"... beats any Home Theatre in a Box ... I've encountered ... SUPERB ..."

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audio ideas guide

"... really excellent home theatre sound at a surprisingly modest cost. Forget the B brand and spend your money on these. You won't regret it."

by Andrew Marshall

The New Stylus® 100
(Improved over version reviewed for even better sound.)

It seems everybody's making very compact home theatre speakers these days, and in looking at and measuring these from *Paradigm*, not to mention listening to them, I saw many possible configurations. Now, not many people would want to have an outdoor home theatre system, especially those with neighbours, though over the years there've been a few people living next door ... Ah, let's not pursue that one.

The *Stylus® 100* and *Stylus® CC* share the same drivers, but the *Stylus® CC* has an additional bass/midrange, and both use the company's titanium dome tweeter with a *Mercedes* logo-look phase cap. The enclosures are very small, with curved surfaces to minimize diffraction and perforated metal grilles. Because of the substantial magnets on the small drivers, these speakers are quite heavy relative to their size at 4.2 (*Stylus® 100*) and 6.8 (*Stylus® CC*) pounds. Since the difference in weight is mostly due to the *Stylus® CC's* extra driver, you can infer not only that this bass/midrange weighs almost 3 pounds, but that the high-impact polymer cabinets are quite light. I mention this because anyone deciding to wall mount these had better invest in a stud finder.

The *ADP-70* surround speakers are also very compact (7-1/2" W x 8-1/2" H x 5-1/2" D), and are dipolar in the treble and midrange, and bipolar in the bass. Like all the *ADP* models, they can be mounted either on the back or side walls, depending on what radiation patterns work best in the room. Their original design brief was designed around Dolby Pro Logic rather than Dolby Digital, but they would work best for the latter on side walls behind the listener, with the rear drivers helping to diffuse the sound while the front ones provide the direct discrete surround information.

The *PDR-10* subwoofer (13-1/2" W x 14-1/2" H x 16" D), uses a 10" driver on the front, with port and amplifier at rear. There are both speaker-level and line inputs, and controls for level and crossover setting.

> *" … the PDR-10 has outstandingly smooth response … extended deep bass … amazingly flat, +/-1 dB from 20 to 90 Hz … very impressive …"*

Looking at the measurements, we see at top the *Stylus® 100* with and without the *PDR-10* in our Pink Noise Sweep (PNS). I simply set the sub level and crossover for subjectively flattest response; a little lower crossover setting would have eliminated the mid-bass hump, though much of it comes from the *Stylus® 100's* response.

And let's look at the subwoofer curves at left, these made not in the nearfield of the sub but at the standard 1-metre speaker measuring position. I note this because the *PDR-10* has outstandingly smooth response when measured this way, while nearfield ones did not accurately reveal its extended deep bass.

The top curve is with the crossover wide open, and here we see an elevation of about 4 dB in the 70–100 Hz region. Setting the crossover control at mid rotation (about 90 Hz) yielded the curve below, which is amazingly flat, +/-1 dB from 20 to 90 Hz. And when it's set to the minimum 50 Hz setting we get some prominence in the deepest bass, which indicates this sub will work well with larger speakers in enhancing only the bottom octaves. On paper, this is a very impressive subwoofer for the money.

ADP-70

Roughly in the middle of the graph are the quasi-anechoic and axial curves (0, 15, and 30°) for the *Stylus® 100*. These show a depression between 1.5 and 3 kHz, but good smoothness in the upper frequencies. The Summed Axial Response (SAR) at top shows these, this being how it diverges from the PNS, suggesting that the midrange dip resolves into smoother response at the listening positions.

> *" … the Stylus® CC—is extremely flat on axis … a very good centre channel … the astonishing +/-1 dB on-axis response from 300 to almost 20,000 Hz establishes it as a very accurate loudspeaker … "*

The trio of curves second from bottom, all PNS-derived, are for the *Stylus® CC*, and show a speaker that is extremely flat on axis, with only a 1 dB dip at 15°, and only 3 dB off in the midrange at 30°. This is an indication of a very good centre channel, while the astonishing +/-1 dB on-axis response from 300 to almost 20,000 Hz establishes it as a very accurate loudspeaker, period.

At bottom we see the PNS response of the *ADP-70* on axis, which shows a slightly rising treble, and at 90° (the way it will most likely be oriented to the listener as a surround speaker), where some upper frequency rolloff is not unexpected. Impedances in the graph below are all similar, moderate values that make all speakers easy loads to drive.

Returning to the notion of possible configurations, a primarily Dolby Digital system might work best with 4 *Stylus® 100s* and a *Stylus® CC*, along with the subwoofer. But given the superb smoothness of the CC, I would be inclined to use 5 of these with a pair of *PDR-10s*, one at front, and the other at rear; this would make a killer compact budget Dolby Digital speaker system.

And as I contemplated this setup, another came to mind as I picked up an *ADP-70* … how about *these* speakers all around, with the front three having the in-phase side aimed at the listener(s)? Why? Well, you'd get a combination of dipole spaciousness with direct radiation, and if the rears were arrayed the same way, it would probably work well with both Dolby Pro Logic and Digital.

The New Stylus® CC
(Improved over version reviewed for even better sound.)

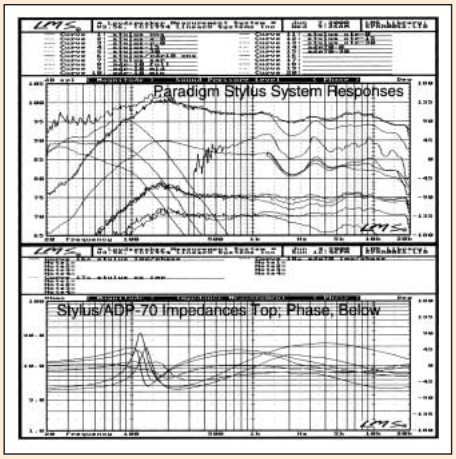
But I ended up listening to the system as supplied, driving it with both *Yamaha RX-V1* and *Marantz SR-7000* receivers. Though the former really demands a larger, more expensive speaker setup with all its power, the *SR-7000* seemed an excellent match. I watched a number of movies over several weeks, including *Being John Malkovich*, *The Thomas Crown Affair, The Fifth Element,* and the Eagles' reunion concert, *Hell Freezes Over*.

The Dolby Digital on every movie was superb, varying only with the quality of the soundtrack itself. *Malkovich* is quite amazing on headphones when people are inside his head (it's a very wierd film with an even wierder premise, starting with the 7-1/2th floor), and sounded almost as engaging through the *Paradigm* system. When I first watched *Crown Affair*, I didn't realize quite how good the surround mix was, but a second (or was it third?) viewing brought this home

forcefully through the *Stylus®* system. *Fifth Element* (surely one of Bruce Willis's more endearing films) maintained its sonic interest well with this system, its detail and flatness of frequency response making every effect sound precise, and natural, even though many are distinctly unnatural … maybe what I mean is natural for the world of *The Fifth Element.* The Eagles concert, in stereo laserdisc digital audio, showed its high resolution and the nice musicality that has made it a staple demo at audio shows.

"The speakers disappear sonically and physically. However you configure these speakers from Paradigm's Stylus® series, you'll get really excellent home theatre sound at a surprisingly modest cost."

This is not the least expensive ultra compact HT system I've encountered, but it certainly beats any HTIB (Home Theatre in a Box) ones I've encountered – satellites, surrounds and centre superb for their size and cost, with a remarkably good small subwoofer. The speakers disappear sonically and physically.

PDR-10

However you configure these speakers from *Paradigm's Stylus®* series, you'll get really excellent home theatre sound at a surprisingly modest cost. Forget the *B* brand and spend your money on these. You won't regret it.