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Meridian DVD-Audio Player

Sales information

July 2002



Background

Meridian has an outstanding reputation for disc players, having built the world's first audiophile CD player in 1984 and the first two-box player (transport and converter) in 1986. Since then, Meridian has remained the undisputed leader of CD, keeping consistently ahead of the field. The 508.24 CD Player received more than 20 awards including a coveted *Stereophile* Class A rating.

Meridian has been a major force for high quality audio within the DVD Forum during the evolution of the DVD formats. Bob Stuart, Meridian's founding technical leader has been a prime mover in the development and international standardization of advanced and high-resolution audio formats. Meridian is also the provider of MLP, the ultimate lossless coding system that is mandatory for DVD-Audio and DVD-AR systems. Meridian's intimate involvement with the evolution of DVD has allowed the company to develop a product range that includes the most capable and high performance DVD Players available. Meridian's award-winning 596 DVD Video Player has been widely acclaimed for its extraordinary sound and picture quality. Most recently this pioneering development has lead Meridian to launch Version 3 of the Class A+ 800 Reference DVD-Audio/Video and CD Machine, a player which is rapidly setting new industry standards.

Through a process of continued development many of the features in the new 800 can be found in the company's latest 500 Series DVD player. The much anticipated 598 delivers the high-resolution sound of DVD-Audio and the operational advantages of MHR Smart Link to Meridian 500 Series systems.

DVD-Audio

The 598 introduces DVD-Audio to the 500 Series. DVD-Audio is the most exciting and flexible music format ever launched. DVD-Audio was developed with international cooperation that included all the major music, consumer electronic and computer manufacturers – 44 companies combined their expertise to create this formidable specification.

The most important facet of DVD-Audio is the exquisite sound quality that it can deliver. DVD-Audio provides for high resolution – up to 192kHz 24bit in stereo and up to six channels of 96kHz 24bit surround. When you have experienced the wonderful clarity of space, timbre and expression that high-resolution PCM provides and when you have sampled the many different approaches music producers bring to surround sound you will be addicted!

The sound of DVD-Audio is literally lifelike because, unlike any other coding or disc system, Meridian's lossless PCM actually delivers bit-for-bit exactly what is on the master tape. There is absolutely no re-encoding or loss between the mastering lab and the disc: a unique opportunity for perfection to which we are proud to contribute.

- DVD-Audio, DVD-Video, CD, VCD, CVCD and MP3 discs
- Integrated software based movie format decoding
- Encrypted digital audio output via MHR Smart Link (optional)
- Superb picture quality
- Exceptional sound quality
- Composite, S and Component/RGB video outputs
- Optional DCDi progressive video
- SCART version available
- Exceptional CD performance
- High-quality 6-channel analogue version using 192kHz 24-bit DACs
- Full RS232 control and status
- Software updateable
- Modular internal construction facilitates upgrades

Meridian Audio Limited

Stonehill, Stukeley Meadows
Huntingdon
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T +44 (0) 1480 445678
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Suite 122, Building 2400
3800 Camp Creek Parkway
Atlanta GA 30331

T (404) 344 7111
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As part of the DVD family, DVD-Audio also provides visual content and the option for added-value materials such as menus, playlists, lyrics, biographies and a seamless transition to and from movie segments.

As you might expect from Meridian, the user interface in 598 gives you the complete option to enjoy or ignore visual content while listening to music and discs can be played with or without access to their visual menus.

Meridian 598

Meridian's 598 incorporates many of the technologies on which Meridian have built their pioneering reputation. Designed around a proven DVD-ROM drive and with proprietary disc navigation for CD, DVD-Video and DVD-Audio, the 598 is a true Meridian thoroughbred. No fewer than two powerful DSP engines and three FIFO buffers are used to smooth the delivery of audio and video, the resulting low jitter benefits picture and sound quality alike.

598 introduces many exciting features to Meridian's 500 Series in addition to DVD-Audio.

The ability to decode movie soundtracks inside the player using Meridian's proprietary software-based format decoding is another of 598's impressive features. This powerful facility enables the player to output multichannel audio from DVD-Video discs encoded with PCM, Dolby Digital or DTS. For those lucky enough to pair 598 with either Meridian's 568.2 or 861 Surround Processors, this output enables the processor to upsample and resolution-enhance CD and DVD recordings and to distribute audio through up to eight channels at up to 96kHz 24bit resolution. The playback process brings dramatic improvements to movie soundtracks and to music of all kinds. It also means that favourites such as Trifield can be enjoyed with high-resolution audio through all your speakers.

Naturally, 598 is also a first-rate CD player, incorporating Meridian's extensive techniques for extracting every last ounce of detail and performance from your CD collection.

Output Options

To allow compatibility with other products and to ensure maximum functionality in a wide range of systems, the 598 is made available in six different output configurations.

Model name	Audio Output type	Video Output type
598 D	MHR Smart Link	Standard BNC
598 DP	MHR Smart Link	Progressive BNC
598 DS	MHR Smart Link	Standard SCART
598 A	6 Channel Analogue	Standard BNC
598 AP	6 Channel Analogue	Progressive BNC
598 AS	6 Channel Analogue	Standard SCART

MHR Smart Link

MHR Smart Link is Meridian's digital multichannel connection that allows the latest generation of Meridian DVD players to feed high-resolution audio directly to a compatible surround sound controller or Meridian DSP Loudspeakers. To achieve this, MHR Smart Link uses proprietary encryption and signalling technology and is the first digital connection to be officially sanctioned by the music industry for DVD-Audio content.

The option to specify an MHR Smart Link output from 598 means that when used in combination with either Meridian's 568.2 or 861 V3, the full resolution of DVD-Audio recordings (as well as those from CD and DVD-Video) is losslessly transferred in the digital domain from player to surround controller and on to the loudspeakers.

This technically advanced feature brings real performance benefits to your home audio system. By allowing signals to be transferred with uniquely low levels of jitter, MHR Smart Link delivers the most transparent audio from DVD-Audio, DVD-Video and CD. In addition to audible benefits, intelligent stream information passed through the MHR Smart Link enables the surround controller to automatically select correct DSP modes and speaker settings for music and movies, distinguishing also stereo and multichannel material.

MHR Smart Link: a simple benefit with dramatic effect.

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Multichannel Analogue Audio

Meridian's surround processors are unique in providing multichannel digital inputs. For those who plan to use 598 with other controllers we provide a multichannel analogue output option that replaces the MHR Smart Link.

Through a six-channel analogue connection 598 can deliver all of the high-resolution performance available from multichannel DVD-Audio recordings in a format compatible with the majority of surround sound controllers. All six channels are delivered with full bandwidth and dynamic range. Naturally, the quality of this analogue output stage is unsurpassed and reflects this player's stunning audio capability.

The analogue stage design follows the same audiophile philosophy used in the critically acclaimed Meridian 588. Each discrete analogue channel is derived from carefully selected 192kHz 24bit converters, while separate ultra-smooth analogue power supplies feed audiophile grade components mounted on a specialized 6-layer PCB. The resulting sound is as finely detailed as it is authoritatively controlled with the great dynamic range available from DVD-Audio material being exposed to its full.

Auxiliary Digital Output

In addition to its multichannel output options 598's back panel also hosts an auxiliary digital output. On Smart Link models this is a single additional coaxial connector while on analogue 598s the coaxial socket is accompanied by a TOSLINK optical connection.

The auxiliary digital output can be configured in several different ways according to the system. For example, on a 598 using analogue outputs to carry DVD-Audio material, the auxiliary digital output can be set to provide bitstream and PCM signals native to DVD-Video and CDs. Passing these signals digitally to the controller means that time alignment and bass management controls can be applied without the need to convert from digital to analogue and back again, thus ensuring maximum system performance.

Other installations featuring 598 with MHR Smart Link may utilize the auxiliary digital output to feed a system in a second zone or provide a means to connect 598 to a recording device.

Picture Quality

The Meridian 598 uses advanced circuit techniques, matched phase video filters and a video encoder of the highest studio-grade quality to provide low-noise images of outstanding colour depth and resolution. Separate ultra-low jitter master oscillators ensure both picture and sound are independently optimized making the 598 deliver breathtakingly clear pictures.

Setup through On-Screen Display provides access to many user-selectable video options including: video output type, aspect ratio, TV standard selection, screen saver settings and a choice of black level for NTSC (0 or 7.5IRE). The menu system is easily navigated from the supplied enhanced Meridian System Remote and enables the user to tailor video performance to suit their installation.

While all 598s feature composite and S-video outputs as standard there is also the option to specify an interlaced or progressive video output which is carried on component video outputs. (NB: A SCART or PERITEL option is also available in European markets, however this is restricted to carrying interlaced video in RGB format.)

Progressive Video

The optional progressive video output available for 598 uses a unique implementation of the DCDi technology from Faroudja. Per-pixel motion-adaptive deinterlacing delivers the highest resolution picture while suppressing motion artefacts. The oversampled video conversion and studio-grade output circuits result in video of the highest quality.

When viewed on an appropriate display device, 598s progressive video output is smoother with fewer vertical scan lines giving the viewer an impression of enhanced vertical resolution.

When fitted with this progressive video option, the 598 provides user access to an additional set of video controls offering sharpness and gamma adjustment for the progressive output.

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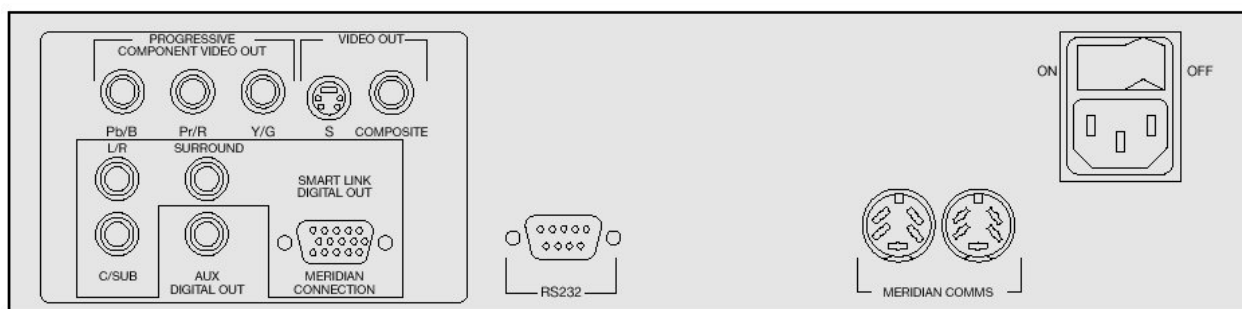
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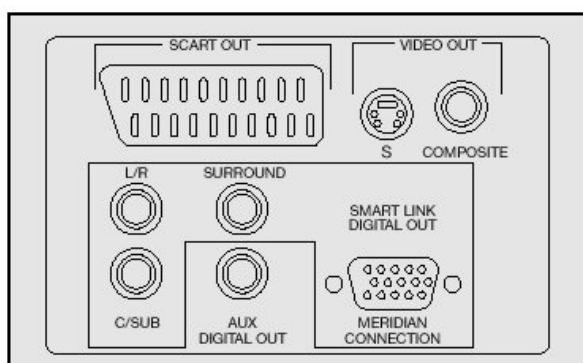
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Back panel

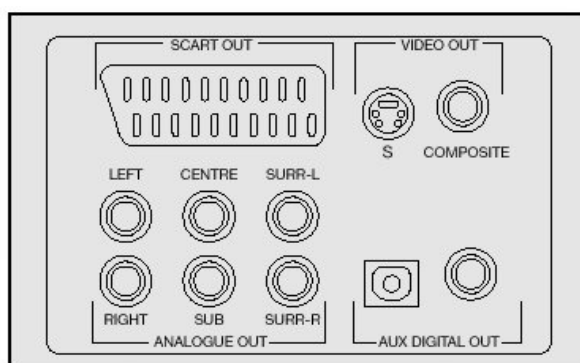
598 DP



598 DS



598 AS



Technical Specification

- Formats:** DVD-Audio, DVD-Video, DVD-R; Video CD (VCD), CVCD, MP3; CD Audio (CD-DA) including CD-R and the CD layer of hybrids such as CD+ and CD/DVD (DVD+).
- Audio outputs:** Optional MHR Smart Link digital output. 15 Pin 'D' type connector and 3 x coax.
Optional 6-channel analogue output on phonos. 2V/47Ω.
1 x auxiliary digital coax.
1 x auxiliary optical TOSLINK – only on models with analogue outputs.
- Video features:** Automatic PAL or NTSC encoding on Composite and S-Video. NTSC black-level setup adjustable as 0 or 7.5IRE. 16:9 and 4:3 displays supported. Screen saver timeout.
- Standard out:** Composite, S-Video and Component (Y, Cr, Cb,) video on BNC connectors.
- Progressive out:** As standard video out plus Progressive (480P) output on Component video (Y, Cr, Cb,) for NTSC.
- SCART out:** SCART socket provides Composite, S-Video and RGB. Also features Function Select plus aspect ratio trigger.
- Controls:** Front-panel controls for **Open/Close, Play, Stop, Pause, Previous, Next** and **Off**. Full RS232 control and status enables custom integration or automation.
- Front Display:** 12 character display. Indicator lights for DVD, CD, MLP and repeat.
- On-screen:** Switchable custom On-Screen Display allows instant review of disc status. Screen saver with user timeout options. Logo screen with pluge bars enables brightness setting of display device.
- Dimensions:** 88mm (3.46in) H, 321 (12.64) W, 332 (13.07) D. Weight 6.4kg (14lbs).
- Power:** Universal supply 100–240V, 50–60Hz, 25W.

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