



3100

ACTIVE
LOUDSPEAKER

INSTALLATION
AND USER GUIDE

MERIDIAN M3100
ACTIVE LOUDSPEAKER SYSTEM

BOOTHROYD STUART
MERIDIAN

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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 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 earth connection (the third grounding pin).

Safety warnings

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

To avoid interference

Do not position the unit:

- Near strong magnetic radiation.

- Near to a television, or where connecting cables may be subject to or cause interference.

To avoid overheating

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

Do not position the unit:

- In direct sunlight.
- Near heat sources, such as a radiator.
- Directly on top of heat producing equipment, such as a power amplifier.

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.

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



Copyright and acknowledgements

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Designed, manufactured in the UK

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This guide was produced by:
Human-Computer Interface Ltd,
www.interface.co.uk

About your Meridian Active loudspeakers

These instructions provide information about unpacking, connecting up, configuring, and using your Meridian 3100 Active loudspeakers. They apply to the M3100 left and right loudspeakers, and the M3100HC horizontal centre loudspeaker.

Introduction

Meridian Active loudspeakers represent the fruits of more than 25 years of continuous development of loudspeakers as musical instruments. The finest materials and state-of-the-art design are combined to create what we believe is the ultimate range of home loudspeakers.

Drivers

Each 3100 loudspeaker uses either one or two high-efficiency long-throw custom drive bass units.

Each treble unit is a very high quality 25mm (1") Meridian piston using a doped fabric dome. It is extremely well matched to the woofers, and also tonally very compatible with the other drivers employed in the Meridian range.

Power amplifiers

The speakers are driven by multiple independent high-power, low-feedback power amplifiers.

The active electronics provides huge performance advantages. The amplifiers are tailored to suit the direct drive to the drive units, providing very low output impedance, excellent damping, and bass extension far beyond what is possible in passive designs.

The whole electronic assembly is supplied from a substantial toroidal transformer feeding high-quality, audiophile-grade capacitors.

Cabinet

Each 3100 loudspeaker is carefully designed from bonded aluminium panels, with internal bracing and damping to give incredibly low levels of cabinet resonance, resulting in low coloration and excellent mid-range transparency.

Unpacking your speakers

Before you begin installation you should ensure that your Active loudspeakers are the correct voltage for your local AC supply. If they are not, do not try to install them, and contact your dealer.

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

Components

Each Active loudspeaker system is supplied with the following components:

- One power cord per speaker.
- Meridian analogue audio lead.
- Pack of four feet/spikes.

If any of these items is missing please contact your dealer. We suggest that you retain the packaging carefully for maximum protection in transit.

Removing the grilles

M3100: The grille is held tightly in place by the side metal plates. Gently pull it from the top edge, taking care not to scratch the high-gloss lacquer, then pull it gently from the sides and then bottom to remove it.

M3100HC: The grille is held on by pegs. Gently pull from the sides and then top and bottom to remove it.

Note: The speakers are designed to be used with their grilles fitted.

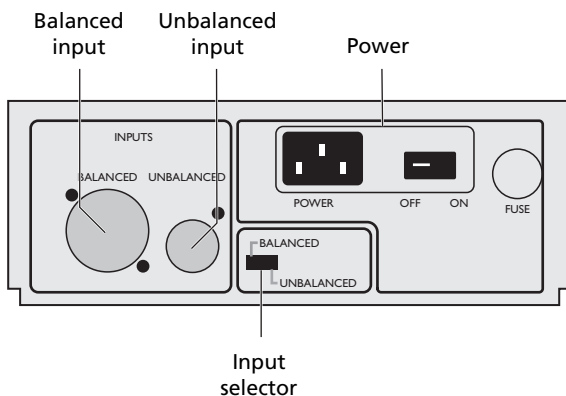
Cleaning the speakers

Greasy marks should be removed from the metal surfaces 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.

On black speakers, small marks on the lacquer surface can usually be removed by treating with Black Turtle Wax Color Magic. Do not use any coarse polish such as Auto Colour restorer, and always test any polish on a non-visible area first. Do not use any polish containing a solvent; these can cause crazing of the surface.

Connections

The following diagram gives details of the back panel connections:



See overleaf for pictures of sample configurations.

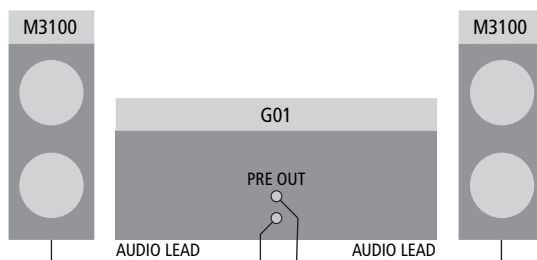
Audio connections

The following table gives details of the audio connections:

| Use this connection | To connect to this |
|---------------------|---|
| BALANCED | The balanced analogue output of a preamplifier or digital surround controller. Set the input selector switch to BALANCED. |
| UNBALANCED | The unbalanced analogue output of a preamplifier or digital surround controller. Set the input selector switch to UNBALANCED. |

The balanced connection should be made with a high-quality XLR lead. The unbalanced connection should be made with a shielded audio phono lead, preferably with a double-screen copper lap construction.

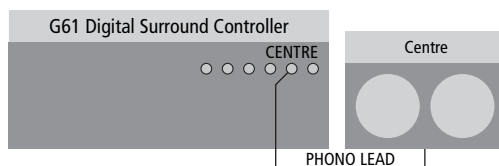
Connecting two 3100 loudspeakers to a Meridian Control Unit or other analogue preamplifier



You can connect two M3100 loudspeakers directly to the analogue outputs of an analogue preamplifier, such as the Meridian G01 Control Unit or Meridian G02 Balanced Control Unit.

- Connect one pair of the left and right PRE OUT connections to the M3100 loudspeakers.

Connecting a 3100 loudspeaker as a centre speaker

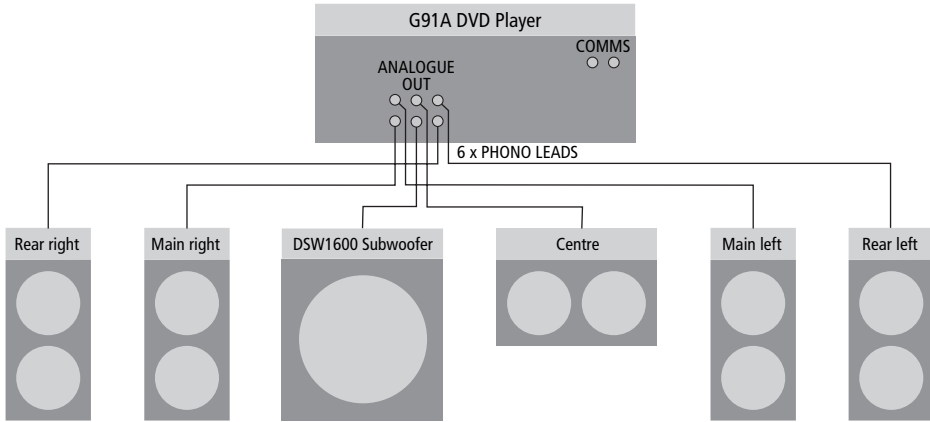


You can use a single M3100HC as a centre speaker in a Meridian surround system based on a Meridian G61, G68AD, G68ADV, or G68AXV Digital Surround Controller.

- Connect the speaker to the CENTRE analogue output, as shown in the illustration.

The G68AXV provides balanced analogue outputs so you can achieve higher quality by connecting the balanced CENTRE output to the balanced input of the M3100, using a suitable XLR lead.

Connecting three or more M3100 loudspeakers to a G91A in a Meridian surround system



The Meridian G91A DVD Player can be configured as a surround processor, allowing you to connect it directly to up to five M3100 loudspeakers, and an optional subwoofer, such as the Meridian DSW1600, to create a complete compact surround system.

- Connect the LEFT and RIGHT analogue outputs from the G91A to the main front M3100 loudspeakers.
- Connect the SURR L and SURR R analogue outputs from the G91A to the rear M3100 loudspeakers.
- Connect the CENTRE analogue output to the centre M3100HC loudspeaker.
- Optionally connect the SUB analogue output to an active analogue subwoofer.
- Configure the G91A DVD Player to Type 6; see the *G Series DVD Player Installation Guide*.

Troubleshooting

Indicator on front panel not lit

Check the following:

- There is AC power connected to the socket on the back of the 3100 loudspeaker.
- The power switch on the back panel of the 3100 loudspeaker is turned on.

If the front panel indicator will still not illuminate, check any fuses in your power supply and the fuse in the inlet of the 3100 loudspeaker. If these are all intact, contact your dealer.

Unit goes quiet when played hard

A temperature sensing system on the 3100 loudspeakers prevents overheating of the electronics. The sound will revert back to normal volume when the speaker has cooled.

Drive units move when the speaker is switched on or off

This is normal as the speaker active electronics settle.

No sound

- Check the position of the input selector switch is set appropriately.

There is radio interference

The 3100 loudspeaker is an audio device which has been designed to very high standards of electromagnetic compatibility.

If this equipment does cause or suffer from interference to/from radio or television reception then the following measures should be tried:

- Reorient the receiving aerial (or antenna) or route the antenna cable of the receiver as far as possible from the loudspeaker and its cabling.
- Ensure that the receiver uses well-screened antenna cable.
- Relocate the receiver with respect to the loudspeaker.
- Connect the receiver and this product to different AC outlets.
- If the problem persists contact your dealer.

Specifications

Analogue inputs

- 1 x balanced XLR.
- 1 x unbalanced phono.

Output stages

- Power amplifiers: Complementary bipolar design, with output-stage error correction and twin loop design.
- Bass/Mid: 75W.
- Tweeter: 50W.

Acoustic

- M3100: 2 way, vented box;
M3100HC: 2½ way, closed box.
- M3100: 1 x 160mm (6.5");
M3100HC: 2 x 120mm (5.25"); doped carbon fibre high-efficiency long-throw drivers.
- Treble drive unit: 1 x 25mm (1") Meridian piston doped fabric dome.

Power

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

Characteristics

- Distortion typically <0.01%, or <0.02% up to full power at all frequencies.
- Noise and hum <-94dB_r at all volume settings.
- Acoustic output typically >111dB spl @ 1m.
- Acoustic noise <15dB spl @ 1m.
- Frequency response in room response within 3dB, 48Hz-20kHz.

Cabinet

- Bonded aluminium panels.
- MDF cloth-covered grille.
- Silver/black finish.
- M3100: 194 x 386 x 254mm (7.65 x 15.2 x 10") (W x H x D), 12kg (27lb).
- M3100HC: 470 x 174 x 254mm (18.5 x 6.9 x 10") (W x H x D), 15kg (33lb).

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