



- News
- Product Reviews
- Features
- In This Issue
- Subscribe Now
- Editor's Desk
- Problem Solver
- Sound & Image Awards



Product Review: Harman Kardon AVR660 AV receiver



Product Name: Harman Kardon AVR660 AV receiver
Product Type: AV receiver
Price: \$3999
Reviewed By: Stephen Dawson
Magazine: Sound + Image: May/June 2010
Distributor: Convoy International Pty Ltd

More Product Reviews

- Beyonwiz DP-Lite HD Personal Video Recorder
- B&W P5 Mobile Hi-Fi Headphone
- Runco Q-750i LED AV projector
- Philips Cinema 56PFL9954H 21:9 LCD Display
- Yamaha RX-V2065 AV receiver

Review Archives

Search Product Reviews



It quotes relatively low power, and it looks unusually attractive. But be not deceived; — Harman Kardon's AVR660 is a beast within.

Somehow Harman Kardon continually pulls off the extraordinary feat of producing high-quality home cinema receivers that actually look rather nice. As one of the company's high-end models, the Harman Kardon AVR660 is a big receiver. It stands an imposing 165mm tall. Normally the best you can hope for from an AV receiver of this size is that it doesn't look overwhelmingly horrible. Yet there it is, looking elegant and stylish. Incredible.



EQUIPMENT

With its front fold-down panel raised in place, only the volume control and standby button can be seen, and the latter is almost invisible anyway. The curved edges of the face and the interior lighting of the volume control make this unit look lovely.

Under the flap is a row of control buttons, including an arrow cluster around an OK button, plus some additional connections. These include AV inputs (with S-Video and both optical and coaxial digital audio), the socket for the set-up microphone, a USB socket and a 6.5mm headphone socket.

At the back, four HDMI inputs are provided. Harman Kardon hasn't really joined the transition away from older connections, so there are still lots of those. As is its habit, it doesn't discriminate between optical and coaxial digital audio, providing equal numbers of both, including outputs. There is also an Ethernet connection on the back, plus a socket for HK's iPod dock, known as The Bridge II. One of these comes included with the unit.

The receiver supports audio to a second zone and allows you to reconfigure the Surround Back loudspeaker sockets to drive Zone 2 speakers, should you wish. It also has a decent collection of control sockets, including A-Bus, so system integrators can have their way with it.

Harman Kardon has always given itself a bit of a marketing problem in one respect: on a watt per dollar basis, its receivers seem to be poor value. This receiver retails for just under \$4000. Similarly priced models from other highly respectable brands typically offer about 140W per channel in this price range. Harman Kardon claims

only 75W from each of its seven channels.

It also claims 85W from each channel in stereo mode. In both cases, this is delivered into eight ohms across the full audio bandwidth at less than 0.07% THD.

But these figures hide two things that we know from experience with Harman Kardon. The first is that it tends to be very conservative in measuring even the stereo output power of its receivers. I've seen cases where it has understated this by 20-30%.

Second, when it specifies its seven-channel power output, this is with all the channels running at the same time. And indeed, that's precisely what the specification sheet says: "with all channels driven simultaneously". Why else would this receiver weigh 19kg? A big chunk of that is the receiver's power supply.

That's about the same output power that we'd expect from a 7 x 140W unit, since most can't deliver anywhere near full power from all channels at once.

PERFORMANCE

Basic set-up was straightforward using the supplied microphone. This came with a screw- THE ART OF UNDERSTATEMENT It quotes relatively low power, and it looks unusually attractive. But be not deceived: — Harman Kardon's AVR660 is a beast within. Harman Kardon AVR660 AV receiver Price: \$3999 74 on 300mm long rod, the purpose of which was initially obscure. But the set-up turned out to involve first doing the usual thing with the microphone in your sitting position, followed by a 'near field' test. For this you screw the microphone to the rod and hold it 600mm away from the speakers as they are indicated by the receiver's on-screen instructions. This presumably allows the system to get a better handle on your loudspeakers' performance independently of the room acoustics and so, by comparing with the initial measurements, on the room acoustics themselves.

After that it was just a matter of familiarising myself with the menu system, which is scattered across a number of remote control keys. Oh, and overcoming the default audio processing settings that Harman Kardon has in recent years got into the habit of applying: Logic 7.

Before getting to the fine details, I should address first the sound quality. I used this receiver over a couple of weeks with two very different sets of loudspeakers. One of them has rather low impedance speakers. Despite some near-abusive operation (in terms of volume level), not once was there any sense of this receiver running short of power. Forget about headline power ratings, this receiver simply did the job.

And at the same time the AVR660 managed to sound refined and wonderfully precise with all forms of music, including both stereo and surround formats.

The receiver also provides access to modern digital sources, including media supplied via a USB drive plugged into the front socket, or from a network. Unusually for a receiver, this one also supports photos, but not video. On my network the photo display was painfully slow, but the music operation worked nicely, both from USB and the network. The unit played back all my MP3 and regular WMA tracks, plus uncompressed WAV, but not lossless WMA nor FLAC.



You should spend a little time on source configuration for each device you have plugged into the unit. I had the unit plugged into a projector that lacked EDID entries, and it defaulted to 720p output. I don't imagine it would do this with a display that gave it more information, but this being the case it was necessary to go through and change it to 1080p output for each source, except for one where I set the unit to pass through the video.

You see, that's one of the really clever things about this receiver: the excellent set-up flexibility. It isn't just that you can set the receiver to pass through HDMI video from source to display without processing, or set it to scale and (if necessary) convert it to progressive scan. It's that this can be set differently for each individual input, so you can optimise the receiver for each source. Set the receiver, for example, to upscale the 576i/50 or 1080i/50 output from a PVR to 1080p/50 and enjoy the Faroudja quality. But also set it to pass through the 1080p/24 from your high-quality Blu-ray player. It's all your choice.

You also have quite a bit of control over deinterlacing if you want to use the unit's own video processing. You hit the 'Video Modes' button, which has a number of presets that represent someone's

idea of what colours and brightnesses and such are suitable for different types of programs. Skip through these to 'Custom', and then you can zero everything out (especially making sure 'Overscan' is set to 'Off'). Then choose Advanced Video Settings, and down the bottom of the next menu you can set 'Deinterlacing' on or off. 'Off' means that the video processor treats everything as video-sourced and does a very rudimentary job of deinterlacing. For examples, jaggies were very evident with this, so this isn't a good choice. If you have it 'On' then you can set the next item — 'Film Mode Detect' to 'Off', 'Auto', '3:2' or '2:2'. 'Auto' and '2:2' are the best choices for PAL DVDs, Australian digital TV and 1080i/50 Blu-ray discs. They didn't seem to be at all different in operation, and mostly auto-detected the format of the PAL DVDs correctly, only occasionally slipping into video-mode deinterlacing when they should have been applying film mode. Despite appearances, the '2:2' mode did not force matters.

With 1080i/50 from Blu-ray, the performance on the three sections of Miss Potter (which I always use to examine this aspect of performance) was, well, perfect. Once again, 'Auto' or '2:2' made no difference.

One oddity with the video processing is unlikely to be a problem for purchasers of this receiver, but for completeness I ought to mention it. I happened at one point to be using a full-HD but low-cost display that would not accept 1080p/24 video. The receiver decided to convert 1080p/24 input signals to 720p/60, and would not allow them to be output at 1080p/60. So if you have such a display, you would be wise to make sure your Blu-ray player is set to 1080p/60 output, or the picture will be downscaled.

CONCLUSION

This is a lovely receiver with only one real drawback: it may simply be too complicated for some users to take full advantage of its power. But as mentioned in the conclusion of our previous review, many Sound+Image readers will prefer the challenge of complexity rather than a curtailment of flexibility. If you take the time to read the manual, and download the 28-page 'Advanced Functions Manual' as well and read that, you will unleash the extraordinary power and control on offer from this receiver.

VERDICT

Harman Kardon AVR660 AV receiver

Price: \$3999

Positive

- Excellent audio performance
- Excellent video performance
- Good connectivity and features

Negative

- Quite some complexity to master

RATED POWER: 7 x 75W @ 8 ohms, 20-20,000Hz, 0.07% THD; 2 x 85W @ 8 ohms, 20-20,000Hz, 0.07% THD

INPUTS: 3 x component video, 4 x S-Video, 4 x composite video, 6 x analogue stereo, 1 x 7.1 analogue, 4 x optical digital, 4 x coaxial digital, 4 x HDMI, 1 x iPod dock, 1 x Ethernet, 1 x USB

OUTPUTS: 1 x component video, 2 x S-Video, 2 x composite video, 2 x analogue stereo, 1 x 7.1 pre-out, 1 x extra subwoofer, 1 x optical digital, 1 x coaxial digital, 1 x HDMI, 1 x 6.5mm headphone

ZONES: Stereo audio for Zone 2: amplifier support for Zone 2

OTHER: 2 x Trigger out, Zone 2 IR in, Remote IR In/Out, Carrier IR Out, 1 x A-BUS, 1 x RS-232C

DIMENSIONS (whd): 440 x 165 x 435mm **WEIGHT:** 19kg

WARRANTY: Two years

MYM: [Convoy International Pty Ltd](#)