

“... incredible ...

STUNNINGLY REALISTIC

... commanding in every respect.”

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“... seamless, natural, and well balanced ... extremely detailed ... an encompassing soundfield ... coherent and three dimensional ... stunningly realistic ... incredible dynamic range ... the kind of sound that you can't wait to demonstrate for your friends.”

by Gary Altunian

A chain is only as strong as its weakest link. This old saw applies to audio systems as well as penitentiaries. The overall quality of sound reproduction is often determined by the weakest link in the audio chain, be it source, amplifier, or loudspeakers. Many believe that the loudspeaker has the toughest job of all because it is essentially a “transducer,” a component that changes one form of energy to another—electrical energy to acoustic energy—and during this transition the sound can be altered or colored. A speaker’s sound quality is also heavily dependent on the acoustic characteristics of the listening room, further complicating its mission. A loudspeaker should be accurate, easy to listen to, and aesthetically pleasing.

With these goals in mind, Paradigm has developed the Reference Studio Series of home-theater speakers, which look great and offer exceptional performance. This series is the successor to the original Studio Reference that won our coveted Loudspeaker of the Year Award in 2002. Simply put, they sound outstanding and are very well built and enjoyable to listen to with all kinds of music and movies.

Studio 100



These speakers bring the excitement of a musical performance right into your listening room and create a home theater that will outperform your local movie theater’s sound system. The Reference Studio Series in this review included the 100 left/right front speakers, the CC-570 center-channel speaker, the ADP-470 surround/rear channel speakers, and the Seismic 12 subwoofer. Other models from the same series are also available.

PARADIGM REFERENCE STUDIO 100

The Paradigm Reference Studio 100 left/right floorstanding speakers are five-driver, three-way towers, commanding in appearance and performance. Rapping the side of the rock-solid enclosure with your knuckles is like rapping a solid piece of wood. Although Paradigm discloses few details about its loudspeakers’ construction, it’s clear these cabinets contribute as much to the smooth, balanced sound as the proprietary technologies inside.



“... excellent solid bass, with smooth midrange textures, and extremely detailed high frequency response ... very quick, sharp attacks and incredible dynamic range ... can reproduce the subtleties of every recording at high or low volume levels ...”

Paradigm's extensive research and development center has produced many speaker innovations—some of them exclusive—that have the cumulative effect of bringing a musical performance to life in your listening room. For example, the Studio 100's crossovers are electronically phase coherent so that the final output from all of the drivers are time-aligned when recombined. Edge diffraction from the cabinet and the peripheral edges of each driver is minimized to reduce distortion. Bass drivers have die-cast aluminum frames (rather than stamped steel) to reduce flexing and absorb heat, and mineral-filled polypropylene cones are employed for rigidity and low mass—all desirable design characteristics of a good speaker. Midrange drivers use similar frames and a mica-polymer cone. High-frequency drivers have anodized aluminum domes with dual-magnet structures for high power-handling capacity, and incorporate Paradigm's WaveGuide structure for lower distortion. One of Paradigm's unique design features is the IMS/ShockMount system that isolates the individual drivers from the speaker enclosure. The butyl-rubber inserts and gaskets have the effect of decoupling the drivers from the enclosure, which explains why the speaker cabinets generate virtually no audible resonances even at moderate-to-loud playback levels.



ADP-470

(For more information about the speaker's design, see the Paradigm Web site, at www.paradigm.com.)

“The soundfield is seamless, natural, and well balanced ... Multichannel music sounds coherent and three-dimensional with a smooth transition from front to rear ... an encompassing soundfield with pin-point placement of sound effects that draws the viewer into the action on the screen.”

Good loudspeakers need time to break in, so I gave the Studio 100s twenty-four hours of break in, using a test disc with special break-in noise. Equally important is proper room placement; the time spent to find just the right spot will be beneficial. I also strongly recommend using the supplied floor spikes, which isolate the speaker from the floor, resulting in tighter, better defined bass.

The Reference Studio 100s permit bi-wiring (using the same amp to independently power low- and high-frequency drivers through two cable runs) or bi-amping (using separate amps to power low- and high-frequency drivers).

With the Reference Studio 100s critical listening is easy and rewarding. I have developed a fondness for multichannel music in the past few years, somewhat ignoring two-channel listening. The Paradigms soon changed all of that, rekindling my interest in stereo. A pair of high-quality speakers that image well and create a wide and deep soundstage can be just as exhilarating as multichannel sound.

The sound quality of the Paradigms is commanding in every respect. They possess excellent, solid bass, with smooth midrange textures, and extremely detailed high-frequency response. They have very quick, sharp attacks and

incredible dynamic range, and at the same time can reproduce the subtleties of every recording at high or low volume levels. Vocals, male and female, such as Diana Krall's breathy rendition of “East of the Sun and West of the Moon,” are stunningly realistic and have as much presence as they do through my reference loudspeakers. This is the kind of sound that you can't wait to demonstrate for your friends.

“Vocals, male and female — are stunningly realistic and have as much presence as they do through my reference loudspeakers.”

The Reference Studio 100s are available in four finishes: sycamore, cherry, rosenut, and black ash. I really liked the looks of my review samples, which had the sycamore finish.

STUDIO CC-570 CENTER CHANNEL

To complement the sound characteristics of the Studio 100s, Paradigm has designed the Reference Studio CC-570 using similar drivers and technologies. The CC-570 is a four-driver, three-way speaker with MagneShield that allows it to be situated close to or on top of a television without distorting the picture. (Because the CC-570 is a rather large speaker, it will only “fit” atop televisions or monitors with screens that are approximately 30" diagonal or larger.)

“On multichannel music or movies the CC-570 and the Studio 100s presented a seamless image across the front of the stage ... Vocals sounded as natural as they did with the 100s, and dialogue was highly intelligible.”

On multichannel music or movies the CC-570 and the Studio 100s presented a seamless image across the front of the stage because of their matching drivers and designs. Vocals sounded as natural as

they did with the 100s, and dialogue was highly intelligible.

The CC-570 is available in the same four finishes as the Studio 100s.

“Seismic 12 lives up to its moniker . . . accurate, extended bass response for music and deep visceral LFE effects for movies . . .”

ADP-470 SURROUND/REAR SPEAKERS

The Studio ADP-470 speakers are dipole designs that can be used for surround and/or rear channels. They are four-driver, two-way speakers timbre matched to the others in the series for seamless surround-sound reproduction. Like the Studio 100s, the ADP-470s use two seven-inch midrange drivers and two satin-anodized aluminum dome tweeters. They can be placed on side-walls, a rear wall, or in the corners of the listening room, using the supplied wall-mount brackets or on shelves, provided there are no obstacles that would block the sound.

Studio ADP-470s are available in two finishes, ebony and white.

SEISMIC 12 SUBWOOFER

Seismic is not a good name for a speaker in California, but the Seismic 12 lives up to its moniker. Unleashed to its full potential it feels as if it could cause structural damage. When used as intended, it provides accurate, extended bass response for music and deep visceral LFE effects for movies. The Seismic 12 utilizes a single high-excursion, down-firing 12" woofer with two 10" passive radiators and a built-in 1200W Class D amplifier. It can be connected via a single-sided RCA cable or a balanced-line XLR cable.



SEISMIC™ 12

The Seismic 12 is available in a black ash finish.

Subwoofer placement and adjustment are critical to achieving the best balance of bass with the rest of the system. The Seismic 12 provides four controls to adjust its output and frequency response: level, cut-off frequency, phase alignment, and bass contour. After experimentation, I achieved a pleasing balance of bass using the four controls—but it was not good enough for prime time. Fortunately, I was also reviewing the Anthem Statement D1 preamplifier that features more detailed subwoofer and crossover controls to permit fine tuning of the sub/main combo. In fact, with the D1 it was possible to defeat the controls on the subwoofer and adjust the sub using only the filters and adjustments in the Anthem. With test tones and a level meter I was able to find the best bass level and balance with the rest of the Paradigm system (although the Reference 100s have such deep and solid bass extension that they don't really need a sub). In my listening room best placement for the subwoofer was near a sidewall. Note: the Seismic 12 is not magnetically shielded so it should not be placed closer than 2 – 3 feet from the television. I learned this the hard way.

“These speakers bring the excitement of a musical performance right into your listening room and create a home theater that will outperform your local movie theater's sound.”

SUMMARY

The Paradigm Reference Studio Series is an excellent speaker system for music and movies. The soundfield is seamless, natural, and well balanced. Multichannel music sounds coherent and three-dimensional with a smooth transition from front to rear channels, and movies are presented in an encompassing soundfield with pin-point placement of sound effects that draws the viewer into the action on the screen.



CC-570

I highly recommend the Paradigm speaker system for accuracy and overall sound quality with stereo or multichannel music sources. Be sure to take the time to find the best speaker placement and fine-tune the system to your listening preferences to get the best that these speakers have to offer.