

REL Britannia B3 Subwoofer

A compact subwoofer that does what a good sub should

Neil Gader

REL Acoustics designs and constructs subwoofers of serious intent. It faithfully hews to the high end's original mission statement for subs—to reproduce music's bottom octave, the region that extends to 20Hz or lower.¹ The Britannia series is a three-model collection at the heart of REL's line. Designed for music and home cinema, its traditional elegance and reasonable size bridge the gap between REL's imposing statement products like the Stadium III or Stentor III and the glossy Class D-powered cubes of the new R-Series.

In the Britannia line the B3 is the smallest. It's a forward-firing, resistive-port design with dual downward-venting chambers. Build-quality is truly first rate—30mm MDF throughout. At sixty-six pounds it has the requisite mass to prevent some enormous internal forces from physically propelling the enclosure around the listening room.

In the tradition of audio-minimalism, REL subs are equipped only with low-pass filtering. They are purpose-designed to augment main speakers that already produce a good part of the low-frequency spectrum. While high-pass filtering may improve dynamics and output for bass-shy satellite speakers, the additional circuitry can also add unwanted colorations.

REL's preferred method of connection is the Neutrik Speakon high-level cable that refers the signal from the speaker taps of the main

system amplifier to the B3. This is central to the REL philosophy that the subwoofer receives the identical signal or "voice" that the main speakers are seeing—a method REL believes more fully integrates the entire chain of the system into the final sound.² Corner placement behind the main speakers is recommended as a baseline starting point. Detailed instructions offer genuine advice rather than boilerplate for setting phase, output, and crossover. Crossover settings are adjusted by a pair of rear-

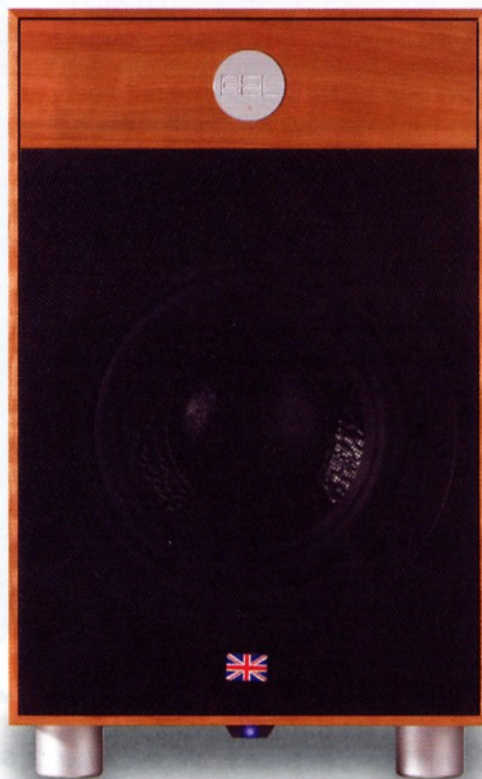
panel knobs labeled Coarse and Fine, which together permit a combination of 24 incremental adjustments over a 22–96Hz range.

The personality of the B3 combines Falstaffian weight with an authority and control that is divinely unbox-like. Instead it performs like a force of nature that effortlessly creates an octave of music where there was none. It doesn't have the lumpy rubbery signature of the small high-power cubes or the one-note bloatedness of common ported subs.

Port noise and overhang are virtually non-existent. For instance, the stand-up bass from "One For My Baby," from *Good Night, and Good Luck* [Warner], isn't merely reproduced with greater extension but with a richer, more dimensional character across its range. Electric bass and drums become more dynamically charged and tightly focused. Similarly during Norah Jones' cover of "Cold, Cold Heart," heard on *Come Away With Me* [Blue Note], there's no question of the acoustic bass' position and no gap or personality shift between sub and main speakers.

The dimensions and acoustics of the soundstage are enhanced yet the resolution of individual images is maintained. When a bass drum emerges from upstage and to the right, or a bass guitar doubles a floor drum at dead centerstage, the B3 doesn't steer either instrument in wayward directions.

Extension and speed are only parts of the battle, however. When



¹ The term "subwoofer" has been largely devalued in recent years. Catering to the LFE-driven home-theater market, any dedicated bass box with 30Hz-note pretensions is promoted to subwoofer status.


² Because of the very high (100k Ohm) input impedance the amplifier is untaxed.

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correctly dialed in the B3 is a team player that never imposes its character on the system—even on fast, high-res speakers like the ATC SCM 20-2 or the MBL 121. Sub/sat integration is so tight that even the unremitting *whumph* of Stewart Copeland's kickdrum at the beginning of the Police's "Murder By Numbers" on *Synchronicity* [A&M] never veered from dead-on centerstage—the B3 was essentially invisible and colorless. Truthfully, given its modest size, it won't trip city-

wide seismographs like a Bag End system. But in my smallish listening room the B3's output and mid-20Hz resolution is all the bass a lightly constructed Los Angeles home like mine can take.

In a perfect world you should be able to add a powered subwoofer to your system and never know it's there. That's largely the thrill that the high end strives for—music reproduction beyond the shadow of electronics. And this is largely the sensation I achieved with the B3.

Categorically a reference-quality product—when it comes to the low frequencies there's no question that this Britannia confidently rules the waves. 

SPECIFICATIONS

Driver complement: One 10" woofer
 Low Frequency Response: 18Hz in-room at -6dB
 Power Output: 200W
 Dimensions: 21.5" x 13.4" x 16.1"
 Weight: 66 lbs.

ASSOCIATED EQUIPMENT

Sota Cosmos Series III turntable; SME V pick-up arm; Shure V15vMR cartridge; Sony DVP-9000ES, Simaudio Moon Supernova; Plinius 9200 integrated amplifier, NAD M3; ATC SCM20-2, MBL 121, Pioneer 2EX; Nordost Baldur and Blue Heaven cabling, Crystal Cable, Kimber Kable BiFocal XL; Wireworld Silver Electra & Kimber Palladian power cords; Richard Gray line conditioners; Sound Fusion Turntable stand

MANUFACTURER INFORMATION

SUMIKO AUDIO

2431 Fifth Street
 Berkeley, California 94710
 (510) 841-4500
 sumikoaudio.net
 Price: \$1995

SYNERGISTIC RESEARCH, INC.

501 Superior Ave
 Newport Beach, California 92663
 (949) 642-2800
 synergisticresearch.com
 Price: Phase II X2: \$812.50/3m, (\$125 each additional meter); Resolution Reference X2, \$1312.50/3m (\$262.50 each add'l meter); A/C Master Coupler X2, \$737.50/5ft.

Synergistic Research REL Spec Subwoofer Cables

As I was nearing the completion of the B3 review, Synergistic Research supplied me with its Phase II and Resolution Reference high-level subwoofer cables with REL compatible Neutrik terminations. They also included an A/C Master Coupler power cord. At this point I thought that I had comprehensively plumbed the limits of the B3's performance envelope. Boy, was I wrong. What's in a cable? Turns out, a lot.

Both cables and the power cord use Synergistic X2 Active Shielding. In its third generation, X2 is designed to suppress signal/cable interactions and reduce RFI and EMI. Synergistic describes it as a closed circuit system where the shield carries DC "with a buffer circuit between shield and ground with separate conductors carrying the ground signal." Beyond the outward differences in jacketing the Resolution Reference uses four parallel geometries (two active silver matrix conductors, two passive OFHC copper conductors); the Phase II reduces the conductors to one active/one passive.

Bottom line? Each of them easily trumps the stock REL Neutrik—which, in comparison acts like a leash on a greyhound. The differences had all the subtlety of being hit on the head with a crowbar. First there was a lowering of the noise floor that enhanced the sense of acoustic space. Images grew more finely focused as if shadowy doppelgangers had been purged from the soundstage. With either cable the B3 had been handed a new, sharper tool to further excavate the lower reaches of a recording. The B3 began to uncover minute musical details that

I didn't know existed. Pipe organ cues became more distinctive. Resonance patterns of string bass more complex. The decay characteristics that define unique acoustic spaces were more easily followed. Orchestral crescendos were clarified and focused. Sub/sat integration also improved—not an easy trick to carry off with a performer as exceptional as the "stock" B3.

The AC Master Coupler Active power cord is more subtle in its contribution but significant in that, by providing an even quieter noise floor at the outset, it allows the Phase II or Reference cables to achieve greater gains in both dynamics and immediacy. On the crescendo at the end of "Air" from *The Thin Red Line*, the performance seemed to begin from a quieter place and build more gradually to a louder and more terrifying conclusion.

While the Phase II wire generates the most bang for the buck, I'd still opt for the Resolution Reference. I preferred the lengthier reverberation times, extended harmonics, and vise-like control. Depending on your tax return, the power cord would be icing on the cake.

I should point out the cold hard fact that the combined price of the power cord and cable costs about the same as the B3. On the other hand until I heard the Synergistic cable/cord combo I never would have thought the B3 was holding anything back. My advice—don't audition the Synergistic wires unless you're prepared to keep them. Because you will. **NR**

³ Includes a Mini Power Coupler power supply.