

CAR STEREO REVIEW®

Soundstream

TEST REPORT

SPL160

15-INCH SUBWOOFER

Loudness can be a powerful tool: Loud car stereo systems have been proven to attract young women like moths to the flame. Loud systems are known to reduce the people in nearby cars to quivering wrecks. Loud car stereos may cause entire neighborhoods to rise up, waving pitchforks and torches as they chase you to the old windmill that's about to catch fire on that hill over yonder. Crank a system up loud enough and you can knock poodles and grannies to the pavement. You might even win a "shootout" at a car stereo contest. Because you might also go deaf, loudness can also be dangerous - so we always urge everyone to practice safe sound (by limiting your blasting sessions to only a few moments and/or wearing earplugs). In any case, if loud is what makes you proud, you'll want to read about Soundstream's 15-inch SPL160. Like the rest of the SPL line, it was built to go where few —

and, possibly, no — woofers have gone before.

Soundstream says that the SPL160 is designed to be the loudest subwoofer ever made. They even predict that someone will break the 160-dB SPL barrier in 1995 using

working trying to make that prediction come true. Perhaps they already have. So what gives the SPL160 a fighting chance to break the barrier?

The 160 is the flagship of the SPL line, which also features 10- and 12-inch models. While

its prime directive is to be loud, the 160 is also designed to work with relatively small scaled enclosures — 1.5 to 3 cubic feet is recommended. That's not a lot at all for a 15-incher. The 160 is also designed to work with large ported boxes of the 3- and 6-cubic-foot persua-



SPL160s — and Soundstream amps, of course. You can bet that they and their dealer/installers are hard at

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sion. The sealed option is nice since we're always trying to get big bass from a small space.

The speaker is gorgeous in an Angela-Basset-as-Tina Turner kind of way — beautiful and muscular all at the same time. This made-in-America woofer starts with a slick milled-chrome top and backplate and adds a square-shouldered powder-coated cast frame, a bulletproof Kevlar-treated paper cone, a sturdy 9-3/4-pound "dual" magnet (it's just two smaller magnets joined at the hip), goldplated 6-gauge terminals, and dual 4-ohm, 3-inch voice coils. The whole deal weighs in at almost 26 pounds and looks - and feels - like it could successfully resist being swallowed by a Black Hole. Price: \$400 apiece. Soundstream, Dept. CSR, 120 Blue Ravine Rd., Folsom, CA 95630.

BY THE NUMBERS

Soundstream was still finalizing its Thiele/Small parameters for the SPL160 at presstime, but they were able to state that it has a 2-1/2-inch peak-to-peak excursion and power handling of 500 watts. You'd have to be able to take the juice if 160 dB SPL is your goal, of course.

In the lab, I performed my usual round of measurements. I found the following: an F_s of 25.9 Hz, Q_{ms} of 6.94, Q_{es} of 0.31, Q_{ts} of 0.29, R_e of 2.05 ohms when the voice coils were wired in parallel and 8.1 ohms when they're wired in series, V_{as} of a hefty 13.9 cubic feet,

and sensitivity of 95.3 dB SPL.

Minimum impedance was 2.8 ohms at 145 Hz again with the coils wired in parallel. Lab frequency response rolled off smoothly below about 60 Hz, and I bore witness to the usual cone-breakup peak at 1,600 Hz; the peak can be shrugged off as it is well outside the real-world operating range of the speaker.

On the Road

I installed the SPL160 in a largish sealed enclosure that I'd downsized to 2 cubic feet using a couple of styrofoam blocks. It bears repeating that you usually have to use a much larger box for a 15-inch woofer. Then I loaded the box into my Corvette.

I wired one channel of a 400-watts-per-channel power amplifier to each of the 160's voice coils. That means that the 160 was receiving about 800 watts total. I teamed the box with a component speaker set employing 5-1/4-inch woofers, which was fed by a 500-watt-per-channel amp.

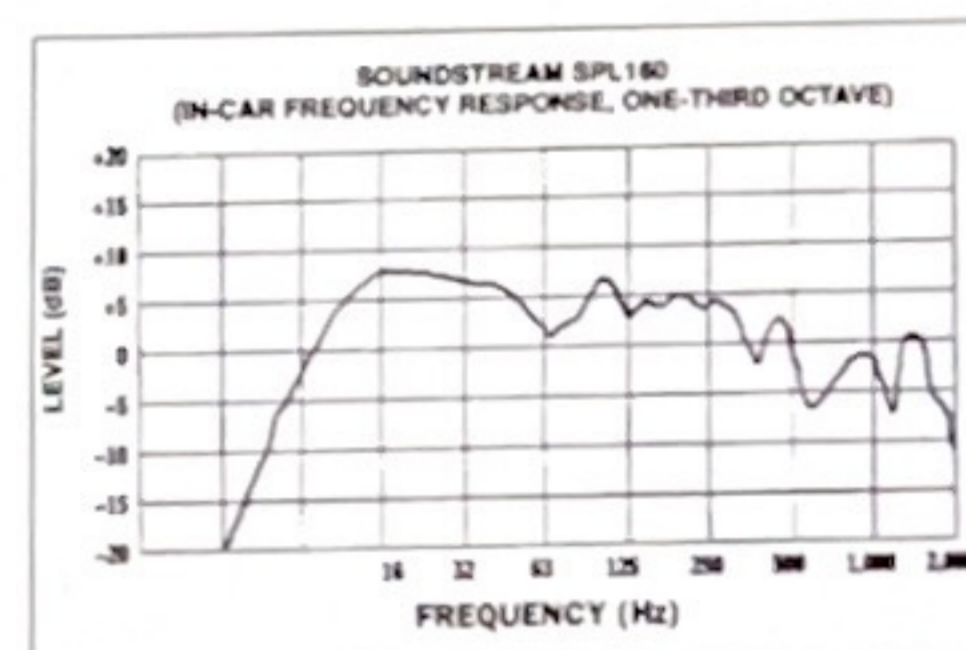
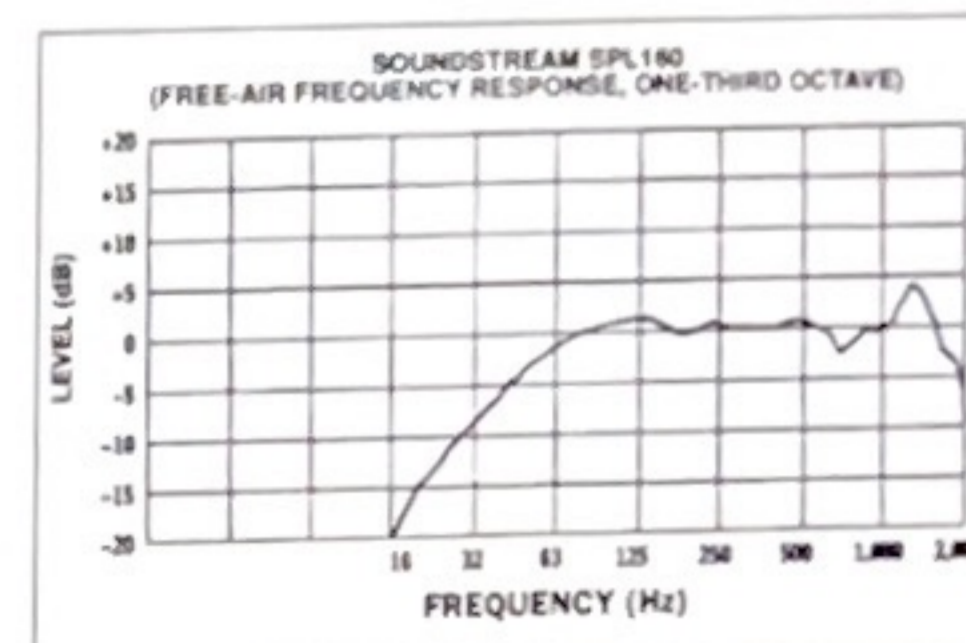
Results were, well, spectacular: A single 160 sitting in my relatively tiny box kicked out 128 dB SPL. The best part, perhaps, was that this was the first time my amps clearly gave up before the speaker being tested. Usually, the speaker clearly announces that it doesn't want to get any louder by making rude noises. In this case, the 160 played merrily away as the amps' clipping indicators blazed. There was plenty of cone excursion, but the 160's motor

assembly and suspension system had the matter well in hand. In this light, Soundstream's 500-watt power rating seems conservative.

Frequency response was just as outrageous. Closed mic'd, the system reached half power (-3 dB) at 52 Hz. When I factored in the transfer function of my Corvette, the -3-dB point appeared at 11 Hz! (You don't need to go lower unless you plan on communicating with whales.) Measured response was nice and smooth when I used an 80-Hz cutoff to mate the sub system with my front components.

Before I settled down for listening evaluations, I reminded myself that the 160's reason for being is loudness. In other words, Soundstream wasn't trying to build a finesse subwoofer you'd use when listening to a tape of some penguins playing Prokofiev on a PBS special. They were angling for a big crush-a-beer-keg-on-my-forehead kind of sub. And that's exactly what they got.

In the simplest of terms, the 160's SPLs and its overall muscularity made my Corvette shake. If you want to "feel the music," the 160 could quickly become the best friend you've ever had. You'll hear and feel every bass note or special effect, and fat rap tracks will just plain kick your butt around the car until you have a headache from banging off all the window glass. And you'll get all of this



with no buzzes, rattles, or other telltale distortion.

The 160 isn't the most accurate sub I've ever tested, rendering bass images slightly larger than in real life. But larger-than-life is what this sub is all about.

A few years back, Neil Young went on tour to back his *Ragged Glory* album, and his stage set consisted of nothing but a couple of make-believe Marshall amps that were about 20 feet tall (plus a huge mic on a huge mic stand). If Soundstream ever hits the road to promote the SPL160, a 15-foot-high woofer would get the point across. Use an SPL160 for classical music and it'll be like using a .44 magnum on an ant. Use it for rock, rap, and/or one of their hybrids, forebears, or spin-offs, and you'll have Ultimate Loudness firmly in your grasp.

Will the SPL160s break the 160-dB barrier? We're waiting... with A-weighted breath.

- Tom Nousaine