

# Neat Acoustics Ultimatum XL6 loudspeaker

by Alan Sircom

**N**eat Acoustic's Ultimatum range is a three-strong expression of Bob Surgeoner's distinctive take on loudspeaker design. It comprises a stand-mount Ultimatum XLS, the flagship XL10 tower, and this, the XL6 floorstander. The logic behind having three flagships instead of just the one behemoth design is simple; people don't just live in man-caves, and some of those with high-end audio aspirations do not live in similarly high-end palaces with rooms large enough to accommodate said behemoth. As the name suggests, the Ultimatum makes a bold statement; it just makes it for people in varying domestic circumstances. It's that kind of pragmatism that defines almost everything about Bob Surgeoner and, by extension, everything about Neat Acoustics too.

Unlike many modern loudspeaker firms, the accent in design is placed on ears over meters. Neat Acoustics is not a measurement-free environment, and the products rely on tried and trusted loudspeaker designs, but when it comes to the final sign-off for loudspeaker design, the way it sounds in a domestic setting takes precedence. Despite suggestions to the contrary, observation-led product design is all too rare in today's loudspeaker world, and Neat receives praise and opprobrium in equal measure from the Twittering classes as a result. Once again, though, this reflects the pragmatism of the company; given a loudspeaker spends most of its time being listened to instead of being measured, perhaps assessing how it sounds might actually prove useful! Who would have thought it? ▶



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▶ Ultimatum started life as a single design, the 150cm tall MF9 from 2001 (which spent six years on the drawing board). This was quickly joined by three more models, which eventually morphed into the XL range seen today. In the process, one of the four designs – the 120cm tall MF7 – was sidelined. The three remaining models all share many common approaches and even common parts. They all feature a pair of upward-firing 25mm EMIT planar/ribbon super-tweeters on the top-plate, they all use the same 26mm SONOMEX domed tweeter, all use the same 168mm NEAT-designed mid-bass unit with an aluminium phase plug, and they all use isobaric bass loading in the design of the birch ply enclosure. The 1m tall XL6 and the 1.5m tall XL10 use NEAT’s other 168mm driver (the one without the phase plug) for pure bass duties. The difference is the size of the enclosure dictates both the number of drive units used and, as a result, its the complexity. In the XL6, this means small sealed chambers for the supertweeter and the tweeter, a rear ported chamber for the forward firing mid-bass unit, a second (larger) ported chamber for the internal down-firing primary bass unit, and a similarly-sized sealed box for the other driver in that isobaric design, which fires out of the base of the loudspeaker. This makes the outriggers and feet mandatory and unpacking the XL6 a little more complicated than most.

Isobaric loading is relatively uncommon (in part because of the complexity of the enclosure, the need for the tightest of matching in the drivers in the isobaric chamber itself, and – as it is usually sealed – requiring a very tightly sealed inner chamber, making construction a bit ‘spendy’). Isobaric enclosures, like many designs, dates back to Olsen in the 1950s. It requires two identical ▶

▶ drivers to operate at the same time within a fixed and common body of air on one side of each diaphragm. The pressure between the cones is constant (assuming driver identicality) and the drivers are often laid out in a cone-to-magnet design (otherwise the phase of one driver needs to be inverted). The two drivers operate in tandem, effectively making a performance akin to one drive unit in twice the cabinet volume. In other words, isobaric loading effectively yields a driver with twice the moving mass, half the compliance, and half the impedance of a single bass unit, but achieving the low frequency extension afforded by a cabinet nearly twice its actual size. This can come at the expense of some non-linearity, if different air circulation properties cause the isobaric chamber to act non-symmetrically. However, outside of some pretty wild listening sessions in the rainforest in the height of summer, such non-linearities are more 'notional' than 'actual' and playing at party levels for protracted periods leaves the XL6 with distortion-free bass far more than what you might expect from a 1m tall box.

Aside from care and attention in installation (don't pick up the speaker by putting a hand under the base-plate because you'll put a finger through the bass driver, and remember there are drivers on the top of the cabinet too), the Ultimatum XL6 is perfectly behaved in typical medium-sized European living and listening rooms. The equation is simple; if you have a place smaller than 12'x16', you will probably be best with the XLS stand-mount, and if it's larger than 20'x24' then the XL10 is perfect. Between those two points ( $\pm$  a healthy amount of wiggle room), go with the XL6. Start with about half a metre from the rear wall, 60cm from the sides, and a 10°-15° toe in to begin, give the speakers a couple of hundred hours to run in and feed them good quality audio. Its 87dB efficiency and a minimum impedance of about five ohms makes the XL6 not the first choice of speaker for a single-ended triode design, but a good quality solid-state amp of about 70W or beyond should suffice. Bob has used Naim's Classic and 500 Series products to good effect with these loudspeakers, as well as designs from some like-minded brands. It's about quality, not quantity... and about rhythm, not refinement.

In a way, that sentence defining the amplifier could pithily sum up the XL6 too. The loudspeaker is one of the best I've heard going into real-world rooms owned by people who don't have a six-figure disposable income and a listening room that could hold a medium-sized orchestra. It's a tidy, open, airy, and most of all musically-entertaining sound, and one that is possessed of incredible levels of bass for a loudspeaker of its size. It feels like you have found the magic spell that lets you squeeze a quart into a pint pot in such real-world European rooms.

As you spend longer listening to the XL6, you begin to detect how some of this beautiful performance is tailored toward sounding good. At that point, you have a 'head vs heart' moment; either that tailoring will trouble you (in which case, you have probably started down a path that ends with electrostatics)... or it captivates you, and you spend the next decade or more loving music through the Ultimatum XL6. In short, although we say a demonstration is vital in audio, with the XL6 it's all but mandatory. There is no easy arbiter to say whether the XL6 leaves you speechless, or dumbfounded. I suspect, it's not even a matter of taste and certainly has little to do with musical tastes.

Speaking personally, I couldn't get enough of the XL6 performance; it didn't just rattle my musical chain, it practically bonded to my DNA. The way it portrays that upper-register openness just makes arias take flight; listening to Victoria de los Angeles sing Carmen under Beecham's deft baton on a classic EMI reissue from 1959/60 just pulls you deep into the music. But then the underpinnings hit you as you turn to something with more 'graunch'; My Bloody Valentine's *Loveless* [Creation] is not a popular audiophile choice, but that acme of shoegazing, dripping with distorted guitars, ethereal vocals, and the sheer wall of sound makes the XL6 act like a time machine.

I found myself listening more for the 'earthy truth' behind the music rather than the filigree detail, even in recordings that emphasise that information overload. Norah Jones registers a 0.9 on the Krallometer but is the closest I could get to the Full Diana. Her rendition of 'Court and Spark' on Herbie Hancock's *River: The Joni Letters* [Verve] is full of interior detail, microdynamics, spatial information, and all the other things audiophiles crave. And when I listened to it on the XL6, those things didn't matter and instead I was listening to some really talented musicians riffing on a Joni Mitchell classic. It wasn't a different track, but it fired off other parts of my brain than usual. Odd... but oddly brilliant too.

Where this speaker does hit its absolute peak, however, is the simple stuff. 'Who Knows Where The Time Goes' from Fairport Convention's 1969 *Unhalfbricking* album [Island] is hard to get wrong because it's very likely the best folk/rock track ever recorded, but that didn't prepare me for hearing it on the XL6. Sandy Denny's voice has a beguiling quality at the best of times, but here it goes beyond mesmerising. It's just you and her (and the band, most notably Richard Thompson's subtle guitar mastery) and all the artifice of the studio, the recording, and even the years themselves slip away. It's that time machine again... it's 1969, you are there

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in a studio in Chelsea. All other considerations are set aside; play that track on these speakers, and I defy you just to shake the experience off. We in audio talk about getting new blood into audio; replicate this experience and anyone in earshot got minted as an audiophile.

I'm concerned that this speaker got under my skin so much that I cannot be objective about it. But, in fact, it's that very aspect that holds the key. If it doesn't move you, move on. I'm sure if I had been in with a group of people at the same time as I played that Fairport album, there would have been those for whom it left no mark. They might be impressed by such bass depth and dynamics from a relatively small loudspeaker, but they might also find that bass goes for pace over solidity. Personally, if that has to be a trade-off, it goes in my right direction, but not all will agree. There is also a very mild dip in the upper registers, but this is mild enough to be of little actual concern unless you listen to a lot of plainsong and choral work. Similarly, those airy EMIT supertweeters in the wrong room (either too reflective or just too large) will make the soundstage seem diffuse and vague, instead of spacious and direct. And yes, there will be those who find those EMITs make a perfect observation post for the feline neighbourhood watch.

In truth, I had to stretch for these observations, because the Neat Acoustics Ultimatum XL6 had penetrated deep into my musical psyche. To call up these observations seems like a betrayal, or agreeing with someone who tells you your child 'is a bit ugly'. That's how far the bonding process goes with the Neat XL6. If the same intensity of emotional connection with the music happens to you through a pair of loudspeakers, I'm pretty sure you would have the same atavistic reaction. I can fully get the notion that not everyone will share the same experience and that many will prefer a different presentation. And I can't help feeling that the Neat's presentation has to be suited to making music sound good, rather than some sterile 'hi-fi' concept. But, maybe that's just what good speakers do! +

## TECHNICAL SPECIFICATIONS

**Type:** Multi-chamber, multi-driver array, incorporating isobaric internal cavity, plus upward firing super-tweeters

**HF Unit:** 1x26mm SONOMEX Domed XL

**Super HF Units:** 2x EMIT 25mm planar/ribbon

**Bass / Midrange:** 1x168mm NEATBass/ Mid Unit with Aluminium Phase Plug

**Bass Units:** 2x 168mm NEAT Bass Units

**Sensitivity:** 87db/1 watt

**Recommended amplifier power:** 25–200 watts

**Impedance:** 8 ohms average / Minimum 5 ohms

**Finishes:** Oak, Black Oak, Walnut, Figured Birch (standard), Piano Black, Velvet Cloud, Red Velvet Cloud (High Gloss)

**Dimensions (hwd):** 100 × 22 × 37cm

**Weight:** 34Kg each

**Price:** £9,750 per pair (£1,460 extra for high gloss finish)

**Manufactured by:** Neat Acoustics Ltd.

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