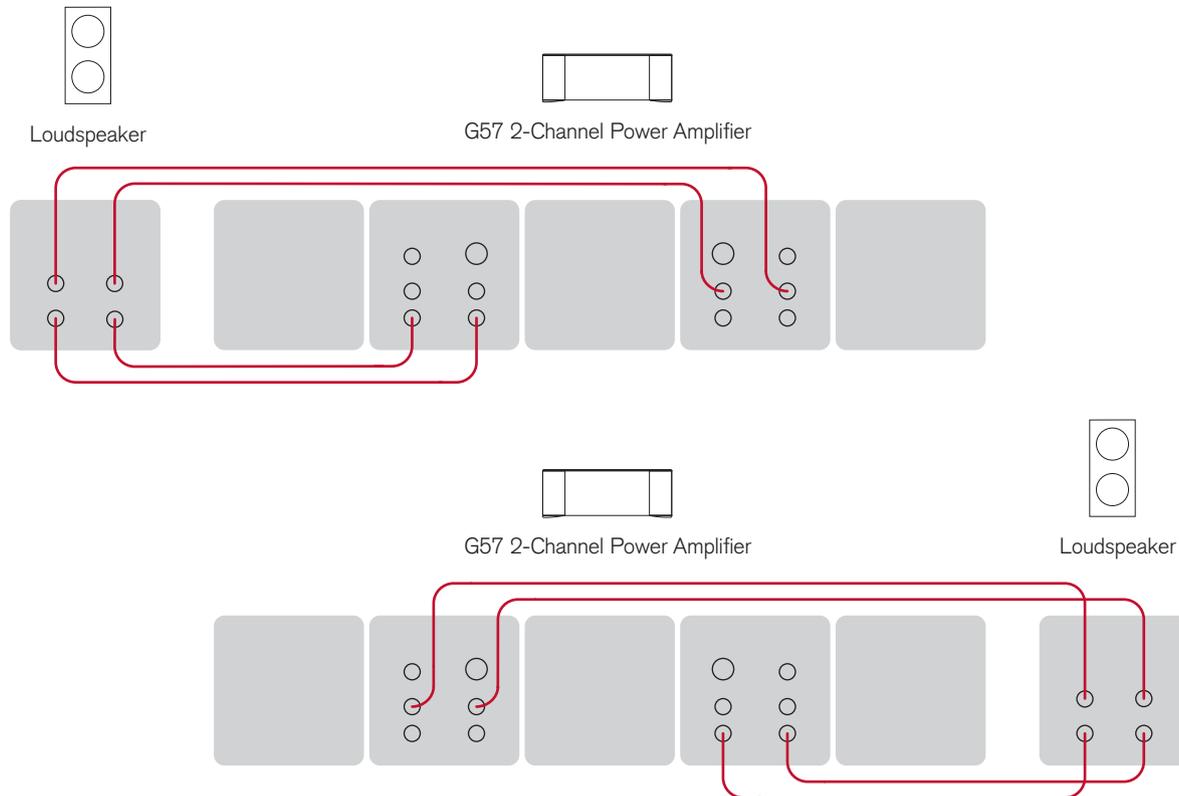


You can use the G57 as a mono power amplifier, to obtain more than twice the power output, by wiring it in bridge mode.

- Switch the BRIDGE MODE selector to the ON position.
- Fit the supplied bridge mode link between the left and right negative terminals.
- Connect the audio inputs to the BALANCED or UNBALANCED BRIDGE MODE input, as appropriate.
- Connect the loudspeaker between the BRIDGE MODE terminals.

You can bi-wire in bridge mode by using the other pair of BRIDGE MODE terminals to connect separately to the loudspeaker treble unit.

## To bi-amp to two passive loudspeakers



Extremely high sound quality can be achieved using two separate G57 Two-channel Power Amplifiers, one to drive each loudspeaker. The two channels in each G57 Two-channel Power Amplifier are used to drive the LF and HF units in each loudspeaker.

- Switch the BRIDGE MODE selector on both amplifiers to the OFF position.

**Important:** Remove the links bridging the LF and HF terminals on the back of each loudspeaker.

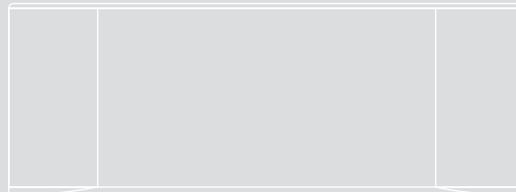
- Connect the red and black terminals from the LF and HF units on one loudspeaker to the red and black terminals on each channel of one amplifier.
- Likewise, connect the LF and HF units from the other loudspeaker to the red and black terminals on each channel of the other amplifier.
- Connect the left audio output from the preamplifier to both inputs on one amplifier.
- Connect the right audio output from the preamplifier to both inputs on the other amplifier.



# Troubleshooting

We expect you to achieve superb results with the power amplifier. If, however, you encounter any problems, either when installing it, or during operation, please check the following pages for suggested solutions.

If these suggestions fail to cure the problem, please contact your Meridian dealer for further assistance.



# Troubleshooting

## No front-panel indicator is shown

- Check that the AC power supply is connected correctly.
- Check that the **ON OFF** switch on the back panel is in the **ON** position.
- Check that the fuse on the product's back panel and the fuse in the unit's power plug have not blown; see *To change the mains fuse*, page 24.

## The sound has cut out

The G Series power amplifiers include a thermal shutdown, which mutes the output if the amplifier becomes too hot. The Standby LED will also become red.

- Leave the amplifier for a few minutes to cool down; the Standby LED will turn blue.

The amplifier can then be taken out of standby using the front-panel button or the TRIGGER INPUT.

The G Series power amplifiers also include a power circuit breaker to protect the loudspeakers. This is triggered by excessive DC on the input, extreme thermal overload, or if the mains supply is interrupted.

- Check the system for the cause of the cut out.
- Switch off, wait five seconds, then switch on to reset the power.

# Maintenance

## To clean the case

- Disconnect the power cord before cleaning the unit.

The exterior surfaces of Meridian G Series products are made from solid anodised aluminium, powder coated steel, thermoplastic rubber, and glass.

They are designed to be easily wiped clean with a dry, lint free cloth. Greasy marks should be removed by light rubbing with a slightly damp cloth and a trace of proprietary glass cleaner. Do not use any other solvent or abrasive based cleaners.

Ensure that no liquid enters the casework and that the product is completely dry before re-connection.

## To clean the audio connections

The audio sockets on the back of the product are gold plated and do not need to be cleaned if gold-plated phono plugs are used. Otherwise, it is recommended that you unplug and reconnect the plugs at least once a year. A proprietary contact cleaner can be used to some advantage.

## To change the mains fuse

- Remove the mains connector, and pull out the drawer above the power input to access the fuse.

Before replacing a blown fuse, it is best to ascertain the cause of the failure.

The fuse drawer includes a spare fuse. This should be replaced by a fuse of the same rating.

## Service and guarantee

### Service

The Meridian G Series of hi-fi components has been carefully designed to give years of untroubled service. There are no user-serviceable parts inside the case, nor do the units require any form of maintenance.

In the unlikely event that your product fails to function correctly, it should be returned, in its original packaging, to your Meridian dealer.

In case of difficulty within the UK or USA please contact the appropriate sales and service address shown on page iv.

In case of difficulty outside the UK or USA, contact the importing agent for the territory. A list of Meridian agents outside the UK is available from Meridian Audio.

No responsibility can be accepted for the product whilst in transit to the factory or an agent, and customers are therefore advised to insure the unit. When seeking service under guarantee, proof of the date of purchase will be required.

### Guarantee

The product is guaranteed against defects in material and workmanship for two years from the date of purchase.

The guarantee is void if the product has been subject to misuse, accident, or negligence, or has been tampered with or modified in any way without the written authorisation of Meridian Audio Limited. Attempted servicing by unauthorised people may also invalidate this guarantee. Labour and carriage charges are not covered unless by local agreement.

Outside the UK, local warranty liability is restricted to equipment purchased within the territory. Our agents outside the UK are only under contractual obligation to service under-guarantee equipment sold through them. They are entitled to make a non-refundable charge for any service carried out on other equipment.

This guarantee does not limit your statutory rights within the country of purchase.

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