THE ESSENTIAL HI-FI

MAY 2006 | £3.90 | WWW.HIFICHOICE.CO.UK

Eclipse TD510 speakers worth £1,200! See page 22











# **EXCLUSIVE TESTS!**

Brilliant new players from Rega, Cyrus, T+A and Audio Research







THE BEST







2nd hand hi-fi mini-mag!



# FEATURING

- Arcam Alto
- B&W CM1
- ALR Jordan Entry L > Dynaudio Focus 110
  - Monitor Audio RS6
  - Opera Prima



# Reference manual

No gizmos, no gimmicks, no automated niceties... just CD audio engineering at its finest

PRODUCT Audio Research Reference CD7

TYPE CD player

PRICE E8,000

KEY FEATURES Size (WxHxD): 48x13.4x39cm

- Weight: 14.8kg
  Crystal 24-bit DAC
  Balanced (XLR) and single-ended (phono) analogue outputs
  Balanced (XLR) AES/EBU and single-ended (phono) coaxial digital outputs

CONTACT 20 020 8971 3909

he word 'reference' is taken really, really

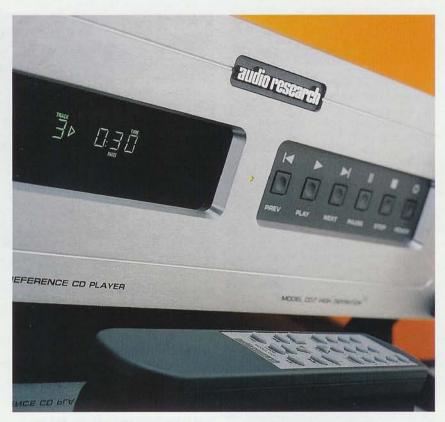
grab handles and a simple green LED read-out

The Reference CD7 is slightly deeper than the CD3 MkII, deep enough to hang off the to the Reference 3 preamp, so it's in good ARC or anything sappy like that - this is the belt 'n' belly of the beast and the high mass of the similar style to a heavyweight turntable platter









# "This player is a Reference point sure enough, but a reference that categorically refuses to wear its lab coat."

Like the CD3 MkII, the Reference CD7 uses a Crystal 24-bit DAC, although this is not the sort of player that features upsampling, post-22kHz brick-wall signal reconstruction techniques on any other forms of audio hippy nonsense. It's just good, solid delta-sigma technology, done right.

The slats in the top and side of the case dissipate heat from the four 6H30 triode valves used in the output stage of the player, together with a further three 6H3Os as high-voltage regulation for the power supply. This is a new thing for Audio Research: despite its 'hollow-state' (valve-based) heritage, the CD players that went before the Reference were all profoundly solid-state in approach. But the development of the Reference 3 preamplifier (reviewed in HFC 272) changed all that. The output stage of that preamp offered such a performance boost to the Audio Research sound, in such a potentially modular package, it would have been folly not to use it in other products. So, out went the solid-state output section and in went essentially a baby Reference 3 preamp gain stage, complete with intricate and sophisticated capacitor grid-like layout, unique to Audio Research.

This, of course, necessitates a revision in the power supply stage and this CD player sports the sort of meaty power delivery that is the dream of many an integrated amp designer.

The valves also necessitate higher power consumption than is usual with CD players: it draws up to 120 watts and even up to five watts when turned off, but still connected to the juice. If you want to do your bit to save the polar ice caps from marauding superheated whales or something, look elsewhere... or switch off the player at the wall if you are concerned by a five-watt power draw. (If you are concerned about this, how do you sleep? Your alarm clock radio has about the same power consumption levels.)

# **SOUND QUALITY**

Audio Research is one of those companies that has a very definite 'sound' to its products. They are big, powerful and bright sounding in the main. Recent Reference products challenge that standing, by adding layers of finesse and levels of listen-through insight that puts the company at the very forefront of what's best in audio these days. The Reference CD7 player completes the package.

This player is a Reference point sure enough, but a reference that categorically refuses to wear its lab coat. The player manages to combine the sort of musical grace that is so rare in digital replay with all the detailed analysis of CD at its best. Yet it doesn't seem engineered to sound like an 'analogue' player: its design is wholly 'digital' in approach. It

simply represents the very best of digital engineering as it stands today.

Perhaps the best example of what it does so much better than the vast majority of players is found in the voice of Joni Mitchell. Many of us have years of extensive exposure to Joni Mitchell's voice and the sparse backing she often used in her best works. Many of us also have the same albums replicated on vinyl and CD, because they are old friends. So, Joni Mitchell's voice holds plenty of charm, but little mystery from an audio perspective... or so I thought. I'd forgotten just how important her lyrics, how beautiful the orchestration, how pure the voice until Blue was played on the Reference CD7. This wasn't just a CD playing, it was casting a spell back to that first time I heard Joni Mitchell and how much you take that voice for granted.

Those of us old and fat enough to remember punk and new wave will have a collection of truly dreadful remasters of not that good original recordings from the 1970s and 1980s. These take the words 'edgy' and 'raw' to new levels. Usually, there are only two ways that CD players approach such musical content; with all the warmth and charm of a chainsaw, or with all the edginess of a well-chewed soft cushion. Very, very occasionally, a CD player appears that can cut through the raw quality of the recording to deliver up the equally raw musical content, without smoothing over the sound in the process. Eight grand on a CD player to listen to Gang of Four's radical left-wing Entertainment! may be an exercise in irony, but it nevertheless serves as a prime example of why this player works so well. It manages to get past the recording and deliver levels

# Review Audio Research Reference CD7 CD player

# 0 & A

We spoke to Terry Dorn, vice president of marketing and sales at Audio Research, about why it took so long to make a Reference CD player



### HFC Why has there not been a Reference CD player before the CD7?

TD The Reference CD7 is our first Reference series CD player for two primary reasons. It is the first CD player/transport under our name that we believe has a level of performance commensurate to our other current Reference models - in information retrieval and definition, soundstage precision and musical dynamics. Also, the CD7 takes direct advantage of circuit technology first developed for the Reference 3 preamplifier.

## What technology has been used from the Reference 3 preamp?

The analog audio stage of the CD7 is basically transplanted directly from the Reference 3 preamp. We believe it to be the best audio line-stage circuit we have yet developed, and so it was a quite logical step to think of its application in a product like the CD7. The basic circuit topology employing four 6H30 twin triodes, massive power supply, custom proprietary power transformer and costly proprietary output coupling capacitors all found their first use in the Reference 3.

# Can the Reference CD7's technology trickle down to regular ARC players?

Unfortunately, the factors that give the Reference CD7 its remarkable performance also make it more costly, and therefore less suitable for finding a place in less expensive products. Exacting selection, custom manufacture of expensive components and precision hand assembly do not yield the cost savings necessary for moving down-market.

### What's next for the Reference series?

Having introduced four new Reference models in a little over a year is enough to keep us busy with production and support of those models for now. They are all doing well enough to keep us on overtime production at our factory in Minnesota. As for the future, we'll just have to see where our market leads us.

Are there any plans for a universal disc player? Multi-format players, even of very high quality, inevitably entail compromises in one format or another, and to our ears, it is often two-channel music reproduction that suffers. So we have kept

our focus on dedicated two-channel player/ transports. A multi-format player just doesn't fit who we are and what we do best.

of detail and musical communication unheard of with this low-fi recording. Of course, it also makes unaccompanied female vocals sound seductive and dynamic classical recordings seem powerful and titanic.

These are the sort of justifications people have used to explain the continued success of vinyl in the digital world of today. And, in some ways, this is a 'record player' for the digital age. It is not engineered to sound warm and romantic, it merely makes you want to play your discs more. You call them 'records', not 'CDs' when you play discs on the CD7 - oddly.

In truth, we struggled with this player. Struggled to find anything bad to say about it, that is. It doesn't 'pretty up' the discs it plays, yet its natural-sounding clarity is wonderfully easy to listen to. And, just to get this absolutely clear, it doesn't sound all warm and 'valve-y'. It's also a really 'quiet' sounding CD player, it's not low in gain, it's just there is an absence of digital hash that has to be (not) heard to be fully understood. This makes the noise floor of the whole system appear lower, with music rising out of limpid pools of inky black silence. Oh dear... time for the medication, nurse.

Just as Audio Research has its Reference, so does any reviewer. We all have a series of benchmark products (either physically in situ, or with a sound firmly locked in our own memory) by which products must be evaluated. From recent experience, these would include Audio Research's own CD3 MkII and the Townshend Audio TA 565 CD beneath the price of the CD7, and the full four-box Zanden

Model 2000/Model 5000 Signature priced way above it. Of these, only the TA 565 CD was directly available for comparison, but from this one benchmark point, it was clear the Reference CD7 is in a different class. Sounds were far fuller through the Reference CD7, with the sort of coherence of both music and musical instruments that showed up the limits

of the already sublimely coherent TA 565 CD.

£8,000 for a CD player - when one can be picked up for thirty quid these days - may be a tough call to argue for bargain status, but hear us out. If what's important to you is the replay of music, then this player must be compared to its musical peers, not in absolute terms against lesser products that produce a 'digital noise' simulation of music. In that context, this player must be ranked alongside the best that Wadia, Zanden and the like can offer. And those companies all deliver products that make eight grand seem like loose change. In that respect, this player really is a bargain after all. HFC

Alan Sircom

