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CD PLAYERS AND RECORDERS REVIEW

# Harman Kardon HD990 and HK990 amplifier review

Harman Kardon has stepped-up with a highly desirable source and amp

Our Score ★★★★★

Last reviewed: June 9th 2009

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It has been a good few years since Harman Kardon had a 'wow' moment in the audio world. Its efforts have been concentrated in the AV arena for far too long now, but, it seems, high-quality audio has never been out of the firm's mind.



The combination of the HD990 and the HK990 makes a good pairing for good quality sound

< 1 2 3 >

The new HD 990 player and HK 990 amp are products with a difference. Actually the CD player isn't quite so unusual, though it does have a few less common features that we'll come to in a minute. The amplifier, though, turns out to be a thoroughly different colour horse. Yes, you put a little signal in one hole and it comes out of another much bigger, but what goes on between the two is – or can be if one chooses – a lot more complex than pure amplification.

Harman Kardon has a well-established presence in home AV, where things are done a bit differently. In such circles, it's quite normal to have a lot more stuff going on in an amp than mere amplification. Features like video source switching are never going to be much use on a two-channel audio amplifier like this, but digital inputs and digital signal processing can do a lot of useful things, including room response measurement and correction and this is where the HK 990 comes into its own.

HK has been rather clever with all this. Realising that not all users will want all this processing in the signal path all the time, the HK 990 has been provided with sophisticated routing options for each input, so that some or all of them can be directed through an analogue path from start to finish. Since basic switching functions are carried out by relays, as in many current amps, this means that the signal path is not necessarily more complicated than in much more basic amplifiers.

If you choose, though, you can send each input (or just some of them) via a digital chain that first samples analogue inputs at 96kHz and then applies room correction and/or digital tone controls, before converting back to analogue and amplifying to loudspeaker levels. Basic analogue functions are kept simple, with little more in the path than relays and minimal buffering, while digital stuff is handled by high-power DSP chips on a dedicated circuit board.

The enormous size of the amplifier is dictated by a combination of its high power rating (150 watts into 8 ohms, though we had no trouble extracting 200 watts from it in our tests), a high standing current which causes the first few watts of output to be delivered in class A (and causes power consumption to be a high 180 watts at idle), dual mono operation of the power amplification channels right down to separate mains transformers and the simple need for a lot of space at the back to accommodate analogue and digital input and output sockets.

The front panel design is quite crafty in that it looks a bit like a preamp resting on top of a power amp, but at the end of the day this is a very big chassis. Another area where HK shows its involvement with AV is in the provision of subwoofer outputs. One or two subwoofers can be catered for and the automatic room/speaker correction process, the rather cringe makingly named 'ezSet/eQ', includes them in its setup process, which should aid subwoofer integration considerably.

(Reviewed by Richard Black - Hi-Fi Choice Issue 321)

Tags: CD players, audiophile CD players, amplifiers, amplifier and CD player combo, Harman Kardon CD players, audiophile amplifiers

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PRODUCT SUMMARY

## HD990 CD Player

Price at launch  
£500.00

For

- > A highly detailed player with excellent extension at both extremes
- > Impressive resolution between
- > Well featured and pleasant to use
- > Fantastic amplifier
- > Extra inputs

Against

- > Highs can be difficult to correct
- > Dynamics are the only real weakness

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With or without subwoofers, the process is much the same: one plugs the supplied microphone into the relevant socket and follows the printed instructions and hints on the display, taking measurements at the listening position and near each speaker. The unit then computes the EQ requirements to achieve a flat overall response and stores the parameters.

In use, one has the very sensible option of selecting low frequency correction (subwoofers only), low and mid (up to 1kHz) or low, mid and high frequencies, the highs being notoriously difficult to correct sensibly. It's all fascinating stuff and certainly a lot cheaper and more flexible than early implementations of such schemes – 15 years ago, the Marantz Audio computer cost £10,000!

The HD 990 has two features to add to the usual CD player set: digital inputs (to use its high-grade converter as an upgrade DAC) and a 'High Resolution Synchronisation' (HRS) link socket which connects to a similar one on the HK 990. This is a good idea that's been used before, sending a clock from converter to transport, so that jitter is no longer a critical issue in the digital interface.

Both the HD and the HK 990 feature HK's own digital filtering implementation 'RLS IV', and both have a balanced analogue connection alongside regular phono sockets, giving a choice of five ways to connect the two: unbalanced or balanced analogue, optical or electrical S/PDIF and HRS. No such complications apply to the phono, which handles both types of cartridge.

Sound quality

With so many options on offer it seemed sane to start on familiar territory with the HD 990 connected via analogue leads to the HK 990, which was set to bypass everything possible. Under these circumstances we were first pleased, then increasingly impressed. Pleased, that is, that the sound obviously met basic criteria for quality, with decent bass and treble extension, neutral midrange, lack of obvious noise etc.

Impressed, because as we sat through various more or less familiar tracks from a variety of discs we realised that this duo is actually very capable and very musical. Those two things don't always go hand in hand. We've all heard products that seem to tick all the hi-fi boxes but still don't quite convince musically. In this case, though, everything comes together in a very happy manner to give performance that has scale, presence, imaging, detail – but above all, credibility and involvement.

You don't have to listen hard to this kit, the sound draws you in and gets into the brain with minimal listener input. And it does this, as far as we could discover, with pretty much any style of music one could name, everything from thrash to classical to folk-rock to Jake Thackray.

If there's a limitation, it's in dynamics which – perhaps a little perversely, given the power on tap – seem a little tame at times. Of course the amp will play loud, very loud indeed if one wants, but just occasionally we found ourselves wondering whether the difference between loud and quiet sections of a track were quite as wide as we'd heard on past occasions.

Taking things in small stages, we tried the various alternative CD-amp connection options. Quite frankly, we were struggling to hear differences. The balanced analogue connection seemed a shade clearer than unbalanced, with perhaps slightly deeper stereo images, but we wouldn't advise anyone to fret over it.

All three digital connections seemed broadly similar to the analogue ones, which should be a big surprise since, as far as we can see, all of them work properly and the D-A conversion in amp and CD player is carried out the same way. We did run some lab tests, which simply showed that HRS works fine, but doesn't offer much if any upgrade over S/PDIF because that works fine too, with next to no detectable jitter.

Tags: CD players, audiophile CD players, amplifiers, amplifier and CD player

PRODUCT SUMMARY

## HD990 CD Player



Price at launch  
£500.00

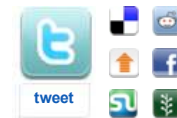
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Then the fun started. Having gone through the room correction setup process, which took all of five minutes including unpacking and connecting up the microphone, we cued up some familiar recordings and had a long session of comparing the settings. Since for most of this review we weren't using a subwoofer (a brief session in a system with a single one was quite impressive), we had effectively two options, mid-frequency correction only, or mid and high.

The results in a way say as much about how recordings are made as about room correction in itself. By far the most convincing results came with recordings made by this review's author, recordings of small classical ensembles in venues with a decent natural acoustic. Of course, a major factor in this case was that the original sound was still fresh in the memory, but in addition there's a fundamental difference from studio productions in that the latter have no absolute reference – they are mixed over loudspeakers to sound generally plausible, but are paintings rather than photographs.

If you put a single high-quality microphone in a reverberant space, however, you are capturing sound in a way that can theoretically be replayed precisely. It's no exaggeration to say that such recordings really came to life with room correction engaged. Studio productions can sound impressive via room correction, but the difference is much less night and day and is not always an improvement.

No surprise: the 'reference' included speakers and a listening room which may have been somewhat similar to ours or yours. But there's a happy conclusion to draw.

At the prices being asked, this is a very good CD player and a mighty fine amp, even without the extra features. Having those features may make things even better for you - if not, just ignore! We had to wait a while to get these new products: it was worth it.

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