

DSW600

IN-WALL DIGITAL ACTIVE SUBWOOFER

OVERVIEW

The DSW600 is a shallow-depth in-wall subwoofer designed to handle the most bass-heavy music and action-movie soundtracks effortlessly. Deep, powerful and exciting bass is delivered with perfect timing down to 24Hz thanks to Meridian's unique 'DSP' advantage and Enhanced Bass Alignment Technology. The DSW600 can integrate into a variety of installation applications. It delivers impactful bass in any room size as part of any loudspeaker configuration and, when combined with any Meridian Architectural loudspeaker, the resulting two-box in-wall solution provides full-range performance suitable for either two-channel or surround-sound systems. It can also be used to play the dedicated LFE channel - either on its own or when used in multiples.



DSW600 acoustic enclosure and electronics module

PRODUCT HIGHLIGHTS

- Immersive, room-filling, punchy bass with power, accuracy and low distortion.
- On-board, Class-D amplifier with low output impedance, capable of delivering over 600W of power without taking up space or generating heat in the rack.
- Long-throw, low-profile, 10-inch drive-unit allows the DSW600 cabinet to have a depth of only 87mm (3.5in) enabling it to be built into shallow wall spaces.
- No separate back-box is required.
- Fully sealed, birch plywood acoustic enclosure with internal bracing ensures reliable, repeatable performance.
- Designed for flexibility in its installation, either behind acoustically transparent fabrics and screens, or built into plastered or solid walls.
- Ideal for use in high-end installations where sound-quality is paramount.

INSTALLATION FEATURES

- Designed to allow installation to be carried out in two stages. The main acoustic enclosure can be installed during the initial construction of the wall with installation of the electronics module after the wall is complete.
- Cabinet designed to allow 60% of the subwoofer's frontal area to be hidden behind the outer layer of plasterboard (sheetrock) when built into a wall.
- Grille and frame secured using anti-vibration fixings. The removable grille is held in place by neodymium magnet mounts.
- The bezel-less steel grille features perforations which match other Meridian in-wall loudspeakers.
- Meridian SpeakerLink connectivity makes the DSW600 quick and easy to install and allows for daisy-chaining with other Meridian loudspeakers.
- Three-way channel selector switch (1, 1+2, 2) determines the digital audio played back by the subwoofer.
- Music and Movie modes, implemented in DSP, provide a choice in the subwoofer's response curves for flexibility in system integration.
- Intelligent bass-protection acts as a "soft-limiter" to prevent the drive-unit from being overdriven without audible intrusion.
- Green power indicator illuminates dimly in Standby and brightly when in operating mode. Unit automatically switches in and out of Standby when activated by connected Meridian products.

DRIVE UNIT

The DSW600 features a low-profile drive-unit with a long-throw design capable of displacing large volumes of air to deliver low frequencies effortlessly.

MOTOR SYSTEM

Powerful neodymium magnet system with an innovative design achieves long-throw performance within a shallow profile.



CONE

Lightweight, dual aluminium cone structure offers rigidity and stiffness for high accuracy and low distortion.



CHASSIS

Vented, cast aluminium chassis provides superb strength and integrity as the foundation for ultimate control.

TECHNOLOGIES

ON-BOARD DSP

On-board DSP provides thermal and dynamic bass protection while retaining very accurate transients, ensuring that when the subwoofer is played at high levels – even over prolonged periods of time – it always delivers a clean and accurate sound.

ENHANCED BASS ALIGNMENT (EBA)

Meridian's innovative Enhanced Bass Alignment (EBA) technology uses two different technologies to time-align differing frequencies, resulting in audibly improved bass transients and added life and clarity when the subwoofer is combined with other Meridian Digital Active Loudspeakers.

MERIDIAN APODISING FILTER

A unique Meridian DSP filter that avoids pre-ringing, so it can be steeper, cleaning up the effects of early, less efficient filters used in the digital recording process. The result: a better, cleaner sound from recordings both old and new.

FIFO BUFFERING

Meridian's 'First In, First Out' buffering system minimises jitter, ensuring perfect timing and improved clarity. You enjoy a clearer feeling of the instruments and their interrelationship.

CABINET CONSTRUCTION

The DSW600 cabinet has been engineered for maximum rigidity and inertness.

- Built from birch plywood - as used on Meridian floorstanding loudspeakers.
- Heavy internal bracing to minimise resonance across large panel surfaces.
- Fully sealed enclosure to ensure consistent performance.
- Steel half-moon internal clamp-rings keep the drive-unit locked solidly in place by spreading the load from the eight fixing bolts.
- 2.5mm circular steel plate in rear-panel to reduce back-pressure behind drive-unit.



Cutaway view of DSW600 cabinet with bass-drive and steel rear-panel removed

CONNECTIONS AND FRONT-PANEL CONTROLS

The underside of the Electronics Module carries the SpeakerLink input and output sockets as well as the mains inlet socket.



The front-panel of the Electronics Module carries the following:

Power/Standby LED, Mains On/Off Switch, Three-way Digital Channel Selector Switch and RS232 Socket for Configuration.



SPECIFICATION

AUDIO INPUT	• Meridian SpeakerLink connector (RJ45)
AUDIO OUTPUT	• Meridian SpeakerLink connector (RJ45)
PERFORMANCE	• Frequency response: 24Hz to 120Hz
AMPLIFIER	• 1 x Class D amplifier capable of producing over 600W RMS on music or movie transients
	• Distortion <0.02%
BASS DRIVER	• 1 x 10in long-throw, low profile design
CONTROLS	• Channel selector switch to select which digital audio received via the SpeakerLink input is played
	• Power On/Off switch • LED indicator shows power status
PRODUCT DIMENSIONS	• Height - with grille fitted: 1452mm (57.2in) • Height - without grille: 1429mm (56.3in)
	• Width: 343mm* (13.5in) • Depth: 87mm (3.4in) • Weight: 23kg (50.6lbs)
PACKED DIMENSIONS	• Length: 1340mm (52.8in) • Width: 485mm (19.1in)
	• Depth: 290mm (11.4in) • Weight: 30kg (66.0lbs)
POWER	• IEC mains connector – 550W max

*Excluding mounting wings