

REL Acoustics S/812 Sub-Bass System It Takes Two

The pursuit of the bottom octave in sound reproduction looms as a sort of final frontier for many enthusiasts. It's a task that's generally accomplished in one of two ways—by purchasing a completely new set of loudspeakers (ouch!), or by adding a subwoofer (or, as is the case here, a pair of them) to fill the deep-bass vacuum in your current system. The second option is also a daunting prospect. Expensive and acoustically challenging, the lowest octaves (loosely defined as 20–40Hz) demands power and requires space. Yet in spite of the challenges and potential pitfalls, I know of few audiophiles who do not aspire to experience music in all its glory—and nothing short of a full-spectrum system can really offer that.

Which brings me to the \$2999 REL S/812. A member of REL's mid-priced Serie S lineup, it's the big sister to the S/510. Only the upper-crust Reference Series No. 25 and G1 Mark II have loftier status in the REL stable. One thing all three share is the REL designation "sub-bass system," rather than the usual word "subwoofer." What's in a name? I think I understand what REL is getting at. The term "subwoofer" has become a generic catch-all, diluted and diminished by time and overuse. In many instances it is a marketing ploy that includes boom boxes, car stereos, desktop radios, or cheap home-theater-in-a-box systems. REL's bespoke name underscores where the firm stands as an audiophile company, suggesting refinement, an integrated system approach, and, well, authentic hair-raising bass response.



As large box enclosures go (at 20" deep with a curb weight of 75 pounds it's no pipsqueak), the S/812 is luxuriously detailed. The gleaming black lacquer finish (white is also available) is furnished with aluminum grab handles and finger cutouts along the sleek side panels. The badging is discrete, and even the grille frames are substantial in heft and composition. At the business end is a 12" ContinuousCast Alloy Cone that's been improved for this series with an ultra-lightweight backing of carbon fiber over portions of the rear surface of the membrane to aid power handling and excursion. This approach both strengthens and stiffens the cone and eliminates the internal backwave from interfering with the main launch of bass into the room. Also new is the 12", tuned, bottom-firing, "SuperProgressive," long-throw passive radiator. Its new suspension allows an additional 30mm of linear travel for increased output. According to REL this permits it to act like a compact sealed-box 12" design at low volumes and a high-output 14" design at its limit.

Power is courtesy of an 800W NextGen5 Class D amplifier adapted from REL's reference models. It brings with it a 45% increase in power, which REL felt was necessitated by its newest crossover—"an all-new circuit termed PerfectFilter that balances both frequency extremes from the extreme low end of bass frequencies to the middle and high frequencies of one's system." The roomy rear panel offers a generous

array of connections and inputs. Neutrik Speakon for high-level connection from the system amplifier taps, and RCA low-level inputs from a preamp output, plus RCA and XLR inputs for an LFE (Low-Frequency Effect) output from a home-theater controller. A set of small knobs handles the settings for LFE, crossover and level. A high-level Neutrik output can daisy-chain multiple S/812 in a stack of two or three per side (adapters included). There's also a main-power rocker switch, a toggle for standby/always-on with lamp, and an IEC plug. Included is a generous ten-meter Neutrik mains cable.

The adjustable crossover and output controls don't indicate every gradation in cycles or dBs, just general ranges. Nonetheless, REL's comprehensive set-up manual makes clear that integrating a sub/main speakers in an existing room is less about dialing in numbers and twiddling knobs than about your ear and your placement options. Important to keep in mind is the fact that REL subs use only low-pass filters. They are designed to run with the main speakers operating full-range. REL believes that this represents the purest, least colored approach. Some will argue, on the other hand, that high-pass filtering the main speakers not only relieves them of low-bass duties but also reduces compression and improves dynamics. Depending on the speaker this may be true, but it also negates the fact that the main speakers were designed as finished products with their own voicing. Introducing outboard crossovers to filter low-frequency from your main speakers can add colorations and undermine the original designer's vision. Cutting off its legs, so to speak, literally creates a different loudspeaker.

I'm no stranger to REL's sub-bass systems and have evaluated its models, small and large, over the years. Normally I've reviewed them singly in my smaller-scale listening room. However, my current listening space is considerably larger in volume, including ten-foot ceilings, and sits on slab construction topped with brick rather than a raised foundation with a wood floor. I concurred with REL's John Hunter that a pair was better suited to this space. Yes, you can make do with one, and indeed I've gotten some excellent sonic results going solo, but pairs offer advantages that, once grasped, are awfully hard to give up. Localization issues normally associated with a single sub tend to vanish with a well-positioned pair. Working in tandem they can largely ameliorate the excitation of room modes—those obstreperous peaks and nulls—because each subwoofer excites those modes differently for smoother bass.

If You're Hearing the Subwoofer, You're Doing it Wrong

REL recommends corner placement as a starting point. It offers a good balance of output launch and linear response. After sizing up my room, Hunter aligned the subs within a couple feet of each rear corner, along the same plane and to the outside of my ATC main speakers. However, shifting them fore and aft slightly, nearer the corner or further out into the room, is the sort of fine-tuning that will likely come into play, as every space is unique and there is no one single "right" answer to subwoofer placement. With my ATC's already capable of bass response into the mid-thirties, the S/812 crossover adjustment was set in the range of around forty cycles, with the gain at about the ten o'clock mark. The process will be aided immeasurably by using a couple of familiar recordings with constant, steady low-frequency material—REL recommends Track 4 from the Sneakers soundtrack. I also use "Ballad of the Runaway Horse" from Jennifer Warnes' Famous Blue Raincoat, among others. Gradually raise or lower the output until the system blends at the transition point and images come into center focus. I tend to overshoot initially to get my bearings and roll back the sub's output from there. You can hear when the output becomes bloated or smeared—or when it settles into a natural equilibrium with the main speakers. These were conservative settings which mirror my own listening bias. Ideally, the main speakers and the REL will be singing the same song and disappear as distinct sources.

Bottom Line

In sonic performance, S/812 hit the bottom-line benchmarks that I've come to expect of REL's top-drawer subs. Frequency extension was rock stable and linear, plummeting like a pile driver into the low twenty-cycle range with nary a complaint, box resonance, squeak, or rattle. Even at assault-force levels, I wasn't able to trigger the spurious resonances or overhang artifacts that tend to cloud the ambient picture. Traditionally, subwoofers—bass-reflex or sealed-box—may be characterized as fast or slow, tight or loose, depending on the configuration. The big passive radiator of the S/812 straddles both worlds. There's an emphasis on speed and control, but the sub doesn't clamp down on decay cues or attenuate resonances.

The lower ranges of solo instruments like piano and cello bloomed with resonant energy. Solo cello and vocal baritones become chestier and more resonant. I've heard the original Broadway score to Sweeney Todd: The Demon Barber of Fleet Street countless times, but I'd never heard "all" of the physical body from Len Cariou's cut-throat performance of "My Friends" until the S/812 was switched in.

Heavy percussion like tympani or kettle drums were reproduced with a frightening lack of compression (be ready), landing in the room like mortar rounds, with devastating pitch accuracy and weight. The S/812 established a firm foundation beneath the music that fortified images and conveyed perspective and scale. These traits couldn't have been better illustrated than on tracks from the Hans Zimmer soundtrack to The Thin Red Line. From the massive, concussive drumming of "Air" to the contemplative and relentless "Stone In My Heart," the presentation became one of sheer immersion within my listening space, eliciting a visceral reaction akin to slowly sinking into the dark weight and drenching ambient humidity of the sound.

The ability to surprise and even shock was part and parcel of the REL experience. Even so, I was unprepared for what the S/812 could do when I cued the Springsteen classic "Racing in the Street" from Darkness at the Edge of Town. The somber track focuses early on with the melancholic simplicity of vocal and piano, but shifts into an entirely different gear when Max Weinberg's enormous bass drum (linked to the lengthy sustain of an electric bass guitar) kicks in. I've heard this track a countless number of times, but hearing these cues through dual S/812s was the difference between a car with stifling street-legal mufflers and one with wide-open dragstrip headers.

But the S/812 goes well beyond hurtling depth charges. When I turned to live acoustic music, chamber, chorale, symphonic, jazz, the promise of the S/812 truly began to be revealed. This was the adult side of the REL as expressed in the ever-widening landscapes of sound, vistas of swirling ambience that seemed to extend as far as my mind's eye could see. The effect was most keenly felt in the expansive, ambient, dimensional, layered soundstage. On the Decca recording of Beethoven's Ninth with Solti conducting the Chicago Symphony, the RELs allowed the music the room to breathe within the broad expanse of the hall. Low-bass information was resolved with greater transparency. For example, when I've previously listened to Copland's Appalachian Spring, I've encountered a muddle between the opposing kettle drums and bass viols. Activating the S/812 suddenly clarified the position and contrasting timbre of these instruments. In other ways the dual S/812 operated almost subliminally. This experience was keenly felt listening to tracks from Rutter's Requiem where my attention turned to the resolution of the Turtle Creek Chorale—the individuation of voices and the massive pipe organ that follows along like a dark subterranean shadow. You may not always think the S/812 is doing its job, but something in the seat of your pants or the bottom of your gut testifies that it is.

A friendly warning: A pair of S/812 changes the personality, the emotional output, of a system. Further, to a substantial degree it changes your relationship with familiar recordings. And prepare to feel a little deflated when you remove it from the system. It's like air being released from a balloon—the ripe fullness of ambient energy and atmosphere diminishes; the outlines of the soundstage draw inward; reverberant decay doesn't sustain as long; and the sense of encountering the furthest corners of an auditorium is reduced. Remove the REL and well-articulated images became harder, more individualistic, but less of a cohesive part of the organic musical event.

The REL S/812 unambiguously established not only that it's got game, but also that in extension, sheer output, and righteous slam it's got that game down pat. However, putting these benchmarks aside for the moment, it's the seamless system integration and nuanced transparency that distinguishes REL from many of its rivals. It became one with the character and voice of my main speakers in a way that made me feel I'd simply upgraded them to the next larger and more deeply extended model. My advice? Audition the S/812 at your peril. A single one will spoil you. But a pair of S/812s? They'll spoil you for anything less.