"Legend system gets HIGH MARKS ..."

Legend

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"... Paradigm's Legend system gets high marks on all the important tests – tonal balance, dynamics, imaging and coherent surround sound ... overall tonality matched my (far more expensive) reference speakers very closely..."

by Daniel Kumin

Sometimes boring is better, like Canada's boringly complete and universal health care, boringly low crime rates, and boringly high educational levels. And then there's the boringly predictable excellence and value of the speaker systems that march south from Canada to the showrooms and home theaters of the lower 48. One of the latest is this system from Ontario's Paradigm, comprising a pair of compact towers for the left/right front channels, a large center-channel speaker, a pair of dipole surrounds, and a formidable powered subwoofer, all for less than two grand.

The Legend tower derives from the speaker that anchored the Paradigm Legend system we reviewed back in September 1999. Yet despite its similar appearance, the new model has little in common with the earlier one. The latest edition sports four redesigned drivers in a "2-1/2-way" system, and forgoes the powered-subwoofer section.

Like its predecessor, the Legend is tall, slim, and nicely finished in "rosenut" woodgrain vinyl with a black knit grille.

With the internal subwoofer gone, Paradigm now suggests using its PDR-12 to fill in the bottom-octave rumble of movie soundtracks and demanding music. Compact for a sub with a 12-inch driver, the low-slung PDR-12 is finished to match the Legend. The CC-270 center speaker employs essentially the same drivers as the top two-thirds of a Legend—dual 6-1/2-inch woofers and a 1-inch dome tweeter—in a conventional horizontal array. The ADP-170 surround has twin

two-way panels firing out of phase from a compact, truncated-wedge cabinet.

"… a nice, unforced sense of treble definition and a smooth midrange. … tight, lifelike stereo imaging … at levels not always heard from 'affordable' speakers."

PDR-12 Rear Panel

Nothing special was required in the way of setup. All of the main-channel speakers have multiway binding-post inputs. The subwoofer has a single RCA-jack line-level input and a single set of relatively lightduty push-terminals for speaker level input, but you'd need parallel cables to use this connection (one pair to the sub and another pair to the towers). Most new receivers have line-level sub outputs, and that's what I used.

The only controls on the sub are knobs for level and low-pass cutoff (from 50 to 150 Hz). To invert the sub's phase (which is sometimes helpful in achieving a better blend between the sub and the front left/right speakers), you'd have to reverse the wires connecting the front three speakers—or all five speakers if you want to be a stickler.

ADP-170

"… the PDR-12 proved to be a highly competent 12-inch boomer that delivered lots of output well below 35 Hz … really loud and really deep."

As usual, I put the subwoofer next to the right Legend, normally the best spot for a sub in my room. I put the center speaker on top of my TV and the surrounds on side-wall shelves a little behind the listening position.

"… the Legends' overall tonality matched my (far more expensive) reference speakers very closely, and they did an excellent job of placing the opening elements of nylon-string guitar, piano, and hand percussion in a well-defined, stable stereo image. The Paradigm speakers provided a considerable helping of depth, too …"

Beginning with stereo listening, I found that except for the deep bass, the Legends sounded very much like their predecessors: just a shade to the warm side of neutral, but with a nice, unforced sense of treble definition and a smooth midrange. They also produced tight, lifelike stereo imaging from good recordings, and at levels not always heard from "affordable" speakers. On cuts like "Big Lie Small World" from Sting's *Brand New Day* CD, the Legends' overall tonality matched my (far more expensive) reference speakers very closely, and they did an excellent job of placing the opening elements of nylon-string guitar, piano, and hand percussion in a well-defined, stable stereo image. The Paradigm speakers provided a considerable helping of depth, too, clearly placing the piano behind and to the left of the guitar.

"I was favorably impressed by the ADP-170 surround speakers. They did a great job of conveying the ambient and spatial cues … believably enveloping … "

Given its size and shape, I expected more deep bass from the Legend. Not that there was anything wrong with the bass they did provide, but the towers didn't play any deeper on the rumbles during the opening of the Sting album than my smaller, single-woofer reference speakers. Adding the PDR-12 to the mix changed everything, of course.

I did most listening with my receiver's subwoofer-output crossover set to 80 Hz —the THX standard and the only setting

PDR-12

many A/V receivers offer—leaving the sub's own cutoff-frequency control wide open. Nonetheless, I had to experiment a bit to get the best blend with the Legend towers. In the end, I achieved the most extended yet "leanest" sound by moving the sub several feet from the original (and usually optimal) position and rolling its cutoff knob back a bit.

> *"… naturally recorded instruments are placed all around you … the timbral consistency of this Canadian speaker suite is so good that you'll forget pretty quickly about all the technical wizardry involved in creating a high-resolution multi-channel recording and just sit back and listen. … impressively natural and distinct through all five main speakers …"*

The result of all this tinkering was very good indeed: the PDR-12 proved to be a highly competent 12-inch boomer that delivered lots of output well below 35 Hz in my room. Given the right material, the Paradigm sub had no trouble exciting my room's vestigial in-the-wall rattle—the one that rears its head only in response to bass that's really loud and really deep.

The CC-270 center speaker fared very well in my standard comparisons of timbre relative to the left/right front speakers. Listening on-axis, I found the tone of male and female voices closely matching what I heard from the L/R speakers. There was the usual loss of presence as I moved well to one side or the other, which is common to most horizontal center speakers and caused by acoustic interference between the outputs of the two woofers.

CC-270

> *"The CC-270 center speaker fared very well … I found the tone of male and female voices closely matching what I heard from the L/R speakers."*

I was favorably impressed by the Paradigm ADP-170 surround speakers. They did a great job of conveying the ambient and spatial cues that pepper the soundtrack of *Unbreakable* (Vista Series)—as far as I'm concerned, that's job No. 1 for the surround channels of any movie soundtrack. For example, in the opening scene, the train and tunnel noises were believably enveloping, yet the train rushed by with sufficient precision for a fully realistic effect.

Even though they're dipoles, the ADP-170s also did a nice job conveying discrete sound effects. Toward the end of *Unbreakable,* there's a scene in which Bruce Willis falls into a pool and thrashes about while tangled within a pool cover. The underwater swishings included a number of gurgles "hard-panned" into the surround channels, but they didn't pull the ear excessively rearward—which is a good thing.

As expected, the dipole surrounds didn't deliver the crisp localization that direct-radiating speakers can give discretely located instruments in multichannel music recordings. For instance, the banjo in the left surround that helps open "When Joy Kills Sorrow" on Béla Fleck's *The Bluegrass Sessions* DVD-Audio disc didn't sound quite as focused and natural as the fiddle that's heard in the front right speaker—but it didn't sound bad, either. Overall, it's a tradeoff I'm happy to make, and one I would endorse for anyone whose first priority is movies rather than music.

> *"The Legend system cracked open the soundtrack of 'Unbreakable,' delivering shatteringly realistic surround effects."*

The Legend system had no trouble immersing me in DVD-Audio music. The Fleck album is a fine example of a recording where naturally recorded instruments are placed all around you. And the timbral consistency of this Canadian speaker suite is so good that you'll forget pretty quickly about all the technical wizardry involved in creating a high-resolution multichannel recording and just sit back and listen. The disc's myriad plucked instruments sounded impressively natural and distinct through all five main speakers, and without the crutch of extra high-frequency "zip" that many speakers fall back on.

So Paradigm's Legend system gets high marks on all the important tests—tonal balance, dynamics, imaging, and coherent surround sound—for less than $2,000. No surprise, maybe, but this might be just the kind of "boring" news a lot of speaker buyers will welcome.

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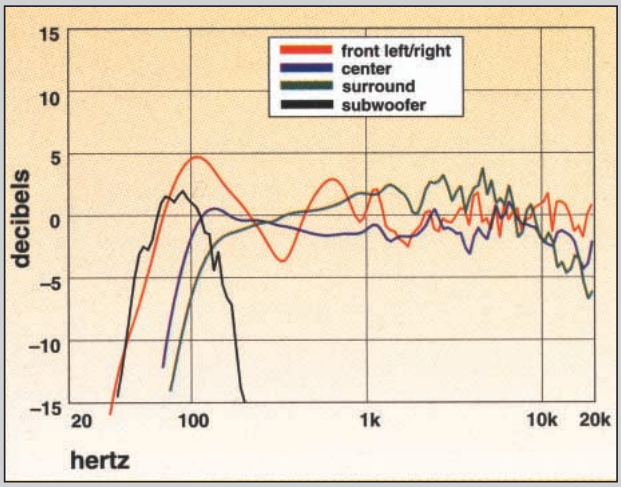
IN THE LAB



FREQUENCY RESPONSE (at 2 meters)
front left/right . . . . . .60 Hz to 20 kHz ±4.2 dB
center . . . . . .94 Hz to 20 kHz ±2.5 dB
surround . . . . . .125 Hz to 12.2 kHz ±3.4 dB
subwoofer . . . . . .50 Hz to 130 Hz ±2.4 dB

SENSITIVITY (SPL at I meter with 2.8 volts of pink-noise input)
front left/right . . . . . .93 dB
center . . . . . .91 dB
surround . . . . . .88 dB

IMPEDANCE (minimum/nominal)
front left/right . . . . . .5.0/8 ohms
center . . . . . .5.1/8 ohms
surround . . . . . .3.7/8 ohms

BASS LIMITS (lowest frequency and maximum SPL with limit of 10% distortion at 2 meters in a large room)
front left/right . . . . . .32 Hz at 72 dB SPL
center . . . . . .50 Hz at 85 dB SPL
surround . . . . . .80 Hz at 82 dB SPL
subwoofer . . . . . .25 Hz at 80 dB SPL
98 dB average SPL from 25 to 62 Hz
108.8 dB maximum SPL at 62 Hz

All of the response curves in the graph are weighted to reflect how sound arrives at a listener's ears with normal speaker placement.

The Legend had excellent low-frequency capability and remarkably uniform output within our ±30° listening window. Response actually flattened a little off-axis. There was the usual 300-Hz floor-reflection notch, a flat bass-to-treble balance, and exceptionally smooth response above 500 Hz.

The CC-270 also had remarkably flat response directly on-axis, although our averaging techniques downplay the midband response notching, which began at 15°—common for horizontally arrayed speakers. The shape of the ADP-170 surround's response curve was typical for a dipole.

Bass limits for the PDR-12 subwoofer were measured with it set to maximum bandwidth and placed in the optimal corner of a 7,500-cubic foot room. In a smaller room users can expect 2 to 3 Hz deeper extension and up to 3 dB higher sound-pressure level (SPL). The PDR-12 had plenty of output (106 + dB SPL) at 40 Hz and above but was sharply filtered at the low end of its operating range.
-Tom Nousaine