

PIONEER ELITE

S-IW571L & S-IW871LR IN-WALL SPEAKER SYSTEM

Reviewed by BRENT BUTTERWORTH

There are few concepts in manufacturing more hallowed than the “skunk works,” a design group that operates outside the mainstream of the corporation that employs them. The name was coined to describe a Lockheed facility in Palmdale, California that has produced some of the world’s most extraordinary jet aircraft. Only 80 miles away, in the nondescript suburb of Pomona, another skunk works has been flourishing for more than a decade. In this backwater of Pioneer’s worldwide operations, surrounded by shelves of raw drivers and carcasses of past prototypes, Pioneer chief speaker designer Andrew Jones and his crew have designed

everything from \$40-per-pair minispeakers to the \$60,000-per-pair TAD Reference One towers.

Jones’s team has recently focused on architectural speakers — i.e., in-wall and in-ceiling models. Extra effort went into the models designed for Pioneer’s high-end Elite line, which are intended to compete with the world’s most storied speaker brands.

The Pioneer Elite architectural speakers are notable for their concentric drivers, which use 1½-inch titanium tweeters mounted in the center of various woofers. Pioneer refers to its concentric designs by the acronym CST, for Coherent Source Transducer.

KEY FEATURES

+S-IW571L
(\$699 each)
(2) 5¼-in woofers;
6½-in midrange/woofer;
1½-in tweeter; 20¼-in
wide; 13 lb

+S-IW871LR
(\$899 per pair)
8-in woofer; 1½-in
tweeter; 13¾-in high;
7 lb

Price
\$2,996 (as tested)

PIONEERELECTRONICS.COM



» UP 'N DOWN SOUND

The S-IW571L’s concentric-driver arrangement means it can be installed either horizontally or vertically with no effect on the sound.



The advantage of a concentric arrangement is that two drivers share the same physical location. When a woofer and tweeter are separated, as they are in a conventional two-way speaker, the two drivers' sound waves interfere with each other, reinforcing certain frequencies and therefore canceling others. The effect worsens when you move closer to one driver, such as when you listen standing up.

With concentric drivers, it's physically impossible to move closer to the woofer or the tweeter because both occupy the same space. Thus, the speaker's sound will vary only

The S-IW571L will work fine for surround channels, too, but to add some variety I asked Pioneer to supply a pair of S-IW871LR speakers for the surrounds. The S-IW871LR looks as if Pioneer's engineers forgot to give it a tweeter, but of course the tweeter's sitting right there in the middle of the 8-inch woofer.

Both Elite speakers feature a cast aluminum baffle holding the drivers. This baffle is much more substantial than the molded plastic ones used in most in-walls. The more massive the baffle, the better it prevents the dry-wall panels around the speaker from vibrating. Stray vibrations in the dry-

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subtly as you move around the room. The downside of concentric drivers is that the woofer cone can narrow the tweeter's dispersion and color its sound. As proven in the TAD Reference One and designs from Thiel Audio and others, though, careful engineering can lessen or even eliminate this problem.

Of the latest Elite in-walls, I was most curious about the S-IW571L, an LCR-type speaker designed primarily for use in the front left, center, and right channels of a surround sound system. The S-IW571L is unusual in that its midrange driver — the 6½-inch aramid fiber cone that surrounds the 1½-inch titanium dome tweeter — is larger than the speaker's dual 5¼-inch woofers.

wall are the primary contaminant of in-wall speaker sound — and one reason in-walls still suffer a poor reputation with many audiophiles.

SETUP

These speakers install like most other in-walls: Plastic "doglegs" flip out to clamp the speaker bezel against the drywall surrounding it. The concentric drivers give the Elites an advantage in installation, though — your installer can mount them vertically or horizontally, and they'll sound much the same either way. This isn't true of conventional in-walls, with a tweeter mounted above a woofer. Some installers make the mistake of flipping such speakers on their sides for the sake of looks or convenience, but this practice often



» CONCENTRIC-DRIVEN



» FLIP THE SWITCH

The S-IW871LR in-walls (above) feature an 8-inch woofer for big in-wall bass, along with treble level and bass cut switches to fine-tune the highs and lows.

results in radical changes in timbre as you move from one end of the couch to the other (and closer to either the woofer or the tweeter).

The one decision you have to make with these speakers is the setting of the treble level switch, which has positions for - (cut), 0 (flat), and + (boost). But unless you're putting them in a room with no absorptive material at all — not even a carpet — I strongly recommend the + setting. The S-IW871L also has a bass cut switch that can help in fine-tuning the low frequencies.

I first tried both the S-IW571L and the S-IW871LR as stereo speakers without a subwoofer. I then used them to create a home theater system with three S-IW571Ls up front and the two S-IW871LRs as surrounds; I alternated between Sunfire TS-SJ8 and Proficient Audio PS12 subwoofers.

MUSIC & MOVIE PERFORMANCE

Sometimes a particular CD track or DVD chapter practically defines a speaker for me. That's definitely the case with the S-IW571L, through which I played *Iggy & the Stooges: Live in Detroit* over and over and over again, courtesy of the Netflix streaming built into my LG Blu-ray Disc player.

Technically, the material is mediocre: video that's barely better than VHS and a two-channel Dolby Digital soundtrack. But this 2003 performance, like these speakers, is relentless and engaging; the S-IW571Ls sounded fantastic pumping out the Stooges' visceral rock & roll. Although I expected that the voice of a frantic, screaming, ecstatic 56-year-old man might push any speaker into harshness and distortion, the Elites treated Iggy Pop with far more care than he ever lavished on himself.

As I explored gentler music (a category that includes almost every other recording ever made), I noticed that the Elites were just as kind to every other singer, from smooth-voiced Holly Cole to the raspy tones of Ron Sexsmith. I have heard few speakers sound so good with such a wide range of vocal styles.

One unusual aspect of the Elites' performance is that the upper treble

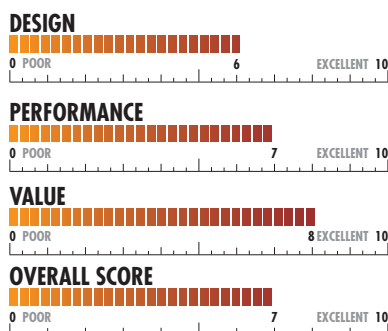
region seems barely present, even with the treble switches set on +. This characteristic de-emphasized percussion instruments that are especially high in frequency, such as splash cymbals and cabasa. Despite the upper treble rolloff, the stereo soundstaging was some of the best I've heard from in-walls. Sounds stretched to the far left and right of my room.

The S-IW571L and S-IW871LR sound similar, as you might expect. I preferred the S-IW571L because its reproduction of voices is a little smoother; the S-IW871LR's big 8-inch woofer doesn't blend with the tweeter as evenly as the S-IW571L's 6½-inch midrange/woofer does. The S-IW871LR does deliver deeper bass, though.

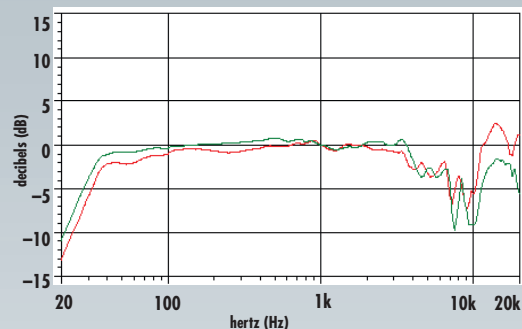
You kinda have to figure any speaker that can handle the Stooges should play movie soundtracks with ease, and the S-IW571L certainly does. What proved especially compelling to me was its treatment of dialogue. I threw on DVD after DVD trying to find an actor whose voice would bring out the bad side of this speaker, but I couldn't find a single one. Even Danny DeVito's dialogue tracks on the children's movie *Matilda* sounded smooth and clear; through many speakers, his voice in this movie takes on a harsh, nasal tonality.

When I tried pushing the S-IW571L to its limits with action movies, I heard some distortion, but it wasn't the ear-straining distortion one usually hears from speakers — it was more a sense of sonic confusion. With a subwoofer added to take over deep-bass duties, both the S-IW571L and the S-IW871LR play plenty loud with any material you want to throw at them.

SOUNDVISION RATINGS



» TEST BENCH



LCR ■ 30 Hz to 20 kHz ± 4.9 dB

SURROUND ■ 29 Hz to 20 kHz ± 5.2 dB

Mounted in a wall, both the Pioneer Elite S-IW571L and the Pioneer Elite S-IW871LR deliver smooth bass and mid-range response but exhibit some anomalies in the tweeter range; both show a broad dip in the range from about 7 to 12 kHz.

Off-axis response is fairly consistent out to 30° off-axis with both speakers. Both deliver fairly strong bass response between 40 and 80 Hz — average output at 10% distortion or lower is 88 dB for the S-IW571L and 93 dB for the S-IW871LR. — B.B.

» BOTTOM LINE

I can't say for sure that the skunk-works approach works miracles — after all, I've heard plenty of great speakers designed by big corporate engineering crews. But these Pioneer Elite in-walls conjure a certain magic that runs counter to the usual mass-market priorities of a worldwide manufacturing conglomerate. They may be somewhat shy in the upper treble, but both the S-IW571L and the S-IW871LR generally deliver smooth, satisfying, kick-ass sound that's a joy to experience hour after hour, day after day. [SV](#)

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