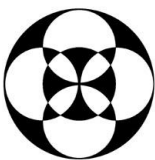


561 Digital Surround Controller

*From the industry
leaders in music
surround – Meridian's
latest controller – 561 –
decodes all the sound
formats on DVD-Video*



Background

Meridian is a world leader in superb-sounding Digital Signal Processing. Our pedigree goes back to the earliest days of digital and includes many 'firsts' like the first CD Transport, the first Digital loudspeaker and the first DSP loudspeaker. In addition, Meridian's ability to provide truly transparent DSP has made the 618 Mastering Processor the most respected way to make CDs.

Since its introduction in July 1994, the Meridian 565 DSP Surround Processor has become widely recognized as the benchmark processor – voted Class 'A' by *Stereophile*. Among a total of 12 awards, the 565 was voted 'Home Theatre Decoder of the Year' by *Home Entertainment* in both 1995 and 1996, and it received the prestigious *EISA* award for 'Home Theatre Decoder of 1995'.

The proprietary DSP in 565 redefines expectations for movie sound and creates a paradigm shift for music listening by enabling immeasurably improved 'stereo' with 3 to 8-speaker systems. The 565 provides for more formats than any other surround processor – until now.

Meridian 561

Meridian is proud to add the 561 Digital Surround Controller to its range of Home Theatre and Surround Music products.

A 561 combines controller functions into a surround processor – bringing many of the features of a 565 + 562V combination to one box.

561 provides extensive audio and video inputs and outputs – including an analogue tape loop and support for the Meridian 2-Room system.

The 561 is a full 500 Series controller, ideally suited for use with our DSP loudspeakers, CD players, power amps and 504 tuner.

The 561 allows you to take control of your system: you can switch audio, video, adjust input level; you can create 16 User Presets with your own labels. It also features excellent on-screen display and extensive on-screen help for setup and calibration. These displays are available on the composite and S-VHS video connections.

Best of all, the 561 uses the same powerful DSP processors, and algorithms as the highly acclaimed 565!

Movie formats

It was natural that when Meridian turned their attention to Pro Logic and THX, the only way they could satisfy their exacting standards for clarity, transparency and function was to develop the whole thing from scratch using only the best hardware and software DSP techniques.

Like in the Meridian 565, all the surround processing is performed in powerful audio computers, using algorithms and code developed uniquely by Meridian. This approach has allowed our customers to obtain hardware and/or software upgrades to keep up with the latest sources.

The Meridian 561 uses three powerful DSP processors to provide movie modes for Pro Logic, THX, 'stereo surrounds' and Academy, and decoding for Dolby Digital (AC-3), DTS, MLP and MPEG Surround.

The Dolby Digital decoder built by Meridian is the most powerful on the market and passes all the most extreme bitstream tests. Dolby Digital is the preferred audio format for DVD in NTSC territories.

Dolby Digital is also available on NTSC LaserDiscs – to replay these, a Meridian 519 Demodulator is also required.

MPEG Surround is the preferred audio format for DVD in PAL territories; however, MPEG audio is widely available – including US satellite

broadcasts and in computer multimedia.

Finally, in addition to AC-3 and MPEG, the 561 will decode DTS. The processor fitted to 561 is fully capable of decoding all the DTS formats seen on DVD – as well as DTS from LaserDiscs and CDs.

How does THX fit in?

THX Cinema has a huge amount to offer in the 5.1 era. The 561 has all the signal processing in place to comply with THX requirements for Dolby Digital, DTS and MPEG. The front channels carry re-equalisation; the surrounds use a new timbre-match curve and an updated de-correlation technique.

Music formats

The 561 provides Meridian's now-famous music-processing modes including: Music, Trifield, Ambisonic, SuperStereo and Music Logic – as well as 2-channel stereo bypass and Mono.

Bass management

The 5.1 signal has the potential to require a 12dB increase in bass power handling in a system. Not only can the LFE (Low-Frequency Effects – i.e. 0.1) channel convey 10dB more bass, but the potential exists for that to happen as well as full bass level in the other five channels.

Although the Dolby Digital, MPEG and DTS encoders limit the total bass

level to around +15dB, the resulting bass energy can still be incredibly demanding for even the very best systems – and equally important – may be disastrous for other, less capable, speakers.

The Meridian 561 incorporates a very sophisticated series of bass protection schemes for digital surround formats.

The overall amount of LFE added in can be controlled by the user. In addition, the 561 has a bass limiting function to control the *total* amount of bass passed to the system.

As well as the overall bass protection, the 561 can monitor *all eight* speaker outputs. If the signal demands more bass than a speaker can supply, a proprietary, psycho-acoustically optimised limiting filter momentarily and elegantly reduces the load on that speaker. This unique protection method means you can get the most out of all the speakers in the room without any fear of damage or unpleasant overload noises.

Inputs and outputs

The 561 offers both analogue and direct-digital inputs *and* outputs. Eight digital and six analogue outputs provide feeds for any combination of Active, Passive, Digital or DSP loudspeakers in 12 different layout configurations including up to 3 different subwoofer signals. Each output is individually adjustable for type, sensitivity and time alignment.

Specification highlights

Audio inputs

8 analogue adjustable
1 digital optical
5 digital coaxial IEC1937, IEC958

Audio outputs

6 analogue for: main or sides, centre, sub and rear speakers
8 channels digital output for: main, sides, centre, sub and rear speakers
2 analogue tape. Independent Copy

Video inputs

4 composite video inputs
4 S-VHS video inputs

Video outputs

Tape outputs for composite and S-VHS
Main outputs for monitor of composite and S-VHS
On-screen display for user and setup on both composite and S-VHS
S to composite conversion

Others

Flash memory for easy updates
RS232 for computer control, setup and software updates
2 Trigger outputs

Music signal processing

Mono, Stereo, Music, Trifield, Super Stereo, Ambisonic, Music Logic.

Movie and TV processing

Pro Logic, THX Cinema, Academy, 'Stereo' Surrounds, TV Logic.

Decoding for: MLP, Dolby Digital AC-3, DTS and MPEG Surround.

Controls and Display

Front panel controls for: Source, Copy, Mute, Display, Volume and Off. Other features accessed using a Meridian System Remote (supplied).
12-character dot-matrix display; lights for AC-3, DTS, MPEG and THX.