

One Love

Suddenly everybody's doing it – fitting tube output stages to their CD players, that is. Channa Vithana auditions the affordable Unico CDP from Italy's Unison Research...

Hot on the heels of the Shanling CD-T80 that did so well in last month's digital issue (causing pain to a number of silver disc spinners at nearly twice its price, if you remember last month's group test), comes the £895 Unico CDP from Unison Research. This is essentially a downsized version of the more expensive CD; it does not use cheaper components to its bigger brother, but rather employs simpler circuitry and fewer features.

There are four main differences between the CDP and more expensive CD. The first is the omission of the voltage stabilising circuit (and external heatsink) which gave a degree of mains immunity.

Second is the omission of the digital input, third is that the CDP uses one valve instead of two in its output stage and fourth the CDP has

no balanced output sockets.

The CDP uses the same TEAC CD-ROM transport as the Unico CD. Unison Research says that the motors incorporated in the transport are of the low-vibration, brushless, asynchronous type. The laser has a glass lens, which is superior to the plastic lenses used in most CD players. The guides and supports for the moving parts of the tray are lapped steel (not plastic), and the output signal from this transport is S/PDIF format. As an added bonus this mechanism is mounted on a rubber suspension to reduce the possibility of vibration affecting the reading capability of the laser diode.

That the transport uses steel guides and supports for the moving parts is a welcome feature for a ROM mechanism, but in this case it is not really a surprise as it comes from TEAC. As Japanese brand TEAC is Esoteric's parent company, the £9,000

Esoteric X-01's transport (though obviously far more complex and expensive) also featured the same engineering philosophy with brushless motors, plus well-built and finely crafted guides eschewing cheap and flimsy plastic parts to improve sound quality.

Inspecting the transport revealed that it had its own stiff delineating folded metal sub-chassis, with the same non-flex thickness as the casing and lid. It is fixed to the sturdy fascia at the front. The transport is then supported by a sandwich layer of plastic and rubber washers at four points and then the sub-chassis sits on foam-like disks at the rear with no metal contact to the main chassis base-plate.

DACs and DSP chips are from Crystal and a Philips microprocessor for disc reading and display is also employed. A Crystal chip is used for the digital signal processing





minimising "clock-jitter", then the digital signal is oversampled to 96kHz with a filter using a Crystal CS8420 chip. After this the signal goes to a Crystal CS4392 24/192 DAC. This freshly converted analogue signal is filtered by a passive network and sent to a valve preamp stage which operates in pure Class A. This valve output stage is said to be zero feedback and utilises an Electro Harmonix Russian 12AU7A/ECC82EH variety.

Unison says that, "the electronic circuits are fed from one large, low-flux power transformer designed specially by Unison Research for this project. Five separate stabilized power supply stages are used, of which the one providing anode voltage (to the valve) is a power MOSFET stage".

Externally the Unico CDP is an elegant design, with successful ergonomics, superb light-sensitive display and simple but practical button layout. The front fascia is approximately 14.5mm thick and is finished with attractive extra-fine satin silver. Proportionally the disc loader drawer-front is attractively slimline and works well in compositional terms with the display/sensor openings, buttons and wood bodied logo.

The build quality of this player is excellent and so is the finish and design. However, I would have liked to see the lid in the same colour and texture to the front panel, plus a more discrete model nomenclature – as sophisticated finishing touches.

SOUND QUALITY

The orchestrations of 'Maria T' by the Balanescu Quartet were nicely rounded, with a delightful timbre to the violins and cello. Violins in particular were very good for a player in this price range. Cello had excellent timbre with some superbly textural qualities which procured a full-bodied feel to the music. The whole of 'Maria T' had an effortless flow to it through the Unico CDP. Musical timing was also very good as I could not discern any oddities with dislocated frequencies or instrumental separation, which might have robbed the music of a decent surge. The sound of the Unico CDP with the Balanescu piece could be described as enjoyably expressive in its timbre and deeply spatial and atmospheric in its overall execution – which suited the music very well.

Solo piano playing on the Ligeti 'Keyboard Works' was well-rounded in timbre. With deft articulation and placement of rendered piano notes I could really enjoy the method of the occasionally arresting compositions. The Unico was able to show a multilayered acoustic with just the solo piano from the higher frequencies to the lowest ones without any ringing distortions that can sometimes occur when keys are struck with emotional physicality.

On the spiky but melodic 'I Need Some Fine Wine And You, You Need To Be Nicer' by The Cardigans, the Unico produced an interesting mix of potently rendered instruments, with bass and drums being very



convincing. Yet it was also able to excavate some very finely textured and engrossing high-frequencies to Nina Perrson's vocals and the hook-like guitar melodies. It was this combination of the boldly structured buzz and hum of the electric rhythm guitars, bass and drums and then finely rendered fragile yet sweet but slightly evil female vocals plus guitar

Savoy's rhythmic guitar melody was very convincing, being timbrally expressive near the end.

CONCLUSION

I was very pleased at the performance of the £895 Unico CDP indeed, and can describe it as having a long lasting, delightful aftertaste instead of a nasty sharp bitter one

of the Ligeti CD.

To my ears, the Unico outclassed the £650 Shanling CD-T80 in almost every area, and considering its relatively small price premium can be considered superb value. Indeed, it even had a few successful uppercuts at the more costly £1,350 Densen B-400 Plus player. An interesting and unarguably superb sounding CD spinner, the Unison Research CDP represents brilliant value for money and makes the established sub-£1,000 machines look all the more venerable.

"the whole of 'Maria T' had an effortless flow to it through the Unico CDP"

melodies that really amazed me with the Unico. It takes a little more time to appreciate this but it will inevitably become noticeable in long term ownership. The musical separation enabled me to concentrate on both the intricacies and the overall structure of the song. The sound of The Cardigans as a whole was most enjoyable, beautifully conveying a real sense of intimacy for tightly focussed guitar-pop with a classic rock and roll swagger.

With 'Locust' from 1993 recording 'Memorial Beach' by A-ha, there was a superb atmospheric feel enabled by the noir-ish vocals of Morten Harket. The whole of 'Locust' had a really moody, epic quality through the Unico as it opened out the sound brilliantly. There was a nice counterbalance to the full-bodied brooding keyboards by Magne Furuholmen and bass guitar with the chilling stately drum track. Guitar melodies were also nicely portrayed with appropriate levels of buzzing, crackling feedback which was most enjoyable.

On the driving rerecording of 'Move To Memphis', Morten Harket's vocals spread out across the room, while the bass extension and dexterity was just right, enabling nimble but deep low-frequencies to be present without upsetting the musical timing or the song structure. Paul (Pal) Waaktaar-

that some sub-£1,000 CD players can have. It didn't take long for me to realise that here was a CD player that enjoyed revealing the finer, inner workings of an instrument or voice with aplomb. Additionally it had a powerful and dynamic ability, well-balanced musical timing and real finesse which unravelled the joys of complex multilayered music such as the A-ha and Balanescu Quartet CDs or the simpler rock and roll of The Cardigans and solo piano intricacies

MUSIC

Balanescu Quartet 'Maria T' (2005)
György Ligeti Edition 6 'Keyboard Works' (1997)
The Cardigans 'I Need Some Fine Wine...' (2005)
A-ha 'Memorial Beach' (1993)

REFERENCE SYSTEM

Shanling CD-T80 CD Player (£650)
Densen B-400 Plus CD Player (£1,350)
Eclipse A502 single-input amplifier (£895)
Phonosophie Classic 1 integrated amplifier (£2,000)
Zu Druid Speakers (£2,295)

MEASURED PERFORMANCE

The Unico has a flat frequency response, free from the top end roll down common to valve CD players. However, there was a +0.2dB plateau lift below 100Hz, reaching down to 10Hz, and this may well affect the subjective balance too, adding a little emphasis to low frequencies.

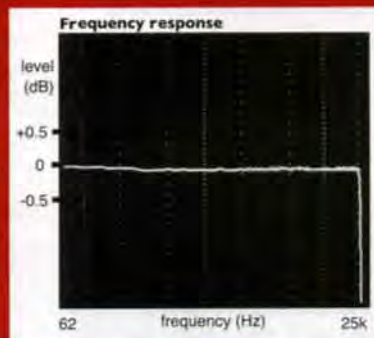
Distortion levels were higher than is possible, both at high levels due to the valve, and lower down due to the digital convertor used. There may be some slight colour, like greyness, or a little coarseness from this. This wasn't an especially linear player by current standards.

There was a jitter spectrum on the digital output, peaking at a high 8nS, a bad sign.

In keeping with mediocre linearity dynamic range by the EIAJ standard was a poor 101dB. Output was slightly low at 1.7V.

The CDP doesn't produce class leading results and could usefully be improved. NK

Frequency response (-1dB)	
CD	2Hz-21.3kHz
Distortion	
0dB	0.15%
-6dB	0.07%
-60dB	0.6%
-80dB	32%
Separation (1kHz)	
Noise (IEC A)	-92dB
Dynamic range	101dB
Output	1.7V



VERDICT

Superbly engineered yet quirky too, this hybrid CD player gives nothing away to any price rivals and thus represents superb value.

UNISON RESEARCH UNICO CDP £895

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FOR

- timbre, power and finesse
- excellent build and finish
- long-term musical satisfaction

AGAINST

- patience to appreciate