

Restek's Resurgence

RESTEK EPOS CD PLAYER (£3700)

RESTEK EDITOR PREAMP (£3900)

RESTEK EXTRACT MONO POWER AMP (£1900 each)

Once associated with the legendary Thorens turntable brand, Restek has gone it alone with a series of sophisticated separates

hi-fine
HIGHLY
COMMENDED



Restek is one of those eminently competent, capable brands seemingly lost in the shuffle. Well-made, priced in the middle-to-upper sectors, modern and sleek: it's a description that describes a zillion brands from Arcam to Primare, Audiogram to Leema. My memories of the marque date to the 1990s, through brief exposure at various hi-fi shows. Now it's back in the UK, tellingly through the efforts of an importer who's also an architect. This speaks volumes for the sort of customer who, today, can consider a system where just the electronics will cost the better part of £12,000.

What's on offer is a line-up of beautifully-made components with clever ergonomics exhibiting enough originality to separate them from the black-fascia'd crowd. In other words, you'd better read the owner's manuals because the three pieces – Editor preamp, Epos CD player and Extract power amp – are made to communicate with each other, and feature a raft of details attesting to Teutonic thoroughness.

Brief note, though: one cannot say enough about the arch stupidity of naming a CD player with a moniker belonging to an well-known rival. It's like Ford naming a car 'Bentley'. (This does, however, demonstrate that Germans are not as sharp as they'd have you believe.)

COMPLETE CONTROL

That aside, the stuff is gorgeous, and a joy to use, with multi-function rotary controls, clear and informative displays and absolutely wonderful fit-and-finish. My only ergonomic gripe is wholly personal, for I am known to dislike top-loading CD players.

'Control' (or should that be 'kontrol'?) is the overriding talent of the Editor, with a display identifying



BACK TO THE FUTURE

Of the three units, the one that caused some head-scratching was the CD player. The question raised was, 'Why did Restek employ early-1990s technology, like x8 oversampling and venerable Burr-Brown DACs?' Founder/designer Adrian Elschot explained, succinctly, 'They're still the best. We tried all the modern devices, but new players use DVD technology; the chips we employ are CD-specific. And Restek is first-and-foremost about music.' Dubbed by one wag as a '1990s player made to 21st Century standards,' the Epos may be a last gasp for classic CD-era hardware. No argument from me: I swear by an elderly Marantz. But one other thing you should know: Restek has over 1000 chips in stock, stored in nitrogen!



source, inputs and outputs, recording status, level and assorted minor functions, accessed through a rotary that changes minor function when you press it. Its back offers single-ended and balanced outputs and nine inputs, of which four are balanced, via mini-XLRs, along with 'RESLINK' system integration.

Deft use of the rotary, along with a comprehensive remote, allows the user to fine-tune the system and tailor its operation to suit the sort of installations about which, yes, an architect would be concerned.

Defining the Extract 180W monoblock amps are front panels filled with huge, green-lit power meters you won't want to shut off. Facilities include balanced and single-ended inputs, IEC mains, multi-way binding posts and buttons to switch off the speakers or the illumination, to choose between balanced and unbalanced, and to set the automatic matching capabilities with the Editor, including resuming the source and level used previously.

For the top-loading-with-puck Epos, the display and multi-function rotary match the layout of the Editor. It boasts – thanks to the vintage innards (see

ABOVE: Single-ended and full-sized XLR balanced connections are available on the CD player (top) and power amps (bottom) with single-ended and mini-XLR balanced sockets included on the preamp (centre). A phono option is available for the Editor preamp with comprehensive loading and gain adjustments

'Together the three pieces demonstrate finesse and delicacy on a par with some of my favourite valve amps'

box-out) – HDCD processing, which will allow you to access, among others, the best-ever Buffalo Springfield transfers. Meanwhile, its rear panel features Toslink and coaxial digital outputs and balanced and single-ended analogue outputs, as well as an IEC mains socket and RESLINK inputs.

REMARKABLY NEUTRAL

Auditioned with Rogers LS3/5As on AB1 woofers and Sonus Faber Cremona Auditor Elipsas, the Restek system immediately exhibited wonderful coherence and consistency. I have no idea if 180 Restek watts are any different than Krell or Musical Fidelity or Quad wattage, but the behaviour was certainly more polite and less unruly than higher outputs often deliver. Whatever other sonic traits you might identify, the three pieces in concert demonstrate finesse and delicacy on a par with some of my favourite valve amps, those from Air Tight.

Before regarding the Restek trio as a system, each piece was substituted for its equivalent in a McIntosh ☺

AUDIO FILE

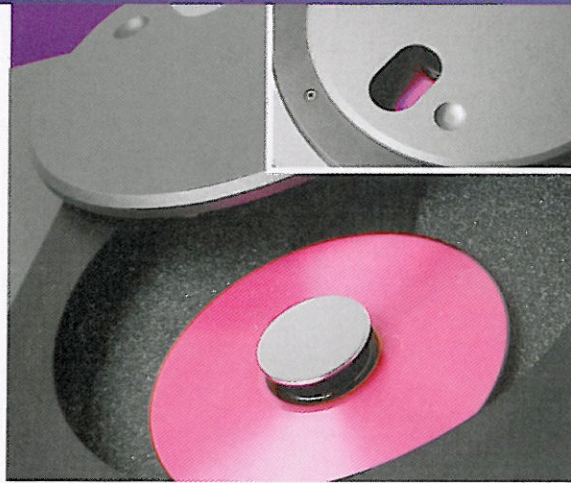
Stereo CD player, preamp and mono power amplifiers. Rated at 180W/80hm

Made by: Restek Systems

Supplied by: Sound Venture

Telephone: 01483 284 555

Web: www.restek.de



ABOVE: A substantial circular hatch (inset) must be drawn aside to load a CD, which is held in place with a clamp

valve system with Marantz CD12, and Quad set-ups consisting of a 99P preamp, 99 CDP-2 CD player and 909 or Quad QC-24/two-forty power amps.

Both the Extract and the Editor proved to be remarkably neutral, and clearly designed to work with each other, but equally they could expand on or help to define the behaviour of the other components thanks to their transparency.

When used with the valve electronics, both the preamp and the power amp imparted a touch of cool to the sound, especially vocals. Working through a Cab Calloway box set, the new 4CD Kevin Ayers retrospective on Harvest and Seal's sublime album of covers, *Soul*, it was easy to detect a leaner portrayal than either all-valve system offered – as you'd expect. But there were surprises, and the Extract produced richer, warmer bass than one's prejudices might anticipate, while the Editor was less clinical than other modern German preamps I could name.

TAKING A SHINE...

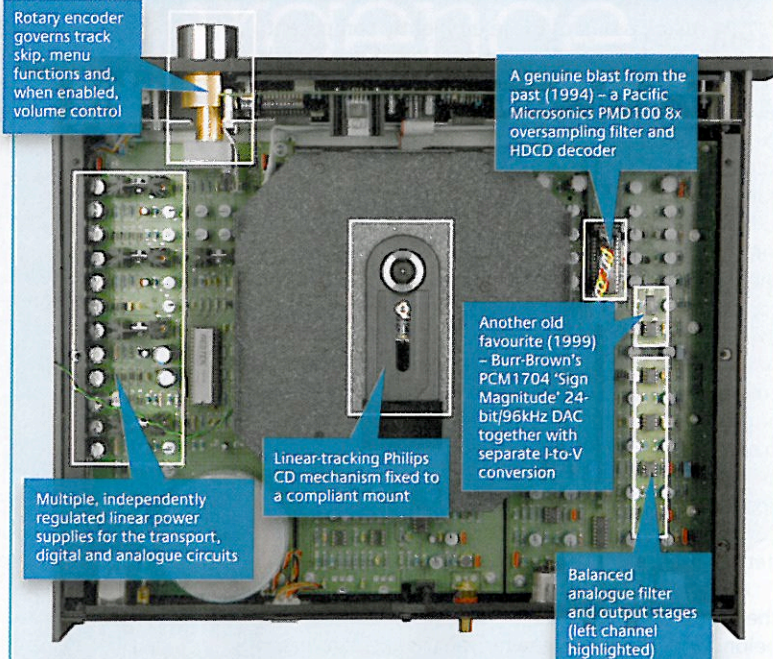
It was the Epos CD player, though, that stood out as the star player, due in no small part to its quasi-analogue sound. Fed through the above systems, as well as Krell's breathtaking S-300i integrated, this CD player produced a warm, lush and dimensionally wide sound, reminiscent of the far more expensive Nagra player and coming so close to the Ishiwata-tweaked CD12 that I spent hours doing side-by-side demos. Its lower registers are some of the most natural I've experienced from CD, with HDCD seeming more like a missed opportunity than ever before: on *Buffalo Springfield Again*, Dewey Martin's drums and Bruce Palmer's bass playing were revealed as way more than adequate for their inclusion in a band with Steve Stills, Neil Young and Richie Furay.

Only a miniscule and tolerable trace of sibilance and slightly shallow soundstage separates the Restek from the Marantz, and the former's never-fatiguing performance undeniably warrants the close-to-four-grand price sticker. This is a classy, involving player, and I'd even consider one for my system if I didn't despise top-loaders. For those with a more sane approach to audio, this is one to consider.

Which is not to say that the monoblock amps and preamp let down the side: they are just as involving and, it must be admitted, more transparent than the CD player. But we're talking about a negligible degree of haze. When you strap all three together, they work like a well-balanced insalata Caprese: harmoniously.

Despite the rating, the Restek system does not suggest the sort of power nor the dynamics of 2x180W. ☞

RESTEK
EPOS CD PLAYER / £3700



Rotary encoder governs track skip, menu functions and, when enabled, volume control

A genuine blast from the past (1994) – a Pacific Microsonics PMD100 8x oversampling filter and HDCD decoder

Another old favourite (1999) – Burr-Brown's PCM1704 'Sign Magnitude' 24-bit/96kHz DAC together with separate I-to-V conversion

Linear-tracking Philips CD mechanism fixed to a compliant mount

Multiple, independently regulated linear power supplies for the transport, digital and analogue circuits

Balanced analogue filter and output stages (left channel highlighted)

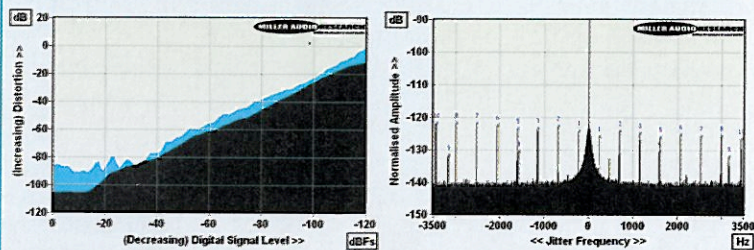
HI-FI NEWS LAB REPORT

Technically, the Epos should be compared with the best players from the early-to-mid '90s – the peak in player development when DACs and oversampling filters were CD- rather than DVD-centric. The PMD100 oversampling filter and Burr-Brown PCM1704 DAC was a popular combination, offering programmable dither options and HDCD decoding. The slightly irregular trend of distortion versus digital signal level [see graph, below left] is characteristic of these chips as is the very low ~0.0005% midrange distortion over the top 15dB of the DAC's dynamic range. Furthermore, distortion remains as low as ~1% down to the last bit in the 16-bit range thanks to the applied dither regime.

The impressively low <115psec jitter enjoyed by the Epos [see graph, below right]

is also a positive feature of this chipset, the residual pattern of sidebands representing the limit of measurement with CD's 16-bit encoding. Low-level resolution is enhanced by the player's fully balanced analogue output stage, its low noise and wide 111dB A-wtd S/N ratio ensuring that signals as low as -100dB are resolved to within ±0.1dB. The stringent partition of left and right channels on Restek's CD board also holds its stereo separation to a fabulous >107dB right across the frequency range.

Restek's analogue stage includes some very mild -0.2dB in-band filtering (at 20kHz) while ultrasonic noise is vanishingly low. Readers are invited to view an extensive QC Suite report for the Restek Epos by logging onto www.hifinews.co.uk and clicking on the red 'Download' button. PM



ABOVE LEFT: Distortion versus digital signal level at 1kHz (black) and 20kHz (blue); ABOVE RIGHT: High resolution jitter analysis (residual 16-bit data pattern marked as pairs of sidebands)

HI-FI NEWS SPECIFICATIONS

Maximum output level (balanced outputs)	4.02Vrms
A-wtd S/N Ratio	111.0dB
Distortion (1kHz, 0dBfs/-30dBfs)	0.00043% / 0.0055%
Distortion (20kHz, 0dBfs)	0.0042%
Frequency response (20Hz-20kHz)	+0.0dB to -0.2dB
Digital jitter	<115psec
Resolution (1kHz re. -100dBfs)	±0.1dB
Stereo separation (20Hz-20kHz)	>107dB

CD PLAYER & PRE/POWER AMPLIFIER TEST



ABOVE: The Editor preamp's comprehensive set-up menu is navigated by clicks and twists of its chromed control. The Extract power amp display may be switched off in use

They don't run out of steam, and you have to hammer them to detect even mild compression, but those who have savoured the delights of an OTT Krell or one of Musical Fidelity's less restrained offerings will appreciate the difference between 'normal' electronics and those which – like a supercar – suggest no dynamic range nor SPL limitations with sane reach.

Instead, the Restek system is about refinement and comportment. It positions sounds with precision, each with its own space. Even the mono Cab Calloway recordings of 70 years ago showcased every performer, while the remastered Buffalo Springfield albums revealed more than I recall, especially the layering of the voices during three-part harmonies, and the mass of the drums. With Seal's *Soul*, fans will delight in hearing richer vocal textures; you can appreciate that he has grown into covering classics from the likes of Al Green.

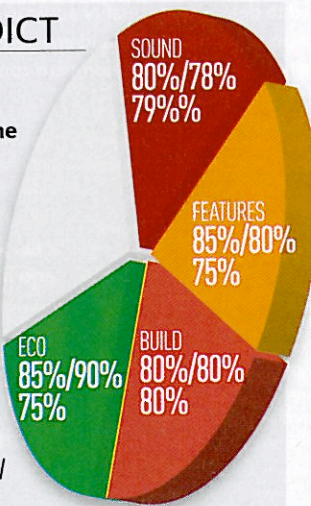
DOWN TO BRASS TACKS...

If one wishes to dip into a grab bag of clichés, yes, the Resteks do the 'German' thing with transients and percussive attack. I don't own any oom-pah-pah recordings, but nothing I heard would suggest an inability to reproduce a marching band's kick... provided the levels are realistic rather than earth-shaking. At the frequency extremes, the transients are tight, deliciously fast and well-controlled, with realistic decay, again benefitting material of a rousing nature. Also benefitting from this are brass sections; both Seal's 2008 set and Calloway's from the 1940s positively sizzled. ☺

HI-FI NEWS VERDICT

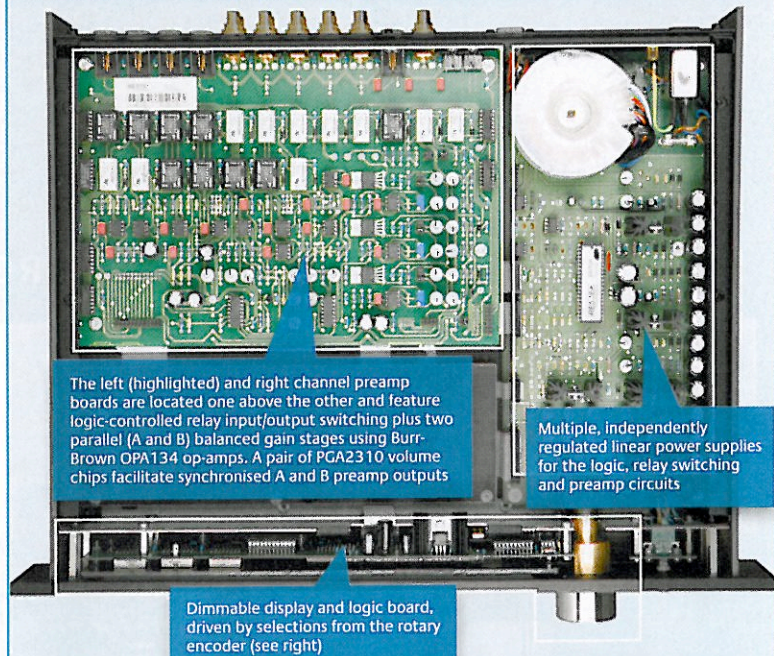
Sounding 'right' straight out of the box, the Restek package vividly supports the case in favour of one-make systems. Each component, especially the CD player, has standalone appeal, but – as a complete set – the three make more sense. Ergonomically clever and well-made, it's a perfect choice if you have doubts about synergy.

Right: Scores for CD player / preamp / power amplifier



RESTEK EDITOR/EXTRACT PRE/POWER AMP 3900/£1900

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RESULTS



The left (highlighted) and right channel preamp boards are located one above the other and feature logic-controlled relay input/output switching plus two parallel (A and B) balanced gain stages using Burr-Brown OPA134 op-amps. A pair of PGA2310 volume chips facilitate synchronised A and B preamp outputs

Multiple, independently regulated linear power supplies for the logic, relay switching and preamp circuits

Dimmable display and logic board, driven by selections from the rotary encoder (see right)

HI-FI NEWS LAB REPORT

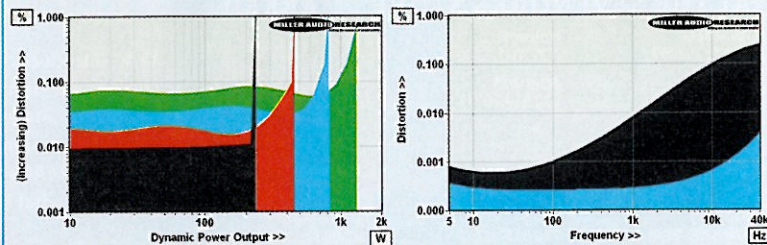
Restek has engineered the Editor preamp [see inside shot, above] and mono Extract power amp to offer very similar properties in all key areas but one. They both have an identically tailored frequency response that's just $-0.12\text{dB}/20\text{kHz}$ and $-2.1\text{dB}/100\text{kHz}$ and both offer very wide A-wtd S/N ratios of 90.4dB (pre) and 97.1dB (power). The output impedance of the preamp is very low at 50ohm (balanced) and 100ohm (unbalanced) just as the Extract benefits from a sub-0.01ohm source impedance through the bass.

Distortion is spectacularly low at $\sim 0.00025\%$ through bass and midrange from the preamp, increasing to just 0.0012% at 20kHz and 0.004% at 40kHz [see blue trace, graph below left]. This is where the performance of the power amp differs, for while its midrange distortion is impressively consistent at $\sim 0.01\%$ over its full rated 180W range [see black trace,

graph below left], it increases substantially with increasing frequency. In practice this means some 0.0006% at 20kHz, 0.008% at 1kHz, 0.17% at 20kHz and 0.25% at 40kHz [black trace, graph below right].

The preamp draws a mere 10W at idle, the Extract power amp just 18W, increasing to 280W (per mono chassis) at its rated 180W/8ohm output. The practical output is higher at 194W/8ohm and 330W/4ohm increasing still further to an impressive 825W/2ohm and 1.33kW/1ohm under dynamic conditions. Expect the Extract to drive 99% of all speakers with aplomb.

Finally, the Extract's 'fishbowl' power meters are most accurate around 15W/8ohm, under-reading above and over-reading at lower power. Readers are invited to view extensive QC Suite reports for both the Restek Editor pre and Extract power by logging onto www.hifinews.co.uk and clicking on the red 'Download' button. PM



ABOVE LEFT: Dynamic power output vs. distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green); ABOVE RIGHT: Distortion vs. frequency (Editor at 1V, blue trace and Extract at 10W/8ohm, black trace)

HI-FI NEWS SPECIFICATIONS

Power output, 8/4ohm (<1% THD)	194W / 328W
Dynamic power (into 8/4/2/1ohm)	236W / 450W / 825W / 1330W
Output impedance (20Hz–20kHz)	0.009–0.035ohm
Frequency response (Pre/Power, 20Hz–100kHz)	+0.0dB to -2.1dB / +0.0dB to -2.1dB
Input sensitivity (Power, 0dBW/180W)	139mV / 1870mV
A-wtd S/N ratio (Pre re. 0dBV / Power re. 0dBW)	97.1dB / 90.4dB
Distortion (Pre 0dBV / Power 10W/8ohm, 20Hz–20kHz)	0.00025–0.0013% / 0.0005–0.18%