

The Motivator

NEAT'S MOTIVE SX2 IS ONE OF THE PRETTIEST AND MOST DISCREET SPEAKERS AROUND. PAUL MESSENGER CHECKS IT OUT.

“That open and incisive top end was immediately obvious when these speakers were connected onto the end of my regular system. It ensures superior fine detail, as well as a superior openness and transparency”

Neat Acoustics is situated near Barnard Castle in County Durham. It's one of Britain's smaller speaker companies, but has also been around for at least 25 years, so it must be doing plenty of things right. Its compact floorstanding *Motive* models were first introduced nearly a decade ago, so this *SX* update is arguably somewhat overdue. Neat might not have been the first company to introduce an ultra-compact floorstander (an accolade that probably belongs to Royd's *Minstrel*, recently revived as a *Troubadour*), but the concept makes considerable sense on a number of grounds, creating a speaker that looks exceedingly discreet, saves the cost of stands, and incidentally also avoids the need for such ironmongery in the lounge.

The £1,395 *Motive SX2* would seem to fit that particular bill admirably, standing just 76.5cm tall and leaning back a few degrees in a very unthreatening manner (while additionally helping to make the voice-coil-to-listener distance from each driver roughly the same). It's actually one of four *Motive SX* models, the others comprising a centre-front dialogue model, a stand-mount, and a slightly taller *SX1* which has an extra main driver just used to reinforce the bass. In the interests of domestic harmony, however, the *SX2* could well turn out to be the perfect speaker. It has at least the potential to sound very good, yet it does so within a physical package that's far more acceptable than most current stereotypes.

The overall packaging might be somewhat unusual, but in outline terms it's a simple and conventional enough two-way speaker. Being a floorstander, the enclosure is significantly larger than most speakers that use a relatively small bass/mid driver, even though the top part of the enclosure (the section behind the tweeter) is blanked off by a shelf.

A second shelf is situated below the main drive unit, and on this occasion it's well perforated, and may have several functions. In the first place it will certainly help brace the enclosure, but it may also explain the well damped bass resonances seen in the impedance trace, and possibly damp the vertical enclosure mode too.

A major function of course is that it will allow airflow through to the port that's located through

the base and plinth here. Indeed, the speaker is actually delivered with the spikes already fitted – along with a very visible warning to advise the unwary unpacking the speakers – in order to make certain that the plinth is lifted clear of the ground and therefore that the port works properly. The plinth itself is also a permanent fixture, and is a reassuringly solid MDF affair, with a wide groove pointing from the port towards the front.

In something like BBC fashion, the inside of the enclosure is treated, first with a bituminous lining and then a centimetre or two of squishy plastic foam, the former to damp the enclosure walls and the latter to absorb some of the back radiation from the main driver, and standing waves within the enclosure.

The main driver here has a pressed steel frame and a paper cone just 90mm diameter. The tweeter has a 25mm inverted dome metal diaphragm, somewhat reminiscent of the Focal tweeters that Neat used to use in the days when Focal was prepared to sell raw drivers to other speaker makers. Since the latter's change in policy, Neat has had to look elsewhere, but still favours the inverted dome approach, with its twin potential advantages of both improving the time alignment and the use of a relatively small voice-coil (which has lower inductance and mass, and hence greater treble extension). The *SXT* tweeter fitted to these models is claimed to offer some worthwhile improvements over the pre-*SX Motive* models, partly because it uses a black-anodised aluminium dome in place of the previous titanium diaphragm.

A single pair of high quality terminals is mounted through a metal plate fitted fairly low down on the rear, which presumably houses the crossover network. The spikes are fitted with knurled nuts for finger-tightening, so at least there's no danger of over-tightening here (though do check that they remain tight from time to time).

Measurements

Although I have tried one of the earlier Neat *Motive* models, that was the larger *Motive 1* with the extra bass-only drive unit. Regrettably therefore no direct comparison between the measurements of the old and new models is possible. The sensitivity

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is close to the specified 86dB, though my far-field in-room average traces would have actually added a decibel and gone for 87dB. Whichever, it's certainly adequate enough, especially as the impedance is a notably benign amplifier load that stays comfortably above 6ohms throughout. A slight 'glitch' may be seen at around 250Hz, possibly a minor surround anti-resonance.

The port here is tuned to around 42Hz, so in-room extension is well maintained to around 27Hz (-6dB). However, under our conditions, and despite carefully locating the speakers well clear of walls, the bass region tends to be dominated by a +5dB peak at around 50Hz, partly no doubt as the result of a major room mode: the bass might be somewhat uneven, though its averaged level looks pretty good. There's also some loss of output in the core midrange, 220-650Hz, which is likely to reduce the impression of 'body' in the sound. However, a major strength of this speaker is seen in its smooth, flat and extended top end, which holds within ± 2 dB even under in-room conditions, all the way up from 1.5kHz to above 20kHz.

Sound Quality

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As predicted, there is some lack of 'body' in the SX2's sound, but one does adjust quite quickly, and if anything this makes one that much more aware of the top end delicacy and detail. Cabinet coloration is unquestionably low here, indicating that the elaborate damping of the cabinet walls is effective, and although the bottom end is a little lacking in both smoothness and weight, it is also impressively agile and light on its feet.

However, this SX2 could be accused of being a little too lightweight for its own good under our listening conditions. The bottom end certainly errs on the dry side, to the point where those partial to a bit of welly, as well as enthusiastic bass guitar aficionados, might do better checking out the larger SX1 model with its extra bass driver. Although I did enjoy its fine detailing and sweet, open top end, I'm definitely inclined to suggest that this SX2 model is probably rather better suited to somewhat smaller rooms than the 4.3x2.6x5.5m affair I normally use for loudspeaker reviewing.

Conclusions

The Neat *Motive SX2* is certainly one of the cutest and most discreet stereo speakers on the market, and that fact alone is bound to guarantee significant sales. It sounds pretty good, especially at the top end where the new tweeter delivers a smooth, delicate and transparent sound with plenty of detail, but there's also some evidence that the speaker might well sound a little too dry in large rooms, and may therefore work rather better in smaller rooms. Recommendation with that proviso in mind would therefore seem appropriate, while also noting that this little speaker is continuing to improve and demonstrate increased transparency, even as I'm writing this.

Manufacturer's Specifications

Type	2-way reflex-loaded
Impedance	8ohms
Sensitivity	86dB/W
Bandwidth	35Hz - 30kHz
Footprint (WxD)	220/260mm
Finishes	natural oak, american walnut, black oak and satin white (others to order)
Size (HxWxD)	765x160x200mm
Weight	11Kg
Price (pair)	£1,395



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