



**MERIDIAN**

REDEFINE THE POSSIBLE

# G65

## Digital Surround Controller



### Product Summary

Meridian's G65 is the definitive surround processor of the G Series. In conjunction with the HD621, it allows connection of a diverse range of audio and video sources with unified control over time alignment, bass management and surround sound processing. The latest in the G Series line of high performance components, G65 builds on the achievements of our flagship 800 Series, with entirely new circuitry developed specifically for the product.

G65 features 6-layer boards in a card-based architecture to reduce system noise and improve performance, in a stylish bead-blasted cabinet design in traditional black or sleek silver finish, designed to be either free-standing or rack-mounted. G65 is easy to use: the positive-action front-panel keys are software-defined; their legends are presented in the vacuum fluorescent display and change intelligently according to context.

G65 also includes serial and USB ports for automation operation and configuration, along with infra-red sensor input and trigger capabilities, plus Meridian SpeakerLink and communications ports. Full installation configuration is achieved by running Meridian's proprietary Windows-based MConfig application, connected to the G65 via a serial or USB link, or direct from the front panel. A comprehensive back-lit learning/programmable MSR+ remote is included.

### An impeccable pedigree

20 years ago, in 1994, Meridian launched the 565, the world's first Digital Surround Controller. Conceived as a multichannel music controller, 565 defined the surround category and rivalled the finest 2-channel products available.

In addition to establishing Meridian's leadership in surround controllers, 565 set standards and introduced new concepts such as hardware and software upgradability. Indeed, virtually every feature introduced by Meridian in the 565 has set the standard in the industry. 565, combined with Meridian DSP Loudspeakers, represented the birth of the Meridian Digital Theatre, and launched Meridian into the world of multichannel audio and video. Like the MCD CD player, 565 was an iconic Meridian product that shaped not only its category but also the wider world of consumer audio.

Now Meridian is pleased to announce the G65, the definitive surround controller for the G Series. Its name honouring the 565, the G65 offers ground-breaking performance, with extensive capabilities delivering superior audio from all sources, stereo or multichannel. Specifically designed to operate closely with the HD621 HDMI Processor, the two units are interconnected with a single lead.

### Product highlights

The definitive surround processor for the G Series. In conjunction with the HD621, allows connection of a diverse range of audio and video sources with unified control over time alignment, bass management and surround sound processing.

Offers the best connection to Meridian's HD621 HDMI Processor via a single 6-channel MMHR link, allowing separate audio and video processing for significant quality improvement in both cases.

Eight-channel Speakerlink output for ease of installation and enhanced performance.

Balanced analogue outputs allow full integration with traditional power amplifiers and passive loudspeakers.

SpeakerLink inputs for connecting Meridian sources include power, for example to drive an attached Media Source 200.

Advanced DSP, including Meridian's unique 'apodising' upsampling filter, delivers exceptional sound quality from all sources.

Meridian Room Correction system counteracts room resonances, delivering improved clarity, detail and imaging.

Meridian MHR Smart Link® connects CD players and streaming systems.

Redesigned master oscillator and clocking system reduces jitter, improving sound localisation and performance.

In common with its predecessors in the G Series, G65 includes a simple front-panel 'wizard' for simple installation, in addition to a full computer-based configuration application, MConfig. The product matches other G Series components with their characteristic bead-blasted metal and glass chassis.

### Connectivity

G65 features enhanced connectivity compared with its predecessors, including eight SpeakerLink outputs for connection to Meridian DSP Loudspeakers as well as eight balanced analogue outputs on XLR connectors for connection to traditional analogue audio systems.

The product includes an MMHR (Meridian Multichannel High Resolution) single-cable link that is designed to transfer six channels of surround audio from Meridian's HD621 HDMI Processor to the G65.

In addition, dual SpeakerLink inputs provide input capability from Meridian streaming and CD player products. The SpeakerLink inputs provide power via the interconnect,

allowing for example the Media Source 200 to be powered from the SpeakerLink connection. When connecting Meridian sources, the G65 benefits from Meridian Smart Source technology that automatically selects the appropriate surround controller settings ('presets') for the detected audio signal.

Six digital coaxial S/PDIF inputs are provided, and three of these can be configured as an MHR (Meridian High Resolution) digital input for multichannel Meridian legacy sources such as DVD players. In addition, there are two TosLink optical S/PDIF connectors.

G65 is also fitted with a 12volt trigger connector for control of external items such as screen lowering, curtain closing or dimming the house lights; and an infrared pickup input suitable for use with the G12 IR receiver.

A DB9 connector provides programming and firmware update functionality along with control integration with home automation systems. A USB connector is also available for programming and

updates. There are twin 5-pin DIN connectors for legacy Meridian Comms.

### The latest in audio technology

Inspired by the flagship 861 processor, Meridian's G65 features a card-based construction utilising 6-layer boards. Inputs and outputs are separated on different boards, each with their own power supply regulation components, and all these factors contribute to lower noise and crosstalk and improved overall performance. A new clocking card provides higher timing accuracy and stability and significantly reduces jitter, a primary cause of smearing, image blurring and other undesirable effects in digital audio replay.

Also inspired by the latest edition of the 861, G65 features a low-noise linear power supply with a true toroidal power transformer, minimising noise and avoiding digital interference, while the product includes the complete suite of Meridian Resolution Enhancement technologies including upsampling with Meridian's proprietary 'apodising' filter that allows steeper filtering below the Nyquist limit

### The G65 Heritage



20 years ago, in 1994, Meridian released the world's first Digital Surround Controller, the 565.

The 500 Series had been launched the previous year. This represented a major step forward, and was the major product line for the ten years up to and including 2003.

In 1994 the company entered the emerging home theatre market with another first, the Meridian Digital Theatre. This concept was based on the company's new range of digital loudspeakers and the 565. The Digital Theatre and the 565 won more than ten awards in the first twelve months of production.

In 1998 the Meridian 800 Reference Series was introduced, the flagship Meridian product series to this day. Included in the 800 Series was (and is) the 861, Meridian's premier Surround Controller.

In 2003, the G Series was introduced, with its distinctive glass and bead-blasted metal finish. It included two surround controllers, the G61 and G68.

Now those G Series surround controllers are superseded by the G65, the definitive surround controller second only to the flagship 861, but deriving many of its capabilities and performance from its big brother. A worthy successor to the world's first Digital Surround Controller, the 565.



and can thus remove artefacts caused by earlier, inferior filtering in digital recordings, making them sound even better than when they were made.

G65 offers menu options to control advanced SpeakerLink functionality, including Enhanced Bass Alignment, Centre Elevation, Bass, Tilt, Axis and the new Source Legends custom labelling capability in Meridian DSP Loudspeakers.

Also featured in G65 is Meridian Room Correction, a semi-automatic system for compensating for acoustic deficiencies in the listening environment. It does this by measuring the behaviour of the room and detecting its resonant frequencies, particularly at the low end, then building a series of up to 60 digital filters designed to smooth out these resonances and making

the reverberation time similar across the lower frequency range. The filters attenuate only, so there is no danger of overloading amplification.

G65 includes the full range of DSP presets from Meridian including Cinema and Discrete, as well as the widely-praised Trifield system, which uses the entire surround playback system to bring an immersive listening experience to 2-channel content. Trifield fully decodes the stereo stage for left, centre and right front-stage loudspeakers (instead of only left and right), giving a much more stable image that is also much less listener position dependent.

Meanwhile, Meridian's Trifield implementation extracts surround information from the recording, where present, using it to provide ambience at

the rear for example, for an enhanced and immersive listening experience. The technology also provides an impressive Super Stereo function.

In addition to Trifield, the G65 includes the ability to decode recordings made with the British Ambisonic surround-sound system. Meridian was a one of the first companies to include this technology, which has been widely adopted in the open-source audio community. The G65 can decode both UHJ and B-Format Ambisonic signals, deriving 4–7 loudspeaker feeds.

G65 also handles the full range of modern surround decode formats, including Direct, Stereo, Music, MusicLogic, PLIIx Music, PLIIx Movie, PLIIx THX, TV Logic, Mono, THX, THX Music, THX Surround EX, and THX Ultra2 Cinema.

## G65 Outline Specifications

### Inputs

- 1x MMHR (Meridian Multichannel High Resolution™) 6-channel input designed to receive audio from the Meridian HD621 HDMI processor
- 2x SpeakerLink (RJ45) inputs for connection to Meridian products
- 6x S/PDIF digital (coax), D1–D3 can be configured as a six-channel digital input with Meridian MHR Smart Link®
- 2x Toslink S/PDIF optical inputs
- 8x analogue stereo inputs, (phono). A1–A3 can be configured as x1 six-channel analogue input. 0.5–2.5Vrms adjustable, input impedance 20kΩ

### Outputs

- 8x SpeakerLink digital (RJ45): L, R, C, Sub, Side L, Side R, Rear L, Rear R
- 8x analogue balanced (XLR): Main L, Main R, Side L, Side R, Rear L, Rear R, Centre, Sub

### Comms

- 2x Legacy Meridian Comms (DIN), 1x 12V Trigger, 1x IR in for G12 receiver, USB & RS232 remote control/configuration

### Processing

- 5x Freescale processors running at 750 MIPS (million instructions per second). 48-bit arithmetic throughout

### Conversion

- 24-bit Sigma-Delta converter chips operating at up to 96 kHz on analogue inputs and outputs

### Controls

- Front-panel soft keys include control of Source, Mute, etc. Power and Display buttons, rotary DSP volume control
- Full remote control via MSR+, serial. Serial link or maintenance USB port used for firmware updates
- Config via serial or front panel wizard

### Display

- Multi-character dot-matrix Vacuum Fluorescent Display

### Indicators

- Front-panel keys back-illuminated; Standby button lit when off

### Rack Mounting

- Kit available from Meridian authorized retailers

### Formats:

- Include Dolby Digital, DTS, MPEG Surround and AAC

### DSP Modes:

- Include Direct, Stereo, Music, Trifield, Ambisonics (2-ch UHJ & ≤3-ch B-Format; 4 – 7 speaker decode), Super Stereo, MusicLogic, PLIIx Music, PLIIx Movie, PLIIx THX, TV Logic, Mono, Discrete, Cinema, THX, THX Music, THX Surround EX, THX Ultra2 Cinema and Meridian Room Correction

### Power

- Linear power supply with true toroidal transformer, 50–60Hz, 40W, 120V & 230V

### Construction

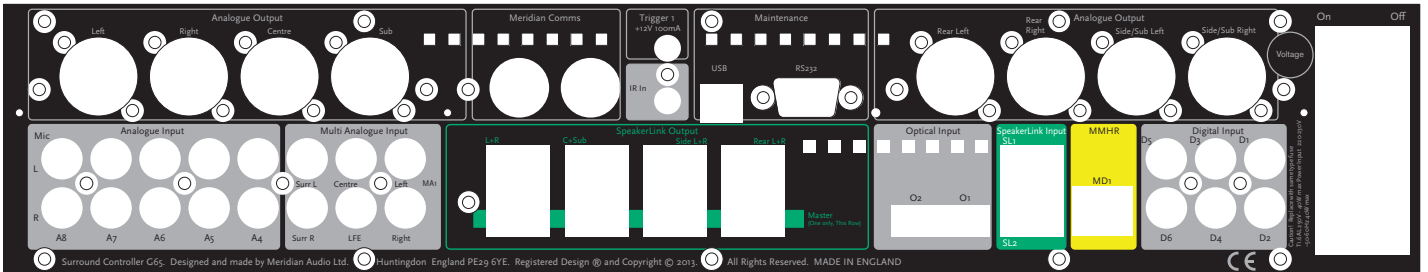
- Meridian black or silver finish in metal & glass

### Dimensions

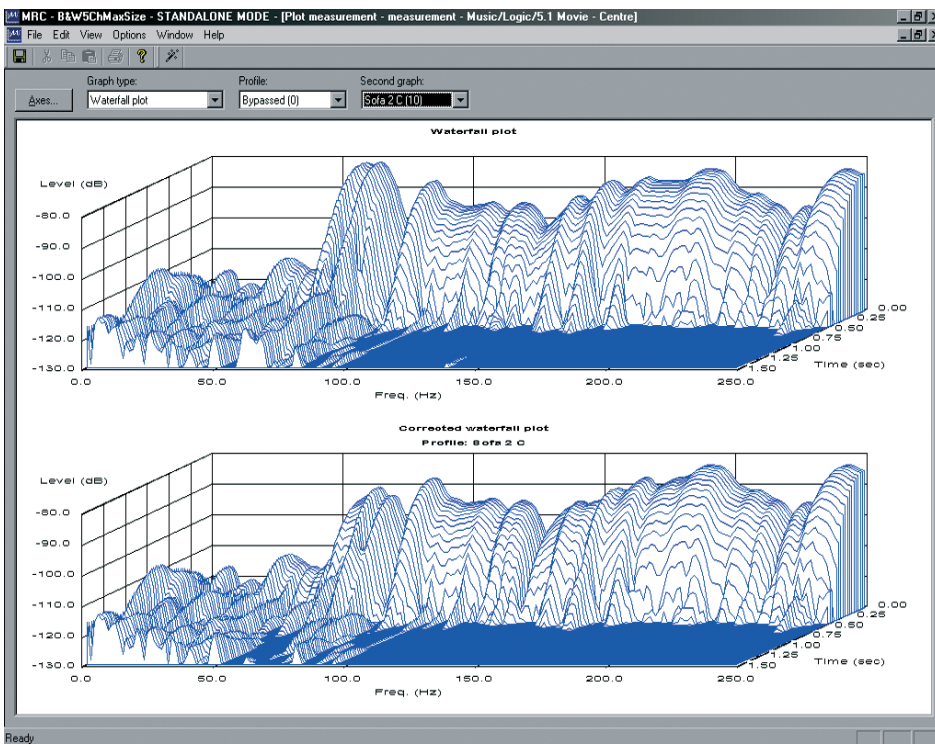
- Width: 440mm (17.32in); Depth: 350mm (13.78in) plus connectors; Height: 90mm (3.54in)

### Weight

- 10 kg (22 lbs)



G65 rear panel layout



Meridian Room Correction software detects room resonances and counteracts them, utilising powerful DSP to generate automatically up to 60 filters.