



MERIDIAN

SW1600 & SW5500

Digital/Analogue Active Subwoofers



SW5500 subwoofer above, and SW1600 below.

Meridian's SW1600 and SW5500 combine the finest materials with state-of-the-art design to create what we believe are the ultimate subwoofers, emphasising extreme bass, depth, clarity, control, and articulation.

Each subwoofer provides both digital and active analogue inputs, allowing them to be connected either to a Meridian digital surround controller or digital source with a digital coax output, or to an analogue preamplifier or surround controller with either phono or balanced (XLR) outputs.

The subwoofers' digital inputs employ 96kHz/24bit digital to analogue conversion and accept inputs up to 96kHz – including Meridian High Resolution (MHR) signals. If you are using the subwoofers with a digital source such as CD or DVD, these inputs allow signals to remain in digital form until the last possible stage.

Separate power supplies

Separate analogue and digital power supplies are used to feed the subwoofer's precision electronic circuits, ensuring that both high and low power sections receive continual smooth supply.

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



Optimised for both movies and music

The subwoofers are based on 300mm (12in) high-efficiency long-throw custom bass drivers. The SW1600 uses a single driver, and the SW5500 uses two drivers in a single enclosure. In both cases, the enclosure is sealed for maximum flexibility of positioning.

The speakers are driven by Class G high efficiency ultra-low output impedance amplifiers. The combination of idealised magnetic design, careful star earthing, and very fast output devices gives the amplifiers extremely low noise and fast bass, optimised for both music and movie soundtracks.

Product highlights

Optimised for both movie soundtracks and music

Active analogue and digital inputs for maximum versatility

12in, high-efficiency, long-throw drivers

24-bit, 96kHz D/A converters for highest possible audio accuracy

Separate analogue and digital power supplies for superb power handling and low distortion

Class G high-efficiency, ultra-low output impedance amplifiers

Ultra-rigid cabinet minimises colouration

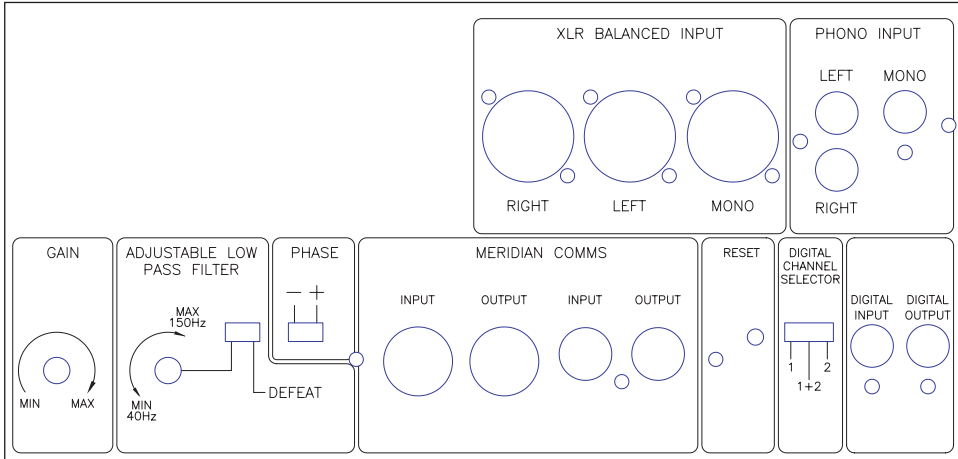
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The use of two drivers in parallel, combined with the ultra-low output impedance of the amplifier, allows the SW5500 to deliver RMS power outputs in excess of 500W.

Rigid cabinet design

Each subwoofer is carefully constructed from 22mm MDF with inert basket bracing and bitumen damping to produce an ultra-rigid, damped cabinet that minimises colouration.

The subwoofers are finished with 6mm annealed glass top-plates, and thick

veneered MDF sides are bolted to the main cabinet, resulting in extremely low levels of cabinet resonance.

Applications

The SW1600 and SW5500 can be used to complement Meridian DSP Loudspeakers in both stereo and surround systems. In addition, the analogue input capability makes them ideal for analogue systems too.

A Meridian surround processor such as the G68 can handle several DSP loudspeakers,

and the SW5500 is ideal as a mono subwoofer for a Meridian Digital Theatre system, in particular to give exciting cinema effects and added realism in DVD movies.

The recommended configuration for music is to provide two subwoofers, one for each of the main left and right channels, for a superb stereo image. The SW1600 is ideal for this application.

In a large system, multiple subwoofers can be employed to provide even more impressive effects.

Accessories

The SW1600 and SW5500 are supplied with feet, spikes and castors, allowing maximum versatility of mounting and position, including built-in or cabinet installation.

Included are the cables required to use the subwoofers in a Meridian system.

Outline Specifications

SW1600

Digital inputs

- 1 x S/PDIF coax input (+1 output), 32-96kHz.
- PCM using IEC958, or MHR connection support with auto-detection.

Analogue inputs

- 3 x phono inputs: mono, left, right.
- 3 x XLR balanced inputs: mono, left, right.

Output stage

- Power amplifier: > 150W RMS Class G high efficiency ultra low output impedance.

Acoustic Parameters

- Sealed enclosure; no port noise.
- 1 x 300mm (12in) high-efficiency long-throw custom driver.
- Inert basket-braced bitumen-damped cabinet.

Characteristics

- Distortion <0.01%, typically <0.02% up to full power at all frequencies.
- Noise and hum <-72dBm.
- Acoustic output typically > 107dB spl @ 1m.
- Frequency response within 3dB, 20Hz-400Hz in-room (bypass).

Control

- 2 x Meridian Comms (BNC & DIN, in and out).
- Variable gain control.
- Variable low pass filter 40Hz-150Hz.
- Internal filter defeat switch.
- Absolute phase switch.

Cabinet

- Black cabinet constructed from 22mm MDF.
- 6mm annealed plate glass top.
- 417mm x 417.5mm x 411mm (16.4in x 16.5in x 16.25in) (W x H x D excluding feet).
- 28kg (62lb).

Power

- 100/115/120V; 220/230/240V AC 50-60Hz.
- 20-500VA

SW5500

Digital inputs

- 1 x S/PDIF coax input (+1 output), 32-96kHz.
- PCM using IEC958, or MHR connection support with auto-detection.

Analogue inputs

- 3 x phono inputs: mono, left, right.
- 3 x XLR balanced inputs: mono, left, right.

Output stage

- Power amplifier: 500W RMS Class G high efficiency ultra low output impedance.

Acoustic Parameters

- Sealed enclosure; no port noise.
- 2 x 300mm (12in) high-efficiency long-throw custom drivers.
- Inert basket-braced bitumen-damped cabinet.

Characteristics

- Distortion <0.01%, typically <0.02% up to full power at all frequencies.
- Noise and hum <-72dBm.
- Acoustic output typically > 110dB spl @ 1m.
- Frequency response within 3dB, 20Hz-400Hz in-room (bypass).

Control

- 2 x Meridian Comms (BNC & DIN, in and out).
- Variable gain control.
- Variable low pass filter 40Hz-150Hz.
- Internal filter defeat switch.
- Absolute phase switch.

Cabinet

- Black cabinet constructed from 22mm MDF.
- 6mm annealed plate glass top.
- 775mm x 417.5mm x 411mm (30.5in x 16.5in x 16.25in) (W x H x D excluding feet).
- 50kg (110lb).

Power

- 100/115/120V; 220/230/240V AC 50-60Hz.
- 20-920VA