

hi-fi news

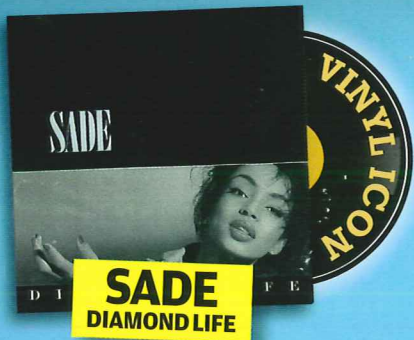
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Wilson Audio Duette Series 2

Wilson Audio's smallest speaker has had a makeover, and the resultant Duette Series 2 is a flabbergasting triumph
 Review: **Ken Kessler** Lab: **Keith Howard**

When the Duette was first launched in 2006, I stymied the manufacturer by acting like a British audiophile.

Conditioning led me to use this two-way speaker – designed for both shelf- or stand-mounting – as a free-space design. I set them up as I have mid-sized two-ways ever since I learned about the importance of positioning. And I loved them, spaced well into the room, despite consciously sacrificing some bass. This time, I was told emphatically that the Duette Series 2 *must* be used close to a wall, whether shelf- or stand-mounted.

The Duette 2 is a thorough revamp of the original, with its aesthetics enhanced by design clues that first appeared in the larger Wilson models. The optional stand, too, is a visual treat, while the Wilson gloss colour palette is so broad that one might not be compelled to order a *custom* hue. But if you wanted, say, a burnt orange to match your Lamborghini, go for it...

In addition to the benefit always present with draconian set-up instructions (the manufacturer can thereby control a product's use in the home to best ensure its performance) the company was able to rid the Duette 2 of some of the complexity caused by the original's more liberal usage. By eliminating this freedom, Wilson's designers could extract greater performance, knowing how the speaker would be installed.

Like the original, the Duette 2 uses the separate Novel crossover, its outboard status increasing the internal volume of the speaker so it still has ample space for an 8in woofer. With the crossover *outside* the enclosure, Wilson was free to fit 'state-of-the-art' inductors, capacitors and other components without worrying about their bulk. Naturally, it also provides electrical and mechanical isolation of the crossover elements. Mounted inside the newly-designed stand, the crossover is

mechanically isolated in its own dedicated enclosure. Wilson used this arrangement to 'manage' the cable, housing it in the pillar. The stand is also said to be more robust than the one it replaces, creating a better 'impedance path' similar to the topology of the larger models, for guiding vibrations away from the main enclosure. The Duette 2 now bolts directly to the stand.

Upgrading the tweeter involved the inclusion of a rear wave chamber, sourced from the Alexia's Convergent Synergy Tweeter [HFN Mar '13]. As an Alexia user, I was struck by the uncanny similarity the two speakers share in the upper treble, especially regarding freedom from sibilance and absolute transparency. This chamber is said to attenuate spurious energy 'generated at the rear of the driver that would otherwise leak out of the acoustically translucent dome'. One benefit is said to be a lower noise floor.

BOUNDARY CONFIGURATION

For the restyled enclosure, Wilson chose to make it entirely from its proprietary X-material, an extremely well damped and ultra-rigid composite, with added bracing. The front baffle was sloped for time alignment, Wilson configuring the Duette 2 for vertical placement only. The front baffle is made from S-material, and tilts back 10°, to align the tweeter and the woofer in the time domain.

Because the Duette 2 is configured solely for near-boundary placement, whether on its stand or on a shelf, the need for two separate resistor and umbilical settings has been eliminated. In the original, this permitted siting out away from walls. Their removal also allowed the designers to concentrate on optimising the

RIGHT: The Duette 2 retains the 'cathedral' look of its predecessor, while wild new colours are offered as standard. The tweeter is similar to that found in the dearer Wilson Alexia



FROM WATT TO DUETTE

While one is tempted to think of the original WATT as the inspiration for the Duette, there is no direct evolutionary path. As soon as the WATT, conceived purely as a small studio monitor, gained a domestic user following, it begged a subwoofer. The speaker spent the rest of its life, after the first couple of versions, paired in almost every situation with the Puppy woofer tower. While all Wilsons bar the Duette are floorstanders, all of them (except for the single-piece Sophia 3) use multiple enclosures – and this *is* traceable to WATT-plus-Puppy.

Duette was a clean-sheet design conceived to be a self-contained two-way, and capable of having performance uncompromised by shelf-mounting. It is clear, however, that the thought which went into the complex design of the optional stand indicates that the Wilson team anticipated floorstanding usage. With the Series 2, Wilson has made the siting requirements more rigid, with proximity to a wall mandatory, and with toe-in determined by the listener's distance from the speaker.

crossover to give excellent time-alignment and linearity with solely near-boundary installations. (Note: there is a separate Novel crossover enclosure for *shelf* placement, as well as 'furniture-friendly' spikes that bolt to the Duette 2 without the stands.)

A GIANT KILLER

While my very first exposure to the Duette 2 was at a hi-fi show in a strange venue, even in such an alien milieu it was clear that the '2 was to the original what a race-prepared car is to its road version. Now don't get me wrong: the '1' is still a terrific speaker, and owners needn't contemplate hemlock. But the transformation is something akin to one of those 'before and after' body-building ads. The Duette has been transformed from a coherent, detailed compact, into a giant killer. Everything about the sound is grander, bolder, more convincingly real.

But equally, it is perpetually disconcerting. You look at a speaker with the dimensions of a 1970s BBC two-way from Rogers or KEF or Spondor, and you hear the mass and scale of something in which Clark Kent could endure a wardrobe change. And that, too, is apt, for the Duette has moved from Clark to Kal-El.

With recordings like the Strypes' retro BritRock on their impressive debut, *Snapshot* [Virgin 3750949], the 'wall of sound' (in the Spectorian sense) is floor-to-ceiling, wall-to-wall, with an energy level that suggests a sweaty blues bar, circa '66. 'I Can Tell', with guitar

playing that's surely a homage to Wilko Johnson, is deceptively raw, and yet there's real width to the event, the opening just lean enough to offer a hint of air.

But it is not a recording to try the Duette 2's finesse. This shows how a speaker of such compact dimensions can wail it with the best of them. The lead guitar soars almost exactly as it does through the Alexias, while the bottom end is as rich and controlled, if – obviously – not as massive nor as extended. Indeed, so well-defined and 'tuned' is the Duette 2's bass reproduction that many might find it

preferable to a surfeit of bottom octave activity as delivered by larger speaker systems.

Even though the Strypes' playing is raunchy in the precise manner of their heroes from the '60s (although

'Lead guitar soars almost exactly as it does through the Alexias'

I wouldn't swear to them being familiar with The Shadows Of Knight), these teens who were just out of nappies when we were worrying about Y2K eschew inarticulacy, and they deliver lyrics with a clarity that the Duette 2s embraced. It was a vivid display of how the speaker handles textures, as all of the guitar-work behind the vocals is of the fuzz-tone variety.

Track after track delivered a little miracle. Even the 'smallness' of a 1930s recording by George Formby, 'When I'm Cleaning Windows' from the CD of the same name [Retrospective 710357 410420], didn't matter, so pristine was the sound. The attack of his ukulele was reproduced with enough speed and detail to appreciate his masterful – and unique – strumming method.

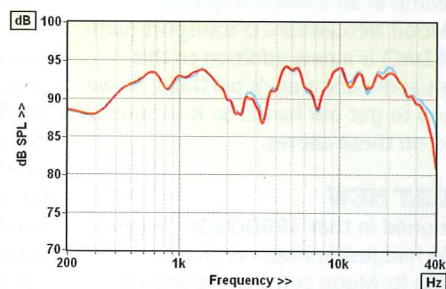
Moving to the modernity of Joe Brown's version on *The Ukulele Album* [Joe Brown ↪



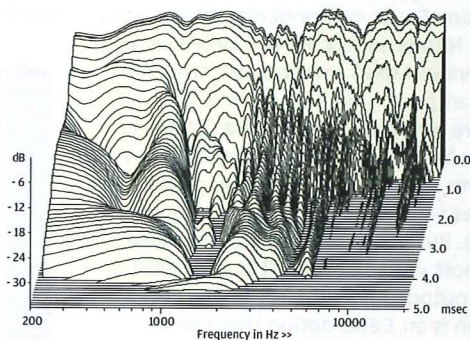
WILSON AUDIO DUETTE SERIES 2

Wilson Audio claims a 92dB sensitivity for the Duette Series 2, which accords very closely with our measured pink noise figure of 91.8dB. Moreover this high sensitivity is achieved without recourse to punishingly low impedance. We measured a minimum impedance modulus of 4.2ohm at 179Hz – close to the specified 4.35ohm minimum at 160Hz – and although the max/min impedance phase angles are quite large the phase is managed in such a way not to result in a low EPDR (equivalent peak dissipation resistance). In fact the EPDR dips to a minimum of 2.0ohm at 100Hz making the latest Duette a more amplifier-friendly load than many mid-market floorstanders, albeit not quite as benign as the Series 1 (minimum EPDR 2.2ohm).

On-axis frequency response, measured at tweeter height [Graph 1, below] is essentially flat in trend from about 500Hz upwards and the fluctuations are reasonably well controlled, giving error figures of ± 3.8 dB and ± 3.5 dB respectively for the review pair, 200Hz–20kHz. Both the far-field and near-field responses show a shelving down of output towards low frequency, in accordance with the intended use close to a wall. Pair matching over the same frequency range was excellent at ± 0.8 dB. Bass extension is similar to that of the Series 1 at 43Hz (–6dB re. 200Hz), obtained from a diffraction-corrected near-field measurement. Wilson doesn't quote a crossover frequency to the tweeter but it appears to be, as usual, lower than typical at below 2kHz. Even so the downside of using such a large bass-mid driver is evident in the cumulative spectral decay waterfall [Graph 2] which is dominated in the lower-treble by a closely-packed series of high-Q breakup modes. KH



ABOVE: The Duette 2's forward response is essentially flat in trend but the tweeter crossover is low at ~2kHz



ABOVE: The large bass/mid driver appears to suffer a series of (low treble) breakup modes at ~2-5kHz

LEFT: No untidiness here, as the Duette 2 connects to the Novel crossover mounted inside the stand with its own supplied umbilical cable. Note rear-firing port, calculated into the positioning

punch and upper register sparkle. The attack from the Duette 2s was crisp, with no overhang. The vocals coalesced with Hollies-like purity.

JUST A THOUGHT (OR 2)

But there's a question they beg: With prices higher than the 3-way, floorstanding Sophia 3, why buy this instead of the Sophia 3? Both sound unmistakably Wilsonian, but the Duette 2 is lighter of touch, without losing any of the scale. What will perplex you upon your first exposure is the sheer magnitude of the soundstage, the palpability of the bass. It simply has no right to sound so massive, so wholly convincing.

Perhaps the most important virtue of the Duette 2 isn't sonic, but a simple matter of the *trompe l'oeil*: a small speaker on a stand is less visually imposing than a floorstander, even if it occupies the exact same space. But that is too glib.

In practice, the Duette 2 is to be preferred if one either has to employ shelf-mounting, or merely wants it as a future option. I suspect that the Duette 2 also works better in a small room than the Sophia 3, although I used the latter for years in a 12x18ft room with no complaints, and the same space now houses Alexias. The Duette 2, on the other hand, could certainly make life easier if space is an issue. What it never does is let you know you're hearing a small loudspeaker. ☺

HI-FI NEWS VERDICT

I have now heard Duette 2 in three different environments, with Ayre, Audio Research and Constellation amps. Each time, it has had me shaking my head, in recognition of how Daryl Wilson and his team seem to have defied the laws of acoustics. This is, without question, the best all-round, most truly satisfying, room-friendly, small speaker of high-end intent I have ever heard. Size, it seems, no longer matters.

Sound Quality: 88%

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Records UGCD 008], as well as 'I'll See You In My Dreams', I was able to compare uke-to-recording to gauge the 'realism'. And while my Barnes & Mullins doesn't sound like his Kala, I could ape the uke's strumming the familiar resonances. The Duette 2 put the players in my room!

I felt the hunger for some majestic pop, with a *huge* drum sound. The Wonders' CD single 'That Thing You Do' [Play-Tone Records 664055 2] opens with a fat, bulbous, airy drum attack – I swear you can hear the skins stretching. The intro leads straight into Beatles-esque harmonies and jangly guitars, this track from Tom Hanks' tribute to the wannabe bands oozing

HI-FI NEWS SPECIFICATIONS

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|--|----------------------------------|
| Sensitivity (SPL/1m/2.83Vrms – Mean/IEC/Music) | 92.4dB/91.8dB/91.8dB |
| Impedance modulus min/max (20Hz–20kHz) | 4.2ohm @ 179Hz 50.6ohm @ 21Hz |
| Impedance phase min/max (20Hz–20kHz) | –59° @ 26Hz 42° @ 61Hz |
| Pair matching (200Hz–20kHz) | ± 0.8 dB |
| LF/HF extension (–6dB ref 200Hz/10kHz) | 43Hz / 34.2kHz/37.3kHz |
| THD 100Hz/1kHz/10kHz (for 90dB SPL/1m) | 0.3% / 0.3% / 0.3% |
| Dimensions (HWD) | 470x267x408mm |