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# Stax SRS-5100 electrostatic headphone system

by Alan Sircom

Unfortunately, this review got off to a bad start. You see, this was supposed to be a review of a system sporting the new Stax SR-L700, the SR-009-derived new electrostatic 'earspeaker'. But that was 'Damaged In Transit'. Of course, when you actually saw the damage to the SR-L700, you started to wonder precisely where 'In Transit' – ISIS-held Iraq, perhaps? Regardless, the box of parts and shrapnel that used to be a very nice electrostatic headphone system was clearly not going to work, and a replacement wasn't available in time, so the new entry-level SRS-5100 system, comprising a set of SR-L500 earspeakers with matching SRM-353X energiser, was provided as an alternative.

This is the First Stax moment. The SRS-5100 undercuts practically everything made by the company to date. Both products combine to represent the first step into the world of electrostatic 'earspeaker' performance: you would struggle to get cheaper without ploughing through older second-hand equipment (or the rare, battery-powered portable model from the brand), and it gives you more than just a taste of what electrostats can do. And, on balance, I'd rather have a pair of these than a well-used set of older Lambda models or a 'beater' energiser from decades ago. In short, this duo is the gateway drug to a cleaner world of audio.

Where the L700 draws its inspiration (and a lot of its technology) from the SR-009 flagship, the SR-L500 is in essence a highly evolved SR-507, itself a 21st Century development of the SR Lambda. The apple hasn't fallen far from the tree, however. The main changes between the SR-507 and SR-L500 are a redesigned outer housing (this hasn't changed since the original model back 36 years ago), the angle of the transducer has been revised, and the original cable has been replaced with new HIFC cables.

With something as well developed as the Lambda design, changing things is often tampering with things, so subtle evolution is a good thing. Which is why Stax is keeping the hand-selected thin-film diaphragm from the SR-507, but subtly changing the arc assembly it sits in. This is a more rigid, 10 click 'fit and forget' headband system that allows

greater precision of set-up than its predecessor. It also stays in place far more than the older model. Similarly, the new artificial leather pads were designed to be more flexible than their predecessors, and the wider cable is said to lower the capacitance between each conductor strand compared to older models. The redesign also means the SR-L500 comes in at £200 less than the SR-507 model, and the fate of the older SR-507 seems sealed as a result.

The SR-L500 is joined by the new entry SRM-353X energiser. Naturally, as an entry point, the SRM-353X eschews more expensive aspects of modern audiophile design like valve-based output stages (and especially custom cryo-treated 'Kimik' modifications). Instead, we get a good, solid, dual-FET-based amplifier circuit, albeit one that seems intent on acting like a valve design, even to the point of the R&D team concentrating on the emitter follower at the output stage – which is said to improve dynamic range, tonality, and fine detail. The energiser is also a pure Class A design that is direct coupled and thus completely free from coupling capacitors in the signal path. The valve-like nature of the design – and the use of valves in the more up-market energisers – isn't anything to do with those quirky Stax guys; it's because the nature of an electrostatic earspeaker requires a high-voltage amplifier to drive it properly.

The SRM-353X couldn't be more straightforward as an energiser, though. There is just one input (notionally it has the option of XLR and RCA input, but you cannot easily switch between the two, so it's best considering this a one-input amp). There is a power socket, two outputs for Stax models, a volume control (which has a ganged knob for use as a balance control), and a power button. This is the very model of 'no frills' audio, and the whole SRS-5100 system has a purposeful, 'just the facts' air to it.

As mentioned before, this Stax combination is a fine place to make a first step into the electrostatic waters (that sounds potentially lethal; it wasn't supposed to). Treat it as a complete package, rather than separates – the SR-L500 is an ideal replacement for lost or damaged SR-507s and the SRM-353X applies the same criteria to older lower-priced energisers. Do



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- ▶ not treat it like stepping-stones to bigger and better Stax earspeakers. The SR-L500 doesn't have the resolving power to really highlight what better energisers are capable of, and the SRM-353X will quickly show its limitations when partnered with more upmarket new earspeakers from the brand. But used as a complete package and they sing together well.

This system is – perhaps understandably – more reminiscent of SR-507-based systems than SR-009, in particular, in the way it creates a rich and invitingly lush presentation. It still retains that Stax signature midrange clarity and detail retrieval, but presents this in a less strongly lit manner. How you perceive this is whether you are looking down from the top of Mount Stax or looking up from base camp. Stax aficionados will find this performance retains much the characteristics of the Stax sound (with the 007/507 presentation rather than that of the 009), just with less focus, resolution, and pin-sharp detail. On the other hand, if this is your first venture into electrostatic earspeakers, you'll be impressed by the sheer amount of information on offer here that you won't hear anywhere else (or at least 'anywhere else for less than twice the price'). And now that the price of admission has fallen, many more people will be able to afford to fall under the Stax spell. And they will fall hard.

Why? Because the L500s are comfortable (the new headband makes them feel extremely light on the head), and because they are tonally right. Models like the HD800 might have the edge in overall resolution, but the L500 is the more beguiling and balanced to sit in front of for long periods – and with the new lower price of the Stax, such comparisons are no longer academic. They will succeed because they are likely people's first experience of electrostatic earspeakers and will wow people with the way that they sound. They will be popular because they are extremely keenly priced. And, above all, they will do well because they sound pretty good.

We need to make that distinction between those used to Stax and those looking to make their first ever Stax purchase. The Stax sound is all about ultimate detail retrieval, and it's a heady wine. One that is hard to give up. As a consequence, many in the Stax fraternity are well versed in the company's products (they likely have no other headphones, except relatively inexpensive ones for commuting and exercise) and would see a doubling of price as relatively trivial set against the

benefits a more resolving, more detailed system can bring. If you are new to this, you will not be able to equate the absolute resolution you hear from the SRS-5100 with the claims that it sounds 'muddy' compared to the SR-009. Myopia from only using Stax can do that, and this system is in fact more detailed and more open sounding than anything you will have experienced prior to the Stax system.

Pick your first piece of music carefully then, because it is a life-changer. Play something acoustic, orchestral, choral, or similar to really get the benefit. Or, if you are into it, Nelson Riddle-era Sinatra. Adjust the headband for the best fit, play the track... and get someone to photograph your blissed out face in the first few seconds. OK, if all your music is death metal, you will probably want something more dynamic and capable of playing louder (they go loud, just not 'hard rock' loud). For my part, I reached for Placido Domingo singing 'Una Furtiva Lagrima' from Donizetti's 'L'Elisir D'Amore' [*Opera-Gala*, DG], with all its scale and bombast, and Domingo's voice in fine, mid-1990s form. It didn't sound like sound, it was the guy singing, with an orchestra behind him. And yes, my wife caught site of my gormless, blissed out look and snapped away. Stax can do that for you, when you expect it or not, and now more people get the chance to enjoy their Stax moment.

Relatively recently, I checked the SR-507 in the context of a more upmarket energiser. A lot of water has passed under the bridge since then, and the two systems are not entirely comparable, but from (distant) memory, the new SR-L500 does have the edge when it comes to projecting a wide soundstage. Not overblown or excessively expansive, just 'wider' than before. The principle description of any comparison here though would likely be 'if it ain't broke, don't fix it!' – the SR-507 and the SR-Lambda before it set a benchmark for high performance electrostatic 'earspeaker' sound at a great price, and the SR-L500 continues in that vein. Better still, it actually undercuts its predecessor by quite a wide margin, and only improves the sound as a result. The words 'win' and 'win' spring to mind.

In a way, the joy of the SRS-5100 system is its easy compatibility. A pair of SR-009 can be hard to handle, in that they need the best possible energiser, the finest music sources, and an excellent DAC to show what they are made of. They are demanding and relatively uncompromising. The SRS-5100 ▶

*“You are not forced into spending more on these things by the unyielding nature of the system because it’s pretty good at yielding.”*

► is none of those things, and the SR-L500 in particular doesn’t require special care and feeding. OK, so serve up a thin gruel of compressed pop from YouTube (Meghan Trainor’s monster hit ‘All About That Bass’ on the YouTube Vevo channel is noticable for having not enough bass and too much treble), and you’ll get a thin gruel in return, but within reason the SRS-5100 system’s detail doesn’t make itself so noticeable that it undermines the sound quality. Similarly, this is the kind of energiser and ear-speaker that is perfectly happy with being driven by a low cost, albeit good DAC (I used an AudioQuest Dragonfly Black with generic mini-jack-phonon connector and it sounded perfectly fine). You get what you put into the mix, and the more care and attention you spend on source material and DAC, the better. But you are not forced into spending more on these things by the unyielding nature of the system because it’s pretty good at yielding. That all being said, there is also more potential to be had from this system, although the price of admission is rather high in context.

Adding in the Questyle CMA800P Golden (tested elsewhere in this issue) as a kind of pre-preamp, ‘diming’ the volume control of the energiser in the process, made a significant difference, as did driving it from the CAS192D DAC from the same test. This gave the system a more authoritative sense of gain, and structure of gain in a musical context. This raised the game of the whole system; still not to SR-009 levels, but showed that there is more to be had from the SRS-5100 system if you try to play with it carefully. In fairness, I doubt many will go down this path, not least because every other link in this chain costs more than the SRS-5100 system. But it’s more to show there is more to extract from the sound than you might expect from this Stax entry point.

The Stax SRS-5100 system is likely to be overlooked by some, because the SR-L700 is gaining all the attention as the 009-lite. And, in fairness, even with the excellent value the SRS-5100 represents proving hard to ignore, I still want to hear just what the L700 is capable of. It might not be capable of withstanding the packing grenades of couriers, but it might just be the most important ear-speaker Stax has ever made. Or maybe not: maybe this system at its new point of entry for this kind of headphone system will be the most important Stax ever made, due to it reaching new customers. Regardless, for Stax newcomers this comes very highly recommended! +

## TECHNICAL SPECIFICATIONS

### SR-L500

**Type:** push-pull electrostatic, oval sound element, rear open-air type ear-speaker  
**Frequency response:** 7 – 41,000Hz

**Electrostatic capacitance:** 110pF (including attached cable)

**Impedance:** 145k $\Omega$  (including attached cable, at 10kHz)

**Sound pressure sensitivity:** 101dB / input 100Vr.m.s. / 1kHz

**Maximum sound pressure level:** 118dB / 400Hz

**Bias voltage:** 580V DC

**Ear pad:** high-quality artificial leather

**Cable:** parallel 6-strand, 2.5m full length, low-capacity special wide HiFC cable  
 Weight : 465g (including attached cable), 339g (without cable)

**Price:** £545

### SRM-353X

**Type:** energiser/amplifier for electrostatic headphone  
**Frequency response:** DC – 90kHz (when used with one of the SR-L series Ear-speaker)

**Rated input level:** 100mV (at 100V output)

**Gain:** 60dB

**Harmonic distortion:** 0.01% or less (with one SR-L500 at 100Vr.m.s. / 1kHz output)

**Input impedance:** 50k $\Omega$ (RCA) / 50k $\Omega$  x 2 (XLR)

**Input terminal:** RCA x 1 or XLR x 1 (alternative)

**Maximum output voltage:** 400Vr.m.s. / 1kHz

**Standard bias voltage:** DC580V

**Dimensions (WxDxH):** 15x36x10cm

**Weight:** 3kg

**Price:** £895

**SRS-5100 system price:** £1,395

**Manufactured by:** Stax

**URL:** [www.stax.co.jp](http://www.stax.co.jp)

**Distributed in the UK by:** Symmetry

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