



The B&W 805S Loudspeakers

by Roy Gregory

B&W's Nautilus 800 Series are close to iconic status, so successful have they been in reshaping the hi-fi buying public's notion of what an expensive speaker should look like (as well as the company's profile and fortunes). But how did a company as traditional in outward appearance and reputation and as staid in styling as B&W shatter the mould so completely yet successfully? The answer of course is that whilst the mechanical aspects of their loudspeakers had always been built on a sound technological basis and extensive research, they'd been producing radical and radical-looking speaker designs for quite some time. The original Nautilus "Snail" was developed at the same Steyning research facility that took that thinking and reworked it into the 800 Series – hence the Nautilus moniker. But more than just the technology was carried over. For the first time, rather than some flagship or niche product, the bold aesthetic was applied to a mainstream product range. It wasn't just that the 800 Series used a few clever ideas (some of which we'd seen before anyway, loudspeaker design tending to the evolutionary rather than the revolutionary). The difference was that for the first time, everyday loudspeakers were wearing that technology very much on the outside, rather than tucking it away inside rectangular boxes. Whether it's the bright yellow cones or the polished, modular head units, the curved, sculptural cabinets or the "jet-tails" on the mid and treble drivers, these speakers wore their hearts very firmly on their sleeves.

History will point to the coincidence of opportunity. Curved cabinet technology of the type used in the 800 Series wasn't developed by B&W, but they were the first to popularise it.

Combine it with the dramatic visual reworking of the original 801/802 boxy head unit and one thing was for sure – like it or loathe it, nothing was ever going to be the same again. Looking back, it's easy to forget just how completely removed from the norm the Nautilus 800s were, now that even £300 speakers are boasting curved cabinets or Kevlar drivers. But aesthetically speaking, loudspeaker design was in the doldrums

and the market was ripe for just such a dramatic statement, a situation underlined by the outstanding commercial success of the B&Ws. Mind you, having all that data and a nice technological story to go with the other-worldly looks didn't hurt. I previously described the 800s as "mainstream" products, but let's not forget that they started out as the flagship range. It was the staggering sales that they achieved (numbers that even took B&W by surprise) that made them mainstream, and in doing so, virtually single-handedly rehabilitated the expensive, technologically advanced loudspeaker as an essential element in the serious hi-fi system. From here on in people actually wanted to spend money on their speakers again – but they also wanted more than simple, off-the-shelf drivers stuffed in an MDF box with a high-zoot brand name on it.

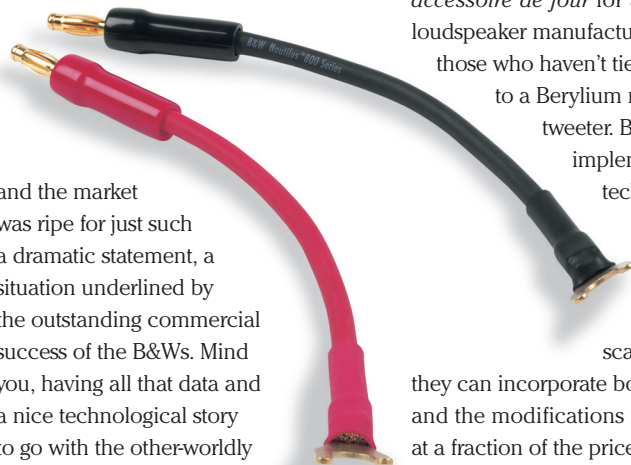
Nothing stands still, least of all fashion, and if familiarity hasn't exactly bred contempt, the longevity of the

Nautilus 800s along with a swarm of clones and imitators means that a makeover is probably overdue. That it's been delayed is as much to do with perfecting new technology as any reluctance on the part of the company. The "New Technology" in question (that would probably read NEW TECHNOLOGY if I was completely fashion conscious and on message) is of course the diamond tweeter, latest *accessoire de jour* for all serious loudspeaker manufacturers – at least those who haven't tied themselves

to a Beryllium mast or ribbon tweeter. But whilst B&W's implementation of the technology is undoubtedly impressive, and whilst economies of scale mean that

they can incorporate both the tweeter and the modifications it necessitates at a fraction of the price of the existing competition, both facts really rather miss, or at least distract from the point. There's much more to a loudspeaker, any loudspeaker, than just a fancy high-frequency driver. Which is one of the reasons why, as far as I'm concerned, the most interesting model in the new range is the 805S, one of only two models that don't have at least the option of the diamond diaphragm.

But this is more than just a case of technological bloody mindedness from a Luddite reviewer. Whilst it was impossible not to be impressed with the physical, material and technological content of the original Nautilus 800 Series, I was always less convinced by the sound, in part at least because the wide-bandwidth, three-way approach with its low sensitivity and awkward



► load characteristics jarred so violently with the lower powered amps I tend to prefer. Undoubtedly revealing, the floorstanding B&Ws tended to reveal exactly what I didn't like about the kind of amps necessary to drive them. Not really surprising then that it was

However, don't allow the lack of diamond to put you off. There's still plenty to admire about the 805S.

The first thing to appreciate is that whilst it doesn't use the diamond diaphragm, the 805S's does employ the other developments that went alongside it, most notably the new roll-surround, attached in this case to a aluminium dome. The tweeter housing itself is also now decoupled from its cosmetic

sleeve, itself far more effectively decoupled from the cabinet.

In fact, the tweeter element is disconcertingly floppy - so please don't be tempted to make use of its obvious attraction as a handhold when moving or unpacking the speakers. The other really big change is in the crossover, which is now a first-order design rather than the previous model's third-order filter. This in turn has necessitated the development of a sonically superior capacitor, for which B&W cooperated with a major German component manufacturer, and a repositioning of the tweeter itself, half a wavelength further forward so as to correct the phase relationship between the drivers*. Other, minor developments include the elimination of the phase-plug in the bass-mid driver, in favour of the slightly greater effective area offered by a conventional dust cap, and the virtual elimination of the scalloped cut-out in which the tweeter used to sit. This latter change is purely cosmetic and affords the speaker a slightly softer look, in keeping with the rest of the new range.

The end result of all these changes is surprisingly small, in numerical terms at least. Efficiency stays the same (at 88dB) and so does bandwidth, with a -3dB bottom-end of 49Hz. However, one effect of the crossover change is a new minimum impedance of 3.7 Ohms, down from the previous 4.4 Ohm value,

* First-order crossovers do not invert phase in the way that third-order ones do.

a factor which does effect amplifier choice. I used the 805Ss with amps as varied as the Bryston 9B and Tom Evans Linear A, but whilst the speaker is quite capable of dealing with the delicacy and transparency of the latter, the 30 Watts on offer never really got hold of it, and with the RADIA on loan chez CT (who seems strangely reluctant to return it) I turned to the Levinson 383 integrated, which proved an excellent match. Set-up also proved critical, with the speakers' spacing, toe-in and their distance from the back wall all having a clearly defined influence on the sound. Cabling too, proved readily audible, meaning that whilst I was perfectly happy with my normal Nordost leads, you'll certainly hear the impact of alternatives and some will undoubtedly prefer them. Stands should be 24" high and as solid and heavy as possible; I used the



always the two-way, stand-mounted N805 that I liked the most. What makes it even more interesting in this context is that unlike the rest of the range (apart from the N800) the N805 has also enjoyed a mid-life update with the introduction of the Signature model some two and a half years ago. Thus, not only does the new 805S act as a showcase for the non-diamond developments to the 800 Series, it also faces stiff sonic competition from a tweaked (and 30% more expensive) version of its immediate predecessor.

Why no diamond tweeter? Despite the economies of scale that derive from using the same unit across an entire best-selling range, incorporating it into the 805 format would have simply pushed the price too high. To justify the cost would require much more than just the fancy tweeter, and whilst such a development is clearly possible, I wouldn't go holding my breath.



Garrick stone stands which proved an ideal match. Bottom line here is simple: this speaker might be the baby in the range but it's just as demanding, revealing and critical of set-up and the driving system as the far more expensive models. Getting it right is just a case of taking the appropriate care, rather than some convoluted and obtuse rite of passage. Just don't go thinking that you can hang the 805Ss on the end of any old thing. You'll get a result all right ►

► – it just won't be the one you want.

Which makes my first conclusion concerning the 805S all the more ironic. In its latest incarnation this is a fundamentally more coherent and forgiving speaker than it ever has been. Yep... forgiving. In other words, whilst it's going to tell you all about poor equipment or poor decisions upstream, what it isn't going to do is punish you for them. Why this subtle yet important difference? It's all to do with the integration between the two drivers and the musical continuity that results. Listen to the 805S and the first thing you'll notice is that the treble doesn't draw attention to itself the way it used to in the earlier models. The detail is still there, and so is the texture, but it's happy to find its natural position in the musical landscape, rather than stepping forward and waving! This makes for less distraction but also reveals a far better top to bottom balance and greater continuity through the crossover – which is now all but inaudible.

Of course, it's tempting to rub one's chin sagely and mutter about the obvious superiority of first order filters, but that would be a mistake. It's not enough to simply employ 24dB slopes. You have to have the drivers to do it with and the crossover components too. After all, you're talking about a very gradual fade that's going to be audibly active across at least an octave at any given time; that demands impeccable out-of-band manners from your drivers and also offers the crossover components a very real opportunity to be heard. Add in the inherent simplicity (and low component count) of a first-order filter and you can't rely on one part masking another to blur or smudge stark sonic effects. B&W have done a beautiful job here, balancing all those elements and

the end results reach both up and down the range. As we've seen before, clean up and balance the top and you'll hear it at the bottom. That's exactly what's going on with the 805S. As PM put it when we discussed these little speakers, "When did they learn about timing?"



Yes, I know it's a somewhat hackneyed, even flat-ish point of

view, but it accurately reflects the improved coherence that affects every aspect of this speaker's performance.

Playing the John Coltrane Quartet's album *Ballads* (Impulse IMP 11562) the little B&Ws step away from the performers, uncovering the subtle complexity that underlies the apparent simplicity. Coltrane's sax is wonderfully breathy and intimate, the contrast of his elongated lines on 'Say It (Over and Over Again)' with McCoy Tyner's piano beautifully captured. Without the ability to sustain his notes, Tyner uses three to 'Tranes one, yet despite the inner rhythmic convolutions the pieces of the melodic jigsaw fit perfectly, counterbalanced by the understated yet perfectly placed contributions of bass and drums.

It's this ability to open a path to the inner structure of the music, to capture the character and shape of the individual elements without ripping apart the subtleties that bind them

together that makes the 805S special. It does it just as effectively on any sort of music, from Lloyd Cole to Alison Krauss, Senegalese guitarists to Shostakovich (the Berglund *Leningrad Symphony* was simply awesome). But what separates this latest 805 from earlier incarnations is the fact that it does so more readily and without drawing attention to itself.

Don't let the lack of a diamond tweeter put you off; this is a fully paid-up member of B&W's flagship 800 Series. It's also the most affordable and most accessible route into that exalted company. Of course, you could spend this sort of money (or a little more) on a pair of the latest fancy drivers. Or you could spend it on inner coherence and musical integrity. Me? I think the 805S is a honey.



TECHNICAL SPECIFICATIONS

Type:	Two-way reflex loaded loudspeaker
Drivers:	1x 25mm aluminium dome tweeter 1x 165mm woven Kevlar bass/mid
Crossover:	First-order at 4kHz
Bandwidth:	49Hz to 22kHz ± 3 dB -6dB at 42Hz and 50kHz
Efficiency:	88dB
Impedance:	8 Ohms nominal (3.7 Ohms minimum)
Dimensions (WxHxD):	238 x 418 x 351mm
Weight:	11.5kg
Finishes:	Cherry, Rosenut, Black Ash
Price:	£1650

Manufacturer:
B&W Loudspeaker Ltd
Tel. (44)(0)1903 221500
Net. www.bwspeakers.com