800

REFERENCE SERIES

800 Version 4

Reference Optical Disc Player

The 800 optical disc player from Meridian has received equally high praise for the unparalleled quality of its video as it has for its world-beating audio performance.

The new 800 Version 4 takes this critically-acclaimed player still further, with support for HDMI and video inputs.

In addition, the 800 Version 4 can be configured with the new MConfig application which includes step-by-step configuration and graphic system design.

Two standard variants are available: the 800D with digital outputs and the 800DAX, which adds balanced and unbalanced analogue outputs.

The 800 Version 4 is available new in traditional Meridian black lacquer or a sleek new silver finish, with the latest MSR+ infra-red learning/programmable remote, and existing Version 3 players can be upgraded to Version 4.

For over 20 years, Meridian has created superior optical disc players that have delivered better and better sound quality with each successive generation, keeping step with continually improving digital recording and disc mastering techniques.

Important milestones were the identification and near-eradication of player design problems including jitter, mechanical feedback, servo instability, playability, converter linearity and interface design, along with support for DVD-Audio.

Bob Stuart, Meridian's chief designer, was heavily involved in the evolution of audio formats for DVD – resulting in MLP (Meridian Lossless Packing) being selected as the definitive coding system for the DVD-Audio format. It should therefore be no surprise that Meridian's design team has brought the full benefit of their experience to the 800 Series Version 4.

Meridian also brought important psychoacoustic and psychovisual insights to the design of the 800. As a result the 800 Version 4 Reference Optical Disc Player is able to offer sound and picture quality that is second to none.

World-beating performance with all PCM-based optical disc media

Superb image and sound quality that places the 800 in a class of its own

Includes HDMI output card for the latest digital displays

Multiple analogue video inputs for selection and scaling within the 800

Video converted to common format for single display output

Supports MConfig Windows graphical configuration tool

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800 V4: Two options

Each 800 is factory fitted with a motherboard supporting both digital audio and digital video, a highly sophisticated power supply and sets of internal cards to create one of two versions: the **800D**, with digital outputs, or the **800DAX** with digital plus analogue balanced/unbalanced outputs.

Note that while you can specify a fully card-based 800v4 to special order, these two standard options include combination rear panels that do not permit the addition or re-arrangement of individual cards.

The following cards are fitted in both variants:

CO00: Control computer card. Complete with Flash memory, RS232 port for control and status, 3 configurable trigger outputs and Meridian Comms.

OE22: Digital Output card with 6-channel 24-bit, 96 kHz output with MHR, plus 2-channel 24/96 output with MHR.

DV02: DVD control computer card. Complete with Flash memory upgradeable via dedicated RS232 port.

DV12: Video DSP card for DVD stream decoding of MPEG video, MPEG audio and Dolby Digital material. Also supports DTS streams.

DV20: MLP decoder card for DVD-Audio.

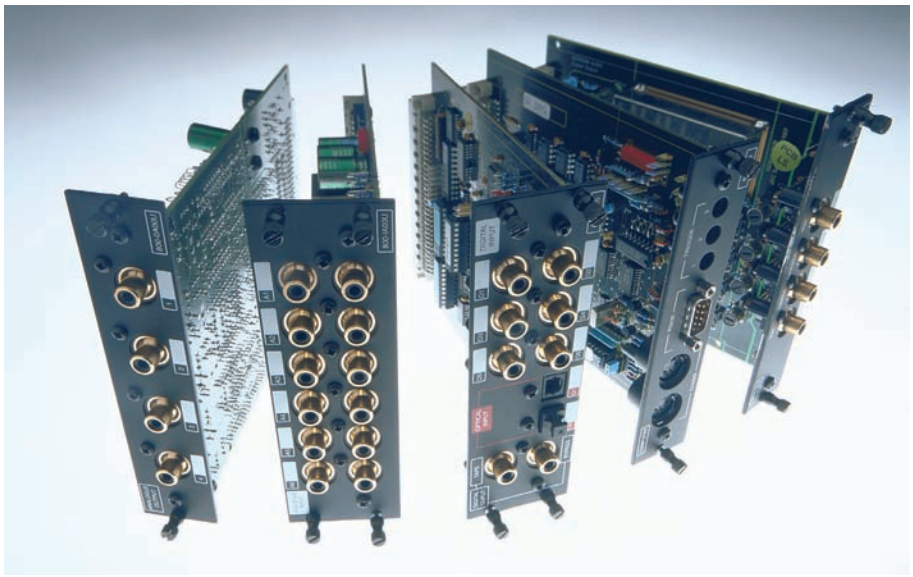
VE00: Video encoder. Generates NTSC or PAL (software switchable) in composite, S-video or component formats. Features wide video bandwidth, low noise and extended black level setting.

VI00: Video Input (A/D) card with 2 composite, 2 S-Video and 1 interlaced component input. Converts analogue video inputs to digital.

VE12: Provides HDMI (High Definition Multimedia Interface) video and 2-channel audio* output to a compatible display, plus progressive component video out.

The **800DAX** adds the following:

OA24: 2-channel analogue output, balanced and unbalanced, with 24-bit, 192 kHz converters.



The 800's card-based architecture means the ultimate in upgradeability and system options.

The 800 offers the kind of features needed to exploit DVD in a high-end home theatre, to interface with state-of-the-art digital surround processors (such as the Meridian 861) and to handle the latest high-quality projection and plasma systems, including the high-definition digital video interface standard, HDMI (High Definition Multimedia Interface).

Meridian 800 and the Reference Series

The Meridian 800 Reference Optical Disc Player makes a perfect front-end to the Meridian 861 Reference Surround Processor – although it can also be configured as a player, and will drive Meridian DSP Loudspeakers directly. The Meridian 800 is fully compatible with other components in the Meridian 800 and G Series; it comes with a Meridian System Remote Plus learning/programmable infra-red remote control, and provides the perfect optical disc source for a Meridian Digital Theatre. 800 Version 4 also includes multiple video inputs and on-board video scaling, allowing a single interface between the player and your display to carry all the video signals from your components.

The 800 is Meridian's definitive statement on the current and future quality of DVD and PCM-based optical disc media. The digital video circuits provide the highest quality picture in a variety of formats. The digital audio processing provides the ultimate in resolution enhancement and low jitter.

A selected DVD-ROM drive extracts data from CD, VCD or DVD. Specialised cards manipulate and decode the DVD data and prepare the video. This architecture ensures not only the highest absolute quality and flexibility, but also a high degree of future-proofing for both audio and video disc playback.

Sound Quality

DVD-Video provides an enormous number of options for audio, and the 800 allows unrivalled playback of all the mandatory DVD sound formats: MPEG, Dolby Digital (AC-3) and PCM at 48 or 96kHz with up to 24-bit precision. DTS streams may also be decoded in the player. In addition, the 800 handles the unique capabilities of DVD-Audio – the highest resolution audio available on disc today – unlike any other player, delivering the pinnacle of performance and enjoyment from high-resolution sources.

DVD, and in particular DVD-Audio, has the potential to provide the highest sound quality, but we would be mistaken to ignore the very real continuing importance of Compact Disc in the coming years. Thus the 800 Reference DVD Machine takes a radical new approach to playing both 'Red Book' CDs and DVD discs.

The 800 reads the audio and video data asynchronously in blocks, using high-speed, high-integrity DVD-ROM drives. This data is checked for integrity, corrected and triple-FIFO-buffered to ensure that the audio output timing is independent of the drives, and that the picture has maximum stability.

Another Meridian 'first' is the use of powerful DSP to enhance Compact Disc playback, by using up-sampling to produce a high-resolution 88.2kHz 24-bit signal so that the converters or Meridian DSP speakers can render the audio even more accurately.

The 800 can be used with a pair of Meridian DSP speakers, or the on-board DSP can provide variable outputs to feed a power amplifier. Normally, however, we would recommend that the 800 be connected to a Meridian 861 Reference Surround Controller, so that the full benefit of surround sound on movies and music can be enjoyed.

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The press on Meridian's 800

"…The Meridian 800 is a true reference-quality product, offering not only first-rate CD sound, but also state-of-the-art DVD-Audio playback. …lesser players simply don't have the resolution, timbral accuracy, or dynamics. Further adding to the 800's attraction is the ability to configure the machine for your system. It's an outstanding DVD player, too. What we call a good conclusion."
The Absolute Sound, January 2004

"…DVD has never sounded this good before. The soundfield is enormous, the power and control awesome…the 800's combination of world-leading technology, flexibility and killer performance makes it the best DVD-A player we've heard by a long way."
Digital Home, September 2003

"…the Meridian 800 is as good as it gets for DVD-Video playback…the internal parts, quality and video DAC design… separate the 800 from the rest of the high-end AV market. For movies, CD and DVD-Audio you cannot do better than the Meridian 800. When you are designing your dream system… be sure to add the Meridian 800 as your main source component. …the 800 is good enough for its own category."
AudioRevolution.com

"Overall, the 800 is perhaps the finest CD player I've ever laid ears on.… In the past I've been lucky enough to be in close proximity to top class orchestras banging out the best music, and at times this [800/861] combination with DVD-Audio discs honestly brought me closest to the experience than any other hi-fi system I've encountered. And that is no mean feat. Takes audio to another level…. Without doubt the finest optical disc playing system we've encountered. Smooth and cohesive, it plays anything you chuck at it with ultimate finesse.
HiFi World, December 2002

"Staggeringly sophisticated, totally flexible, and astonishingly accomplished, both in terms of sound and vision. The very best there is…"
What Hi-Fi, February 2001

"…I found that the Meridian… was clearly superior… not just to my reference components, but to any other CD front ends that I've auditioned or reviewed.… The performance of Meridian's 800/861 with CDs is superior to the performance you get with the great majority of SACDs and DVD-As through any player."
Absolute Sound, December 2003

Rear panel of the 800v4DAX version

Crystal-clear Image Quality

The pictures on DVD Video are stored using a high-quality compression system called MPEG2. MPEG2 has a flexible data rate, allowing more data to be used for some scenes than others. Complex motions and textures can be conveyed accurately without using an unnecessarily high data rate on simpler material. Consequently, the encoders (that make MPEG2 streams from the original film) have improved in quality continually over the years – a situation somewhat analogous to CD, where recording equipment has steadily improved.

Because the picture is stored as digital video, it has some remarkable qualities – including high bandwidth, low noise, very low frame and line jitter and the potential for deeply saturated colours. To recover this quality requires a superb MPEG decoder and immaculate care in de-jittering and processing the resulting video.

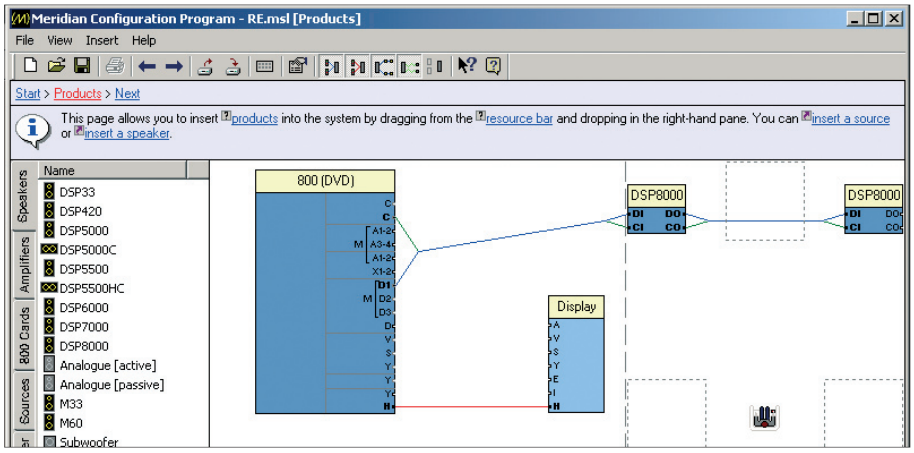
The 800 offers a number of video output options. The standard VE12 output card delivers HDMI digital signals and progressive component analogue video. Meridian successfully pioneered audio systems in which the signal remains in the digital domain from the source, through a Digital Surround Processor, to DSP Loudspeakers. The Meridian 800 Reference Optical Disc Player follows this example by maintaining the video information in the digital domain until the last minute – and now that displays are available with digital inputs, the VE12 video output card supports them, extending that digital chain to the creation of the image itself. Other cards deliver broadcast-standard video encoding, providing NTSC and PAL, while video conversion and amplification of the highest studio quality provide RGB, Component, S and Composite formats.

DVD-Audio

DVD-Audio is the latest feature of the DVD specification, and it is one with which Meridian was deeply involved. It is a fact that DVD-Audio offers the highest audio quality available on disc today. At its heart is Advanced Resolution 24-bit PCM technology – a super-quality version of the same digital techniques employed in the immensely successful Compact Disc, but offering a dynamic range of 144dB all the way across the frequency range. And with sample rates of 96kHz in 6-channel surround and 192kHz in stereo, that range is immense – extending up to 100kHz and without the filtering required by other, incompatible disc formats.

These characteristics give DVD-Audio the most extensive coding space of any current disc format. In addition, DVD-Audio discs can include images, videos, text and even downloadable AAC-encoded music files for your personal stereo.

Needless to say, the 800 handles DVD-Audio superbly, bringing out every subtle nuance in DVD-A recordings. As the originators of MLP, the core technology of the DVD-Audio format, it's true to say that nobody does it better.



Meridian's MConfig graphic utility allows the 800 Version 4 to be set up from a computer screen.

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The architecture of the 800 ensures that all functional parts of the machine can be upgraded, improved, added to or interchanged, within reason. In this way we set up not only the best opportunity to stay ahead of changing technology, but we retain the maximum flexibility to improve performance through future changes to software or hardware. This architecture allows our customers to enjoy and invest in the best audio/video systems now.

Set-up and adjustments can be made via the OSD or by using MConfig, the latest computer-based configuration system from Meridian. This Windows application also supports the 861 with Meridian Room Correction. MConfig includes a graphic system definition tool (see illustration on previous page) which enables a comprehensive system architecture to be built up on-screen and then uploaded to the unit(s) concerned. All the decoding algorithms are in video and audio DSP, so the 800 can be re-programmed in the future to improve or extend its capabilities. Software updates are available on Meridian's website.

800 Version 4

Version 4 is the latest incarnation of the 800 Optical Disc Player, which combines new software with a modified 'core' card complement offering a significant increase in the quality and flexibility of the system.

The new VI00 Video Input card is included along with the recently-released VE12 HDMI/Progressive Component output card. These enable the 800 to be interfaced with a display via a single interconnect, the 800 providing video switching and scaling of internal and external video signals.

The VI00 provides two composite, two S-Video and one interlaced component video input, and allows analogue video sources to be converted to the common broadcast resolution standard digital video format that is used internally in the 800.

The VE12 provides HDMI output for compatible displays, and automatically handshakes with the display to determine the highest quality signal that can be provided by the player. The card also provides analogue progressive component video out.

800 Version 4 also includes the VE00 card providing interlaced and NTSC/PAL-encoded outputs, and supports analogue video input/switching cards designed originally for the 861. Controls provide adjustment of aspect ratio, picture position (progressive only), brightness & contrast, and NTSC hue.

Full details of the cards installed in the two standard versions of the 800 can be found on Page 2 of this document. Note that these versions are not upgradeable on an individual card basis. If this is what you need, special configurations can be created to order, and Version 3 units can be upgraded in many cases: contact your dealer or installer, or Meridian Audio to discuss your requirements.

Outline Specification

Formats: DVD-Video, DVD-Audio, CD Audio (Red Book) CD Video (White Book), MP3

Drives: Supplied with 1 x ATAPI 2 DVD ROM drive. A second drive bay is included for future expansion.

Audio outputs: Independent copy and 2room+ capabilities where second room can receive raw or decoded audio streams.

6-channel main and 2-channel auxiliary 24-bit, 96 kHz S/PDIF digital outputs with MHR

Option for simultaneous digital outputs at different sample rates from DVD and CD

Option for simultaneous output of Dolby Digital compressed stream for a decoder (like 861) and a decoded version for a second zone.

Optional 2 + 4 channel analogue outputs on both phono and XLR (balanced) with 24-bit, 192 kHz converters (800DAX version).

Audio DSP: 800 uses Meridian's proprietary DSP software to provide on-board decoding for DTS, Dolby Digital and MPEG Audio, error correction, resolution enhancement, up and down-sampling and high-resolution digital gain control.

Video in and out: Selectable inputs for 2 composite and 2 S-video in NTSC or PAL format signals, plus component in. Outputs scaled and available simultaneously as composite, S-video, component, HDMI or RGB.

Video DSP: Software-based video decoding for MPEG1 and MPEG2 video. Digital video backplane allows options for future video processing enhancements.

Controls, etc: Front-panel fascia controls for Play, Stop, Pause, Previous, Next and Off. Hinged control panel provides additional switches for Drive switching, Source, Copy, DVD menus, Display, Mute, Volume

Display: 20-character dot matrix display with adjustable brightness and contrast. Lights for CD, DVD, MLP, Drive A/B and Repeat.