

“These spunky satellites set the

PERFORMANCE

BENCHMARK ...”

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*“Tiny satellites with audiophile credibility ... Lesser speakers reduce the sound of rain to a generic whooshing noise, but it was tangible on the little Atoms—we heard a remarkable degree of nuance ...”*

**P**aradigm's awesome Atom speakers have earned quite a reputation among aspiring audiophiles on a budget. While the Atoms don't cost all that much, a lot of effort went into their creation: Paradigm's engineers logged countless hours measuring prototypes in a special acoustic chamber, and the company invests a lot of time in scientifically controlled, double-blind listening tests. You're certainly getting a lot of bang for your buck.

The Atom's look is nothing fancy; the speaker is just a simple, 10-inch-tall, seven-pound box with a molded rear panel. You can get yours in light cherry, rosenut, black ash, or white laminate. The accountants saved a little money by making the Atom's grilles non-removable. Oh well, at least it was a benign decision that didn't affect the speaker's performance or appearance.

Paradigm recommends placing your Atoms so that their tweeters are at ear height and angled in toward the sweet spot (the listening position). The rear-mounted port nixes any possibility of jamming the sats

into a bookcase, but you can wall-mount them with a pair of Paradigm's MB-60 swivel brackets.

The Atom is at the low end of Paradigm's Performance series. The Atom's 3/4-inch dome tweeter is made of a ceramic-and-metal composite; its 5-1/2-inch polypropylene woofer has a diecast frame. The key to the outstanding value of Paradigm speakers is the company's ability to make all the parts in Canada: by eliminating subcontractors' margins, Paradigm keeps the quality up and the prices down. In contrast, the vast majority of North American speaker manufacturers build their affordable models offshore.

Paradigm extends an extraordinary quality-control effort to every Atom that rolls off the assembly line, measuring each one and comparing it with a reference Atom. Another plus—and a pleasant surprise—is the satellite's beefy, gold-plated binding posts. Inexpensive speakers usually make do with cheap spring-clip connectors.

Atom



*"The first thing we noticed about the sound was how seamlessly those four Paradigm models worked together. We didn't have to fuss with positioning or experiment with the sub/sat blend ..."*

For our home-theater tests, we set up a complete Paradigm speaker ensemble: the Atoms, a PDR-10 subwoofer, a CC-170 center speaker, and ADP-170 surrounds. The first thing we noticed about the sound was how seamlessly those four Paradigm models worked together. We didn't have to fuss with positioning or experiment with the sub/sat blend—we completed our tweaks in less than 10 minutes. We then put our old, reliable test DVD, *Fight Club*, into service. This disc is particularly well recorded, and its soundtrack's realism was immediately clear over the Atoms. This Paradigm posse should be powerful enough to fill even rooms of up to 400 square feet.

*"... exceptional bass quality and quantity ..."*

Next, we queued up the *American Beauty* DVD. Interestingly, as the movie leads up to the demise of Kevin Spacey's character, it's raining during most of the scenes, and in each, the rain's character and "wetness" are different. Lesser speakers reduce the sound of rain to a generic whooshing noise, but it was tangible on the little Atoms—we heard a remarkable degree of nuance. These satellites are surprisingly subtle performers.

We next compared the Atoms with our reference speakers, which are 50 percent costlier. The Atoms put up a valiant struggle, but while we wouldn't say that they embarrassed themselves, the others were clearly more detailed and alive-sounding, reproducing the palpable "fingers on the strings" effect on Jerry Garcia and David Grisman's all-acoustic self-titled CD. The Atoms couldn't follow suit. And the reference speakers' slick, piano-black finish looks better.

However, the Atoms bounced back when we pitted them against some similarly priced satellites. The other 7-inch-tall sats didn't have as much, well, energy and full-bodied bass as the Atoms. Even after we'd added a subwoofer to fill out the bottom octaves, the other ensemble still sounded comparatively tiny. The Atoms also came across as cleaner and less distorted. Yes, folks, size still matters.

In the final analysis, the Atoms offer exceptional bass quality and quantity for speakers of such modest dimensions and price. They may get by without a sub as part of music-only systems in smaller rooms.

#### CC-170 CENTER CHANNEL

We've always had a soft spot in our audiophile hearts for Paradigm's overachieving satellites, especially the wonderful little Atoms. While you could assemble an impressive home theater with five Atoms and a subwoofer, most buyers prefer the look of a low-slung center speaker sitting atop their TVs. The CC-170 is one of Paradigm's two matching centers, the other being the CC-270.

*"... the CC-170's superior low-end oomph gave male voices a fuller-bodied presence, and the Paradigm center was a better tonal match for its family members ... you can't beat a well-matched, single-brand system for sonic consistency."*

The CC-170 looks pretty classy, sporting a black-graphite finish, a three-sided grille, and cloth-covered end caps. It's also relatively large, weighing 17 pounds and measuring 22 inches wide, 6-3/4 inches high, and 8 inches deep. Like all Paradigm speakers, the CC-170 is made in Canada, and we found its construction quality above average.

Inside, two 5-1/2-inch metallescent-polymer woofers straddle a 3/4-inch dome tweeter made of a ceramic-and-metal composite. The CC-170 is a rear-port design, so it needs

to breathe. If you cram it into a cabinet under a TV, you'll sacrifice some of the speaker's bass response. Connectivity comes in the form of a set of sturdy binding posts.



CC-170

To establish a baseline for the CC-170, we first hooked up our reference model for affordable center channel speakers. It costs \$100 more, undoubtedly looks hipper, decked out in its dapper, high-gloss finish of piano-black lacquer. And its overall presentation was cleaner and sweeter-sounding; the Paradigm's tweeter just wasn't as refined or smooth. But the CC-170's superior low-end oomph gave male voices a fuller-bodied presence, and the Paradigm center was a better tonal match for its family members. The moral of this story: Nitpicky audiophile concerns notwithstanding, you can't beat a well-matched, single-brand system for sonic consistency.

#### ADP-170 SURROUND SPEAKERS

As soon as we'd unboxed the ADP-170s, we knew that Paradigm takes surround design seriously. The Canadian-made speaker is a bipole radiator: its fore and aft drivers send sound out to the sides, creating a wonderfully wide-open surround effect. (See "ADP Design Comments from Paradigm," below.)

This two-way design employs a pair of 5-1/2-inch metallescent-polymer woofers and a pair of 3/4-inch dome tweeters made of a ceramic-and-metal composite. You can get your ADP-170s in vinyl-wrapped black graphite or white laminate. Measuring a scant 10-3/4 inches high and 9-1/2 inches wide, each wedge-shaped unit is fairly compact but weighs a healthy 12 pounds. The speaker is well constructed, with beefy, gold-plated binding posts.

The ADP-170s will do their best directly lined up to the sides of the main listening position. We mated them with the other

members of Paradigm's Performance line: two Atom front-channel speakers, a CC-170 center, and a PDR-10 subwoofer.

*"... a wonderfully wide-open surround effect ... movies sounded positively huge ... we loved how the ADP-170s' sound field wrapped around the back of our room and reached forward to the front three Paradigms, re-creating the mammoth space ... excellent performance ..."*

Note that for listening to multichannel SACDs or DVD-Audio discs, you might prefer to replace the ADP-170s with a second pair of Atoms. Why? Well, with a lot of multichannel music discs, the surround channels handle instruments and/or voices, which bipole radiation can't localize as distinct sound sources. For example, when we auditioned Neil Young's *Harvest* DVD-A on our ADP-170s, the sound was pleasant enough but somewhat murky.

Most films, on the other hand, rely on the surround speakers to create atmosphere, which is the ADP-170's stock-in-trade. Our DVD movies sounded positively huge. The newly released Led Zeppelin, for example, uses the surround channels for ambience and applause, and we loved how the ADP-170s' sound field wrapped around the back of our room and reached forward to the front three Paradigms, re-creating the mammoth space of Madison Square Garden. The speakers maintained that excellent performance on even older material, such as the wedding scene in *The Godfather, Part II*.



ADP-170

In the final analysis, music fans with a growing library of multichannel SACD and DVD-Audio titles will want to pass on the ADP-170s. But DVD-movie lovers looking to fill out their Paradigm-equipped home theater will find these speakers a worthwhile addition to the mix. (Note from Paradigm: *Paradigm ADP™ speakers are a combination dipole/bipole design. A proprietary crossover allows them to operate as dipoles speakers above 150 Hz—drivers on opposite sides of the cabinet work out of phase, providing a more diffuse soundfield. Below 150 Hz they operate as bipoles—in-phase, ensuring excellent and extended bass performance.*)

*"... the ambidextrous PDR-10, can do it all ... we really heard the stand-up basses—instruments, not just booming sounds. Pitch definition was excellent; bass textures and "air" came across well."*

#### ADP-170 SURROUND SPEAKERS

Not so long ago, subwoofers had it easy. All they had to do was dish out down-low muscle for home theaters. But nowadays, they're also called on to provide tight and musical bass accompaniment for SACDs and DVD-Audio discs. Paradigm's sub, the ambidextrous PDR-10, can do it all.

Cosmetically, the PDR-10 is nothing special. The midsize cabinet measures 14-1/4 inches high, 13-1/2 inches wide, and 16 inches deep, and it's finished in vinyl-wrapped light cherry, rosenut, or black ash—all pretty standard fare for a budget sub. However, the unit's 33-pound heft tells you that Paradigm spent the money where it counts.

While most subwoofer manufacturers make do with generic, off-the-shelf amplifiers, the Canada-based Paradigm designs and builds its own fully discrete, high-power, and high-current amps; the PDR-10s delivers 100 watts. The company also crafts this sub's 10-inch woofer and cabinet. In a model priced this low, all of this is a really big deal. By eliminating subcontractors' margins, Paradigm keeps the quality up and the prices down.

Flanking the rear-mounted port are the onboard amplifier's finned heat sink and a no-frills connectivity contingent that includes a single line-level RCA input and a pair of wire-clip speaker-level ins. Surprisingly, Paradigm left out a phase-reversal switch, but you can work around that omission by manually swapping the satellites' positive and negative speaker leads. Keeping your sub and your sats in phase is simple enough and vital to their synchronization. Another nitpick: The PDR-10's grille is nonremovable.

*"As for full-tilt home-theater bombast, the "Saving Private Ryan" DVD shook our listening room with a vengeance. In other words, this sub is equally adept with music and home-theater hijinks."*

A subwoofer's performance isn't all about bass prowess—a sub stands or falls on its ability to blend with satellites. We evaluated the PDR-10 with a bunch of small speakers.

On our test jazz CDs, we really heard the stand-up basses—instruments, not just booming sounds. Pitch definition was excellent; bass textures and "air" came across well. And boy oh boy, at the opening of Led Zeppelin's "Since I've Been Loving You," the rolling thunder of John Paul Jones's bass line fully exercised the PDR-10's woofer. As for full-tilt home-theater bombast, the *Saving Private Ryan* DVD shook our listening room with a vengeance. In other words, this sub is equally adept with music and home-theater hijinks.



PDR-10