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FOCAL SUPRA 1 LOUDSPEAKERS

Focal Sopra No. 1 standmount loudspeaker

by Chris Binns

As a company that started off primarily producing drive units for OEM use by other manufacturers, Focal have always had a flair for research and innovation that has resulted in some interesting technological advances and solutions within its range of loudspeakers. The Sopra No. 1 would at first glance offer nothing that has not been seen before within the more recent Focal range; it is a straightforward compact two way system, using the now-familiar beryllium tweeter and a single 165mm bass-mid unit utilising the 'W' sandwich cone in a line up similar to the Diablo Utopia, to which it bears a family resemblance. However, this is not Utopia-lite; Sopra represents the culmination of independent R&D and Focal decided that the results are significant enough to merit the introduction of a new range, comprising two models that sit between the current Electra and Utopia range.

Arriving in what would appear to be two very oversized boxes, the Sopra No. 1's come complete with a pair of stands. These require bolting together and consist of a single column with a top plate on which the speaker can sit (with supplied small rubber feet), or screw in to the underside for greater stability. The base incorporates decent spikes with easy adjustment from the top, and can be retracted fully to enable the structure to be easily positioned before engaging the spikes into the carpet. This well thought out approach made setting up the Sopra No. 1's very easy.

Not that there was a lot of messing about; the Sopra No. 1's sounded really ▶



“The Sopra No.1 maintained complete composure by delivering a lively, fast, and detailed midband that was very open.”

► cleverly disguising a limited extension by never giving you a clue as to when it might run out, and with weight and authority when the music required it. As a self confessed bass head in another life (and someone who has spent too much time trying to engineer bass out of small boxes) the Focal's never seemed to try too hard at this, succeeding without effort or drawing attention to themselves. A friend and session bass player staying for the weekend provided the opportunity to indulge in a little bit of nostalgia by playing quite a lot of 1970's music: some embarrassing prog through to more sociably acceptable soul and funk, with plenty in between. All had one thing in common, by today's standards they were well recorded and produced. The Sopra's (particularly when driven by the 300DR) seemed to thrive on this diet whether fed from a Tangerine Karmen Linn or DCS Rossini front end, setting a wonderful sense of pace backed by solid dynamics usually laid down by kick drum and bass guitar. This was maintained at levels from late night suburban quiet through to antisocially loud; even very bass heavy recordings of the Massive Attack variety did not seem to stress the Focal's too much.

If only to satisfy my curiosity, I substituted the Focal stands with a pair of Linn Sara open frame and relatively lightweight designs. I'm not going to suggest that the difference was night and day, but a slight 'thickening' or bloom that I had noticed in the upper bass was now all but banished, while the mid range sounded more open, tactile, and cleaner. To be fair (and typically I didn't read the manual), it could be that the main column of the Sopra stand would benefit from some kind of filling, but I would be very tempted to experiment with rigid low mass stands in view of what I heard.

It could be argued that one of the shortcomings of a two-way design is that the main driver has to deliver the most crucial information and integrate with the tweeter while thrashing around trying to reproduce bass. The Sopra No. 1 maintained complete composure by delivering a lively, fast, and detailed midband that was very open and clean. Transition to high frequencies was virtually seamless, the newly engineered beryllium unit delivering some of the most tactile, believable treble I've heard from a moving coil design.

But dissecting the performance of the Sopra No. 1 is actually doing it a disservice, and doesn't even hint at its greatest asset: a tremendous sense of coherence where nothing stands out, or for that matter gets in the way. This is where on a musical level it proved to be quite addictive to listen to, whether pulling you in with a great sense of timing, or engaging one's emotions with the sheer intimacy of a voice or an instrument. Being relatively small, after careful positioning the music was projected into a well-defined and spacious image, with the speakers all but disappearing with the right recording, and conjuring impressive dynamics from thin air. Under these circumstances, it was easy to find myself playing whole albums rather than individual tracks, and rather than sticking within familiar territory, venturing into music that I might have

TECHNICAL SPECIFICATIONS

Type: Two-way bass-reflex bookshelf loudspeaker

Speaker drivers: 25mm inverted beryllium dome tweeter, 165mm "W" bass midrange cone driver

Frequency response: 45Hz-40kHz ±3dB

Low frequency point: 41Hz (-6dB)

Nominal impedance: 8 ohms

Minimum impedance: 3.9 ohms

Crossover frequency: 2.2kHz

Recommended amplifier power: 25-150W

Finishes: Black, White, Red, Orange, and Walnut veneer

Dimensions (HxWxD): 43x28x40cm

Weight: 19kg (stand 18.5kg)

Price: £6,599 per pair

Manufactured by: Focal

URL: www.focal.com

Tel: +44(0)845 660 2860

dismissed previously, which I think is always a healthy indication that the system is getting out of the way.

It seems to me that there is often a gulf between what are generally accepted as the parameters for a 'good' loudspeaker and the slightly mysterious factors that go to make a great one. It's all a bit elusive, despite all the wondrous technology we have. I kind of like the idea that there is still an element of magic (for want of a better expression) in designing a product that should be part of a process that can stir the soul. But maybe Focal has just shattered that illusion; the extensive research they have put into the Sopra has resulted in a loudspeaker that raises the bar in a number of significant areas, but the real achievement is in the applied balance of virtues that allows music to transcend the mechanics of hi-fi reproduction. That's what makes a good speaker great. +



▶ The cabinet is quite heavy and feels extremely rigid. It is built predominately from MDF with a 69mm front panel and gently curved sides to eliminate parallel surfaces; apparently there is some interior resonance control in the form of small Helmholtz resonators to further reduce cabinet influence. A small rectangular port at the rear serves to load the bass unit. Also at the rear is the much larger opening for the back of the tweeter, covered by a metal grille that, together with the protective plate at the front, might usefully be removed. I'm guessing that some kind of new legislation has meant that Focal now have to cover the beryllium diaphragm due to potential health hazards: in my opinion the risk of damage or poisoning is outweighed by the benefit of letting the unit breathe. Connection is via a single pair of solid 4mm/binding posts: personally, I'm glad to see the back of the bi-wiring trend as I was rarely convinced of its superiority.

Aesthetically, Focal speakers have always been striking and the Sopra is no exception. I have to admit that to begin with I wasn't entirely convinced by the aesthetics, but the looks grew on me, and I would far

rather have something that is a bit of a visual statement than the tired, drab 'domestically acceptable' veneer. The review pair came finished in a white lacquer; a number of other bright colours are available and I'd personally be drawn to the black or red. As for the stands, I really appreciate how practical they are with setting up, but I'm reserving judgement on their looks.

For longer than I care to remember I've had a certain empathy for the Focal sound: years ago, I used to use their drive units in construction projects for studio monitors at a time when the original inverted dome tweeter (then made of Kevlar) was still a bit of a novelty. The introduction of beryllium resulted in what I felt was one of the best moving coil high frequency units around. I used a pair of Micro Utopia Be's at home for quite a while and reviewed some of the more ambitious members of the Utopia range. If I had to assign a character to those first generation of W cone/beryllium speakers I would describe them as quite warm and generous; recent Focal models that I have heard erred toward a slightly brighter, leaner presentation. The Sopra to my ears sounds very neutral, and while I've heard a number of moving coil designs specifically engineered for low colouration and distortion that sound bland, lifeless, and totally uninvolved, the Sopra No. 1 is definitely not one of them.

While the considerable advantages of small loudspeakers have been well documented over the years, for some there is always the inevitable caveat of limited performance at the bottom end, whether we are talking extension or just the ability to generate satisfying levels of grunt when required. The generally preferred positioning for loudspeakers in my listening room is at the juncture of two distinct spaces, and tends to offer a little bit of reinforcement at low frequencies similar to wall placement, but not as profound and without any of the compromises. As such it often serves smaller designs well. The Sopra No. 1's were immediately impressive in the way they drove the room, ▶



“A new circuit has been designed using two neodymium magnets and a critically positioned Faraday ring for improved linearity.”

► promising from the start, even before I had begun to think about the all important details of positioning and fine tuning. While no one would deny the importance of this process, I’m always encouraged when a product grabs your attention straight out of the box, and for once I was inclined to believe that they had been run in before arriving for review. Fed from a Naim 300DR, an amp whose abilities continue to make my jaw drop, there was an assured ‘rightness’ to the sound that had me figuring I was going to enjoy these speakers, although at this early stage if questioned I would have found it difficult to articulate exactly why.

A closer look at the Sopra range does reveal a few clues to some of the latest research carried out by the design team, however the aforementioned white paper suggests that quite a lot of the development is hidden from view. Focal is not alone in identifying the importance of somehow dealing with the rear radiation produced by

the tweeter diaphragm, and in this instance, rather than absorbing the energy within a closed space, a progressively damped cavity and horn arrangement exits to the outside world at the rear. This not only provides a degree of loading to the diaphragm, but also achieves the desired absorption using less space than a sealed chamber. This leaves more cabinet volume available for the bass driver, an important requirement in a speaker of this size. In the process, this has had the effect of reducing distortion by up to thirty percent, principally at the lower end of the tweeter’s range and the crucial crossover point where the ear is particularly sensitive.

The bass-mid driver has benefited from two distinct areas of research. A new circuit has been designed using two neodymium magnets and a critically positioned Faraday ring for improved linearity and lower distortion, and the cone surround has been the subject of much investigation. In order to reproduce bass frequencies, the cone has to be capable of long excursion and the surround suitably flexible to achieve this. Unfortunately as a result it will tend to add unwanted colouration out of phase with the main diaphragm at higher frequencies. The solution Focal has come up with after much analysis is to add some additional mass in the form of two circular rings that oscillate out of phase with the rest of the surround to cancel out much of the unwanted vibration. It’s worth mentioning at this stage that having total control over every aspect of the fabrication of the diaphragm has enabled Focal to precisely match these components to achieve greater bandwidth and dynamic response, I believe the cone is considerably lighter than previous generations. ►