



REL sub designed for double trouble?

One subwoofer or two? With the aid of REL's smallest Serie S model, [Steve Withers](#) ponders life's eternal home cinema question

AV INFO

PRODUCT: 10in, 500W subwoofer with 12in passive radiator

POSITION: Entry-level in Serie S, above Serie Ti and Serie HT models

PEERS: SVS SB-3000; Bowers & Wilkins DB3D; GoldenEar SuperSub X

WHEN IT COMES to subwoofers, there's always a temptation to assume bigger is better. If you're the kind of person who favours bass so boisterous that neighbours demand an anti-social behaviour order, larger drivers and increased amplification seems like the obvious solution. But is it?

REL has long advocated the use of multiple subs, and while the company's recently upgraded Serie S range has taken this philosophy to the extreme, with the option of a six-unit line array composed of three stacked subs on either side (see p72 for more on that), there are benefits to using dual subwoofers.

For a start, installing a pair of smaller subwoofers instead of a single large one can be more practical when space is an issue. The use of two subwoofers also results in increased headroom and greater dynamic range, along with making it nearly impossible to localise the source of the bass.

A single subwoofer also can't deliver optimal frequency responses at every listening position in a room. If you want to have fun one day, play a low-frequency test tone and

move around your movie den. At certain points the bass will sound boomy, but at others you'll hear it go eerily quiet. This is because the sub interacts with the room, creating standing waves with peaks and nulls. You can use modern room calibration systems to equalise these to a degree, but employing two subwoofers helps smooth things out at more listening positions.

To put this theory to the test, REL supplied a pair of its new S/510s. At £1,900 this is the most affordable of the mid-level Serie S range (but admittedly still pricey compare to many 10in rivals), and anyone familiar with REL's numbering convention will have already worked out it uses a 10in driver and 500W of amplification.

Black and white beauty

Aside from being smaller, it retains all the benefits of the S/812 [see HCC #304], including the same superb build quality, gloss piano black or gloss white lacquer finishes, and ultra-stable rails either side of a downward-firing 12in carbon passive radiator that helps the S/510 dig deep to a claimed 20Hz.

The forward-firing driver uses the same lightweight aluminium cone that's been stiffened with a backing of carbon fibre, and is powered by a matching NextGen5 Class D amplifier. As with the other models in the Serie S range, you can also stack the S/510 up to three units high.

Since this is a REL subwoofer there are high-level Neutrik Speakon inputs and outputs, along with more traditional low-level stereo phono inputs and outputs, plus LFE (phono and balanced XLR) connections. The Serie S is also compatible with REL's new AirShip wireless system.

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Installing the two units was straightforward, in part because rear controls are limited to setting phase, crossover and levels. AV processors, amplifiers and receivers often have dual sub outputs, although if not you'll need to connect one and then daisy chain the other.

The biggest decision is where to actually position the two bass bins, and your main choices are: opposite diagonal front and rear corners; the mid-points of the side walls; either side of the centre channel inside the main speakers; or the front corners. I went for the latter configuration because it best suits the RoomPerfect calibration system on my Lyngdorf processor.

At last I could sit down, rest my back, and put this newly created dual S/510 system to the test. I began with a couple of classic infrasonic liveners: the opening bass notes of *Edge of Tomorrow* and the Cataclyst bomb scene in *Ready Player One* (both on Blu-ray).

The benefit of having two subs is quickly apparent, adding balance to the low-end soundstage. The S/510 can certainly go deep, as evidenced by its ability to hit the low notes at the start of the Tom Cruise sci-fi, but the added headroom of a dual system allows for greater extension.

In the case of *Ready Player One*, as the bomb detonates it sends a shockwave of tangible, tactile LF energy across the room. It's a thoroughly engaging experience.

A single S/510 can't dig quite as deep as the S/812, but it's just as musical, slighter faster, and seems a touch more responsive. *Rocketman* (4K Blu-ray) provides the perfect opportunity to test the agility of these two subs working in unison, and the combo rises to the occasion admirably. As a young Elton John breaks into *Saturday Night's Alright for Fighting* on the local pub piano, drums beats are immaculately timed and forceful, driving the song forward. That same sense of speed is evident during the performance of *Crocodile Rock* at the Troubadour, with the two subs capturing the bass guitar and drums with a nimble elegance.

SPECIFICATIONS

DRIVERS: 1 x 10in forward-firing long-throw driver; 1 x 12in downward-firing passive radiator **ENCLOSURE:** Sealed **FREQUENCY RESPONSE (CLAIMED):** 20Hz (-6 dB) **ON BOARD POWER (CLAIMED):** 500W (RMS) **REMOTE CONTROL:** No **DIMENSIONS:** 410(h) x 400(w) x 464(d)mm **WEIGHT:** 31.7kg

FEATURES: High-level Neutrik Speakon, low-level stereo phono, LFE and LFE XLR inputs; high-level Neutrik Speakon, LFE and LFE XLR outputs; high/low and LFE level controls; crossover control; 180-degree phase switch; automatic standby option; NextGen5 amplification; compatible with REL AirShip wireless system; stackable design

PARTNER WITH



MIDWAY: Roland Emmerich's large-budget (but still independent) WW2 movie is at its best when its Atmos soundmix – available on both the 4K and 1080p BDs – is in full flow. The raid on the Japanese fleet (Chapters 8, 9, and 10) is a standout.

This speed, deftness and musicality aren't to be sniffed at, but the S/510 also does blunt force trauma. With the set-piece battle in Roland Emmerich's *Midway* (4K Blu-ray), constant anti-aircraft fire is given a thumping bass hit that's closely followed by the secondary impact of flak peppering swarming aircraft. There's a superbly timed low-end slam to all this exploding ordnance, and despite the increased dynamics and deep bass output between 20Hz to 35Hz, it's impossible to localise the bass. It simply overpowers you.

This is especially true when a US plane bombs the Japanese carrier *Hiryu*, diving at incredibly steep angles before pulling out at the last second. The bomb penetrates the flight deck, causing a chain reaction of explosions that erupt through the ship; the REL pairing has the speed to not be overwhelmed, and the weight to underpin the onscreen destruction.

Serious slam, epic scale

REL's 10in Serie S model doesn't have the spec-sheet power or depth of the larger and more expensive S/812, and this is apparent during single-model playback, but it comes very close and if anything it's faster and more responsive. If you've got the budget, a pair of these smaller units will deliver a balanced and composed low-frequency foundation that can give your favourite movie moments some serious slam and an epic amount of scale ■



HCC VERDICT



REL S/510
→ £3,800 for two (£1,900 each) → www.rel.net

WESAY: Almost as much depth as its bigger brother and a touch more speed makes this sophisticated woofer easy to recommend. Any maybe get two of them.

1. Facing front is the sub's 10in driver – a 12in passive radiator lurks on the underside

2. Side handles make moving the 31kg S/510 around a little easier