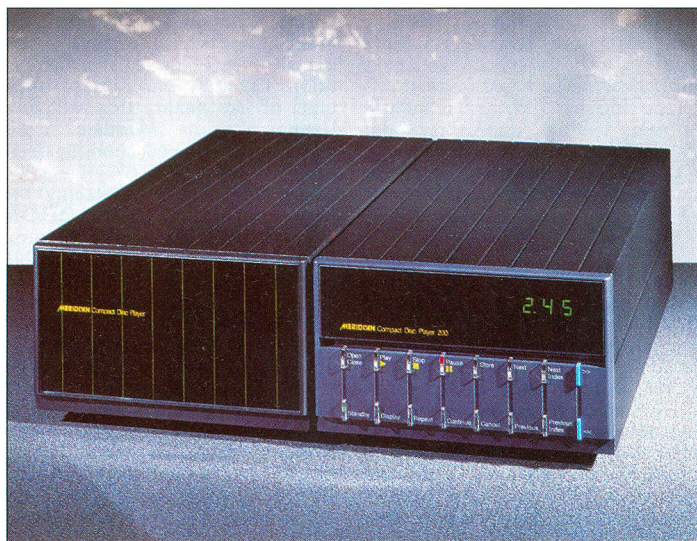


MERIDIAN 200 CD TRANSPORT AND 203 BITSTREAM PROCESSOR



Meridian 200 two-box CD transport

ANYONE who read IH's review of the Meridian 208 in our July 1990 issue might have been excused for thinking that the 208 would be Meridian's last word in the 200 Series. At an all-in price of £1,490 including the 209 Remote Control, the 208 in fact comprises two of Meridian's 168mm wide modular boxes bolted together to form a single entity and is an updated Bitstream replacement for the 207 (which I reviewed in July 1988), combining what is in effect a two-box CD player/processor with a four-input control unit.

Now, however, the designers have produced a brand new 200 CD Transport (£750) and 203 stand-alone Bitstream Processor (£495) either of which can be purchased separately to fit into an existing system with a minimum of duplication. I have been trying out these two newcomers, individually and in tandem, and comparing them with the integrated 208 from which they have clearly been developed. It is not necessary for me to describe the constructional details or Bitstream philosophy in great detail and so I shall keep the preamble short.

200 CD Transport

The 200 is being referred to as a 'transport' because it has no built-in D/A converter and so provides only a digital audio output. The external dimensions are the same as those of the 208, i.e. 325 × 100 × 320mm. The two boxes divide the unit into two acoustically isolated sections, with the left-hand one containing only the CD transport mechanism and optical system. The right-hand section is further partitioned and screened to isolate the digital and display circuits.

The disc loading and laser scan mechanism is the latest fast-response version of the Philips CDM4. It has a speedier focus motor and a low vibration, long life Hall-effect disc drive

motor. Meridian have mounted this on a magnesium die-casting with Sorbothane suspension. The servo system and CD decoders are third-generation and boast wide-ranging error correction giving increased robustness in terms of recovering data from inferior discs. The master oscillator has new circuitry aimed at reducing jitter. The powerful single-chip computerized control is of Meridian design to improve disc playing performance.

Two rows of eight push-switches on the front panel select Standby (off), drawer Open/Close, Play, Stop, Pause, Store (to build up a sequence of up to 25 tracks), Cancel, Next/Previous track skip, Next/Previous Index skip, fast forward/reverse search, Repeat, Continue (which restarts play from the point at which Stop was pressed) and Display (cycles through track number, track elapsed time, disc elapsed time, disc remaining time).

Most of these functions are duplicated on the remote control handset supplied, and it has the added advantage of numbered keys for direct track selection. Alternatively, when the 200 is to be used with other Meridian 200 Series (or the latest up-market 600 Series) units, the 209 System Remote Control (£98) can be used to provide integrated operation. The rear panel carries a three-pin IEC mains socket with on/off switch and both optical and electrical outlets for the digital signals. These are not externally switchable and allow simultaneous connection to two digital converters or amplifiers. There is also a five-pin DIN 200 Comms socket for interconnecting other 200 Series units, e.g. in a multi-room installation.

203 Processor

This stand-alone D/A converter/processor should interest owners of all CD players, and indeed DAT machines and satellite receivers,

SPECIFICATION (Test Results in brackets)

203 Processor

Frequency response: 20–20,000Hz ±0.2dB (agreed)
Total harmonic distortion: 0.004% (0.005% including noise)
Signal-to-noise ratio: 94dB (101.5dB)
Output: 2V fixed (2.4V)
Dimensions (W × H × D): 168 × 100 × 320mm
Weight: 2.0kg
UK retail price: £495

200 CD Transport

Digital outlets: IEC958 electrical; EIAJ optical
Dimensions: 325 × 100 × 320mm

Weight: 6.4kg

UK retail price: £750

Manufacturer: Meridian Audio Ltd., 13 Clifton Road, Huntingdon, Cambridgeshire PE18 7EJ

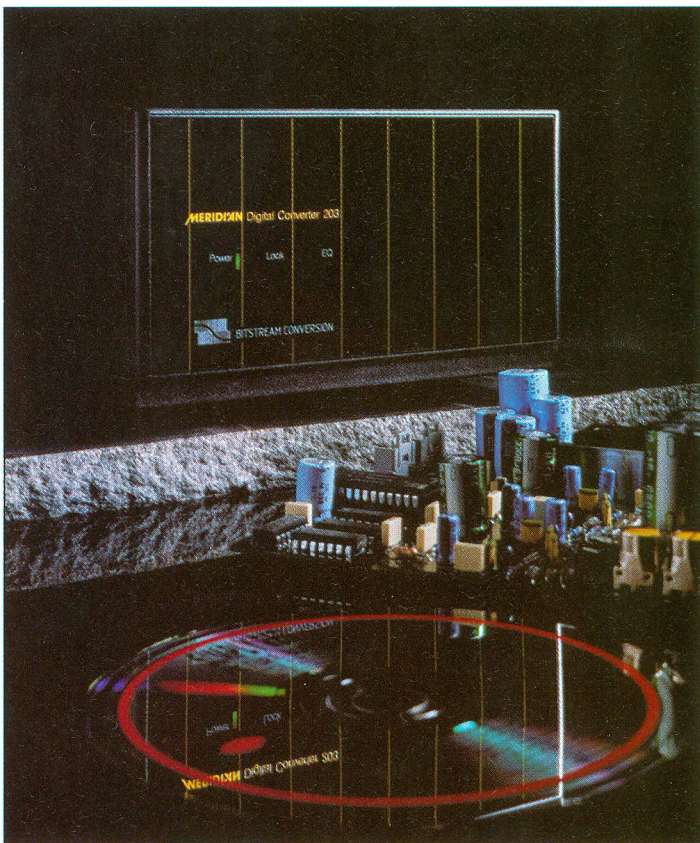
which have a digital outlet. It claims to improve the sonic quality from any of these sources, not only by keeping the audio circuitry well away from the transport and display electronics, but also by providing the very latest in differential Bitstream PDM (Pulse Density Modulation) conversion. The case is a single 168mm wide module, matched in styling and matt black finish to all 200 Series units. There are no controls as such and the front panel simply carries three tiny indicator lamps showing respectively Power on, Lock (to the disc signal phase) and EQ (indicating a disc with pre-emphasis). The rear panel has an IEC three-pin mains socket and on/off switch, alternative optical and electrical digital input sockets and a pair of analogue output phono sockets.

Meridian use two complete Philips SAA7321 PDM processor/decoders in a differential mode, i.e. each channel's digital audio signals are pro-

cessed in both non-inverted and inverted forms, in parallel. Benefits in terms of electrical and thermal equality are said to result from the shared environment. Passive differential analogue filtering reduces common mode distortion and noise, with linearity preserved down to –120dB and S/N ratio exceeding 106dB. A phase-locked loop detection circuit reduces any audible effects of received jitter and automatically matches the received sampling rate from 32 to 48kHz.

How they performed

Beautifully designed and executed equipment like these Meridian units, with selected components, four-layer pcbs and the rest, inevitably preconditions any reviewer into expecting nothing less than outstanding sound quality. I tried to side-step this bias-inducing tendency by imagining that the units were ugly and that I had not peeked inside at the superb work-



Meridian 203 Bitstream D/A converter

manship. However, once I began listening to carefully chosen CDs of known virtue, I soon placed this 200/203 combination in the highest class. Recordings were reproduced with a wonderfully open ambience and natural distancing of instruments and voices. The effect is of a captivating transparency which we music buffs always look for in the best loudspeakers. Rock music may sound too laid back for some tastes but I would expect pop enthusiasts to respond to this effortless neutrality after a spell of detailed listening. On quiet music the exceptional clarity of tone is a joy.

Insofar as the basic test measurements help us to evaluate digital equipment, the 200/203 combination is well up with the best. It easily meets its published specification, with linearity closely matched down to -90dB. Operationally all Meridian units need a brief learning period since their controls are laid out differently from other hi-fi systems. However, particularly using the included remote control or the 209 Controller, the essentially simple access to all functions is soon mastered. Access

times are rather slow compared with some high-speed Japanese designs but never longer than 5 seconds. Mechanical isolation is proof against normal living-room traffic, though a solid foundation is recommended. Disc spinning noises are inaudible at a few feet distance. Error correction is excellent.

We tend to welcome as a breath of fresh air any consumer entertainment product which shows individuality in appearance and logistics—for example Quad, B&O and Meridian—and castigate the majority of designers for producing uniformly boring boxes. The downside of individuality in a system of hi-fi separates is visual incompatibility when we try to mix and match units from different manufacturers. On aesthetic grounds, therefore, it is probably safer to build up an all-Meridian system if the marque has caught your eye and ear on demonstration. But which Meridian system?

Protracted comparative listening tests confirmed my high opinion of the 200/203 but revealed few if any important differences between the

sounds of the 208 and 200/203. The latter did seem to provide a little more air around the performers on selected musical passages but instant A/B switching was needed to show this up. I was tempted to agree with John Gay's "How happy could I be with either, were t'other dear charmer away". Any decision between them is more likely to be based on their different logistics. With its built-in volume control and three-input preamplifier, the 208 makes a neat CD-based centrepiece and could, for example, be coupled direct to a pair of high quality active loudspeakers, such as the Meridian 600s.

The 203 Digital Converter is promoted as being able to improve the sound from any CD player, even the 208. I am prepared to believe this in relation to superior handling of low level signals and reduced jitter. I would also go along with the recommendation to use the optical link in preference to the electrical one, to minimize radiation and interference problems—though again I feel the differences are so small as to be barely significant. The 200 joins a very select

group of CD 'transports' having no analogue outlet. In this role it is a superb performer but it needs an outboard D/A converter before it can be heard.

To sum up, these two new Meridian 200 Series units are well designed building bricks, each capable of seeing off most of the current competition. Carefully cemented to other units of like quality they will give lasting pleasure. Meridian might logically recommend choosing their own 201 Preamplifier (£660) and 204 Tuner/Timer (£575) stretching the budget to a total 200/201/203/204 price of £2,480. You would of course need to match all this with suitably up-market power amplifiers and loudspeakers. Arithmetically you might decide that the 208 at £1,490 for three of these building bricks in just one box is a positive bargain. It would certainly be easier to house. I rate the 200 and 203 separately or together as clearly in the top echelon of digital devices. But where budgeting is important I am happy to echo IH's strong recommendation of the one-box 208. JOHN BORWICK.