

506.20 and 508.24 CD Players

Meridian advances the 508 to the pinnacle of technology with a new 24-bit D-A converter taking the award winning standard of the 508 one step further. The 20-bit 506 uses similar D-A conversion technology developed with Crystal Semiconductor for the 508 CD Player with single-ended outputs and less rigorous re-clocking.



Background

It has become possible, principally through the mastering technologies of advanced psychoacoustic-based noise-shaping, to make compatible CDs with an effective dynamic range in excess of 19 bits. Meridian is the leader in this field, and the Meridian 518 Mastering Processor is widely recognised to make the best sounding CDs.

In order to get the best from this compatible mastering process, the CD player needs to have considerably higher precision than was thought necessary some years ago. For example, to obtain the best sound a player needs, not only a D/A converter of more than 19-bits' precision, but also a DSP filter whose internal arithmetic exceeds 20-bit precision.

The 20-bit DAC

Over a period of three years, Meridian has worked closely with the DAC manufacturer Crystal Semiconductor, helping them to develop the ultimate converter. The resulting device, has the required 20-bit analogue and digital parameters. This DAC is now used in both the 506 and 508 CD Players from Meridian.

The Meridian CD player

The unique Meridian drawer system combines the user benefits of tray loading with the important

performance benefits of top loading.

The pick-up mechanisms use a carbon and glass-fibre anti-vibration disc clamp. This CD transport uses in-house control software that, amongst its many features, adapts the player to the parameters of each CD. The laser pick-up uses a radical, proprietary analogue-processing system that de-jitters the data coming from the disc *before* it is decoded.

Contrary to market trends, Meridian refuses to compromise in the error correction and digital signal processing capability of their CD players. The 506 uses a state-of-the-art decoder IC that provides an exceptional ability to correct disc defects.

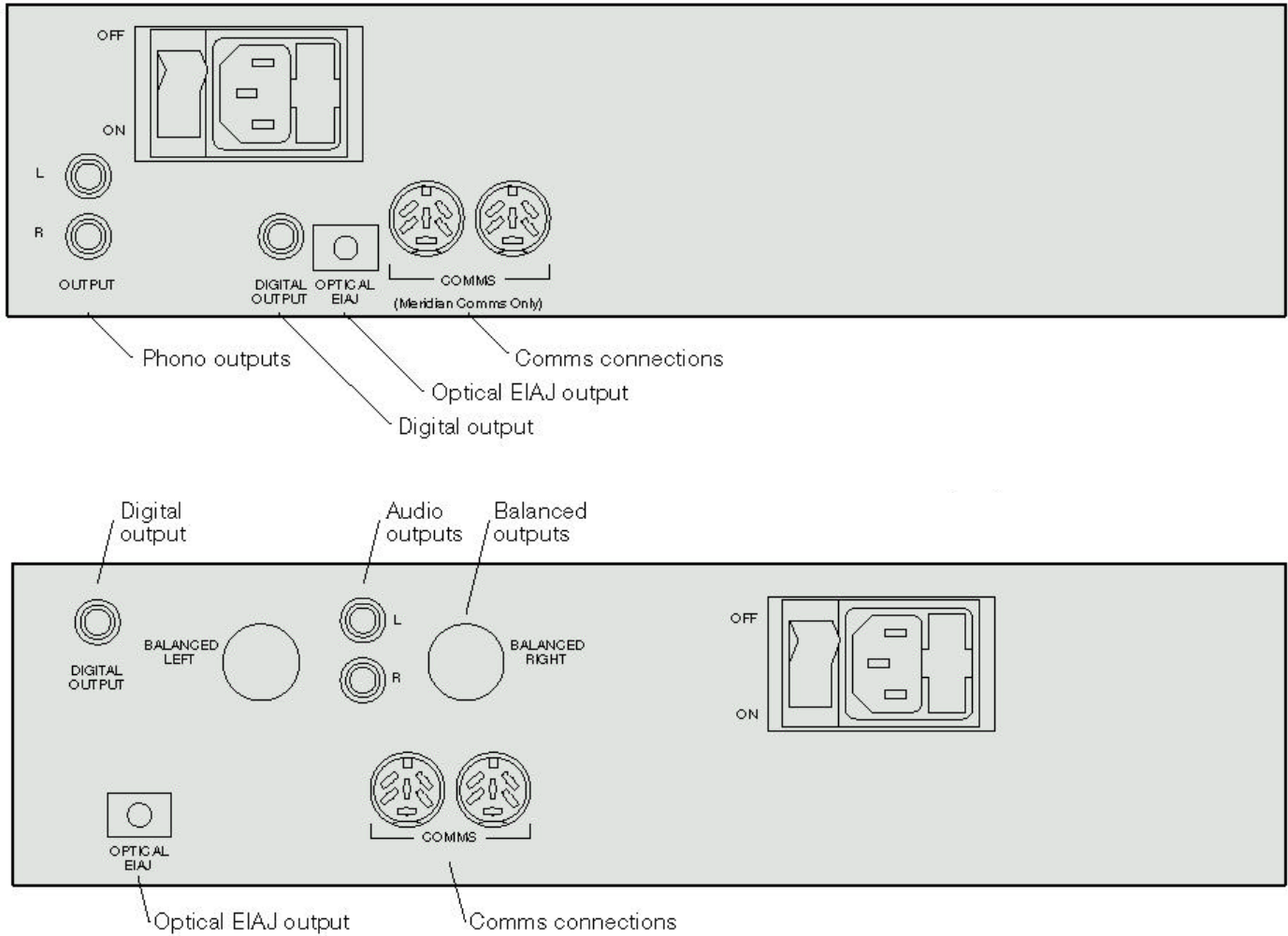
The resulting sound is open, sweet and dynamic with spatial resolution.

The 506 20-bit CD Player

has all the features mentioned here in a player with unbalanced and digital outputs. The 506 is now supplied with the Meridian System Remote (MSR).

The 508 24-bit CD Player

Uses a new 24-bit converter in this one-box player. The master oscillator is precision stabilised for the lowest jitter and the analogue outputs are available on both balanced and unbalanced connectors. Digital outputs on coaxial and optical are double re-clocked.



Performance

20 or 24-bit differential-mode push-pull Digital/Analogue conversion

506 20-bit CD Player

Noise -93dBFS
 Distortion -93dBFS
 Resolution 20-bits

Inputs and outputs

Analogue outputs unbalanced
 Digital outputs on optical, and SPDIF cable

508 24-bit CD Player

Noise <-93dBFS
 Distortion <-93dBFS
 Resolution 20-bits

Inputs and outputs

Analogue outputs unbalanced and balanced on XLR
 Digital outputs on optical and SPDIF cable

Construction

- Precision data-grade Focault-focus linear three-beam laser pickup
- Mechanical loader incorporating glass and carbon-fiber damping wheel
- Audiophile grade components used throughout
- Full remote control using Meridian System Remote (MSR) provided
- Absolute phase adjustable from remote
- Meridian* in-house servo software for higher playability and better sound
- Precision analogue-domain de-emphasis
- Black textured enamel and glass finish
- Dimensions 88mm (3.46in) H, 321 (12.64) W, 332 (13.07) D – Weight 5kg (10lbs)