

## REL S/3 subwoofer revisited by Nicholas Ripley

finished my review of the £1,299 REL S/3 subwoofer (issue 110), when two things happened. These happened soon after the review was printed, but are worth a revisit.

First, while changing nothing on the system at all, the sound of the system of the S/3 suddenly just 'filled in'. This was nothing you could point out, nothing you could point a finger at, and the change was possibly very subtle. But there was nothing subtle about what it did for the sound; this wasn't bass reinforcement, it was full-on bass management. The S/3 already provided a solid underpinning of the loudspeakers, allowing them to open out and clean up in the midrange and treble, but now that was improving the apparent stage width, the clarity and detail across the midrange and, naturally, a deeper bass of both depth and tonality.

The process of reviewing seems to be a process of gradually overturning all those things you dismissed as nonsense in 'civilian' life, and this time it's the idea of 'running in'. I understand that the moving parts of a loudspeaker need time to settle down, but science says everything should be resolved in a matter of minutes, not weeks. But something very definitely changed, and changed for the better several weeks after opening the box; it sounded good fresh out the box, but a lot better with 100 or more hours of music played.

The next was a spot of repositioning by REL expert Kev Starkie. I'd placed the S/3 in line with the loudspeakers and

this appeared to work well, but a well-trained ear and a spirit of experimentation ended with the speaker closer to the corner of my room. I thought this would be one of the worst places for a subwoofer; that this should be a place of trapping, rather than generating, bass. But this repositioning, coupled with a few careful minutes of resetting the level and cut off controls to improve interaction between sub and speakers, paid huge dividends. Once again, this improves the underpinning of the loudspeaker, freeing up the midrange and treble, while adding a sense of tonality and 'shape' to the bass. This is all best represented by that most challenging of instruments for the stereo, the piano. My two-disc copy of Rachmaninov's *Études-Tableaux*, played by Rustem Hayroudinoff [Chandos CD] show the pianist in fine form, but occasionally I find a sense of it being two players working at two subtly different instruments. After run-in and with repositioned controls, the S3 brought these two sounds into one coherent piano tone – dynamic, expressive, and beautiful.

My original review of the S/3 stands, but I'm even more impressed by the REL subwoofer now. It just adds more depth to the bass and control to the upper registers. I've become something of a convert! +

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See issue 110 for the original review

## REL S/3 subwoofer

by Nicholas Ripley

**S**ubwoofer expert REL had a long-running hit in its R-Series range. But, never one to rest on its laurels, the company announced at the beginning of the year that 'R' was out, and 'S' was in. The S/3 is the middle of three models in the new S-Series range.

The 'R' and the 'S' models look ostensibly similar, until you remove the grille. The cabinet retains the gloss black or white cube shape with contrasting metal side-bars, top-plate and feet. The cabinet itself is slightly deeper, but unless you have like-for-like models facing one another, few would notice the difference. The depth of the cabinet helps explain one significant change in the REL design: it now uses 30mm thick MDF throughout and has better internal bracing, making the S/3 both considerably more rigid and heavier than the model it replaces.

However, the big change has been in the drive unit itself. Where previous REL models have relied on more traditional materials for large subwoofer cones, the new S-Series uses long-throw drivers made from a tempered aluminium alloy called T-6063, which is alloyed primarily with magnesium and silicon. This alloy is considered to have good mechanical properties, very high tensile strength, and is produced with very smooth surfaces.

There is also a tweak to the electronics, which afforded REL a touch of ergonomic face-lifting to the rear panel for a very slightly better layout. More significantly, it allows the new range to

use REL's optional 'Longbow' wireless, compression-free transmission system. The Longbow transmitter is a small powered box that sits by the audio system, replicating the high and/or low level connections on the back of the REL and passing those signals at radio frequency to the subwoofer itself. It's possible to run multiple subwoofers from the same transmitter within a 15m range, meaning those who use two or more strategically placed subwoofers in the room no longer need to trail wires around the living room. There is also an optional Baseline high-quality high-level subwoofer cable upgrade, launched around the same time as the new S/3.

It may seem like a paradox, but the way to get good sound out of a subwoofer (for music use, at least) is to try to get almost no sound out of the subwoofer at all. Most stereo systems do not have an LFE/subwoofer line level output, but even if the system does include a line-level out for a subwoofer, REL recommends that for ▶



► musical use, one is best served by connecting the subwoofer to the loudspeaker terminals (the REL takes a wired or wireless feed from the left and right positive and one negative speaker terminals at the amplifier). Then, reduce the output of the subwoofer until it becomes all but inaudible, and merely provides additional bass reinforcement below the limits of the loudspeakers. The process is more complex in the real world, but the important factor is the subwoofer should be 'sub'; that is, it should play at a level and a frequency below the main loudspeakers, and subservient to their output.

The effect is that it does not necessarily enhance deep bass, but better control room interaction, thereby making the loudspeakers appear more free and open in the midrange. This is somewhat counter-intuitive, and you might expect a good subwoofer to provide extra authority and depth to deep bass notes and not much more. While the S/3 does help

considerably here, it's James Blunt rather than James Blake that gets the true benefit. While the original *Back to Bedlam* album is victim of intense overplaying by the mass media, Blunt's live *Chasing Time: The Bedlam Sessions* [WEA] is a very well produced live album. While a singer-songwriter might seem far removed from subwoofer-land, the REL's underpinning creates better stereo separation, more of a sense of a live performance, and instruments precisely located within that stage.

So far, this could apply equally to almost any correctly set-up REL subwoofer produced in the last 25 years. What the S/3 additionally provides is an even faster transient response, which frees up those middle and upper registers still further. While not a substitute for room acoustic treatment, the S/3 works like an active bass trap, but can also provide that bass depth needed when playing something like the 'operatic' version of *West Side Story* [DG], to best render all those foot stomps and stage directions. This is a tough test for a subwoofer, because it requires great depth and great speed, and the S/3 does both well.

Although it can happily shake the walls every bit as much as its R328 predecessor, this is also a subtle and deft device. The curious thing about the REL S/3 is its lack of impressiveness is what will impress you most. This subwoofer has little or no character to speak of and will interact with the fastest of loudspeakers with ease. You'll hardly notice it is there, until you turn it off. Then, it's like someone deflated your loudspeakers. Outstanding. +

## TECHNICAL SPECIFICATIONS

**Type:** Front-firing, powered subwoofer with downward-facing, passive radiator-equipped enclosure.

**Driver complement:** One 250mm aluminium alloy bass driver with aluminium chassis, one 300mm passive radiator.

**Inputs:** Hi-level speaker input with Neutrik Speakon connectors, low-level input via single RCA jack, LFE input via RCA jack.

**Low frequency extension:** 22Hz at -6dB

**Amplifier power:** 350W RMS

**Controls:** Crossover (30Hz – 120Hz), Gain (0 – 80dB), Phase (0 or 180 degrees), Power (on/off), SMA connection switch for optional Longbow wireless connectivity.

**Dimensions (HxWxD):** 424 x 406 x 463.5mm

**Weight:** 27.9kg

**Finishes:** Gloss Piano Black or Gloss White lacquer

**Manufacturer:** REL Acoustics

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