

“... I would gladly make this my

**REFERENCE SYSTEM** any day.”

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*“The most important feature that this system revealed was its ability to step out of the way and let us listen to the music or watch the movie, without really even noticing that the sound’s coming from a system.”*

by Jeff Cherun

We at Home Theater throw the term “reference” around quite a bit, whether it describes a laserdisc, a DVD, or hardware such as TVs, loudspeakers, and even audio cables. To us, a reference system is one that steps out of the way, and lets you enjoy whatever you’re listening to or watching. It’s not a system that calls attention to itself, or one that uses high-priced electronics for the sake of technology or prestige. When we’re watching a movie or listening to music, we don’t want to hear the speakers or look at the TV—we want to be immersed in the content and ignore everything else.

When I got Paradigm’s Reference system in for review, I have to admit that I was somewhat dubious as to the Canadian company’s claim that it’s a “reference” system, especially because of the emphasis we put on that word in the halls of *HT*.

I was eager to find out if I would consider this a true reference system after hearing it, or if Paradigm’s name for this system would turn out to be just another marketing ploy.

What I found inside the mass of boxes Paradigm sent us was the Eclipse/BP bipolar tower speakers, the CC-450 center speaker, a pair of ADP-450 bipole/dipole surround speakers, and two Servo-15 subwoofers. We also received the X-30 external crossover, which interfaces the subwoofers with the rest of the system for a seamless mix of sound.

The Eclipses are two-way bipolar speakers, with one tweeter and one woofer per side. The tweeter is a 1-inch aluminum dome design, while the bass/midrange driver is an 8-inch mica-polymer cone, in a ported cabinet. Both are manufactured

Eclipse/BP



by Paradigm in its Canadian factory. The CC-450 is a three-driver, two-way ported design that features the same tweeter as the Eclipses, and similar (but at 6.5 inches, slightly smaller) bass/midrange drivers, resulting in a rather seamless mix among the front three channels. The ADP-450's are four driver, two-way bipole/dipole, sealed-cabinet surround speakers that feature the same drivers as the center speaker, the CC-450. These speakers are relatively full range—they can go as low as 50 Hz, which is quite deep for a surround speaker.

*“... a seamless mix of sound ... extremely well defined and musical. In fact, I'd say it's some of the flattest, most linear bass I've heard from any speaker. The integration of the towers, the surrounds, and the center is excellent.”*

Each Servo-15 subwoofer features a single 15-inch driver in a sealed enclosure, with a built-in 400-watt amplifier to provide the bass that is required for reproducing virtually any movie soundtrack these days. The Servo-15 has no internal crossover, just an amp input, making it perfect for use with the subwoofer outputs on THX or Dolby Digital/DTS processors and receivers, or with Paradigm's own X-30 external crossover.

The X-30 can control up to two subs, so the two Servo-15's that Paradigm sent us mated perfectly with the rest of the system. It has controls on the front for subwoofer cutoff (from 35 to 150 Hz) and subwoofer level. There's also a zero-to 180-degree phase control that affects subwoofer output 1 only. It has three sets of high-pass outputs: 50, 80, and 120 Hz. To hook up the X-30, you connect it between your preamp/processor and power amp, or in your receiver's preamp out/power amp



CC-450

in loop (if it has one). You don't necessarily need an X-30 if you're using a THX or Dolby Digital preamp/processor or receiver.

***“The ADP-450 surround speakers filled the room with the perfect ambient soundfield, never drawing too much attention to themselves, while maintaining a perfect timbral match with the rest of the system.”***

For most of my evaluation, I connected the Paradigm Reference system, to the Home Theater reference system, which currently comprises the B&K AVP1030 Dolby Digital pre/pro and DT-1 AC-3 RF demodulator, the B&K AV5000 five-channel amp, the Pioneer Elite CLD-99 laserdisc player, and the aforementioned Fujitsu Plasmavision 42-inch TV. I also gave it a listen with the Pioneer VSX-D606S receiver featured in this System Review. I hooked all the audio gear up with Kimber Kable interconnects and speaker cables. I did most of the listening on my own, although editorial director Peter Barry and executive editor Eric Gill were able to join me for one of the listening sessions.

***“One of the best features of this system is its ability to create a very realistic soundstage for both home theater and music.”***

So did this “reference” system sound like a reference system? Well, I was expecting big things, given my past auditions of Paradigm product, and I have to say that they delivered in spades. While we were watching my new laserdisc of the Dolby Digital remastered version of the classic Vietnam War-epic *Apocalypse Now*, Eric noted that he found the center speaker a little thin and chesty-sounding. I was curious why this was, so later on, I looked at all the settings on the B&K pre/pro, and I saw that it was set to “small center speaker.” That's what I'd normally use for this size of center speaker, but when I switched it to “large center speaker,” it sounded great, blending beautifully with the rest of the system. The opening scene

of *Apocalypse Now*, where the helicopters are flying around with the music playing, is truly an experience with this system. I have never heard this scene sound so full and exciting, and I had the same reaction to the helicopter attack scene (chapter 6), which has been a home-theater-demo favorite for years, and which I've heard on countless other speaker systems. The ADP-450 surround speakers filled the room with the perfect ambient soundfield, never drawing too much attention to themselves, while maintaining a perfect timbral match with the rest of the system. CFG Labs president Brent Butterworth also had a chance to audition the system. Here's what he had to say: “The bass of the Eclipse/BP towers is excellent. It's extremely well defined and musical. In fact, I'd say it's some of the flattest, most linear bass I've heard from any speaker. The integration of the towers, the surrounds, and the center is excellent.”

***“The sound of the Servo-15's was tight and fast.”***

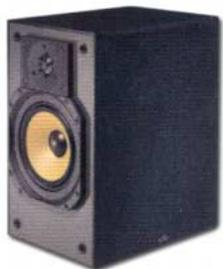
One of the best features of this system is its ability to create a very realistic soundstage for both home theater and music. For music evaluations, I spent a lot of time listening to my favorite music laserdisc, Peter Gabriel's *Secret World Live*, which was recorded far more meticulously than your average music LD. I listened to this disc at a very loud 4 dB above Dolby reference level (about 109 dB peak), but the system handled the volume effortlessly. In fact, I never heard Tony Levin's bass sound so realistic as it did coming through the Eclipse/BP's and the two Servo-15's. The Eclipse/BP's actually have fairly strong bass themselves (Paradigm rates them down to 18 Hz), but the Servo-15's really kick this system's bass up several notches. The sound of the Servo-15's was tight and fast. Also, Manu Katché's bass drum and toms sounded so sweet and natural no matter which speaker they were coming from that I'm convinced this system had some of the best timbral matching from one speaker to the next that I've ever heard. This system can really rock.

*"... this system had some of the best timbral matching from one speaker to the next that I've ever heard. This system can really rock."*

One of the most annoying facets of many loudspeakers on the market these days is the tendency to make laserdiscs sound way too bright. In this case, Manu's cymbals sounded perfect (I have heard them live from a few feet away many times). To get a better handle on the system's voice reproduction and soundstaging, I also listened to 10,000 Maniacs' *Unplugged* laserdisc, which has some of the best imaging that I have ever heard in a music video. The Eclipse/BP's did such a nice job of presenting this beautiful soundstage that I just couldn't stop listening. Then I realized that I have no life and I needed to get some sleep. I find Natalie Merchant's voice (both with the Maniacs and solo) challenging for a speaker to handle; it often sounds shrill on lesser systems. But the Eclipses did an amazing job with her. (Brent dissented in this case, saying that when Natalie Merchant recordings are played, instantaneous burnout of the voice coils would constitute perfect loudspeaker performance.)

*"... the center speaker — sounded great, blending beautifully with the rest of the system ..."*

The most important feature that this system revealed was its ability to step out of the way and let us listen to the music or watch the movie, without really even noticing that the sound's coming from a system. I have to say that the Paradigm Reference system certainly lived up to its label—I would gladly make this my reference system any day. If you are looking for a full system and can spend the wad of cash, we have no problem recommending this system to anyone.



**ADP-450**

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You could also cherry-pick, because certain parts of this system, especially the Servo-15's and the ADP-450 surrounds, would be great as add-ons for any home theater.



**Servo-15**