

MERIDIAN 800 SERIES

From the outset, Meridian's design philosophy has combined great looks and a total approach to ergonomics, with a relentless pursuit of the best sound – in particular regarding spatiality, transparency and tonality. This philosophy has also established a Meridian tradition which encourages a readiness for new ideas and an unfettered view of audio system architecture. This approach has led to ground-breaking innovations like Active and DSP loudspeakers – as well as earlier, now widely accepted, innovations like the CD Transport.

The 800 Series dramatically illustrates the result of this design approach. Here the goal is the highest quality sound, in a futureproof, flexible, upgradeable, open-ended format. The 800 Series provides no-cost-compromise audiophile performance in a handsome large-format presentation. In the 800 Series, important audiophile features are addressed – including low-noise power supplies, the provision of more connections (including balanced audio), and highly transparent analogue and digital audio and video processing.

The Digital Signal Processing used in the 800 Series has a superb pedigree – Meridian is famous for its Conversion, Resolution Enhancement and DSP for Surround and Loudspeakers. The 800 Series



construction shows its function: it is built as a card-based Audiophile Digital Computer. All functions are plug-in cards: including control microprocessor, analogue and digital inputs and outputs, DSP processors, video routing and processing, DVD decoders, laser demodulators, tape modules, custom interfaces.

The list is always growing.

In this way a user can put together the right functions, and any aspect of the machine's performance can be altered later – either by downloading new software into its flash memory, or by adding new plug-in cards. In common with other Meridian products, the 800 Series has full remote control and complete inter-operability with 500 Series components, using RS232 and the Meridian Comms connections.

The 800 Series 19" (450mm) cabinet is of double-skinned construction for complete immunity from sound-damaging RF radiation. The heavy die-cast front panel houses a highly visible display and provides the most commonly required controls on the front face. A hinged switch panel provides keys to access all of the unit's functions. In common with other Meridian components, the top and display window use 4mm plate glass for durable finish and mechanical damping. The 800 Series appeals to a very wide audience – it offers unique performance for the audiophile or videophile, it brings PC connectivity for multimedia and a degree of flexibility that is welcomed by professional and semi-pro recording engineers.

861 Surround Processor



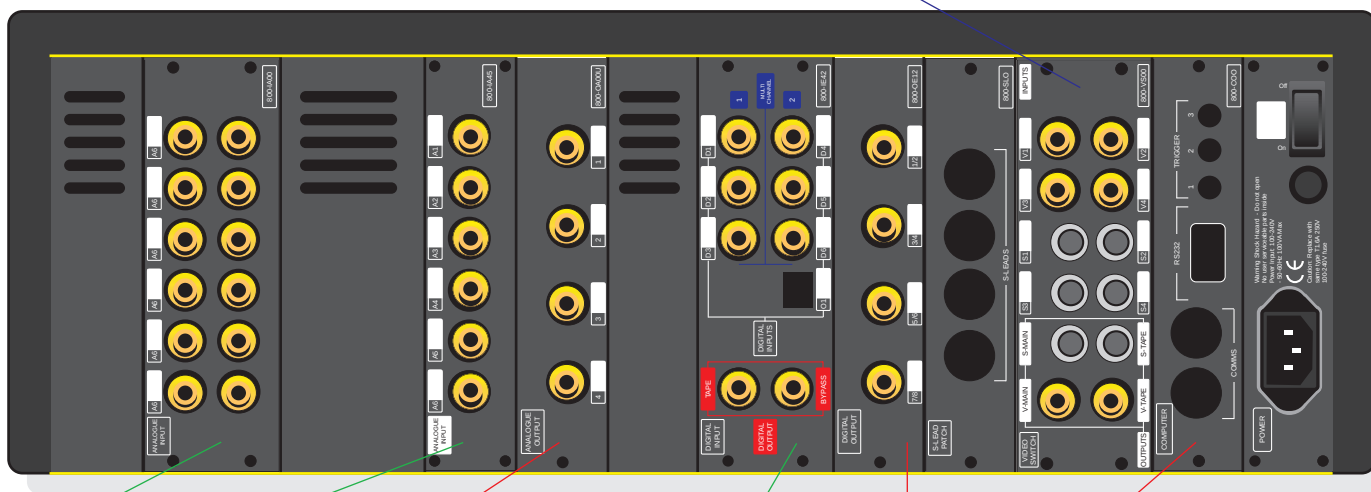
This diagram of an 861 rear panel shows a typical selection of cards. Other options are listed. As more become available they will be listed on the Meridian Website.

VS00 Video
4 Composite and 4 S-Video inputs. Outputs: main and tape in both formats. On-screen display on main.

VS10 Video
8 S-Video inputs. Outputs: main and tape. S-Video and Composite. S-Video to Composite conversion. On-screen display on main.

VS20 Video
1 Component input; main output. On-screen display.

VS40 Video
8 Composite inputs. Outputs: main and tape. On-screen display on main.



IA00
Analogue input 6 pairs analogue input on phono. Very high quality A/D conversion.

Extensions to IA00

IA10
Analogue input 2 pairs of fully balanced analogue input on XLR.

IA20 adds 3 pairs of unbalanced analogue input on phono.

IA30/35 adds capability for MC/MM pickup on phono.

IA45
Multi-channel input. 6 channel analogue inputs for multichannel sources like DVD-A and SACD.

OA03
Analogue output 4 ultra-high quality outputs on phono. Effective resolution: 192kHz 24 bit. Contains ultra-low-jitter master oscillators.

OA13
Analogue output 4 ultra-high quality balanced outputs on XLR. Effective resolution: 192kHz 24 bit. Contains ultra-low-jitter master oscillators.

TP00
Analogue tape-loop and 2-room card 3 outputs on phono, each with variable output level. Independent A/D and D/A conversion.

IE42
Digital input/output Always fitted. 6 SPDIF cable inputs, 1 TOSLINK optical input. Multiple input options. This card contains a DSP de-jittering system.

ID20
Extension to IE42 adds capability for 2 SPDIF and 2 Toslink inputs.

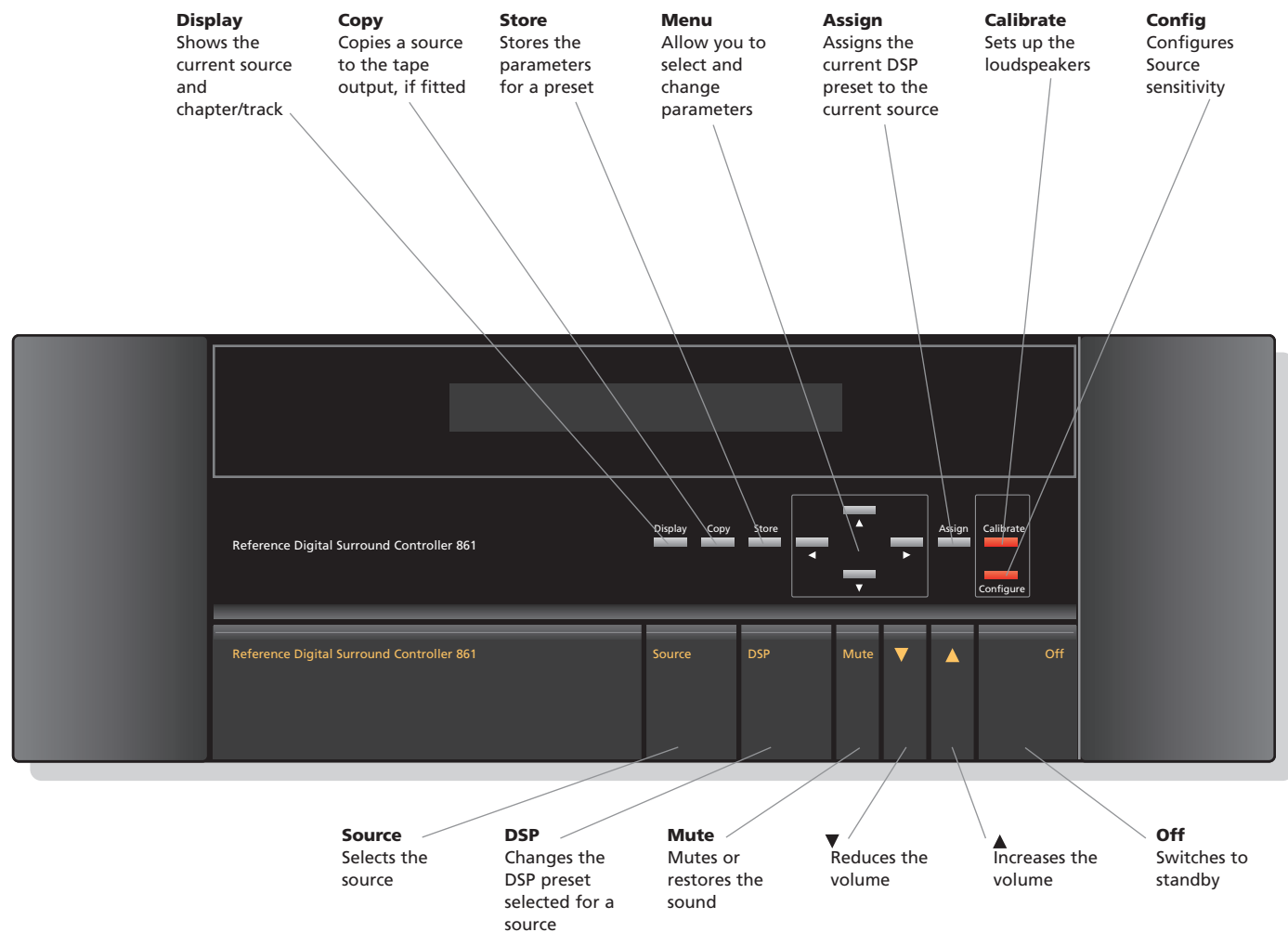
ID30
Extension to IE42 adds capability for 3 AES/EBU inputs on XLR and 1 AT&T optical.

OE12
Digital output 4 SPDIF outputs on phono. Contains ultra-low-jitter master oscillators.

SL00
Slave patch Communications patch for Meridian Digital Theatre.

C000
Control computer Always fitted. Complete with Flash memory, RS232, 3 trigger outputs and Meridian Comms.

NEW DSP Engine (Internal) contains multiple Motorola 56367 DSPs running at 150MHz.



trim this area off

The 861 provides an unmatched range of options for decoding and processing analogue and digital audio signals.

A new DSP engine is capable of running more channels at 96kHz/24bit for subs and 'height' speakers.

Preset options are listed below with recommendations as to their use.

Other options can be stored and labelled by the user.

Multichannel digital sources

Several digital formats are currently available which encode up to 8 channels onto the digital signal.

Dolby Digital, previously called AC-3, preferred audio format for DVD and LaserDisc in NTSC areas. Also US Digital TV.

MPEG Surround preferred audio format for DVD in PAL areas. Widely used in PC multimedia and US satellite broadcasts.

DTS Audio compression technique to encode 5 channels of audio onto a digital signal. Used for audio on DVD Video and LaserDiscs.

THX A method to provide versions of Dolby Digital, DTS and MPEG to better match original soundtracks to domestic audio.

THX EX A development of Dolby Digital which provides supplementary rear channels.

Multichannel sources encoded onto 2 channels

Pro Logic II Dolby Surround encoded soundtracks

TV Logic User adjustable steering for TV which is not surround encoded.

THX Cinema enhanced Pro Logic

Ambisonic specifically encoded material for surround sound available on CD and radio.

Conventional Stereo Sources

Trifield width adjustable, stable, 3 dimensional image for solo and chamber music.

Music Meridian technique to enhance large scale orchestral and choral music.

Super stereo form of Ambisonic suitable for multi-miked rock music.

Music Logic user-adjustable steering for studio produced music without soundfield recording.

Special DSP Presets

Mono Uses centre channel only to localise hiss or clicks on old tracks.

Academy Corrects for high frequency balance of early black-and-white movies.

Stereo Uses main right and left speakers only for comparison with other presets.

Direct as 'Stereo' but including Subwoofer channels.

Discrete processing for multichannel sources such as projectors, DVD-A and SACD.

861 SPECIFICATION

The architecture of the 800 Series allows for wide flexibility – future sources and formats can be handled by upgrading software, cards or drives.

INPUTS

The 861 is a full-system controller preamp that provides seamless control of up to 12 analogue or digital inputs and up to 12 video sources. The optional Tape card provides additional internal A/D and D/A converters to provide support for both tape recorders, extensive 2- and 3-zone multiroom capability (analogue or digital formats) and headphones. By providing both digital and analogue inputs the 861 can give radically higher sound quality for sources that are originally digital – like CD, LaserDisc, DAB, DVD and DVD-A. In addition to accepting 2-channel audio, the 861 will handle SPDIF-encoded Dolby Digital, DTS or MPEG from sources like DVD, Satellite and LaserDisc, (via a demodulator card). The 861 also provides support for discrete multichannel inputs from projectors or multichannel players such as 800. Analogue or digital multichannel input cards can be fitted

PROCESSING

The 861 routes all signals – if necessary via a Delta-Sigma A/D converter – into the digital domain for processing in the highly developed Meridian DSP cards. The processing engine can consist of up to 8 modular processor cards, each housing ultra-fast processors with high speed cache memory. In each DSP core, the incoming signals are processed using a variety of proprietary algorithms and up to 8 output signals are generated. These can be used to feed a number of speaker layouts. The on-board algorithms include Meridian's own highly transparent Dolby Pro Logic II and Dolby Digital, MPEG Surround, DTS, THX extensions, TV Logic and a variety of award winning music programmes including Trifield and Ambisonic.

OUTPUTS

The 8+ outputs can be provided as digital signals to feed Meridian DSP loudspeakers or as variable analogue outputs using a proprietary on-board 24-bit resolution conversion method. 44.1 or 48kHz signals are automatically upsampled to 88.2kHz or 96kHz respectively.

VIDEO

The 861 provides broadcast-grade video switching options for monitors, projectors and video tape routing. The comprehensive setup and customising facilities allow the user to link any video and audio combinations to the 12 sources. In addition to providing high-quality video amplification, the 861 has the ability to give help and system control feedback information in an On-Screen display. Video formats supported include Composite, S-Video, and Component.

AUDIO IN AND OUT

- Up to 12 analogue inputs. User adjustable sensitivity. Renameable legends.
- Up to 12 digital inputs. Renameable legends. 32, 44.1, 48, 88.2 or 96kHz sampling up to 24-bit precision.
- Multichannel analogue or digital input options.
- Digital and analogue tape loops. Independent copy and 2 room+ capability
- 8 digital outputs, normal or encrypted, PCM or compressed.
- Up to 8 analogue outputs.

SIGNAL PROCESSING

Meridian proprietary DSP software provides the following powerful modes: Pro Logic II, THX, THX EX, TV Logic, Dolby Digital (AC-3), DTS, MPEG Audio and MPEG Surround, Music, Trifield, Ambisonics, Super Stereo, Music Logic.

CONTROL SIGNALS

3 Trigger outputs, programmable by source.
Meridian Comms and RS232 for control and Meridian PC setup .

DISPLAY

20 character dot-matrix with adjustable brightness and contrast.
Indicators for Dolby Digital, THX, DTS and MPEG.

SIZE

480 (18.9") wide x 175 (6.9") high x 411 (16.2") deep.
Rack mount option available.



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<http://www.meridian-audio.com>

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