



Paradigm Seismic 110 + Perfect Bass Kit 1

I'm fast becoming a subwoofer junkie. In our previous issue, I reported on my encounter with a sub I dubbed 'The Beast', because the 40 kg-plus SVS SB13 Ultra wasn't only big and heavy, but threatened to cause a mini-earthquake in our listening studio.

However, it added a level of tactile, bone-trembling realism to the movie experience that made me reconsider my relative indifference to subwoofers. Yes, I've always acknowledged their importance in approximating the big-screen movie experience at home – but the SVS reminded me how important that role actually is.

So, here we have another subwoofer – but this one attacks the problem of creating big, vision-blurring bass in a home theatre from a slightly different angle. For starters, the Paradigm Seismic 110 is compact, even by compact subwoofer standards.

Secondly, it eschews the usual boxy shape for a left-of-centre, rounded enclosure. You get the sense that the designers did their best to make the enclosure as compact as possible, while also achieving a certain visual distinction that is aesthetically pleasing.

Paradigm doesn't say much about the Seismic 110's actual enclosure, but it feels robust, inert and well damped, all of which augurs well for the purpose-designed drive unit. At 254 mm, the high-excursion driver is generous if not exactly gigantic – but don't be fooled, there's more to it than meets the eye.

The cone material is a mineral-filled, co-polymer polypropylene with a ribbed underside to combat resonance. The corrugated, inverted surround employs a thermoplastic material called Santoprene, which allows the extended excursion and stability demanded of the driver in this application, but is more durable than rubber.

Particularly noteworthy is the 38 mm



split voice coil construction, which features oppositely wound turns on each coil to eliminate non-linearity. The coils are long winding-width designs to allow up to 50 mm of linear excursion. A dual-spider suspension with Nomex spiders also ensures stability, even during extreme excursion.

A triple-magnet assembly delivers a symmetrical magnetic force field while minimising inductive distortion. The die-cast aluminium chassis addresses flexing and ringing, while its shallow basket design contributes to the driver's overall compact form factor.

Providing the power for the drive unit is a so-called Ultra-Class D switch-mode amp, rated at 1,7 kW peak power, with a continuous, sustained output of 850 watts RMS. The amp uses a compact power transformer and a switched-mode power supply featuring MOSFET transistors and advance control circuitry.

All of this makes for impressive reading, and indeed, using the Seismic 110 as is, while relying on the LFE management of the AV receiver, already translates into a subwoofer delivery that is best described as visceral.

But what really sets the Seismic 110

apart from the rest is the optional Perfect Bass Kit – an active room correction system that uses a microphone and proprietary ARC-2 software to accurately measure the room's acoustic characteristics, and then adapts the delivery of the subwoofer for optimum results.

The system is closely related to sister company Anthem's room correction system and uses the same combination of USB microphone (supplied complete with stand) and Windows-based software. The microphone is positioned in predetermined locations, and measures test tone sequences delivered by the software.

The software then calculates an equalisation curve that defines the room's acoustic anomalies, and adapts the Seismic 110's output accordingly. The results are quite astounding, with a delivery that significantly improves on the sub's pre-optimisation performance – which, as I mentioned, is already impressive.

The Paradigm was linked to a Marantz SR-5011 AV receiver (reviewed elsewhere in this issue), with our Oppo BDP-95EU universal deck as a source. Visuals were provided by an Optoma HD-80 projector.

Subs have to produce real, low-down, wall-trembling low frequencies – the kind of bass that loosens fillings, cracks plaster and warps door frames. But they also have to deliver that bass with absolute control and pace – you need to hear and experience every facet, every impact, every explosion with succinct, emphatic accuracy.

In other words, it's not the quantity of bass, but the intensity and the accuracy of its delivery – the precision of the way it moves the air – that sets truly talented subs apart from the also-rans.

Usually, that entails a huge driver, a huge box and a huge amp. However, this Paradigm sub proves that compact size and big, impactful sound can go hand in hand.

From a sonic perspective, the sometimes surreal, sometimes downright silly *Deadpool*

is a great test of surround sound imaging, effects steering and, yes, LFE impact. The car chase sequence early on in the movie, with its slo-mo effects, motorcycle stunts, multiple crashes and gut-ripping gunfire, is visually vivid.

But it became utterly engrossing with the Seismic 110's assistance. I'm not sure that I wanted to feel as if I had become part of the action, but that's what happened!

The sub's penchant for precision and impact wasn't reserved for movie effects only, though. It was equally impressive when imparting live music recordings with some real bottom-end foundation.

Leonard Cohen's *Songs From The Road* isn't exactly hard rock, but the lucidly recorded set benefited significantly from that extra low-frequency energy and zest, particularly because of the sub's ability to subtly and precisely add vital bottom-end urge without dominating the sonic proceedings.

Not too many subs have that ability to deliver a tactile killer punch one moment, and gently, almost imperceptibly, fill in some low-frequency detail the next – but it's a magic curtain trick the Seismic pulls off every time.

The sub's huge power reserves, and its penchant for absolute pistonic precision are obviously key contributors here. But it's the PBK active equalisation that is the Seismic 110's true secret weapon, and that elevates it from admirable to absolutely great.

Be warned: once you've heard it in action, you'll want it!

Deon Schoeman



VITAL STATS

Enclosure type.....	Sealed
Drive unit	254 mm mineral-filled co-polymer propylene cone driver, forward-firing
Inputs	Stereo RCA, single XLR
Amplifier rating.....	1,7 kW RMS peak
Low-pass filter range ...	35 Hz – 150 Hz
Low-frequency extension	18 Hz
Controls	Level, phase, low-pass cut-off
Dimensions (HxWxD)	343 x 138 x 126 mm
Weight	16,8 kg

Verdict

The impossible made possible: compact form factor meets giant-killing bass performance. PBK and an exceptionally engineered drive unit are the secrets of success here.

Price R27 995

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OUR RATING: 90/100

