

# Quad Elite CDP (£1199)

Updating a near-perfect component isn't easy, but Quad has managed to 'transition' the much-loved 99 CDP-2 combination player/DAC to match the new Elite line-up  
Review: **Ken Kessler** Lab: **Paul Miller**

**D**uring this pivotal moment in the evolution of digital storage and playback, the CD player has reached 'legacy' status.

Disc sales are plummeting with vertical intensity – a well-placed record label owner told me the real figure for CD sales is that they are down 80%. Meanwhile, the battle between streaming and downloading, to determine which will be the dominant format for the next generation, continues to rage. Compounding this is Steve Jobs' – and, for that matter, Microsoft's – recent push towards 'cloud' computing, which is (surprise, surprise) effectively a hybrid of downloading and streaming.

How this affects high-end audio *per se* has never been a general issue so much as a specific one. In broad terms, whether we purchase physical software such as CDs or LPs, download to storage in the home, stream in real-time, or store files in 'the clouds', at some point it has to be played back via a sound system. That's an inescapable fact. The degree of quality desired – determined by whether you want to do this via a serious sound system or through a cheapo dock – is neither here-nor-there: that is merely a matter of proper hi-fi versus the rest, which has existed since 78s and mono AM were the music/speech sources of note.

## THE WAY TO GO

As for specific current issues, there are only two questions: do you own a large enough CD library to *not* want to purchase it all over again via iTunes or some other means, for non-physical format access? Or a library too large to upload to a server? If so, then buy a CD-only device.

If, however, you're not limiting your options, then access to a DAC – by whatever means of ingress – is the best way to do it. Feed your computer, Sky Box, portable or whatever other source

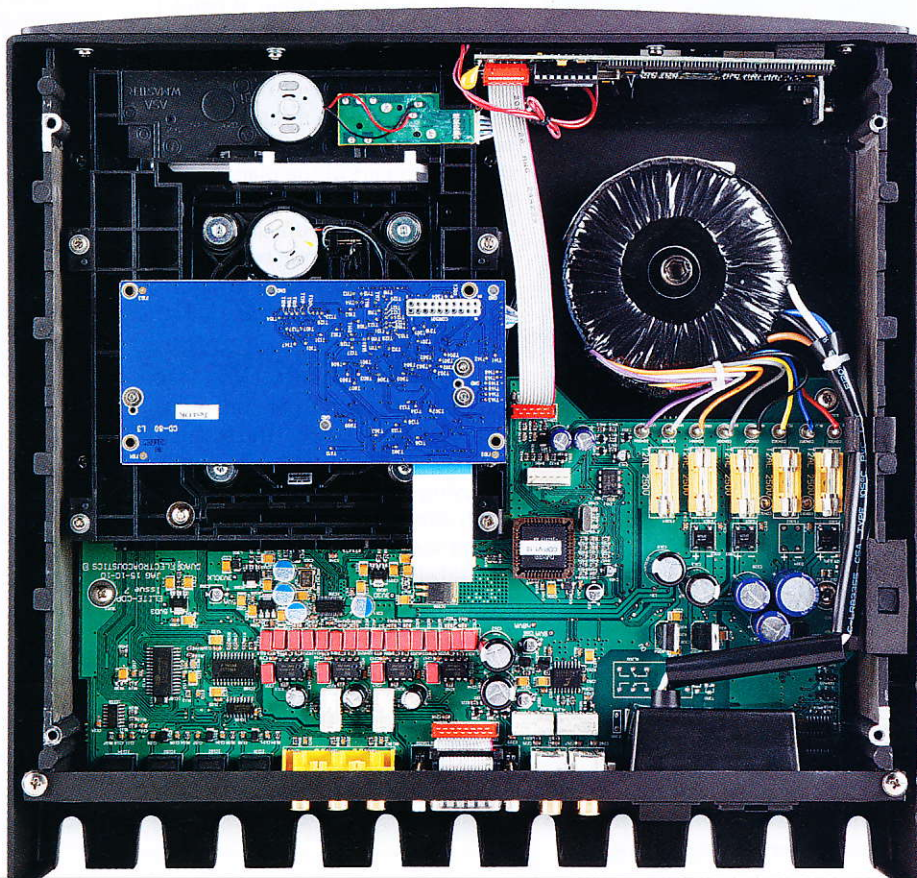
you wish to access, via its digital output into something like a CDP, and you have successfully integrated digital alternatives into your existing home sound system.

Quad recognised this years ago with the 99 CDP-2, which took a full-function CD player, fitted its DAC with a selection of digital coaxial and Toslink optical inputs, and provided both fixed and variable outputs to enable the device to serve as a preamp. Then, as now, the inclusion of a single stereo analogue line-level input would have increased its flexibility immeasurably, but that's one legacy it chooses to ignore.

Aside from not featuring digital inputs such as balanced XLR, USB and others current and forgotten, the 99 CDP-2 and now the Elite CDP enable their owners to accommodate six extra digital sources.

It is crucial that you compare this and other standalone CD players, even though many now add USB inputs, if its extras are to matter. I have (nearly) always operated the 99 CDP-2 with the Quad 909 power amplifier via the 99 preamp, using the 99 CDP-2's fixed outputs. The added value for me came from the digital inputs rather than the preamp output capability, and I fed it assorted Musical Fidelity 'X' components, a couple of computers, an iPod dock and much more.

While I still use stand-alone CD players with varying levels of access to their DACs – even the late-1980s Marantz CD-12/DAC-12 accepts other digital sources – I feel that there is no political issue worth creating around a which-is-better scenario, as would be normal audiophile practice. It simply doesn't matter beyond practicality.



**RIGHT:** Seen from the underside and clearly based on the CDS [HFN Jan '11], the CDP has an additional Cirrus Logic chip (bottom LHS) to handle digital input switching and processing





But make no mistake: CD will become increasing less the recipient of refinements and future developments, outside of those wonderful, yet barely-seen-outside-of-Japan advances such as Blu-spec and SHM CDs and SACDs. How lucky they are to have a home market large enough to support such bravery. Where, then, does that leave the 'in-betweeny' Elite CDP?

#### QUAD TRADITIONS

The new range is effectively an update of the 99 Series. Therefore this unit bears precisely the same relationship to the 99 CDP-2, with circuitry improvements and aesthetic changes such as its much better front panel illumination.

Indeed, when it came to insert the Elite CDP into my all-99 Series system driving LS3/5As, I noted that it has the exact same dimensions, right down to the same indents in the top for stacking. So, those owners of 99 Series components can integrate Elite units without recourse to changing the shelf space allocation or worrying about synergy and compatibility even with QUADLink connections and use of the old remotes. This integration of old and new is a Quad tradition dating back to the move from Quad II to 33/303. Only the colours will differ.

*'Lower registers on CD playback remained rich and extended'*

As for the delayed arrival of the CDP, the initial launch last autumn consisted of the Elite CDS CD player, FM tuner, preamp, and stereo and mono power amps. The CDP was still in development at the time and began shipping recently – nothing sinister about the delay. It just wasn't ready.

As Elite is an on-going project with, it is hoped, the same longevity as 99, expect to see more over the next year or two, including a replacement for the upmarket 909 stereo power amp with current-dumping technology, called the Elite QSP. One suspects that this amp will make a stunning

partner for the CDP, for a compact two-box solution. There will also be a monoblock called the QMP.

As Quad unashamedly explains it, 'the CDP is essentially a CDS CD player with the digital preamplifier functionally added – the challenge is to add this feature without degrading the CD playing quality.' This means using the same Cirrus Logic Crystal DAC, 'selected for its sound quality'. The layout of the Elite CDP has been devised so that the various supplies are separated back to the transformer windings, and the CD transport should not have any deleterious effects. As for its line outputs, the analogue section's signal path is

**ABOVE:** Controls are identical to those on the CDP-2, only the colour and badge change and extended black plastic 'window' denoting that this is the Elite model

minimalist, with only a single active stage per channel. This includes the balanced QUADLink output which I used to feed it to the 909 as well as to the 99 preamp for part of the review period. Note that QUADLink is a fully-balanced connection system for use between other Quad Elite products, eliminating all other cables save for the speakers. It also carries system controls, synchronising the units, as well as managing remote control commands.

#### ANALOGUE IN CHARACTER

Comparing it with my notes for the CDS, I detected no remarkable differences when using the Elite CDP strictly as a CD player. The Elite CDP is the kind of CD player that – had it been around 20 years ago – would have gone some way in calming down the nay-sayers who uttered such drivel as 'listening to CDs causes cancer... impotence... hair on your palms.' It is decidedly analogue-ish in the best sense, with the BGO CD equivalents of the recent Sundazed Hollies mono LPs sounding deliciously similar.

Stereo versions of the same material were ultra-wide, extending beyond the borders of the LS3/5As on either end of my desk – kick-ass headphones in a manner of speaking. There was ample air around each player, a superb sense of front-to-back depth and a welcome freedom from digital nasties. As I said above, we could have done with sound like this back in the day. But even more impressive was the playback from mono sources: you could almost disassemble the ultra-fine weave that is the Hollies' harmonising.

Sweetness, smoothness, silkiness – the three 'S's, without the debilitating fourth, sibilance. 'Look Through Any Window' jangled and chimed as I first remember it from nearly a half-century ☞

#### SO WHERE'S THE USB?

Unabashedly, despite most other recently-conceived CD player/DACs being fitted with USB inputs, Quad chose not to add USB to the Elite CDP. According to Tim Bown, who liaises with the press for Quad, 'The design brief was to remain faithful to the 99 CDP-2, which has been a very successful product for Quad. Along with updated aesthetics, the Elite version of the CDP employs internal revisions to raise performance, but no radical alterations – if it ain't broke, don't fix it.' It would be churlish to argue with this stance, as the CDP beats most other CD player/DACs' flexibility thanks to digital preamp capability and its generous array of three optical and three coaxial digital inputs and an optical digital output. The lack of USB is hardly a deal-breaker, as there are umpteen 'black boxes' that can add USB ingress to the CDP.



## LAB REPORT

### QUAD ELITE CDP (£1199)

Less a fully-fledged preamp and more a CD player/DAC with fixed and variable outputs, there are obvious parallels between the design and performance of this Elite CDP and the Elite CDS, launched a few months back [HFN Jan '11]. Both units are based around the same CS4398 DAC and analogue stage, the CDP also incorporating a digital input receiver that will pass (up to) 24-bit/96kHz data. So, both the CDS and CDP CD players offer a maximum 2.37V output from a 116ohm source, offer a wide 109.5dB A-wtd S/N ratio and low 0.0005% distortion through the midrange at peak level. Distortion remains very low even at high frequencies (0.0009% at 20kHz), intermodulation distortion extremely so at 0.0001% and jitter at the limits of 16-bit resolution at 120psec.

Interestingly, running the CDP as an outboard DAC with higher resolution 24-bit data at either 48kHz or 96kHz does not bring about a wholesale improvement. Distortion is very slightly reduced across the dynamic range [see red versus black traces, Graph 1, below] but there's no change in S/N ratio or frequency response with 44.1kHz/48kHz inputs. Naturally, 24-bit/96kHz data achieves a wider response (-2.7dB/45kHz). Digital filtering is idealised for 44.1kHz CD with an image suppression of 107dB versus just 78dB for 48kHz inputs. Moreover, jitter is poorer via the digital inputs with 24-bit data - 330psec (48kFs) and 710psec (96kFs), both showing a jitter pattern based on  $\pm 510$ Hz sidebands [Graph 2, below]. Readers are invited to download QC Suite test reports on the CD and DAC sections of the Quad Elite CDP by navigating to [www.hifinews.co.uk](http://www.hifinews.co.uk) and clicking on the red 'download' button. PM



**ABOVE:** Fixed and variable analogue outputs (RCA), balanced Quadlink connections, three coaxial/three optical digital ins and one optical digital out. Remote offers track access, volume and input select functions

ago - scintillating treble that came to symbolise the sound of the First British Invasion. A sorely-needed, recent CD of Ian And The Zodiacs' finest efforts, equally indicative of the seductive charm of the era, provided the Jagger/Richards song, 'So Much In Love With You', again showing that what once seemed a dearth of bass, leading to an impression of too much sparkle, was an unfounded complaint.

My vinyl original simply supported the notion that the Quad Elite CDP was emulating analogue to the best of its abilities. Ditto with The Band's *Stage Fright* on a first-pressing Capitol LP, versus the CD layer of MoFi's recent SACD: the lower registers on CD playback remained rich, never too taut, and were beautifully extended.

#### A GREAT LEVELLER

But here's where an anomaly occurred. Having recently acquired some Rick Danko, Levon Helm and Richard Manuel CDs of varying vintages, I was intrigued to find that the CDP would assist any musicologist in tracing the ageing of their voices - in the case of Helm, his latest CD, *Ramble At The Ryman*, is 40 years younger than *Stage Fright*. You could compare voice textures to a level of such a revelatory nature that voiceprints couldn't do much better. The anomaly is that I found it harder to count on the CDP for delineating the differences between various high-def downloads or feeds.

Using FLAC recordings, The Beatles in two different degrees of compression, internet radio stations offering a choice of resolutions, a couple of streaming sources, I found the CDP to be a great leveller rather than a poster child for digital. HDtracks, Wolfgang's Vault and others allow some choice, the former with material from immaculately-recorded commercial albums, the latter

with less-audiophilic live music gigs. Switching between various sources via Win Amp Pro as my main software, I could not, with anything approaching infallibility, determine which was the better of the two (or three) with any ease.

Yes, there was a leap between MP3 or some of the other highly-compressed formats aimed at personal hi-fi users, but two flavours of FLAC seemed indistinguishable. It was not a disappointment, by any means, but neither did it do much to promote 48k over 96k. Rather, it did something far more important.

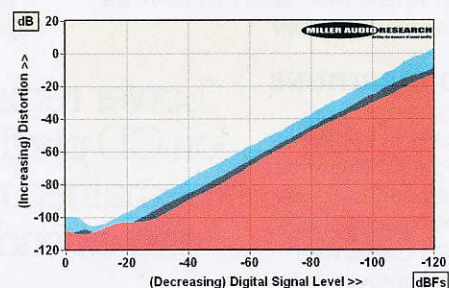
In 2011, more so than when the 99 CDP-2 appeared, we need 'control centres' that can manage a load of digital sources. I am most inclined to use a non-audio analogy: when I got my first HDMI-equipped flat panel display, it had two HDMI inputs. Everyone figured that was enough. My latest purchase has four, and I still had to buy an aftermarket HDMI junction box with another five. All are in use (Sky Box, two different DVD players, three Blu-rays, a legacy HD DVD, etc, etc). So for me, the miracle of the Elite CDP is its plethora of inputs. Which just happened to be in the same box as a damned fine CD player. ☺

#### HI-FI NEWS VERDICT

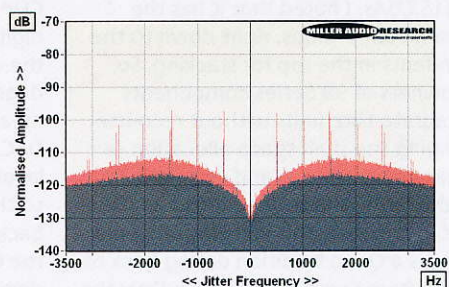
Let's not be coy here: aside from its occasional refusal to read certain CDs, I adored the 99 CDP-2 enough to use it for 30-50 hours a week in my desktop system. The Elite CDP is even nicer, the revised aesthetics enhancing the desirability. For the money, provided you want a bunch of digital inputs and don't mind using lateral thinking for USB, it's a bargain: great-sounding and eminently practical.

Sound Quality: 82%

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**ABOVE:** Distortion versus digital signal level over a 120dB dynamic range. 24-bit/48kHz digital input (1kHz, red) vs. 16-bit CD (1kHz, black; 20kHz, blue)



**ABOVE:** High resolution jitter plot comparing 24-bit/48kHz (black) with 24-bit/96kHz (red)

#### HI-FI NEWS SPECIFICATIONS

Maximum Output Level	2.37Vrms at 116ohm
A-wtd S/N Ratio (CD/24-bit DAC input)	109.5dB / 109.1dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.0005% / 0.0018%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.0009% / 0.0045%
Frequency response (20Hz-20kHz)	+0.00dB to -0.60dB
Digital jitter (CD/48kFs/96kFs DAC)	120/330/708psec
Resolution @ -100dB (CD/24-bit DAC)	$\pm 0.3$ dB / $\pm 0.5$ dB
Power consumption	9W
Dimensions (WHD)	321x80x310mm