

Harman Kardon

DVD 50 Five-Disc DVD Changer



When you can buy a five-disc changer with all the best features of a fine CD player and a top-shelf, progressive-scan DVD player for less than \$600, why would you need two separate components? You don't. Harman Kardon's new DVD 50 does it all — it even plays CDs with MP3 files, making it potentially a 60-hour music player.

The DVD 50 is laid out along classic carousel-changer lines, with a single disc drawer across most of its width. All of its front-panel disc-selection and transport controls are sensibly located above the drawer so they remain accessible when it's open. (Don't laugh: I've seen changers with controls underneath the drawer.) The control labels, though tiny, are all illuminated, which helps a lot. Another smart touch is that each disc well inside the drawer has number labels on both sides flanking the disc cutout, eliminating confusion about which well is which.

Around back, the DVD 50 has the expected composite/S-video plus stereo and coaxial/optical digital audio jacks. There's also a trio of wideband component-video

outputs. If your TV has a progressive-scan display, which usually (but not always) means a high-definition set, these outputs can be set up for progressive-scan rather than interlaced video, yielding a smoother, more filmlike picture.

The player's setup menus are quite clear and self-explanatory, and if you want more information, the owner's manual is exceptionally complete and detailed. Since surround sound decoding is left for your receiver or processor to do, setup options are mostly limited to the usual choices regarding screen shape (standard or widescreen), bitstream default (you can, for example, restrict DTS output if your receiver can't decode it), parental lockout, and so on.

It's unusual, but certainly not unheard of, that you have to set the DVD 50's video output to *either* component- or composite/S-video — and if the former, to progressive on or off. (My everyday player provides a progressive-scan component-video output and both standard video formats simultaneously.) If you're viewing the setup menu from the S-video output, when you switch to component output, the screen goes blank, with no menu display to help diagnose and

fix the problem. You have to change your TV's *input* to progressive to reacquire a picture. I learned that the hard way, mucking about in the setup menu before reading the manual.

On the video front, I have nothing but praise for this Harman Kardon carousel. Watching Denzel Washington's Oscar-winning performance as a bad cop in *Training*

fast facts

KEY FEATURES

- Component-video output switchable between interlaced and progressive-scan
- Plays CD-R/RW discs and CD-R/RWs or CD-ROMs with MP3 files
- Can replace up to four discs while one is playing
- Decodes HDCD-encoded CDs

OUTPUTS composite-, component-, and S-video; coaxial and optical digital audio; stereo analog audio

DIMENSIONS 17½ inches wide, 5 inches high, 16 inches deep

WEIGHT 12⅞ pounds

PRICE \$649

MANUFACTURER Harman Kardon, Dept. S&V, 250 Crossways Park Dr., Woodbury, NY 11797; www.harmankardon.com; 800-422-8027

test report

HIGH POINTS

Excellent progressive-scan video performance.

Smooth fast and slow video scanning.

Useful onscreen controls for DVD, CD, and MP3 playback.

Nice remote control.

LOW POINTS

No direct disc selection on remote.

Slow access to high-speed search.

Day on DVD via the progressive-scan output, I saw a sharp, defined picture with outstanding color integrity and range of contrast. The image quality was terrific, with finely detailed shadows in the countless scenes shot inside the Monte Carlo where about half the movie seems to take place. The speeding car passes Denzel and Ethan Hawke's faces through a myriad of different lighting conditions and back-

grounds; the DVD 50 showed every one to excellent advantage. And its slo-mo scanning was as smooth and steady as on any player I've used.

I was unable to see any difference between the progressive-scan component-video output of the Harman Kardon player and that of my reference progressive-scan player — a widely respected single-disc model that costs around three times as much. I did an A/B comparison using three DVDs of which I had duplicate

copies, including the visually stunning *Crouching Tiger, Hidden Dragon*. The same held true even with test patterns from Ovation Software's *Avia* DVD. In short, I simply saw no difference between the players, which means that the DVD 50's progressive-scan video performance is top-shelf. It should perform no less well — within the limitations of the signal formats — if you use standard interlaced component-, composite, or S-video connections.

On the audio side, the only issue I examined was the quality of stereo CD playback, though most buyers will probably use a

digital link, which means they'll be listening to the digital-to-analog conversion performed by their receiver or surround processor. Nonetheless, the DVD 50 was an equally excellent CD player. Stereo playback of known, high-resolution recordings was clean, detailed, and quiet.

Most of what's left to talk about here are the kinds of things that distinguish most DVD players from each other these days: functions, features, and ease of use. Fortunately, the Harman Kardon DVD 50 has plenty to offer in these areas.

It played every CD-R and CD-RW that I tried without a hiccup, including those with MP3 files. It offers a useful onscreen display for MP3 discs, showing an alphabetized list of filenames, though it "flattened" the file structure, at least on the discs I burned, showing all files at the same level regardless of any hierarchical folders. You can program a playlist of up to 60 MP3 tracks, in any order, which is cool. Unfortunately, they can't be from more than one disc. And you can't play MP3 tracks in random order from either one disc or multiple discs. That said, since the DVD 50 takes nearly a minute to initialize each MP3 disc — like all other MP3-capable DVD players I've encountered — not having the options of multidisc MP3 programming or random play makes sense.

As if in compensation, there's an unusually flexible shuffle-play menu for audio CDs (or DVDs — but does anybody ever actually play DVD chapters at random?). You get a choice of single-disc shuffle, all-discs shuffle (one disc at a time), or a mode

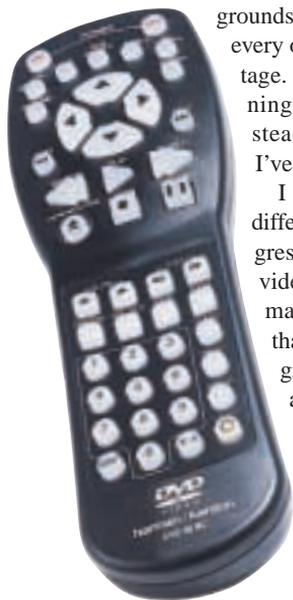


The Harman Kardon DVD 50 provided Oscar-worthy image quality for Denzel Washington's bad cop in *Training Day*.

that plays two randomly selected tracks from Disc A, then two from Disc B, then two from C, and so on until all tracks from all discs have been played, without repeats — pretty clever. Track/chapter programming is similarly flexible. You can program a playlist with up to 22 steps from any or all discs in any order, freely mixing standard CDs, DVDs, and even Video CDs (but not CDs containing MP3 files).

Programmability for DVD playback may appeal to the rare music-video addict, but I suspect most people will use the DVD 50 as a CD changer for music and as a single-disc player, at least most of the time, for movies and videos. On the audio side, it worked like any good changer. Disc-to-disc access time was about par (a maximum of 17 seconds), but track-skip time was under a second and response to play and pause commands was equally snappy.

Overall, the ergonomic design is very good. The onscreen operation bar (nearly universal these days), with icons that give you access to all the important modes and displays, worked well. More important, the



in the lab

DVD-VIDEO PERFORMANCE

Measurements were made from a variety of DVD test discs, all through the player's composite-video output except as noted.

Maximum-white level error.....+1 IRE

Setup level.....+7.5/0 IRE (switchable)

Luminance frequency response

(re level at 1 MHz)

at 4 and 5 MHz.....-0.26 dB
at 6 and 6.75 MHz (DVD limit).....-0.63 dB

Differential gain2%

Differential phase2°

Onscreen horizontal resolution540 lines

In-player letterboxing.....poor

Component-output level error (interlaced mode, Y/P_r/P_b)+4.85/-1.67/-1.59%

Component-output timing error (interlaced mode, P_r/P_b)+4/+4 nanoseconds

The DVD 50's stereo audio output (figures omitted for space) was very good to excellent all around. The one curiosity was its analog output level, which at 1 volt was 6 dB shy of the de facto 2-volt standard, but this should have little or no effect on real-world dynamic range.

Performance through its composite-video output was slightly better than average thanks

to the flatness of its luminance frequency response, which always translates to more accurate reproduction of very fine image detail. Its component-video output was also unusually accurate in level and timing. It could play recordable DVD-R and rewritable DVD-RW discs recorded in standard DVD-Video mode as well as DVD+RW discs. — D.K. and David Ranada

DVD 50 comes with an excellent remote control. It's unusually well laid out, with legible graphics and sensible key spacing, and all of the buttons are backlit, a rarity among dedicated remotes.

Nonetheless, I still have a couple of gripes. First, while the DVD 50 lets you select any of the five loaded discs from the front panel, there's no corresponding direct access on the remote, only the Disc Skip button, which works in only one direction. So if you want to change from, say, Disc 2 to Disc 1 using the remote, you must press Disc Skip four times, waiting for each disc in turn to load before pressing it again. The process takes precisely one entire, interminable minute — what *were* they thinking?

Second, the DVD 50 has an interesting audible fast-search feature for CD playback. It offers the same 2x, 4x, and 8x search speeds in both directions as it does for DVDs — but in 2x forward mode, it actually doubles the sampling rate, delivering an Alvin-and-the-Chipmunks rendition of the program. This is really pretty cool (and very unusual), but the downside is that it takes a full 4 seconds to call up fast-search and seconds more to step up to each faster speed, as you must do to reach the maximum setting. It required some 8 seconds to get to 8x — an eternity after the newness wears off.

Otherwise, this changer has all of the modes and functions you might expect, including repeat for a single disc, a track, all loaded discs, or a user-defined (A-B) segment. I particularly liked the onscreen programming display, though I'd have liked it even better if you could modify a playlist while it's active (the player must be in stop mode) or if it used CD Text for onscreen display of disc and track titles. There's also a nifty Bookmark system that let's you store up to nine reference points per CD or DVD for rapid access. Bookmarks remain as long as you don't replace the disc in the player or open the drawer when the changer is in the stop mode. What a great feature for serious music or film study!

Me, I don't have to rely on just one optical-disc player (and I won't admit how many are kicking around the studio). But if I did, I think I could live happily with Harman Kardon's DVD 50. It has everything I really need — most important, truly excellent audio and video performance (if not DVD-Audio playback), and a well-designed remote — along with a good supply of useful features.