



Living With Motion

“Will Electromotions suit my system, home, life?” Noel Keywood lives with Martin Logan’s budget electrostatic loudspeakers to find out.

Our review of the Martin Logan Electromotion ESL loudspeaker, October 2011 issue, captured a lot of interest and continues to do so on our website. The chance of paying just £2500 for a hybrid electrostatic appeals to many people. In our review Alvin Gold succinctly captured the basic sound and strengths of the Electromotions, but the queries we receive about them concern matching, into the lounge, to the amplifier and such like. So I’ve been living with a pair to find out how they fare in everyday use.

For ‘everyday use’ I put the Electromotions into a hard working AV system in my lounge, driven by a Marantz SR8002 AV receiver. I wasn’t picky about positioning: they had to fit in, be run from a transistor amplifier and take everything thrown at them, including being used to carry TV and Blu-ray sound. They did also

spend time in a stereo system in another room, driven by my World Audio Design 300B valve amplifier, and they blossomed in this role, but for the most part I treated the Electromotions as everyday working loudspeakers to see what issues arose.

The Electromotions fitted my lounge surprisingly well. Although tall at 1.36m, their width of just 24cms limited visual intrusion and they sat either side of a 5ft wide chimney breast as if designed to be there. They are deep, rear cable protrusion making depth 46cms in all, but as the chimney breast is 37cms deep a lot of this was lost if the speakers were pushed against the wall. This position didn't do much for imaging but it removed the speakers from usable floor space yet retained their basic properties and strengths.

Because the electrostatic panel fires sound backwards as well as forwards, a close rear wall is not ideal but rear curtains or sound absorbing acoustic panels, such as

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the StudioSpares Grey acoustic panel (£25 each, see www.studio-spare.com) can be used to suppress a lot of reflected sound. I chose a compromise, placing the electrostatic panel forward of the rear wall by 80 cms, well over half a wavelength of their lowest frequency (400Hz/42cms), and used a pair of rear acoustic panels that stand up against the wall.

This put the speakers 5ft apart, either side of a Samsung HD LED TV on the chimney breast. The black see-through metal grilles of the 'speakers' suited the TV's modern minimalism well, better than box loudspeakers; they appeared made for each other.

The Electromotions HD sound fully complemented the TV's clear HD picture I felt; the height of their stereo image even matched the height of the TV, for which I'm high floorstanders are a little low I've found. Being so high, the Electromotions produce a celestial sound stage from which singers sang

down at me – impressive.

We said in the original review the Electromotions have a 'lean' balance. Bass is clean and firm, but unintrusive.

The Electromotion is held above the floor on short feet, not spikes. The bass unit is reflex loaded by a port that fires downward.



This is not a bass heavy loudspeaker, and that's why it could be placed close to a rear wall, without inducing boominess. I feel electrostatics are best driven by a valve amplifier and the Electromotions sounded gorgeous with my WAD 300B, its

full bass complementing their lean nature, whilst the electrostatic panel revealed how silky and spacious 300B triodes are,

The story was a bit different on the Marantz receiver, which is clean and fast – but solid-state. The sense of air and space a valve amp brings was lost and the panel's strong output right up to 20kHz highlighted the receiver's incisive nature.

All the same, there was extraordinary revelation and hair trigger speed to fine events, made dramatic by stereo imaging few loudspeakers are able to approach. Watching Jeremy Clarkson and his crew drive three super-cars through America's South, little event details in the sound track like a hand drum being struck at far left, jumped out.

On speech intelligibility the Electromotions manage a score of 110%; I could hear absolutely every word and nuance with a sense of dry, forensic clarity. I say "110%"

because the Electromotions actually over do it a little, because of some slight midrange lift. I heard everything, but there isn't a lot of warmth or body to the sound.

You may not want to hear everything Clarkson says, but the 'speakers also brought deep analysis to the Dolby stereo sound track, complementing the TV's own bright, sharp rendition of a well produced programme. The BBC are now putting effort into video and audio quality, so although stereo is rare and surround-sound almost mythical, the pictures look good on current HD TVs and the sound track, much of it comprising dubbed-in music, the Electromotions showed to be of very good quality.

This was even more apparent with the sound track behind Professor Brian Cox, also in the southern U.S.A (Wonders of Life, BBC HD). The twanging strings of a guitar jumped at me with a finely honed sense of speed and precision that was attention grabbing.

Centre stage imaging was so good a Centre channel loudspeaker was not necessary, but Martin Logan make the EM-C2 for this purpose. They also make EM-FX2 as matching Surround speakers.

HD TV was made dramatic by the Electromotions. Their sense of lightning speed and razor sharp imaging you won't find elsewhere,



A pair of spring loaded terminals grip bare wires or, with a push, 4mm banana plugs. Power for the XStat panel plugs into a small socket.

except from ribbons. But ribbons have a fraction of the working range of this panel, so you miss out on the Electromotion's utterly breathtaking midband clarity.

Because the bass/midrange unit lacks prominence I was rarely aware of its contribution and this suited me. With Fleetwood Mac in 24/96 though bass was firm, fast and very supple. As Martin Logans get more expensive bass increases in prominence and panel dispersion improves too, but I was happy with the Electromotions in these areas. They perfectly matched settee / ear height, but if a moved down or stood up, the sound lost its high treble. The same happened if I walked around, but this doesn't worry me as I am not concentrating on listening when moving around. The more expensive XStat panels have better dispersion I recall, albeit at greater cost.

The Electromotions are sensitive so they don't need the power full-range electrostatic panels demand; around 40 Watts will do fine. As we said in the original review their low impedance of 1 Ohm at 20kHz – a feature of most electrostatics – is only a problem if you play music with a lot of treble really loud. Then, amplifier protection circuits may trip, or worse, depending upon the design of the amplifier. The speakers didn't make the Marantz protection relays even murmur, but then I don't play very loud. Nor do I play compressed MP3s that can also be troublesome because they contain strong treble.

Out of interest, I put 2.2 Ohm resistors in series with each loudspeaker to raise minimum impedance closer to a more common 4 Ohm value but this dulled upper treble strongly (-10dB at 20kHz), as expected because of falling impedance, resulting in a dark and lacklustre sound, even though the speakers still measured flat to 8kHz. Although series resistors also affect electrical damping, bass quality changed little in practice, because acoustic damping is strong.

So there are no quick fixes to low impedance, but it is unlikely to be a problem unless you turn up the wick using a low power transistor amplifier.

Quality wise, these 'speakers demand the best there is from

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amplifiers and a valve amplifier of good quality suits fine. Older transistor amplifiers – the one you've owned for ten years or bought from eBay – won't suddenly shine. Quite the reverse, their groggy midband and crude treble, ably disguised by a box loudspeaker, will suddenly be revealed. Electrostatics peer right



The front grill hides an 8in doped fibre cone bass unit.

into everything, so as I listened to those HD TV programmes, I was made aware of changing environments the microphones were detecting and could tell, without looking, when Brian Cox walked into a shed that he'd done so from the reverberation. These are horribly insightful loudspeakers, like no other, that don't flatter mediocre transistor amplifiers by pulling their limitations out into the open. The pay back is that when you get it right they are a breathtaking audio experience, like no other. A good modern amplifier costing £1000-£2000 will suit.

It isn't just amplifiers they find wanting, CDs suffered too. Fleetwood Mac's 'Monday Morning' sounded horribly coarse, shaky and dated;

no wonder we all disliked CD; the Electromotions showed me why. Jumping up and putting on Rumours, in 24/96 on DVD-A, had Dreams sounding stable and clear in front of me, the sound stage elevated and images solid, stable and free of ambiguity. The Electromotions made dramatic the difference between early CD and high resolution digital.

Classical music fared no better. Teldec digital recordings made in the 1990s of Wagner shrieked, but switching to a recent 24/192 of Percy Grainger playing Greig's Piano Concerto, from 2L on Norway, again brought in a solid and stable quality, the performance wrought large across the end of my lounge.

With these loudspeakers you hear everything, warts and all, painted up on a big, wide sound stage between the loudspeakers. Their extended treble helps highlight digital nasties, spotlighting old recordings in rude fashion. The absence of crossover between drive units makes for a very even, consistent sound free from phase problems.

Using Electromotion ESLs in my lounge for a few weeks reminded me how dramatic electrostatics can be. I've only owned Quads in the past. For some reason, I have never taken home KingSound or Martin Logan electrostatics, both of which I really like. Now, having found how living-room friendly Martin Logans are, how they make HD TV sound dramatic and how ruthlessly revealing they are, especially to poor digital, I am more than impressed. They may not be perfect – the light tonal balance won't appeal to everyone – but otherwise there's little to argue against here; for £2500 this is an amazing loudspeaker, way ahead of most others at the price. Living with Electromotions is a good thing to do, I'd say!

MARTIN LOGAN ESL
hybrid electrostatic loudspeaker £2500

Absolute Sounds
www.absolutesounds.co.uk