

Onward And Upward...

Elac's 4Pi Plus.2 super-tweeters

by Roy Gregory

As a long-term fan of high-frequency extension, the flurry of super-tweeter designs occasioned by the arrival of SACD was one fashion of which I thoroughly approved. Of course, as a designer you can get the same result by simply extending the response of your standard high-frequency transducer – hence the simultaneous (re-)emergence of high-tech diaphragm materials like beryllium and diamond. However, those of us at the other end of the supply chain who already own expensive speakers* making replacement a costly and impractical option. For us, the add-on super-tweeter is a far more sensible alternative. But, start playing with the various offerings and you quickly discover two immutable laws:

- Not all super-tweeters are created equal.
- They work best when balancing (or balanced against) similarly extended low-frequencies, a situation in which their benefits are multiplied exponentially.

What this means in practical terms is that the super-tweeter's natural partner is the sub-woofer, a truth that becomes clear as soon as you use the two in tandem, the high-frequency extension sharpening bass clarity and timing, the low-frequencies adding air and space to proceedings. It's a fascinating inversion of expectation and I've lost count of the number of demonstrations I've conducted for experienced

listeners that have left them in an initial state of slack-jawed incomprehension until they get their heads round which bit of the system is contributing what.

Having said that, like any after-market addition, integrating a super-tweeter and sub into a system is the key to realising their benefits. Indeed, as a friend of mine is fond of saying "Integration isn't the most important thing, it's the ONLY thing". Which brings us to the vexed question of the Nola Pegasus speaker system reviewed elsewhere in this issue. I'll get to a detailed discussion regarding my investigation of super-tweeting this design in the context of other tweaks to its already outstanding performance, but suffice to say, as a long-term user of the Townshend Maximum super-tweeters, the sight of that substantial sub-bass arrangement teamed with a conventional alloy domed tweeter set my antennae twitching. Sure enough, experiments with the Maximums revealed significant improvements but also the impracticality of their application. Basically, they ended up perched on shelves, beside the Nola's flying baffle, their supports constructed from a stack of VPI bricks and CD jewel cases. Ugly and unsafe, I also shudder to think what effect this block of material was having on the rear-dispersion of the di-polar mid and treble drivers! The search was on for a more practical alternative, the happy impetus that led me to the Elac 4Pi Plus.2, a superb and snappily (not!) named device from the German masters of all things weird and generally wonderful when it comes to top-end technology – in frequency terms at least.

What initially attracted me to the expensive but exquisitely presented Elacs was their basic format. A substantial, mushroom shaped cast construction, the omnidirectional output of their horizontal ring ribbon transducer meant that not only could I stand them on the rear of the Nola cabinet, well behind the flying baffle, but that their dispersion would more nearly match the di-polar output of the main speaker. Larger than you'd expect from illustrations, and much heavier at around 4Kg each, the Elacs immediately inspired confidence, while even a quick and dirty set-up demonstrated their potential; this was going to work! It's so nice when a plan comes together.

Of course, the onerous task of integrating them properly still beckoned, but biting the bullet I plunged straight in. Imagine then my surprise when the calibration of the beautifully positive rotary controls positioned to the 4Pi's rear proved to be spot on. Every other super-tweeter I've tried has been a case of suck it and see, generally using the level control near the lower end of its range and the roll-in to taste. The danger lies in playing them too loud, which results in an etched and mechanical quality, a risk exacerbated by the uninitiated looking for effects at the top as opposed to the bottom-end of the range.

With the Elacs placed as far back on the cabinets as possible (giving them an unobstructed view of the listener, phase was checked before settling down to the all-critical setting of level via the five-pole switch. If I was concerned by the apparent ►

*It doesn't matter what they cost, if they're as much as you can afford that makes them expensive.

► course-ness of this control, I needn't have worried. Stepping from 84 to 92dB output level in 2dB increments, its performance seemed to be calibrated perfectly. Set initially at the 88db (or ± 0) setting to match the Pegasus, it slotted straight in, with adjustments in either direction obviously destructive to the overall effect. Chalk one up to German engineering. That only left the choice of 10, 12 or 15kHz activation, with once again, the middle figure providing the best balance.



Of course, this experience only encompasses a single, distinctly exotic speaker system, but additional investigation with the Living-Voice OBX-R2 (in tandem with a Velodyne sub) demonstrated similarly predictable and easy set-up. The flat footprint and substantial weight of the Elacs makes them perfectly at home sat atop a conventional cabinet. They are also beautifully finished in a sensibly neutral slate grey, which means that once you get

used to the slightly Dan Dare looks (which I rather like) they look a lot less like an add-on than the much smaller Maximums.

They also sound better too.

In both cases the Elacs provided superior results to the Townshends (as they should at around twice the price). Transparency and image placement were both improved, while the tonality and harmonics of mid and high-frequencies were both significantly better.

Percussion detail was more natural, the nature of the instrument more apparent. But it was the texture and tonality in the lower-mid and bass that really impressed, with much greater definition and detail readily apparent. Dynamic speed, precision and substance were all improved along with the shape and duration of individual notes, making dynamic contrasts more emphatic and musically effective. This increase in presence extended across the entire range, brass in particular gaining body and

a satisfyingly realistic rip to its tone. Overall timing was also improved, with musical phrasing making more sense. The 4Pi brought a relaxed sense of natural flow to proceedings that allowed vocals to breathe, while the natural pace of the intricate and varied guitar work on Steve Dawson's new solo album *Sweet Is The Anchor* was meltingly seductive. Never have

his sublime harmonies with Diane Christensen sounded quite as telepathically connected, the chemistry as breathtakingly fragile.

This Elac super-tweeter extends the performance available from existing speaker systems in a significant and musically important way. High-frequency extension is no optional tweak – it's a musical necessity, making your system more natural and more naturally communicative. It brings an effortless quality to the pace of a performance, fast or slow, that simply sounds right. Yes, you need to take care when it comes to integration and overall balance, but the 4Pi makes these aspects of installation significantly easier and more predictable than other super-tweeters I've used, as well as out-performing them sonically and musically.

I've long hankered after a pair of the legendary Sequerra Metronome ribbon super-tweeters which flitted through my fingers in the late '80s. Well – no more; the Elacs have come, seen and conquered, at least as far as this listener is concerned. ►+

Price: £1300/pr

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