

Meridian's 518 digital audio processor. It's simple to connect and fairly straightforward to use, yet the range of user options is wide and I could easily spend two or three pages going into everything that's on offer. However, since space doesn't allow this, I'll concentrate on its resolution enhancement abilities. Just keep in mind that it can be used both professionally for CD mastering or as a digital control preamp.

The 518 connects between a digital source (such as a CD player) and DAC. Even set to Bypass, it gives an immediate improvement, de-jittering the signal for a cleaner treble, with more detail and greater dynamics. By itself, this is impressive, but it's also just the start...

With the 518 set in enhancement mode, you're able to match the word length of CD transport to DAC, increase the volume level of under-recorded CDs in the digital domain, and introduce noise shaping: a technique which moves audible distortion to a part of the spectrum where the ear can't detect it. There are five noise-shapers to choose from, plus additive dither and 'flat' options for comparison.

CDs vary widely in terms of loudness, and those transferred at a low level will lack resolution and focus, even when the amp volume is turned up to compensate. The 518 allows the level to be increased by up to +12dB in the digital domain, and a 'Clip' warning illuminates to tell you when peaks are reaching the danger point. On most music, most of the time, it won't matter if 'Clip' flashes up during peaks — you'll not hear any distortion. Indeed, it's surprising how much you can exceed 'maximum' without audible clipping, although much of it depends on the music.

Many classical CDs may need anything from +2dB to +6dB, sometimes more, to reach peak level. Under-

recorded CDs sound tonally pale and lack dynamics and separation, but lifting level in the digital domain with the 518 helps restore missing colour and vibrancy, and improves focus and attack. The difference can be striking.

The different noise-shaping options can prove comparatively subtle, but out of the five on offer I found myself preferring Shapes Band C. With each successive Shape, the sound gets more and more incisive, perhaps to the point of aggression with shape D and E. Noise-shaping subjectively increases low-level resolution and improves detail and separation. It also seems to make the background silences more inky black, allowing quiet sounds to project with greater articulation and vibrancy.

I found the 518 rather music/disc dependent, but it really suits low-level material with plenty of harmonics. Noise shaping gave a quiet oboe solo, backed by plucked strings, a reedier, more plangent tone quality.

Meridian's Bob Stuart prefers the 518 in Emphasis mode, because it reduces digital noise and gives a 1-bit increase in resolution. Some CDs are mastered with Emphasis (a treble lift that rises to +10dB above 10kHz), but they're not that common. The 518 adds digital emphasis, which the DAC then removes with analogue filtering, thus reducing noise like Dolby B.

While accepting the theoretical advantage that Emphasis brings, I preferred the 518 in Gain mode when it appeared slightly sharper and more transparent. The mode preferences, however, will normally depend on personal taste and the DAC used.

All in all, I found myself deeply impressed by the 518. It may sound like hype, but I almost can't imagine how I've played CDs since 1983 without it! Meridian Audio ☎ (01480) 434334 ▲

Meridian's 518 — let it into your life and realize what true hi-fi happiness really is.

Meridian 518

The 518 seems to offer everything you ever wish for. Or is it just a case of a lot of stuff that does very little...?

It's usually a good sign when a new product arrives for test and, after a few days' use, you wonder how you ever managed to live without it. And this is exactly how I feel about

