

NORMA REVO DS-1 media player *by Alan Sircom*

The REVO DS-1 by NORMA is very much a 'now' product. It's the link between the world of spinning discs and the world of computer audio. We've long considered computer audio to be an extra shelf on your system; the DS-1 puts it on the same shelf as your CD player.

It would be wrong to think of the DS-1 as just a CD player, because of that transport mechanism front and centre. It's actually more of a digital hub with a CD transport built in. The rear panel is the giveaway here; it bristles with digital connections (USB, Toslink, two S/PDIF, and even an AES/EBU connector) but only one of the S/PDIF connections is marked 'out'. All the rest are inputs direct to the DAC board at the rear of the DS-1.

It's hard to think of NORMA products without thinking of the ethos underpinning NORMA products, and the DS-1 is an intrinsic part of that product design brief. The idea is that the engineering must be excellent (because, let's face it, the people who build NORMA products are the same people who build test gear), but that is merely the starting point in the process that involved structured listening tests focused on timbre, colouration, transparency, dynamics, soundstaging, grain, and freedom from artificiality. Frequently, too, this is predicated on tests using the human voice, as we are adept at hearing limitations in voice reproduction. It's this additional design criteria (which, in fairness, is a process common to many brands, but perhaps not in so structured a manner) that helped create the REVO DS-1.

The great thing about this is if you pop the top on the DS-1, you aren't met with the typical box of air found in some surprisingly high-end products. In fact, you are greeted by three separate PCBs; one for power supply, one for digital conversion, and the largest one as a dual mono output stage. There's also a toroidal transformer and a smaller daughter board on the DAC board for USB. This last features the popular XLINX chipset for asynchronous USB connection to 24/192. The DAC section itself uses two 24-bit Burr Brown PCM1704 chips, with separate high-grade clock oscillators for multiples of 44.1kHz and 48kHz sampling rates.

Moving back to the CD mechanism, it's a TEAC unit (although not a VRDS design) with a five second buffer. This means it's not the quickest of units to work when you press play, but does mean the error correction is at least notionally

better than standard unbuffered CD replay. We are in an interesting time with digital disc; as we hear rumours of older discs decaying and even new discs sporting errors, this buffering system is a good idea.

The all-discrete component output stage is – as is common to NORMA products – a wide-bandwidth design: although even a 24/192 track hits the Nyquist-Shannon brick wall at 96kHz, the amplifiers are capable of a frequency response into the 2MHz range. This is to prevent any high-frequency cut-offs working their way down into the audio band, but requires solid engineering to prevent the DS-1 making those 'papada, papada' noises when mobile phones periodically poll their nearest cell. Fortunately, as discussed earlier, NORMA is all over the 'solid engineering' bit, and the cabinet is as well made as it is elegant. It's a sandwich design, similar in some respects to Edge's G-Series amplifiers. The big difference between them is the NORMA makes this sandwich construction look elegant, while Edge... makes it look like an Edge G-Series amplifier.

The output stage also comes with XLR terminals alongside the single-ended ▶





► RCA sockets. However, you are strongly advised to use the RCA sockets; XLR is best considered vestigial, a sort of pseudo-balanced connection that shouldn't be used unless your preamp is balanced only.

The Italian player exudes cool, sophisticated charm all over, except for the remote handset. It's out of place here; an oddly shaped plastic curvy thing that looks as if it came from a £30 supermarket DVD player. Worse, it has function buttons that come with cryptic descriptions like 'F1'. There is a nicer-looking and optional system remote coming.

One of the great things about the NORMA REVO DS-1 is that it's extremely adaptable, thanks to the adjustable filter. This helps it make a better 'fit' into a far wider range of systems than most media players. The difficulty for a reviewer is that makes it hard to pin down in sound quality terms. You can specify 'slow' or 'sharp' filter (as well as spec any form of upsampling). This has more depth than simple system matching, because in a multi-source digital world, not all services are created equal; a well-manicured local collection of high-resolution files and accurately ripped CDs generally sounds a lot better than a haphazard collection of music files curated on an internet 'music discovery' service. The NORMA REVO DS-1 allows the listener some opportunity to make the Deezers and Spotifys of this world sound more like audiophile sources, without sacrificing our existing material.

Put simply, 'slow' is more of a full-bodied sound; rich and legato, and describing the elegance of the music rather than its raw intensity. On the other hand 'sharp' puts emphasis on transient performance and gives the sound a little more pep in its step. There's a tendency at this point for people to ask "yes, but which one is better?" This is wrong. It's not about 'better'; it's about what best suits you, your musical tastes, and – perhaps most importantly – what best suits your system.

It's also easy to get the filter and upsampling options wrong and think the DS-1 a Jack of all Trades, and that the 'slow' setting means 'soggy' and the 'sharp' setting means 'aggressive'. In fact, the DS-1 does have a common character. It has a rich, refined midrange that gives instruments a sense of harmonic finesse, and builds up and down from there. It doesn't tame – I played Janis Joplin's *Pearl* album [Columbia] both through CD and USB and it gives her raucous energy full throat (which is saying something; her vocal chords were fully weaponised by then) – it just gives body and structure, and that holds throughout.

An important consideration of this 'shape-shifting' quality of the DS-1 is not just best 'fit' in a system, but how it helps bring out the best in good recordings. But even this ultimately comes back to personal taste. So, the archetypal old-school audiophile, with their collection of 1950s jazz and classical music will gravitate toward the imagery and unforced dynamics of 'slow', and those who like audio to replay Infected Mushroom recordings are likely to go for 'sharp'.

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▶ Filter settings, aside, the upsampling options also work not only to highlight good recordings, but also help the less good ones bring out their best. Not everything recorded in the 1960s is fabulous, and the Bloomfield/Kooper/Stills *Super Session* [Columbia CD] can sound edgy and brash at times. But, by increasing the upsampling, the DS-1 made it possible to listen 'through' the harshness, making listening a more satisfying experience in the process.

TECHNICAL SPECIFICATIONS

Sampling Frequencies: 44.1KHz, 88.2KHz, 176.4KHz, 48.0KHz, 96.0KHz, 192.0KHz

Clock performances: +/- 2ppm typ. at 25°, +/- 10ppm at 60°

Digital Filter: Slow & Sharp mode, based on TI DF1706

De-emphasis: 44.1KHz, 48.0KHz,

Outputs: Line RCA output, XLR Balanced

Outputs Voltage: 3.0 V RMS (+10 dBV) RCA (at 0 dB), 6.0 V RMS (+16 dBV) XLR(at 0 dB)

Output Impedance: 200 ohm

System Frequency Response (CD Mode): 0,0 to 22KHz +/- 0,3 dB (limited from CD standard)

Output stage Frequency Response: 0,0 to 2MHz +/- 3 dB

Oversampling: DF 1706 8 x Digital Filter

Oversampling Filter: User selectable Sharp & Slow Roll-off filter response.

D/A Converter: PCM 1704 Multibit 24 Bit D/A converter

Dimensions (HxWxD): 75 x 430 x 350 mm

Weight: 10 Kg

Price: £3,495

Manufactured by: Norma

URL: www.normaudio.com

Distributed by: Hi-Fi Network

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I am aware that I have devoted more time discussing the filter and upsampling than the sound of the DS-1. But a good digital source should be a discreet and ideal match for the amplifier, and the DS-1 is just that. Those filter and upsampling options just make the DS-1 a match for more amplifiers.

There's an interesting test that inevitably comes out of this: comparing the sound of 'live' CD with the same CD ripped, stored and played through a computer. The best system on the planet isn't going to shine if it's one-sided, but fortunately the DS-1 is equally adept at disc and disk. There should be no marked shift in tonality, detailing, dynamics, or overall image size between a well-ripped and a well-played disc, and that holds here. It's 'similarity' rather than 'identity', and I marginally preferred the sound of the CD transport in most cases (the exception being Martha Argerich playing some Chopin preludes on DG, where the ripped version sounded slightly more solid and authoritative by comparison). But, even in the most marked differences, they were at best subtle. Of course, when faced with a really good recording – Lyle Lovett's *Joshua Judges Ruth* [MCA] for example – it manages to shine both in an audiophile manner and by presenting the music as a highly enjoyable album in its own right.

Digital is dividing into several niche markets at this time, and NORMA is taking an admirably pragmatic line with the DS-1. If you want to play your CDs, fine. If you decide to rip them to a computer and you want to play them that way, that's fine too. If you want to play 24/192 files downloaded from the internet, that's fine as well. OK, SACD and DSD replay are beyond the DS-1, but if it's a choice between sounding as good as the NORMA REVO DS-1 or playing a numbers game with no guarantee of a sound as good as the DS-1, I'm going with the DS-1. +

