

# B&W 803 D3

Is the most heavily revised model in B&W's new 800 Diamond Series really a slimmed-down 802 D3?  
 Review: **James Parker** Lab: **Keith Howard**

The Bowers & Wilkins 800 Diamond Series is much more than just a revamp of the previous flagship line-up, as the company is at pains to stress: in fact, very little has been carried over beyond the diamond dome tweeter diaphragm, the terminals and a few other mechanical parts. But the 803 D3, at £12,500 a pair currently the second most expensive model (until the £22,500 800 D3 arrives later this year), is the most radically altered model in the new range.

In developing this speaker, even more extensive rethinking was involved. Whereas the old 803 was a fairly conventional box-shaped floorstander, albeit one with a Nautilus tube top-mounted to house the tweeter, for the new model the company has adopted a scaled-down version of the Turbine midrange housing also seen on the 802 D3 [*HFN* Dec '15] and to come on the range-topping 800 D3. More on that 'head' in the boxout, but suffice it to say that the new model looks very different from the old.

## IMPRESSIVE HEAVYWEIGHT

That's not just due to the new head, but also new shoulders. So, in place of the conventional box – if one with curved panels – of the old model, the 803 D3 has gained the more extreme version of the curvaceous 'reverse wrap' cabinet, also used for the 802 D3. In fact, the manufacturer describes it as 'a completely new speaker', and it becomes the most compact 'headed' speaker the Worthing company has made.

Compact the 803 D3 may be, but it's neither especially small nor exactly a featherweight. Standing some 1160mm tall, it has an imposing in-room presence, but only after you have shifted its equally impressive mass into place. The speaker itself weighs 65.5kg, plus around 20kg of packing, making the process of getting

the speakers into one's home more than a little challenging. Even in my set-up, where the desired position is a relatively straight run from my front door, a fair degree of huffing and puffing was involved.

Fortunately things are a little simpler once you cut the shipping straps from the boxes, thanks to some well-thought-through packaging. The top of the box lifts off, and then two three-sided constructions can be removed to reveal the speaker sitting on a hefty platform. Remove one section of this, and install a clever ramp built into the packaging, and the 803 D3 can be coaxed down on its integral castors and then trundled into position without any more heavy lifting.

Beyond that, set-up is pretty simple: two transit bolts at the back of the Turbine head are removed (Allen key provided), allowing the head to 'float', and a disc-shaped trim panel slots into place to cover their fixings. Pull off a couple of pieces of foam

supporting the Nautilus tube atop the head, fit the supplied jumper cables to the substantial terminals (unless you're bi-wiring or bi-amping), and you're just about there.

Like the castors, the 803 D3's floor-spikes are pre-installed in the massive plinth on which the speaker stands: glorified wing-nuts allow them to be wound down, jacking the speaker up off its wheels, while a miniature 'tommy bar' is supplied to lock the spikes in place once the speaker is levelled. Both of these operations are possible without the need to tilt the speaker – which is fortunate given that the aluminium head is pretty hefty, and could make the speaker a little unwieldy with too much of a tilt – and

**RIGHT:** 803 D3 cabinet is the new 'reverse wrap' design, so structural rings mount the Aerofoil bass units to the curved front baffle, while the Turbine head and Nautilus tweeter tube are decoupled from the main enclosure

'The 803 D3s have a bass with real weight and conviction'





## GETTING AHEAD

The technology of the 803 D3 will be familiar from the larger 802 D3 model, [HFN Dec '15], but the braced aluminium 'Turbine' head is of a unique design for this speaker, being smaller and lighter than the version used further up the range – though it still weighs 11kg! And fitting the reshaped head (which is made complete with bracing as a one-piece casting) to the new speakers wasn't just a matter of fixing it in place like the old Marlan design. This head sits lower into the 'shoulders' of the main enclosure than it did on the old 802, so the first step in developing it was to take a chainsaw to one of the old cabinets, and start experimenting from there. The decision to go for a 'headed' design for the 803 D3 rather than the conventional box of the previous generation was taken purely on the grounds of elevating performance, and as in all the speakers, the midrange driver uses the company's new 'Continuum' construction. However, that wasn't the initial thinking: as Senior Product Manager Andy Kerr explains it, there was an early discussion about making a midrange using the same Diamond technology as the tweeter, 'But when the costs became clear, it was a very short discussion!'

spike cups are attached magnetically inside the plinth, for use on floors in need of protection. If you have especially thick carpets the castors can be removed, but for that you *will* need to tilt the speaker, which is definitely a two-person job.

With the speakers in place, and without the supplied grilles for the midrange and bass units fitted, you can take stock of what the 803 D3 is all about – and yes, it does look like a (slightly) scaled-down 802 D3. The principal differences are in the size of the drivers, and thus the Turbine head used to house the Continuum midrange unit. The diamond dome is the same 25mm unit used in all the 800 Series Diamond speakers, but the midrange is a 130mm unit against the 150mm in the 802 D3, and in the bass section twin 180mm Aerofoil drivers mirror the larger speaker's 200mm units.

Interestingly the claimed specs are very similar, Bowers & Wilkins stating a 90dB sensitivity for both, and giving the impedance as 8ohm nominal, 3ohm minimum [but see Lab Report, p39].



### DISAPPEARING ACT

I was able to use the 803 D3 speakers for an extended period, and on the end of a variety of systems – from the kind of equipment one might expect to combine with speakers at this level right down to very modest set-ups one might expect not to work (especially in light of the Lab Report!). Yes, they do thrive on the end of amplification able to deliver a healthy dose of power, but they're equally impressive when used with quite modest amplifiers.

I was intrigued to see that Marantz Japan has been demonstrating its new £799 miniature amplifier, the HD-AMP1, via a pair of 803 D3s (Marantz has for many years distributed Bowers & Wilkins in Japan), despite its 35W/8ohm rating, or 70W/4ohm. That tempted me to try the same thing with a sample I had to hand, and the combination proved remarkably felicitous, allowing the big speakers to develop a lucid, unforced and three-dimensional sound on the end of what was, by comparison, an almost comically tiny amp.

And that's the essence of the 803 D3s' presentation: they have bass with real weight and conviction allied to a beautifully integrated midband and treble. Above all they communicate the music to the point where the speakers disappear (at least in the aural sense).

One thing I did notice was that the review pair, even after a couple of months' use, seemed rather prone to changes in the ambient temperature. After I went away for a week, with the central heating set low, the speakers sounded rather hard and brash, but soon regained their composure when the house was allowed to return to its normal temperature.

That aside, the 803 D3s proved entirely fuss-free in use. Located well out into the room, a good metre clear of rear and side walls, they produced a superbly focused sonic picture across a wide range of music, and displayed both refinement and subtlety, along with a no shortage of the old 'boogie factor' when required.

Above all, the direct way in which these speakers communicate music ➔

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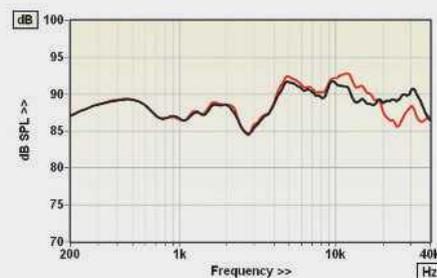
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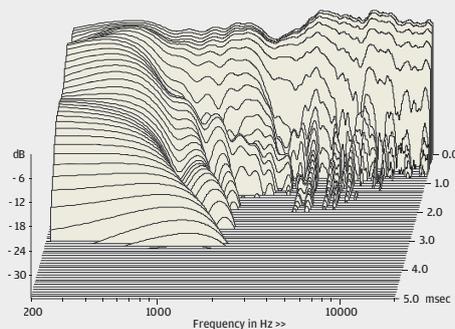
## B&W 803 D3

B&W claims 90dB sensitivity for the 803 D3 but our measured pink noise and 'music' figures of 89.1dB and 89.0dB suggest that perceived sensitivity will be a little lower. Part of the recipe for achieving this is a challenging impedance characteristic. Although B&W quotes a nominal impedance of 8ohm – at odds with its specification of a 3.0ohm minimum – this does little to convey how tough a load the 803 D3 presents. We measured a minimum modulus a little lower than specified at 2.8ohm but the real killer is the low-frequency impedance phase angle which reaches  $-75^\circ$  at 51Hz. The resulting EPDR (equivalent peak dissipation resistance) dips to a low of 1.1ohm at 82Hz, with a further dip to 1.6ohm at 900Hz. Although B&W says it used some relatively modest amplification in the course of developing the new 800 series, this result suggests that the 803 should only be partnered with amplifiers capable of driving unusually low impedances.

The forward frequency response [Graph 1, below], measured on the axis of the midrange driver, shows that the 803 D3 repeats a feature of older-generation B&Ws in having a treble that's shelved up by about 3dB. Partly as a result, response errors are unimpressive at  $\pm 3.6$  and  $\pm 4.2$ dB respectively. Because of tweeter disparities, the pair matching error is also disappointing at  $\pm 1.7$ dB over the same 200Hz-20kHz span, but falls to an impressive  $\pm 0.5$ dB below 10kHz. Bass extension proved impossible to determine because of the impracticality of accessing the downward-firing port. The CSD waterfall [Graph 2, below] shows mostly fast decay in the treble albeit with some low-level resonances above 3-4kHz. KH



ABOVE: Like some earlier B&W designs, the new 803 D3 has an emphasised presence/treble beyond 3kHz



ABOVE: Cabinet resonances are well controlled but mild midrange driver resonances are visible >4kHz

## HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83Vrms – Mean/IEC/Music)	90.1dB/89.1dB/89.0dB
Impedance modulus min/max (20Hz–20kHz)	2.8ohm @ 120Hz 32.3ohm @ 42Hz
Impedance phase min/max (20Hz–20kHz)	$-75^\circ$ @ 51Hz $45^\circ$ @ 1.5kHz
Pair matching/Resp. Error (200Hz–20kHz)	$\pm 1.7$ dB / $\pm 3.6$ dB/ $\pm 4.2$ dB
LF/HF extension ( $-6$ dB ref 200Hz/10kHz)	See text / >40kHz/22.8kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.1% / <0.1% / 0.1%
Dimensions (HWD)	1160x334x498mm



**LEFT:** Metal 'spine' is much more than a stiffener for the cabinet: the crossovers are mounted directly to it, allowing it to act as a heatsink. Jumper cables are supplied for the 4mm terminals

have a good set of pipes on him. The pattering percussion, the trippy instrumentation and of course that voice: all shine through with the 803 D3s in harness.

### JUST CARRIED ALONG

Vocal and instrumental timbres are a real strength here, though based on my brief listening to the 802 D3s I'd say these less expensive speakers deliver a more euphonic, less analytical, sound than that of their big brothers, making it hard not to be carried along by the music. Listening to Martha Argerich's 1967 recording of Chopin and Liszt piano concertos with LSO/Abbado, in DSD64 [DG Japan UCGG 9026], the speakers make an excellent job of conveying the warmth and artistry of the performance, as well as the skilful balance between soloist and orchestra, with every touch of finger on key beautifully resolved and the dynamics unrestrained.

The same ability is also apparent with the classic Bill Evans Trio's 1961 *Sunday At The Village Vanguard*, [DSD64 from Concord UCGO 9042], which is delivered with a lovely unforced live presence, against which Evans's piano, LaFaro's deft bass and Motion's restrained drumming are revealed in an entirely credible soundstage picture. It's this winning combination of smoothness and resolution that really sets the 803 D3s apart. ☺

### HI-FI NEWS VERDICT

Although the lab report makes it clear the 803 D3 is far from a shrunken 802 D3, it's hard not to conclude this is a hugely enjoyable design in its own right, despite its idiosyncratic styling and pretty hefty price hike over the last-generation 803. Of course, the extent of the re-engineering here is even more extensive than that across the rest of the new range, but the work has certainly paid off.

Sound Quality: 84%



makes them a compelling listen with everything from solo classical works all the way to charging rock.

Firing up what is now sadly Motörhead's last album, *Bad Magic* [UDR 057P18], the 803 D3s slammed out the charging full-on rock as if to challenge all those who suggested in the wake of Lemmy's passing that the band was a one-hit wonder. Here the hoarse vocals were kept in sharp focus against the powering guitar, bass and drums, the speakers' deep, fast bass ensuring 'Sympathy For The Devil' never lacked drive, and prompting a constant encouragement to crank up the level just a little bit more.

Backing things down a bit with Bowie's pre-released 'Blackstar' single [Columbia], the speakers' wide-open view of the music revealed all the layers of the epic near-10min recording. And it made it very clear that, as he approached his 69th birthday, with his illness unknown to fans, Bowie still appeared to