

Meridian 588 CD player

Few companies could derive a great CD player from a DVD model, but Meridian has done it



PRICE	£2100
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In October last year I reviewed Meridian's new 596 DVD-V player, the first in a sequence of new additions to the company's distinguished 500 series of optical disc players. Not the least impressive aspect of it, as I discovered, was its exceptional replay of audio CDs. There was talk at the time of a CD player based on the same transport and audio circuitry — mouth-watering news for this long-time devotee of the 508 player in its various guises.

That new player is the 588. In essence it is a 596 stripped of its video circuitry, though in its dedication to audio-only it achieves a still higher performance. One addition to, and one subtraction from, the 596's complement of features would be enough to sway me from the outset: the inclusion of balanced outputs and the omission of a cooling fan.

Although balanced interconnects are undeniably better for very long runs (which is why they prevail in studios), their linking of a CD player to an adjacent pre-amplifier in

domestic surroundings is of questionable merit, although, after much experiment, I feel they do give a marginally better subjective effect. Much more significant, patently, is the long run between pre and power amplifiers when the latter are placed near the loudspeakers (much my preference). The cooling fan was necessary in the 596 because of the sheer amount of circuitry required to cater for video as well as audio in so modest sized a cabinet; mercifully the CD player can manage without it.

Like the 596, the 588 employs a precision DVD-ROM drive. This is, in essence, a follow-on from the idea of using CD-R drives as transports in CD players, which we've encountered fairly regularly for some years. Meridian has also gone further in its data capture techniques. Loading computer data from optical discs rarely fails due to limitations in the drive; therefore the use of such a drive with similar data integrity checking should ensure the acquisition of digital audio with equal success.

This is a simplification, but, in essence, the 588 treats audio discs in much the same way as the best audio CD extraction software. Data is checked as it comes off the disc, and if at all questionable, is read again.

Accuracy is central then, but whereas

consistency in data flow rate during subsequent processing is largely immaterial in computers, in CD players it is crucial: the level of jitter (in other words, inconsistency in data flow rate) defines the boundaries of attainable sound quality. Meridian has long focused on this problem, addressing it with increasing sophistication in recent years, most conspicuously in its 800 series flagship, from which the 596 and 588 derive significant elements of their digital processing abilities.

In the 588, the data is passed through three successive memory buffers and subjected to two levels of proprietary FIFO (first in, first out) de-jittering and precision re-clocking. The result is ultra-low jitter and its upshot is stable, clear imagery out to the limits of the recorded acoustic. The master oscillator controlling all this is situated in the final output section.

The 588 will play conventional CDs, CD-R or discs containing MP3 folders and files. The latter are likely to be CD-Rs home brewed on a PC using MP3 encoding software and a CD-writer. Incidentally, such discs are normally arranged like a data disc with folders representing separate albums and the MP3 files within them the individual tracks.

Although it looks virtually identical to the

508, the transport here has a conventional loading tray, whereas in the 508 and previous 500 series players the whole transport slides out to greet the disc on a proprietary shuttle. The fascia sports Meridian's usual eight buttons for Disc Loading, Play, Stop, Pause, Display, Previous/Next Track and Standby. These are in effect duplicated on the supplied 48-button MSR4 system handset which additionally gives access to all higher functions.

During play the 12-character *Matrix*-green LED display normally shows a choice of track number alone or track number plus disc-elapsed, track-elapsed or disc-remaining time. Or it can be blanked. It can also be configured to show the selected source plus volume setting of a Meridian control unit or, most helpfully, DSP loudspeakers.

At the rear are conventional single-ended stereo analogue outputs on gold-plated RCA phono sockets, duplicated by balanced outputs on gold-plated XLRs. Toslink optical and phono coaxial digital outputs are also provided. Two five-pin 240° DIN sockets provide for Meridian's inter-unit Comms control bus and a nine-pin RS-232 D-socket allows computer access for custom integration, automation or updates to the system software (which is held in non-volatile memory) via a PC. Mains input is on a fused three-pin IEC socket with an adjacent On/Off rocker switch.

Internally both the transport and universal (100-240V, 50-60Hz) power supplies are separately shielded in metal housings. The circuit proper is on three main multi-layer boards, each a miracle of the kind of miniaturisation that we take for granted these days in our home computers. Tiny surface-mount ICs, resistors and capacitors abound, and there are a lot of them — these are elaborate boards. Philips CPLD (Complex Programmable Logic Device) and Hyundai SDRAM (Synchronous Dynamic Random Access Memory) devices are employed in the processing.

Conversion is handled by the Analog Devices AD1852, a complete 192kHz sampling rate 24-bit multi-bit delta-sigma modulator,

interpolation filter and analogue output driver all in the one package. Meridian adds its own output filter based around the OP275, also from Analog Devices — a semi-hybrid op-amp which combines bipolar transistors with JFETs for optimum audio performance.

One or two operational features available on the 508 models have been changed or dropped in the 588. The main loss is display of, and access to, index points, that subdivision of tracks which was so little exploited by the record industry that it has virtually disappeared. No great loss, then, for most people, though some find it useful. I occasionally use it as a navigational nicety in compiling samplers.

Also handy was the undocumented trick of pressing Store at any time when a non-

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programmed disc was playing, which had the effect of all cancelling all remaining tracks on the fly, so that play ceased at the conclusion of the current track. The 31-track memory can only be programmed with the disc stopped and, as before, the track list can either be additive (entering the tracks to be played) or subtractive (marking those to be omitted).

Fast forward/reverse scanning is disconcerting at first, since it latches — the scan continues after the button is released. The instruction manual mentions only one scan speed, whereas a second is available with a further jab of either button. Normal play is resumed by a third jab or, more usually, simply by pressing Play.

Like the 508, the 588 provides for switching of the absolute phase (polarity) of the output, which can have a beneficial effect with some recordings. There is no way of telling how many phase inversions have occurred in the signal's journey from the microphones and the finished CD. Some microphones invert the signal, as do some microphone amplifiers, some mixers, some recorders, the electronics in some disc presses, some pre-amps, some power amps, some loudspeakers. There's no consistency. The effect of switching polarity is most apparent with recordings that were made with simple microphone layouts (which tend to be more coherent). The switching facility is useful.

If I had to single out only one aspect of the 588, it would be the extent and definition of its sound-staging. There are many excellent players on the market (and indeed a number of stand-alone DACs) which are capable of great articulation in this respect, but none that I've heard map the image in quite this kind of detail.

There's no loss of focus at the image extremes, no haze on the horizon, and so less to distract the ear. The effect is a greater involvement in the music itself. Obviously the results will depend on the quality of the recording but the source really is the limiting factor now.

Tonally the player is without blemish so far as I can hear, an effortlessly complete balance whose full and firm bass is complemented by a midrange and top of silken clarity. A liquid HF has been characteristic of all Meridian players that I have used. Some have found it a little muted, but to me it's analogous to the top end of the best tweeters in that after a while one comes to appreciate that what is lacking is the emphases that lesser devices introduce.

I have been dipping into two recent

recordings: Noriko Ogawa's first album of Debussy's solo piano music on BIS [CD-1105] and the Finnish soprano Soile Isokoski's disc of orchestral songs by Richard Strauss [Rundfunk-Sinfonieorchester Berlin/Janowski on Ondine ODE-982-2]. The Steinway D has exactly the qualities one hears live, full toned, bell-like treble, and a wonderfully natural atmosphere in the fine BIS recording. And Isokoski: a part of, not apart from, the overall canvas as captured by Ondine. The latter I'd described to two friends as a good recording when I first heard it. Hearing it again via the 588 I'd call it exceptional. Add the word 'entirely' to that and you'd have my verdict on the player itself.

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TECHNOLOGY

This player uses a DVD-ROM drive optimised for CD and CD-R. Data is read and, if necessary, re-read to assure accuracy before being passed through three buffer memories and two stages of de-jittering ahead of the Analog Devices 192kHz/24-bit DAC. The final direct-coupled analogue output filter and buffer is based around a very high quality hybrid bipolar/JFET op-amp, also from AD.

KEY FEATURES

- DVD-ROM drive for precise data capture
- Multiple memory buffer stages
- 192kHz/24-bit DACs
- Replay of CD-Rs containing MP3 files

