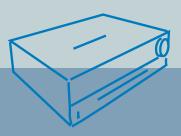
#### harman/kardon<sup>®</sup>

250 Crossways Park Drive, Woodbury, NY 11797 516.255.HKHK (4545) FAX 516.682.3523 www.harmankardon.com Part No. HKLIT12/03

H A Harman International Company



Let the Harman Kardon story unfold. We don't just make commodities. We create experiences. Because high-quality audio/video products are more than just boxes with knobs and buttons, this brochure is more than just a catalog of features and specifications; it's an expression of our uncompromising goals. And it's a declaration of our passion for music and cinema. We invite you to experience the unique combination of artistry and engineering that is Harman Kardon.



Playlist: We make elusive technology easy to grasp, page 3 • We're driven by a passion for music and cinema, page 4 • You'll know where we're going when you see where we've been, page 6 • The science of passion: current Harman Kardon technologies, page 8 • Harman Kardon's digital path receiver technology, page 10 • Digital path receivers, page 12 • AV receivers, page 14 • Stereo receivers, page 17 • Power amplifiers, page 18 • In-wall keypad and in-wall module, page 19 • Temporal transporter. Time machine. Where shall we take you tonight? page 20 • Movies and music — the marriage of audio and video, page 22 • DVD players, page 24 • CD changer, page 25 • Home cinema speaker systems, page 26 • System solutions, page 28 • Celebrating 50 years, page 30 • Specifications, page 31

What's the point of whiz-bang technology if it's too complicated to use?

At Harman Kardon, we believe that a home theater or music system's reason for being should be entertainment and enjoyment.

Although we make some of the most feature-rich home entertainment products, we constantly strive to make sure they're easy to use. For every member of your family. Not just your techno-savvy kids.

# We make elusive technology easy to grasp.

Our LCD remote control is a good example. You just "tell" it the brand of your TV, CD player, VCR, etc. Touch a button on the remote and it does the rest. It doesn't get much easier...which is the whole point.

So share the combination of passion and vision that sets Harman Kardon apart and we hope you will soon be the proud owner of one of our premium entertainment components.





"Technology can get you most of the way to good sound...but that last critical leap to state-of-the-art reality comes only from endless hours of critical listening — and a deep, almost fanatical love of all types of music and every sort of movie."

"Ever since I helped found Harman Kardon, we've been fanatical about maintaining a balance between pure engineering and what audio engineering's true result should be — a more realistic entertainment experience. Each step forward — and I'm proud to say that Harman Kardon has led the industry in technological advances — has been measured with a simple question: 'Does it take us closer to the musical truth?'"

## "We're driven by a passion for music and cinema."

"You don't get the answer to that question merely with laboratory tests and measurement devices. Yes, the best test device is the human ear. But Harman Kardon relies just as much on the human heart and soul. Only when music and cinema become passions in themselves can our engineers create technology that is audibly better than our competition's."

"When you experience firsthand the electronics and speakers described in this brochure I am confident you will agree that owning a Harman Kardon product sets you apart from the crowd. It is a validation of your own desire to command the 'best seat in the house' no matter what kind of music or cinema you enjoy."

- Dr. Sidney Harman, founder

"You'll know where we're going when you see where we've been."









1953



Festival D1000, the world's first high-fidelity receiver. A tuner and amplifier had never been combined before.



Another first. Festival TA230 – the world's first stereo receiver.



The world's first ultrawidebandwidth tube amplifier. The Citation II remains a classic collectors' item.



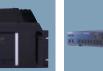
Harman Kardon's Citation A and B are the first solid-state products with replaceable circuit boards for easy service.





1970

Harman Kardon introduces Current events. We the CAD5, the world's first introduce the first highcassette deck with Dolby® current capability amplifier, B-type noise reduction. the Citation XX.





1987

Advancing tuner technology is in our genes. A Harman Kardon FM tuner, Citation XXIII, is the first with active tracking.



The need for speed. Our CDR 2 becomes the world's first CD audio recorder with 4x dub speed.



1999

Art meets Science. Harman Kardon SoundSticks – the first branded computer speakers HDCD® processing. to win design awards.



Our AVR 7000 is the first Our patented EzSet AV receiver with onboard Logic 7,® VMAx® and



2001

remote lets you automatically calibrate your surround system.



Harman Kardon introduces We debut the first standthe world's first receivers with fully color-coded rear-panel connections for easy setup.



alone A/V receiver with a fully digital signal path from input to speaker outputs – the DPR 1001.



Leading luxury automakers Harman Kardon celebrates include Harman Kardon high-performance systems, featuring Logic 7.



its 50th anniversary.















## The science of passion: current Harman Kardon technologies.

We deliver the right combination of power, performance, flexibility and ease of use. Harman Kardon has always sought to strike a balance between the development of key enhancements to the underpinnings of audio and video technology, and the importance of making them accessible to both the advanced audiophile and the home theater novice.

## More muscle for maximum punch: High-Current Capability

Watts per channel is an incomplete measure of amplifier power. In terms of dynamic range and impact, it's current that counts. HCC is an overall design approach encompassing everything from transformer design and capacitor size to discrete output circuitry and minimal use of negative feedback. This electronic equivalent of a high-torque, high-displacement racing engine results in audible benefits. You enjoy tighter bass, superb transient response and enhanced presence at any volume level.

### A better approach to sound: Logic 7®

Originally developed for high-end processors and now featured in luxury automobiles, our exclusive Logic 7® processing is now part of every multichannel receiver we offer.

With Logic 7, proprietary digital algorithms are used to create a more cohesive and enveloping sound field from the tens of thousands of analog matrix soundtracks currently available. Logic 7 is not only capable of resolving either five or seven channels from a two-channel source; it increases the accuracy with which sounds are directed to the center and surround channels, for more precise reproduction of the original soundtrack.

### When only two will do: VMAx®

Despite the marketplace focus on multichannel surround sound, there are still many situations where it is only possible to include two speakers in a room's environment — thus sacrificing the benefits of a 360° sonic presentation. Harman Kardon has solved that problem with its exclusive implementation of VMAx® technology in both multichannel and stereo receivers.

VMAx creates a three-dimensional sound field using only conventional left and right front speakers. The result is sound that fills a room and puts you at front row, center.

## Switchable front-panel jacks

Front-panel input jacks are common on many audio/video products, but that doesn't help when you want to send a source out of the receiver, for dubbing to a portable device. Harman Kardon makes things easy by allowing you to switch the video, analog audio and digital audio jacks on the front panel of select DPRs and AVRs from an input to an output. With one quick change of a menu setting, any digital or analog source playing through the DPR or AVR is routed to the front panel so that you can make your dub for the day and be on your way.

### The multiroom solution

Every A-BUS Ready® Harman Kardon receiver includes a multiroom switching system, assignable rear amplifier channels and a Zone II standard remote. A simple cable connection to an AB 1 module is all that's needed to send audio and power commands to any room of your house.

The easily installed AB 1 module powers your remote in-wall speakers without further amplification or AC connections, and it does more than adjust volume. It includes a built-in remote sensor to control your entire system.

## Your own personal audio technician: EzSet quick surround setup

EzSet speaker calibration lets you automatically balance individual speaker channel levels for optimum surround sound enjoyment — regardless of the speaker type or room conditions. Push a few buttons and, in less than three minutes, your Harman Kardon home cinema system is calibrated. Bottom line — the adjustment most critical to multichannel movie soundtrack reproduction has been made virtually foolproof.

## Software upgradeability & digital connectivity

With a two-way communications port and rewritable flash memory, select Harman Kardon DPR and AVR receivers can be easily updated with new features and functionality for years to come.

The RS-232 port not only enables software upgrades; it gives you full control of your system with optional third-party keypad systems, controllers and personal computers.

Even Harman Kardon DVD players are upgradeable with special CD-ROM discs.

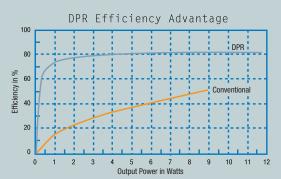


If the introduction of the compact disc in 1982 was the first wave in the digital waters, today's home entertainment landscape is a veritable ocean of digital technology. Initially used only for playback sources such as CDs, digital technology is now at the heart of every phase of a program's life, from the initial recording, to editing, to making a disc or the transmission process.

Digital technology is what makes DVD players and today's A/V receivers possible, but until now each component was a digital island connected to another component or circuit by analog bridges. In an A/V receiver, these bridges include the analog-to-digital converters

signals back to analog for amplification. The signal path is purely digital, and the result is a significantly quieter output that is as close to noise-free as you can get.

The incredible system efficiency of the digital design dramatically reduces the size of the receiver. With over 80% of the system's energy converted to power (as compared to slightly more than 55% in a conventional design), DPR models pack seven channels of high-quality amplification into a design that is considerably smaller. This efficiency allows our designers and engineers to eliminate the large transformers. A small, self-contained amplifier module replaces rows



## Harman Kardon's digital path receiver technology.

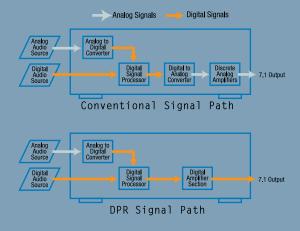
at the inputs and the digital-to-analog converters (DACs) that convert all digital signals, regardless of their origin, back to analog for amplification after the decoding and processing is completed.

Within these digital islands, signals are virtually free from interference, but each time they are converted from analog to digital, or back to analog, there is the possibility of signal degradation. No matter how good the converters are — and Harman Kardon products use only the best — some change to the signal is inevitable.

Unfortunately, when digital signals exist as individual blocks, the potential for trouble is inescapable. Until now. Harman Kardon's DPR series of digital path receivers eliminates the need to convert digital

of power transistors and bulky heatsinks. This adds up to a system that is sized and styled to complement today's digital video displays, fitting in places where you never thought a high-quality audio component could.

DPR receivers are big on performance. The new DPR 2005 and DPR 1005 have tremendous flexibility and features. And, of course, there's the sound. It's everything you would expect from Harman Kardon — and more. By letting digital signals take the shortest course, direct from the original digital source to your speakers, our digital path receivers deliver totally digital entertainment and realize our promise of Power for the Digital Revolution.®



Digital path receivers eliminate an additional conversion step by keeping signals in the digital domain straight through until they reach the speaker outputs. This preserves signal quality by removing the possibility of inducing conversion artifacts and other noise.

#### DPR 1005 7 x 70W Digital Path Receiver

Digitally delightful. If you've always wanted a feature-packed audio/video receiver, but never thought one could fit in a small space, the DPR 1005 is a digital dream come true. Thanks to our digital path technology, you have access to a wide range of inputs and processing modes to power your system without missing a beat. Along with assignable, HD-compatible component video inputs, renameable audio inputs, and a full palette of surround sound modes and control options, the DPR 1005 excels at doing what you demand from your audio products — reproducing the original performance or movie soundtrack as it was meant to be heard!



#### DPR 2005 7 x 120W Digital Path Receiver

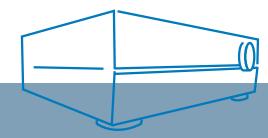
Digital performance, stylishly presented. The DPR 2005 uses our digital path topology to link your program sources directly to a powerful amplifier without analog interference. Advanced digital processing handles all of the latest surround formats from Dolby® and DTS,® including Dolby Pro Logic® IIx, Dolby Virtual Speaker and DTS 96/24. Of course, our proprietary Logic 7 technology is also present to give older stereo and matrix soundtracks a full 7.1 presentation. A wide range of multiroom options, including A-BUS Ready connectivity, assignable rear channels and a separate Zone II remote, lets you enjoy audio tracks throughout the house. If you want the latest technology in a compact yet elegant form, the DPR 2005 is the perfect choice.

#### LCD Remote Controller

The internal sophistication of the DPRs is enhanced by the external simplicity of a new remote control design. With the EzSet feature, the LCD remote makes surround sound level setup easy. It includes a built-in sound pressure level meter and calibration system that takes the complexity out of balancing your multichannel system.

And instead of having to look up codes and enter numbers, you "tell" the LCD remote the brands of your TV and other components and it does the rest. When you select a source, the remote's backlit, two-line LCD screen shows the function for each button selected. No more guessing. Also, the remote is standard with the AVR 7300, AVR 630 and AVR 430.





The digital road to reality. Until recently, Pulse Width Modulation (PWM) amplifiers were mostly used in subwoofers or entry-level products. They simply didn't have the power and musicality needed for quality

reproduction across the full audio bandwidth. Harman Kardon's new DPR models are advanced designs that use the latest digital engineering breakthroughs to harness the full potential of this exciting new technology.



#### AVR 7300 7 x 110W 7.1-Channel A/V Receiver

The video part of "audio/video receiver" has never meant so much. In addition to a powerful high-current, ultrawide bandwidth amplifier and all the audio formats and features you expect from Harman Kardon, the AVR 7300 is equipped with DCDi® image processing by Faroudja® which improves the quality of any video source, and upconverts all inputs to high-resolution component video. Along with built-in test signals and a wide range of video adjustments, the AVR 7300 gives you picture quality to match the unparalleled power and performance of Harman Kardon audio.

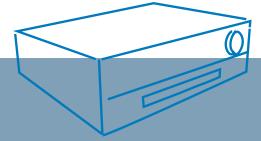


AVR 630 7 x 75W 7.1-Channel AV Receiver

An audio beauty that tames the technology beast. The AVR 630 proves that beauty is much more than skin deep, delivering pure sound with all the latest surround modes, including Dolby Digital EX, DTS-ES,® DTS 96/24, HDCD® processing and our own Logic 7 processing, in tandem with Harman Kardon's high-current amplifier design. Managing the technology is an LCD remote with our EzSet feature, easy-to-use setup menus with renameable inputs, and front-panel inputs that may be switched to outputs. All this in a sleek design that is the perfect match for the latest flat-screen displays. Soothe yourself with the beautiful sound of the AVR 630.



The truth is in the numbers: a 32-bit post processor, RS-232 connectivity, a two-line LCD remote control, Logic 7, Dolby Pro Logic II, DTS 96/24, a quadruple crossover with six crossover points per speaker location and more multiroom options than any other receiver, including A-BUS Ready connectivity. The AVR 430 is Harman Kardon to the core. You can count on big numbers from the seven-channel, high-current, ultrawide-bandwidth amplifier, along with the ability to assign two of the channels to a second remote zone. No matter how you add it up, the AVR 430 delivers high performance.



Ready for the future. Intelligent design and advanced technology give Harman Kardon's AVR 7300, AVR 630 and AVR 430 receivers the power to provide spectacular performance today and to take that power into the future. An

RS-232 control port allows you to upgrade software and possibly add new functionality. Assignable component video inputs accommodate today's — and tomorrow's — digital video signals. On the audio side, a tuner upgrade slot permits upgrades to HD Radio."

AVR 230 6 x 50W 5.1/7.1-Channel A/V Receiver

The AVR 230 brings action movies thundering to life, and accepts virtually any source material. It has a six-channel, high-current amplifier and Dolby Digital and DTS decoding, along with Logic 7, Dolby Pro Logic II and DTS Neo:6. An EzSet remote and on-screen menus simplify installation. The combination of a seven-channel audio architecture with preamp outputs enables instant upgrade to 7.1 with the addition of an external amplifier.

AVR 130 5 x 45W 5.1-Channel A/V Receiver

Don't let the AVR 130's price fool you! Our most affordable AVV receiver has a high-current, ultrawide-bandwidth amplifier that can handle the most demanding speaker loads, while a sophisticated DSP engine and audiophile digital-to-analog converters handle the digital "number crunching" to bring you theater-quality sound at a budget-minded price.



AVR 330 7 x 55W 7.1-Channel AV Receiver

High performance at a highly attractive price. The AVR 330 features a seven-channel, high-current amplifier with power enough for the most demanding digital soundtracks, all of the popular surround sound modes, component video switching, an EzSet remote and a complete multiroom system with a standard Zone II remote. Plus front-panel inputs for analog and digital sources, as well as composite and S-Video jacks, for guick connections to digital cameras, camcorders or video games.

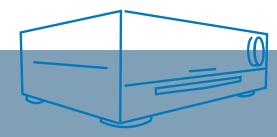


HK 3480 2 x 120W Stereo Receiver

When two channels are all you need, make it two ultrahigh-bandwidth, high-current channels from the company that invented the stereo receiver. The HK 3480 features seven audio inputs, four video inputs (including one on the front panel), 30 AM/FM station presets, VMAx surround synthesis from stereo sources, three-step dimmable fluorescent display, a phono preamp, pre-out/main-in jacks, gold-plated inputs and a separate subwoofer output. Also included is a multicomponent system remote control.

HK 3380 2 x 80W Stereo Receiver

Perfect for a main music system, the HK 3380 uses the same discrete high-current, ultrawide-bandwidth amplifier technology found in our AVR Series receivers. It also has four video inputs, including one on the front panel. Includes a multicomponent system remote control, a 30-preset AM/FM section, a phono preamp, a subwoofer output, a dimmable fluorescent display, pre-out/main-in jacks and even a nine-step, 90-minute sleep timer.



Performance to be proud of, modestly priced. Listeners and reviewers around the world have long accorded Harman Kardon receivers "best in class" status. Even our most modestly priced receivers feature a high-current, ultrawide-bandwidth-amplifier design and an elegant appearance.

Purely musical. Exquisitely accurate. Is a stereo receiver obsolete in a digital, multichannel world? Hardly. Harman Kardon's stereo receivers are the electronic equivalent of an elegant analog wristwatch in a world filled with digital chronometers. The HK 3480 and HK 3380 are designed to deliver pure, accurate music — the way it was meant to be heard.

To view every model, visit www.harmankardon.com

#### PA 2000

Multiroom/Multichannel Power Amplifier

Add remote rooms or additional channels to an existing surround system with this high-current, bridgeable amplifier. Fan-free for ultraquiet operation, the PA 2000's design is optimized for the requirements of the long signal paths found in multiroom systems.



#### PA 4000 Multiroom/Multichannel Power Amplifier

Thanks to four bridgeable high-current amplifier pairs (a total of eight 45-watt channels) and two separate inputs, the PA 4000 is suited to a wide range of applications. Power two separate zones, or the back channels of a home theater and a remote zone simultaneously with ease, while a variety of power control options such as Music Sense and a low-voltage trigger make operation a breeze. For the ultimate in control, the KP 1 keypads may be used for remote power on/off and volume control, with the added capability of using an optional IR sensor for total system control.



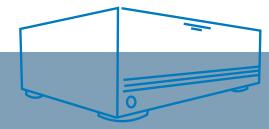


#### KP 1 In-Wall Keypad

The KP 1 powers up the PA 4000 and controls the volume in any room. Using Decora®-style faceplates (not included) to blend with any room décor, it may also control compatible Harman Kardon products when used with an optional IR sensor.

#### AB 1 Amplified In-Wall Module for A-BUS® Applications

The innovative A-BUS system makes it incredibly easy to bring Harman Kardon sound to a remote room. Connected via a single cable, the AB 1 powers most in-wall speakers from its internal amplifier with volume controlled by the up/down toggle or a Harman Kardon remote. A built-in IR sensor completes the package, making it easier than ever to enjoy music throughout the house.



Multinoom enhancements. It no longer takes a room full of gear to enjoy music throughout the house. Our AVR and DPR models (except AVR 130 and AVR 230) include a multizone system that feeds a separate source to a second zone controlled by the standard Zone II remote and assignable rear-channel amplifiers. For more rooms and power, the

PA 4000 and PA 2000 drive the system, while A-BUS Ready operation uses a single cable to send power, control and audio to an in-wall module that not only controls but also powers the system.



"Roman Holiday" with champagne and popcorn • Nights in white satin • "Ladies and gentlemen, the Rolling Stones!" • Stravinsky's Rite of Spring • Mel's Drive-In • "Why don't we watch 'The Lion King' without the kids for once?" • The most romantic movie ever made • The hills are alive with (choose one) music...gigantic bugs...restless natives... • "Wow, the vinyl record version I wore out in college never sounded that good." • Yo-Yo Ma's "Silk Road Journeys" •

## Temporal transporter. Time machine. Where shall we take you tonight?

Adventures in whitewater rafting • Super fly me to the moonstruck • Ring cycle, cycle of the rings, three-ring circus • "We don't need no steenking badges!" • KA-BLAM!!! RUMBLE-BOOM! • Cool jazz • Director's commentary and a whole disc of extras • Blue moon, blue planet • "How many Tracy and Hepburn films are there?" • Mahler rearranges your listening room furniture • The sound of a hypertraction ion cannon in deep space near the Crab Nebula • The music playing when you proposed... wherever you want to go, Harman Kardon can take you there.



#### DVD 22 Progressive Scan DVD Player

Picture quality is not just a question of resolution, but how the image is decoded. The DVD 22 uses pixel-by-pixel — rather than line-based — processing to produce a noticeably sharper image. Compatible with DVD, MP3, Windows Media® and JPEG discs, the DVD 22 features high-end DACs, a built-in test signal and back-lit remote for outstanding video and audio performance.



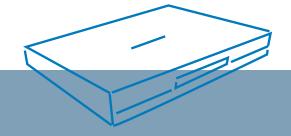
#### DVD 31 DVD Audio/Video Player

Capable of playing DVD, DVD-Audio, MP3, Windows Media and JPEG discs, the DVD 31 is as versatile as they come. And with enhanced pixel-by-pixel progressive scan video processing and an audio control system for DVD-Audio that includes bass management, delay settings and output-level trims, whatever goes in will come out looking and sounding its absolute best. No company is better at reproducing the magic of a musical performance or theatrical presentation than Harman Kardon, as the DVD 31 brilliantly demonstrates.



#### FL 8385 CD Changer

If you want high-quality music playback that can run uninterrupted throughout the day — or for the length of the party — the FL 8385 is for you. This five-disc CD changer has a wide range of programming options to play back the perfect mix while High Definition Compatible Digital® (HDCD®) processing delivers the most realistic sound processing to date from both HDCD-encoded and standard discs. High-end Burr-Brown® digital processors convert the digital signals back to analog without inducing any artifacts; or use the coax digital output to connect the FL 8385 directly to the processor in your AVV receiver.



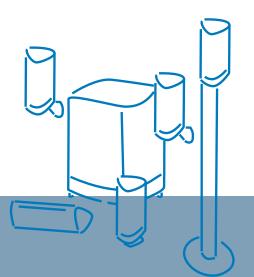
Play >. Hear the thunder; see the lightning. High-quality pictures and sound are what DVD is all about. Harman Kardon DVD players feature advanced circuitry for maximum resolution when used with the latest high-definition video displays and multichannel audio systems, and an exclusive custom-designed menu

system which lets you take full advantage of the DVD format's features. You'll enjoy a level of realism that surpasses anything you've ever seen or heard before.



HKS 4 Surround Loudspeakers

Unleash the 7.1-channel capability of your new AVR or DPR with these elegant loudspeakers. Perfectly matched to the HKTS 14, they deliver the new dimensions in audio performance.





HKTS 14 5.1 Home Cinema Speaker System

The HKTS 14 home cinema system combines a 12-inch, 200-watt subwoofer with magnetically shielded, two-way center channel and satellite speakers. Advanced features include a line-level Sub/LFE input, music-sensing on/off and a multicolor LED power indicator. Wall-mount brackets for the satellite speakers are included.



#### HKTS 7 5.1 Home Cinema Speaker System

Enjoy big movie sound from a remarkably compact matched system. The HKTS 7 includes a 10-inch subwoofer with built-in 100-watt amplifier, four compact speakers with 3-inch midrange and 1/2-inch high-frequency transducers, and a voice-matched, dual-midrange center channel speaker with a 3/4-inch-dome tweeter. Wall-mount brackets for the satellite speakers are included.



#### HKS 3 Surround Loudspeakers

Create a seamless 7.1-channel system by adding these compact yet elegant speakers to your HKTS 7 or any 5.1 home theater system where space is at a premium.

#### HTFS 2 Floor Stands

These slim-profile, distinctively designed floor stands elegantly accent any décor. Aluminum-extrusion columns have a self-contained wire-management system and are ideally matched to the HKTS 7, HKTS 14, HKS 3 and HKS 4 satellite speakers.

#### Prix fixe: Harman Kardon's home theater speaker

Systems. Our HKTS 14 and HKTS 7 systems take the guesswork out of choosing the right speakers to match your other home theater components. Engineered to work as a unified system, their frequency response, dispersion and dynamic range have been carefully matched so that all the speakers in a multichannel system blend together instead of competing with

one another. We've paid special attention to the styling: HKTS systems complement any room décor and perfectly match Harman Kardon's components and today's flat-screen video displays.

### System Solutions



Seven channels. All-digital. All ready to set up and enjoy.



Advanced 7.1 home theater and music enjoyment.



High-fidelity home theater and music on a budget.

"Make the technology serve the music, not the other way around."

These words from Harman Kardon's founder, Dr. Sidney Harman, have guided us on our 50-year journey from the earliest days of "high fidelity" — when Harman Kardon introduced the world's first receiver — to today's advanced digital path receivers, DVD players and all-digital multichannel surround sound systems.

## Celebrating 50 years.

Our home audio products feature the same technologies and innovations found in Harman's Infotainment systems — available in luxury automobiles such as BMW, Mini, Land Rover, Lexus, Mercedes-Benz and Saab — and the audio for computers from Apple, Hewlett-Packard and Toshiba.

Whatever your preferences in movies or music, and whatever your budget or space requirements, Harman Kardon's home systems are offered in an irresistible array of options. This brochure gives you a preview of our products' power and performance . . . but the truest test is in the listening. Share our enthusiasm by visiting a Harman Kardon dealer to experience these products firsthand. Make them, and the entertainment they make possible, a part of your life.



#### Specifications.

Model	DPR 2005	DPR 1005	AVR 7300	AVR 630	AVR 430	AVR 330	AVR 230	AVR 130
Description	7.1-Channel Digital Path Receiver	7.1-Channel Digital Path Receiver	7.1-Channel Audio/Video Receiver	7.1-Channel Audio/Video Receiver	7.1-Channel Audio/Video Receiver	7.1-Channel Audio/Video Receiver	6.1-Channel Audio/Video Receiver	5.1-Channel Audio/Video Receiver
Stereo Power (FTC)	120 x 2	70 x 2	125 x 2	90 x 2	80 x 2	65 x 2	65 x 2	55 x 2
Multichannel Power (FTC)	120 x 7	70 x 7	110 x 7	75 x 7	65 x 7	55 x 7	50 x 6	45 x 5
Amplifier Type	Advanced PWM	Advanced PWM	High Current ±75 amps	High Current ±50 amps	High Current ±40 amps	High Current ±35 amps	High Current ±35 amps	High Current ±25 amps
THD @ Impedance	0.15% @ 8 ohms	0.15% @ 8 ohms	0.07% @ 8 ohms	0.07% @ 8 ohms	0.07% @ 8 ohms	0.07% @ 8 ohms	0.07% @ 8 ohms	0.07% @ 8 ohms
Bandwidth	20Hz — 20kHz	20Hz — 20kHz	20Hz — 20kHz	20Hz — 20kHz	20Hz — 20kHz	20Hz — 20kHz	20Hz — 20kHz	20Hz — 20kHz
Bandwidth @ 1W (+0/-3dB)	20Hz – 20kHz	20Hz — 20kHz	10Hz – 130kHz	10Hz – 130kHz	10Hz – 130kHz	10Hz – 130kHz	10Hz – 130kHz	10Hz – 130kHz
Signal-to-Noise Ratio (IHF-A)	97dB	97dB	100dB	95dB	95dB	100dB	100dB	100dB
Power Supply	Switch mode	Switch mode	Torroidal transformer independent front and rear supplies	Linear transformer independent front and rear supplies				
IEC Detachable Power Cord	Yes	Yes	Yes	Yes	Yes	No	No	No
Dolby Digital	Dolby Digital EX	Dolby Digital EX	Dolby Digital EX	Dolby Digital EX	Dolby Digital EX	Dolby Digital EX	Dolby Digital EX	Yes
Dolby Pro Logic II	Pro Logic IIx	Pro Logic IIx	Pro Logic II x	Yes	Yes	Yes	Yes	Yes
DTS 5.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DTS-ES 6.1 Matrix & Discrete	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
DTS 96/24	Yes	Yes	Yes	Yes	Yes	No	No	No
DTS Neo:6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Logic 7	Yes, w/96kHz capability	Yes, w/96kHz capability	Yes, w/96kHz capability	Yes, w/96kHz capability	Yes, w/96kHz capability	Yes	Yes	Yes
VMAx	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MP3 Decoding	Yes	Yes	Yes	Yes	Yes	No	No	No
Dolby Virtual Speaker	Yes	Yes	Yes	Yes	Yes	No	No	No
Headphone Modes	2-Channel, Dolby	2-Channel, Dolby	2-Channel, Dolby	2-Channel, Dolby	2-Channel, Dolby	VMAx	VMAx	VMAx
HDCD Processing	Yes	Yes	Yes	Yes	No	No	No	No
Multizone	Audio, with remote	Audio, with remote	Audio/video, with remote	Audio, with remote	Audio, with remote	Audio, with remote	No	No
Assignable Rear-Channel Amplific	iers Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A

All features and specifications are subject to change without notice.

NOTE: Depth measurement includes knobs, buttons and terminal connections; height measurement includes feet and chassis.

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Model (continued)	DPR 2005	DPR 1005	AVR 7300	AVR 630	AVR 430	AVR 330	AVR 230	AVR 130
A/V Inputs	6	6	6	5	5	5	5	4
S-Video Inputs	6	6	6	5	5	5	5	4
Analog Audio Inputs	4	4	4	4	4	4	4	4
Digital Audio Inputs (Coax/Opti	ical) Rear panel 2/2 Front panel 1/1	Rear panel 2/2 Front panel 1/1	Rear panel 3/3 Front panel 1/1	Rear panel 2/2 Front panel 1/1	Rear panel 2/2 Front panel 1/1	Rear panel 2/2 Front panel 1/1	Rear panel 2/2 Front panel 1/1	Rear panel 2/2 Front panel 1/1
Digital Audio Outputs (Coax/Op	otical) Rear panel 1/1 Front panel 1/0	Rear panel 1/1 Front panel 1/0	Rear panel 1/1 Front panel 1/1	Rear panel 1/1 Front panel 1/0	Rear panel 1/1	Rear panel 1/1	Rear panel 1/1	Rear panel 1/1
Digital Input Polling	All video inputs	Video 3 input	Video 3 input	No				
Direct Audio Inputs	6/8-Channel with bass management	6/8-Channel with bass management	6/8-Channel with bass management	6/8-Channel with bass management	6/8-Channel	6/8-Channel	6/8-Channel	6-Channel
Preamp Outputs	7.1 Channels	7.1 Channels	7.1 Channels	Subwoofer				
Input Titling	Yes	Yes	Yes	Yes	Yes	No	No	No
Bass Management	Quad crossover	Triple crossover	Triple crossover	Triple crossover				
On-Screen Display	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
DSP Processor	Cirrus® CS 49400	Cirrus® CS 49300	Cirrus® CS 49300	Cirrus® CS 49300				
Output DACs	192kHz/24-bit	192kHz/24-bit	192kHz/24-bit	192kHz/24-bit	192kHz/24-bit	192kHz/24-bit	192kHz/24-bit	192kHz/24-bit
HDTV-Compatible Component Video Inputs	2, Assignable	2, Assignable	3, Assignable	2, Assignable	2, Assignable	2	2	0
A/V Sync Delay	Yes	Yes	Yes	Yes	Yes	No	No	No
A-Bus/Ready	Yes	Yes	Yes, x2	Yes	Yes	No	No	No
System Remote	EzSet, 8-device learning & programmable, backlit with two-line LCD display	EzSet, 8-device learning & programmable, backlit with two-line LCD display	EzSet, 8-device learning & programmable, backlit with two-line LCD display	EzSet, 8-device learning & programmable, backlit with two-line LCD display	EzSet, 8-device learning & programmable, backlit with two-line LCD display	EzSet, 8-device programmable	EzSet, 8-device programmable	6-Device programmable
IR In/Out Jacks	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Discrete Remote On/Off Codes	s Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
HD Radio Upgrade Slot	Yes	Yes	Yes	Yes	Yes	No	No	No
Speaker Terminals	Color-coded binding posts	Color-coded binding posts	Color-coded binding posts	Color-coded binding posts				
Dimensions (H x W x D)	4-1/2" x 17-5/16" x 18-3/4"	4-1/2" x 17-5/16" x 18-3/4"	7-5/8" x 17-5/16" x 20-1/2"	6-1/2" x 17-5/16" x 17-1/8"	6-1/2" x 17-5/16" x 17-1/8"	6-5/8" x 17-5/16" x 15"	6-5/8" x 17-5/16" x 15"	6-5/8" x 17-5/16" x 15"
Weight	23 lb	20 lb	55 lb	41 lb	39 lb	31 lb	28 lb	24 lb

Model	HK 3480	HK 3380
Description	Stereo receiver	Stereo receiver
Power (FTC)	120 x 2	80 x 2
THD	<0.07%	<0.07%
mpedance	8 Ohms	8 Ohms
Bandwidth	20Hz – 20kHz	20Hz — 20kHz
HCC (amps)	±45	±42
Bandwidth @ 1W (+0, -3dB)	10Hz — 110kHz	10Hz — 110kHz
Discrete Amplifier Output Devices	Yes	Yes
/MAx	Yes	No
Audio Inputs	7	7
Video Inputs	4 (1 on front panel)	4 (1 on front panel)
Video Outputs	1	1
Phono Input	Yes	Yes
Tape Monitor Loop	Yes	Yes
Tuner	FM stereo/AM with 30 presets	FM stereo/AM with 30 presets
VB Speaker Switching	Yes	Yes
Subwoofer Output	Yes	Yes
Preamp Outputs/ Main Amp Inputs	Yes	Yes
Accessory Outlets	2 Switched	2 Switched
System Remote	Yes	Yes
Separate Remote On/Off Buttons	Yes	Yes
Dimensions (H x W x D)	6-5/8" x 17-3/8" x 15"	6-5/8" x 17-3/8" x 15"
Weight		20.9 lb

Model	PA 4000	PA 2000
Description	Multichannel power amplifier	Multichannel power amplifier
Power (FTC)	45 x 8	45 x 4
Bridge Mode 1 Power	100 x 2 plus 45 x 4	100 x 2
Bridge Mode 2 Power	100 x 4	N/A
THD	<0.07%	<0.07%
Impedance	8 Ohms	8 Ohms
Bandwidth	20Hz — 20kHz	20Hz — 20kHz
HCC (Amps)	±45	±45
Bandwidth @ 1W (+0, -3dB)	<1Hz - 200kHz, -3dB @ 1 watt	<1Hz — 170kHz, —3dB @ 1 watt
Dual Source Inputs	Yes	No
Discrete Amplifier Output Devices	Yes	Yes
Fanless Cooling Design	Yes	Yes
Designed for Long Speaker Wire Ru	uns Yes	Yes
Low-Impedance Capability	Yes	Yes
Parallel Line-Level Outputs	Yes	Yes
Music Sense Auto On/Off	Yes	Yes
Low-Voltage Trigger Jack	Yes	Yes
Independent Volume Controls for Each Channel	Yes	No
Rear-Panel Trim Pots for Output Level Adjustment	No	Yes
Optional In-Wall Keypads (KP 1) for Volume and Power Control	Yes	No
Gold-Plated, 5-Way Binding Posts	Yes	Yes
Dimensions (H x W x D) 7	-5/16" x 17-3/8" x 18-5/16"	6-1/8" x 17-3/8" x 15-3/4
Weight	47 lb	25.3 lb

Model	DVD 31	DVD 22	
Description	Single-disc DVD audio/video player	Single-disc DVD video player	
Video Playback Formats	DVD, DVD-R/RW, DVD+R/RW, VCD, SVCD	DVD, DVD-R/RW, DVD+R/RW, VCD, SVCD	
Audio Playback Formats	DVD-Audio, CD, CD-R, CD-RW, MP3, Windows Media	CD, CD-R, CD-RW, MP3, Windows Media	
Still Image Playback Formats	JPEG	JPEG	
Audio Output DACs	192kHz/24-bit	192kHz/24-bit	
Video Output DACs	27MHz — 54MHz/10-bit	27MHz — 54MHz/10-bit	
Progressive Scan Output	Yes, with pixel-by-pixel scaling	Yes, with pixel-by-pixel scaling	
Video Test Screen	Yes	Yes	
Video-Off Mode	Yes	Yes	
Repeat Play	1 track, 1 disc, A/B	1 track, 1 disc, A/B	
Programmed Play	Up to all tracks, chapters or files on disc	Up to all tracks, chapters or files on disc	
Digital Outputs	Coax, optical	Coax, optical	
Remote	Backlit	Backlit	
IR In/Out Jacks	Yes	Yes	
Dimensions (H x W x D)	2" x 17-5/16" x 12"	2" x 17-5/16" x 12"	
Weight	7.5 lb	7.5 lb	

1ode1	KP 1	AB 1		
Product Type	In-wall keypad	A-BUS/Ready in-wall module with built-in amplifier		
System Requirements	Use with PA 4000 power amplifier via Cat.5 cable. May be used with optional IR sensor made by third party. Compatible with user-supplied Decora wall plate.	Use with DPR 2005, DPR 1005, AVR 7300, AVR 630, AVR 430 via Cat. 5(5e) cable. Includes IR sensor for pass-through of remote commands. Use with 6 – 8-ohm speakers with sensitivity >88dB.		
Dimensions (H x W x D)	4" x 1-5/8" x 1-9/16"	4-1/4" x 1-3/4" x 2-1/4"		
Veight	0.25 lb	0.25 lb		

Model	FL 8385
Description	5-Disc CD changer
Plays CD-R	Yes
Plays CD-RW	Yes
HDCD®	Yes
Dub Speed	N/A
Audio Output DACs	18-Bit Burr-Brown®
Programmed Play	20 Tracks
Repeat Play	1 Track, 1 CD, all CDs
Digital Outputs	Coax
Headphone Jack With Level Control	Yes
Remote	Yes
Separate Remote On/Off Buttons	Yes
IR In/Out Jacks	Yes
Dimensions (H x W x D)	5-1/8" x 17-5/16" x 15-1/4
Weight	18 lb

Model	HKTS 14	HKTS 7	HKS 4	HKS 3
Satellites	4 Identical 2-way satellites with dual 3" midranges and 3/4" dome tweeter, video-shielded	4 Identical 2-way satellites with 3" midrange and 1/2"-dome tweeter, video-shielded	2 Identical 2-way satellites with dual 3" midranges and 3/4" dome tweeter, video-shielded	2 Identical 2-way satellites with 3" midrange and 1/2"-dome tweeter, video-shielded
Center Channel Speaker	Voice-matched, dual-driver with two 3" midranges and 3/4"-dome tweeter	Voice-matched, dual-driver with two 3" midranges and 3/4"-dome tweeter	N/A	N/A
Subwoofer	200-Watt, bass-reflex powered subwoofer with 12" driver	100-Watt, bass-reflex powered subwoofer with 10" driver	N/A	N/A
Impedance	8 Ohms (sats & center)	8 Ohms (sats & center)	8 Ohms	8 Ohms
Sensitivity (SPL @ 1 Watt/Mete	er) 86dB (sats & center)	86dB (sats & center)	86dB	86dB
Frequency Response	System: 25Hz – 20kHz (–6dB)	System: 35Hz – 20kHz (–6dB)	105Hz — 20kHz (—6dB)	110Hz — 20kHz (—6dB)
Line-Level Inputs	Stereo RCA jacks and dedicated LFE	Stereo RCA jacks and dedicated LFE	N/A	N/A
Speaker-Level Inputs & Outputs	Binding posts	Binding posts	Spring lever (inputs only)	Spring lever (inputs only)
Recommended Amplifier Power	10W – 120W	10W - 80W	10W - 120W	10W - 80W
Subwoofer Level Control	Yes	Yes	N/A	N/A
Phase Switch	Yes	Yes	N/A	N/A
Music Sense Turn-On	Yes	Yes	N/A	N/A
Low-Pass Filter Switch	Yes	Yes	N/A	N/A
Cables Included	Yes	Yes	Yes	Yes
Wall-Mount Capability	Brackets included for 4 satellites	Brackets included for 4 satellites	Pair of brackets included	Pair of brackets included
,	Sats: 9-9/16" x 3-15/16" x 3-5/8" Center: 4" x 9-1/2" x 3-5/8" Sub: 20-1/2" x 14-1/2" x 14-1/2"	Sats: 6-9/16" x 3-15/16" x 3-5/8" Center: 4" x 9-1/2" x 3-5/8" Sub: 18-7/8" x 13-3/8" x 13-3/8"	9-9/16" x 3-15/16" x 3-5/8"	6-9/16" x 3-15/16" x 3-5/8"
Weight	Sats: 2.2 lb Center: 2.2 lb Sub: 48 lb	Sats: 1.4 lb Center: 2.2 lb Sub: 33 lb	2.2 lb	1.4 lb

Yes
165
Yes
34-1/2"
9" x 7" oval
16.7 lb

