

Canton CD 300 Speaker System and Lexicon RV-8 A/V Receiver

Good sound made easy by Lexicon and Canton.



Our kickoff system is a slick combination of Canton speakers and Lexicon's new A/V receiver; this system would look fine in the company of a plasma or any of the plasma-inspired designs that dominate video aesthetics these days. Far more important is how it sounds, though. While this combination isn't exactly inexpensive, it won't set you back nearly as much as it could at this performance level.

The system's

BY CHRIS LEWIS

In case you didn't believe we were serious about dedicating more of our pages to the overriding reality of home theater—the necessity of individual components coming together to form a cohesive system—we offer exhibit B, our new Spotlight System review.

Exhibit A, for those keeping score, is our Hook Me Up column: Sometimes it includes reviews, and sometimes it doesn't, but it always keeps an eye on system issues, especially connections. This new column contains all of the elements of a standard gear review, with the notable exception of being focused on a system, rather than individual components.

logistical advantages—including the inherent time, space, and interconnect savings of a receiver, plus low-profile speakers that offer a variety of mounting options—can almost be considered a bonus here.

Lexicon in a Box

Not exactly, but the RV-8 A/V receiver is probably as consolidated a component as Lexicon will ever

offer, and receiver fans should take note. The RV-8 combines the preamplification/processing talents that made Lexicon's name in high-end circles with the company's more recently unveiled talents with amplifiers, in a single chassis that is less expensive than most current Lexicon separates.

Features and connections are expectedly abundant. As you'll find in the RV-8's other departments, Lexicon has borrowed a lot from their highly regarded separates. This includes a bevy of processing options (and control over them like you rarely get from a pre/pro, let alone a receiver): the outstanding Logic7 mode; top-shelf internals, including two floating-point Hammerhead DSP engines for the main processing load and a separate DSP engine for compressed audio; 24-bit/96-kilohertz analog-to-digital converters; 24-bit/192-kHz digital-to-analog converters on all channels; and considerable connection flexibility, like the option of configuring the analog audio inputs as two 5.1-channel ins or one plus multiple stereo ins. You can set up the 5.1-channel and stereo analog inputs individually to bypass A/D conversion and internal processing, and digital audio input signals are processed through a two-stage phase lock loop for low intrinsic jitter and high jitter rejection. THX Ultra2 certification and processing are in the mix, and power is ample, with a rated 140 watts across seven channels. There's also two extra zones with independent audio and video signals and an AM/FM tuner with ample presets.

On the video side, the wide-bandwidth component video switcher accepts analog component or RGB video signals, and a composite and S-video switcher

accepts high-quality NTSC, PAL, or SECAM video signals. The RV-8 can convert composite and S-video sources to component video.

Futureproofing is addressed with two rear-panel RS-232 connectors.

One handles configuration down-loads and flash-memory software upgrades, and the other is ready for future needs. The RV-8 can also accommodate future connections by the real estate left on the back

AT A GLANCE LEXICON RV-8 A/V RECEIVER



CONNECTIONS

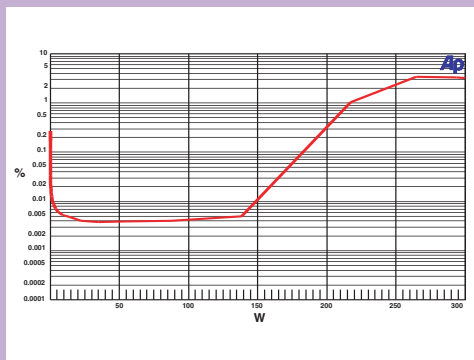
- Inputs:**
 Video: component video (3), S-video (5), composite video (5)
 Audio: coaxial digital (4), optical digital (4), 5.1-channel analog (1 or 2), stereo analog (up to 9)
- Outputs:**
 Video: component video (1), S-video (4), composite video (5)
 Audio: coaxial digital (1), optical digital (1), stereo analog (3), preamp (8)
- Additional:**
 RS-232 (2), 12-volt trigger (2), IR jack (1), microphone in (2), headphone (1)

These listings are based on the manufacturer's stated specs; the HT Labs box below indicates the gear's performance on our test bench.

FEATURES

Processing Modes:	Dolby: Digital 5.1, EX, Pro Logic IIx DTS: DTS, ES, 96/24, Neo:6 Other: Logic7, various DSP modes Ultra2
THX Certification:	Ultra2
Audio D/A Converter:	24-bit/192-kilohertz
Number of Amp Channels:	7
Power Rating (watts per channel):	140, into 8 ohms
Frequency Response:	-3 dB from 20 Hz to 20 kHz
Dimensions (H x W x D, inches):	7.76 x 17.3 x 21.2
Weight (pounds):	65
Price:	\$6,995

HT Labs Measures: Lexicon RV-8 A/V Receiver



- **Five channels driven into 8-ohm loads:**
0.1% distortion at 170.3 watts; 1% distortion at 194.2 watts
- **Analog frequency response in Bypass mode:**
-0.31 dB at 10 Hz; -0.10 dB at 20 Hz; -0.02 dB at 20 kHz; -0.40 dB at 50 kHz
- **Analog frequency response with signal processing:** -0.61 dB at 10 Hz; -0.19 dB at 20 Hz; -0.06 dB at 20 kHz; -23.76 dB at 50 kHz

This graph shows that the RV-8's left channel, from CD input to speaker output with two channels driving 8-ohm loads, reaches 0.1% distortion at 182.5 watts and 1% distortion at 216.5 watts. Into 4 ohms, the amplifier reaches 0.1% distortion at 322.9 watts and 1% distortion at 382.9 watts.

Response from the multichannel input to the speaker output measures -0.30 dB at 10 Hz, -0.10 dB at 20 Hz, -0.02 dB at 20 kHz, and -0.40 dB at 50 kHz. THD+N from the amplifier was less than 0.012% at 1 kHz when driving 2.83 volts into an 8-ohm load. Crosstalk at 1 kHz driving 2.83 volts into an 8-ohm load was -83.94 dB left to right and -86.66 dB right to left. The signal-to-noise ratio with 2.83 volts driving an 8-ohm load from 10 Hz to 24 kHz with "A" weighting was -101.41 dBra.

From the Dolby Digital input to the loudspeaker output, the left channel measures -0.12 dB at 20 Hz and -0.13 dB at 20 kHz. The center channel measures -0.12 dB at 20 Hz and -0.08 dB at 20 kHz, and the left surround channel measures -0.15 dB at 20 Hz and -0.10 dB at 20 kHz. From the Dolby Digital input to the line-level output, the LFE channel is -0.06 dB at 20 Hz when referenced to the level at 40 Hz and reaches the upper 3-dB down point at 111 Hz and the upper 6-dB down point at 120 Hz. —MJP

panel for them, currently hidden by a removable plate.

Silver Streaks

The time when the phrase “plasma-friendly speakers” would almost certainly be uttered with a derogatory tone is starting to pass, as the initial rounds of bandwagon systems filter through and manufacturers start taking the time to make these speakers sound as good as they look. Canton’s new CD Series speakers are a good example. The CD 300 is a legitimate tower speaker in any context, despite its svelte width (4.8 inches) and depth (6.3 inches), and the CD 360 F L/C/R model is equally impressive and even more compact. The CD 300 dedicates two 4-inch aluminum drivers to bass alone, with claimed response down to 30 hertz. There are also two 4-inch aluminum midrange units and a 1-inch aluminum dome tweeter in a 2.5-way bass-reflex design, with crossovers at 400 Hz and 3.3 kHz. The CD 360 F uses the same driver array and crossover points, but in a closed 2.5-way system. The brushed-aluminum cabinets feature

a single pair of gold-plated, five-way binding posts in back and come in a black or silver finish. The CD 300 is anchored by a base plate, and the CD 360 F has keyhole mounts for wall-mounting. A tabletop stand is available for the CD 360 F, and both are magnetically shielded.

As the CD Series lacks a dedicated subwoofer, I went with a proven performer from the Karat Series, the AS 300 SC. This is an active, bass-reflex design with a rated 350 watts on board and a 12-inch cellulose/graphite driver. It offers adjustable crossover (20 to 120 Hz), phase, and gain controls, but no crossover bypass. The AS 300 SC’s silver lacquer finish (one of four available finishes) made it as good an aesthetic fit as it was a sonic fit.



➤ Based on the popular Home Theater Master design, the RV-8’s remote features backlighting and an easy-to-read LCD.

The Proving Grounds

The first thing I noticed with music demos was the system’s remarkable accuracy, which was about as apparent with CD material as it was with high-resolution material. I have come to expect no less than pinpoint accuracy from Lexicon, and the

HIGHLIGHTS

- Lexicon processing and amplifier talents in one chassis
- Loaded with power, features, and connections
- Sweet, smooth Lexicon sound

RV-8 clearly keeps this heritage alive. Canton speakers have also consistently impressed me on this front, and these CD Series models are no exception. The resulting sound of the collaboration was sharp and crisp, relatively free from coloration, and laced with an airy, open feel that treated vocals and instruments with equal delicacy. The accuracy was there, but so was the warmth—an impressive feat for this design. I was initially concerned that aluminum drivers operating in aluminum cabinets might ring like a bell, but this never materialized. There were occasions when the tweeter bit harder than a mellow, soft dome unit in a more-forgiving cabinet would have; in other instances, the Cantons leaned to the aggressive side, but nothing at all like I expected. It’s clearly fair to say that these Cantons are warm overall and only occasionally tip you off to their construction.

LEXICON RV-8 A/V RECEIVER

OVERALL RATING

Build Quality	Value	Features	Performance	Ergonomics
<ul style="list-style-type: none"> ➔ Expect no less than the best from Lexicon ➔ Internal components like few receivers have 	<ul style="list-style-type: none"> ➔ Expensive for a receiver, but worth it ➔ Lots of futureproofing, and Lexicon’s trade-in plan is unrivaled 	<ul style="list-style-type: none"> ➔ Plenty of connections ➔ All of the processing you’ll need, with exceptional control over details 	<ul style="list-style-type: none"> ➔ Chris has never heard a better-sounding receiver ➔ It has power to spare 	<ul style="list-style-type: none"> ➔ The Home Theater Master remote is useful and familiar ➔ All of a receiver’s logistical benefits
94	93	96	97	95

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The RV-8 is the best sounding receiver Chris has ever heard. Combine that with its long list of perks, considerable ease of use, and powerful control capabilities, and it’s easy to see that there’s a new king in the receiver castle.

General information

RV-8 A/V Receiver, \$6,995 ➔ Lexicon, (781) 280-0300, www.lexicon.com ➔ Dealer Locator Code LEX

Another erroneous assumption I made about the CD 300s was their capacity for bass. My natural reaction to any small, skinny, or plasma-inspired front speaker is to run it in small mode and let the sub handle the low-frequency load. But having noted the aforementioned 30-Hz bottom-end spec, I switched

them over to full-range to see how legitimate this rating was. The answer with two-channel music was surprising enough to make me get up and check the sub to make sure I had cut it off. Not only was the bass full and carefully developed, but it was deep, with authority that you usually don't get outside

of big towers with big woofers. The Lexicon played no small role in this, and it was immediately clear to me that its 140-watts-per-channel rating was sounding legitimate. Not only does it sonically deliver on its promised power, but it does so from the top of the frequency range to the bottom, driving low frequencies through with raw muscle but also the agility and accuracy that keeps them from degenerating into monotone boom. The characteristic bass line from Sara K.'s rendition of "Brick House" (*Super Audio Collection Volume 2*, Chesky) retained all of its natural boldness and body, but it finished as cleanly as it started with each pluck of the strings.

The legitimacy of the Lexicon's power was on display with multi-channel material; it not only delivers from top to bottom, but it does so with all channels driven. Take the interesting in-the-orchestra mixes found on some of AIX's classical recordings, which put added demand on the center and surround channels. The Lexicon and Cantons answered with authority, but also a clear sense of calm and resistance to fatigue, even as woodwinds, brass, and percussion all started firing at once. The same could be said of their handling of the highly active surround channels from *Gods and Generals*, particularly the cannon duel from chapter 21. Front-to-back and side-to-side pans abound here, and the soundstage remained tight and consistent throughout, with little in the way of gaps or even too much localization, despite relying on direct-radiating surrounds. There is clear presence to these CD 360 Fs as surrounds, despite their relatively small size and limited cabinet dimensions. Most plasma-friendly surrounds

AT A GLANCE CANTON CD 300 SPEAKER SYSTEM

SUBWOOFER: KARAT AS 300 SC

Connections:	Speaker- and line-level ins and outs
Enclosure Type:	Vented
Woofer (size in inches, type):	12, cellulose/graphite
Power Rating (watts):	350
Crossover Bypass:	No
Available Finishes:	Cherry, Beech, Black, Silver
Dimensions (H x W x D, inches):	18.9 x 14.2 x 17.3
Weight (pounds):	60.5
Price:	\$1,700

These listings are based on the manufacturer's stated specs; the HT Labs box below indicates the gear's performance on our test bench.

SPEAKER:

Type:	
Tweeter (size in inches, type):	
Midrange (size in inches, type):	
Woofer (size in inches, type):	
Nominal Impedance (ohms):	
Recommended Amp Power (watts):	
Available Finishes:	
Dimensions (H x W x D, inches):	
Weight (pounds):	
Price:	

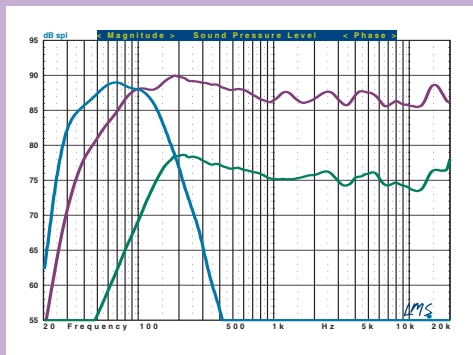
CD 300

Type:	2.5-way, tower
Tweeter (size in inches, type):	1, aluminum dome
Midrange (size in inches, type):	4, aluminum cone (2)
Woofer (size in inches, type):	4, aluminum cone (2)
Nominal Impedance (ohms):	4
Recommended Amp Power (watts):	10-170
Available Finishes:	Silver, Black
Dimensions (H x W x D, inches):	47.2 x 4.8 x 6.3
Weight (pounds):	26.4
Price:	\$2,000/pair

CD 360 F

Type:	2.5-way, L/C/R
Tweeter (size in inches, type):	1, aluminum dome
Midrange (size in inches, type):	4, aluminum cone (2)
Woofer (size in inches, type):	4, aluminum cone (2)
Nominal Impedance (ohms):	4
Recommended Amp Power (watts):	10-170
Available Finishes:	Silver, Black
Dimensions (H x W x D, inches):	23.6 x 4.8 x 3.9
Weight (pounds):	17.8
Price:	\$800

HT Labs Measures: Canton CD 300 Speaker System



... CD 300 L/R Sensitivity:
86.5 dB from 500 Hz to 2 kHz

... CD 360 F Satellite Sensitivity:
88 dB from 500 Hz to 2 kHz

This graph shows the quasi-anechoic (employing close-miking of all woofers) frequency response of the CD 300 L/R (purple trace), AS 300 SC subwoofer

(blue trace), and CD 360 F satellite (green trace). All passive loudspeakers were measured at a distance of 1 meter with a 2.83-volt input and scaled for display purposes.

The CD 300's listening-window response (a five-point average of axial and +/-15-degree horizontal and vertical responses) measures +3.30/-0.90 dB from 200 Hz to 10 kHz. The -3dB point is at 61 Hz, and the -6dB point is at 48 Hz. Impedance reaches a minimum of 4.09 ohms at 4.3 kHz and a phase angle of -32.82 degrees at 162 Hz.

The CD 360 F's listening-window response measures +2.61/-2.10 dB from 200 Hz to 10 kHz. An average of axial and +/-15-degree horizontal responses measures +2.44/-2.33 dB from 200 Hz to 10 kHz. The -3dB point is at 121 Hz, and the -6dB point is at 104 Hz. Impedance reaches a minimum of 5.20 ohms at 3.9 kHz and a phase angle of -44.51 degrees at 174 Hz.

The AS 300 SC's close-miked response, normalized to the level at 80 Hz, indicates that the lower -3dB point is at 39 Hz and the -6dB point is at 30 Hz. The upper -3dB point is at 135 Hz with the crossover-frequency control set to maximum. —MJP

would balk at this action and likely sacrifice the subtle detail that rounds out a legitimate surround field, but the CD 360 F did not. It offered impressive dynamic impact with any form of material I asked it to reproduce.

The CD 360 F was also impressive as a center channel. Naturally, a center presentation benefits considerably from the accuracy and detail I've already noted. That



A Chris found the Canton/Lexicon combo to be as easy to set up as a more-elaborate HTIB.

carried over nicely to movies, where dialogue exhibited the same natural ease that lyrics had. The CD 360 F delivered effects with the same authority and delineation that characterized musical instruments. The CD 360 F's limited size only caught up to it on those occasions where producers simply stuffed too much into the pipe at once, which causes problems for most center channels, especially those of the compact variety. Recovery time from these periods

of crowding was quick, though, and the Canton/Lexicon combination never let a few brief bumps steer it off course from what was a dynamic, highly accurate, and impressive presentation overall.

The Last Word

Home theater system building is part science, part instinct, and sometimes part voodoo. It's also never easy; so, when a system comes together as sonically and logistically successful as this one did, you take notice. Sure, a lot of speakers would sound good when run through the RV-8—which is quite simply the best sounding receiver I've ever heard—and the Cantons will sound good when mated with

HIGHLIGHTS

- They look like plasma-friendly speakers but don't sound like them
- They have a small footprint, wall-print, or tableprint

a variety of quality electronics. But if you're in the market for a system around this price range that sounds excellent, offers an abundance of features, is about as easy to set up as some of the more-elaborate home-theater-in-a-box systems, and looks damn good in the process, a proven combination like this might be a good place to start your search. 📺

NEED A DISPLAY?

We recommend the following displays to mate with this Canton/Lexicon combo:

Fujitsu P50XHA30WS Plasma HD Monitor, \$9,000
Screen size: 50 inches
Resolution: 1,366 by 768
Best video connection: DVI w/HDCP
Weight: 99.21 pounds



Panasonic TH-42PX25 Plasma HDTV, \$6,000
Screen size: 42 inches
Resolution: 1,024 by 768
Best video connection: HDMI
Weight: 92.6 pounds



Movie image courtesy of 20th Century Fox

CANTON CD 300 SPEAKER SYSTEM

OVERALL RATING

Build Quality

Value

Features

Performance

Ergonomics

➔ All of the CD Series speakers boast solid cabinet construction and quality drivers

➔ Well-priced on performance alone
 ➔ Aesthetic benefits are a bonus

➔ The CD 360 F has several mounting options
 ➔ The AS 300 SC offers ample control but no bypass

➔ They sound much warmer than aluminum drivers in aluminum cabinets should
 ➔ Deep bass

➔ The system requires far less floor space than speakers this authoritative normally need

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No one ever said plasma-friendly speakers had to sound bad, and Canton clearly doesn't believe they should. The CD 300 system may initially turn heads because of the way it looks, but the way it sounds is what will keep you around. Call them plasma-friendly speakers that don't sound like plasma-friendly speakers.

General information

CD 300 Tower Speaker, \$2,000/pair ➔ CD 360 FL/C/R Speaker, \$800 ➔ AS 300 SC Subwoofer, \$1,700
 Canton, (612) 706-9250, www.canton.de ➔ Dealer Locator Code CAN