VINYL NEWS AND REVIEWS SECTION SEE PAGE 82

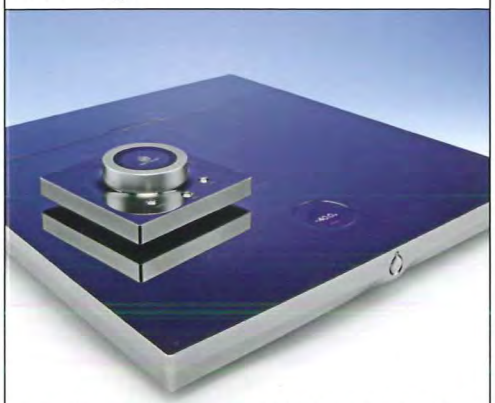
HI-FI WORLD

OCTOBER 2017 UK £4.50 www.hi-fiworld.co.uk

FREE READER CLASSIFIED ADS IN THIS ISSUE!

QUADRAL MERIN
loudspeakers

GOLDRING E SERIES EXCLUSIVE!
cartridges



DEVIALET EXPERT 220 PRO
amplifier

COMPETITION

WIN A PAIR OF POLK SIGNATURE S15 LOUDSPEAKERS WORTH £399! (UK ONLY)

EXCLUSIVE!

MARTIN LOGAN CLASSIC ESL 9
loudspeakers

OCTOBER 2017

LEHMANN DRACHENFELS HEADPHONE AMPLIFIER EXCLUSIVE!
DYNAUDIO EXCITE X38 LOUDSPEAKERS
CALIFORNIA AUDIO SHOW FEATURE
NAD C368 DIGITAL DAC AMPLIFIER

ROHDE&SCHWARZ MEASUREMENT

7 PAGES OF LETTERS - THE BEST WINS A PAIR OF QUADRAL RHODIUM 200 LOUDSPEAKERS! (UK ONLY)

A True Classic

Noel Keywood thinks Martin Logan's Classic ESL 9 electrostatics could just be one of the best loudspeakers you'll ever hear.

What Martin Logan's new Classic ESL 9 loudspeaker offers is a large version of the company's fabulous XStat electrostatic panel, atop a passive bass cabinet of some sophistication. This is a big hybrid then with acoustic muscle behind it – but it is pure. The sound you get comes from your amplifier, be it transistor or valve, not from an anonymous Class D slave amp driving the bass units.

This is fine by me. And I presume it is why Martin Logan append the term Classic. Their bigger hybrids use active bass bins making them bigger, heavier and less under user control, sonically speaking, in the important lower midband; we're thinking 'pure' here, not powered. It's a configuration that resonates better with me because we use high quality amplifiers able to drive electrostatics – and the Classic ESL 9s without Class D slave amps in the way better revealed the qualities of our drive amplifiers. They also sound more cohesive being driven by one amplifier, rather than a Class D and something that may sound quite different, such as a valve amp via the XStat panel.

The Classic sits just above the ESL-X that we use as in-house references. Replacing one with the other was a

surprise – they look little different but don't sound it. I have grown used to the ESL-X as a revealing review tool and a wonderful experience, so I was a bit taken aback that the Classic ESL 9 is an obvious step up in terms of acoustic punch; seemingly a small size increase has produced a disproportionately large quality increase.

This 'speaker offers a big electrostatic experience – the feature that struck me immediately when first listening – from an assembly little visually larger than the ESL-Xs. Early on I jumped up, grabbed a tape measure and found the XStat panel has been subtly increased in area by making it a tad wider (9.2in). It still looks tall and slim, but it has gained extra acoustic power without having the overwhelming visual presence of models such as the Renaissance ESL 15A I reviewed in our July 2016 issue.

So the new ESL 9 Classic is a further subtle re-working of the Martin Logan approach to making an electrostatic that fits the home – but one also aimed more toward purists than those who crave high power bass. Having said that, the bass bin is bigger and more ambitious in design, as I will explain later.

That, I hope, gets this new loudspeaker into context. If you are intrigued but uncertain about its see-through XStat electrostatic panel, it uses a sheet of thin Mylar film (think Clingfilm) sandwiched between perforated panels that carry a high electrostatic charge. They are insulated – so the cat is safe.

Music is applied to the sheet of film at thousands of volts after being stepped up by an internal transformer and this causes it to vibrate, producing sound. It's an unusual and somewhat esoteric drive system – but it works wonderfully, giving superb clarity and insight, no colouration and minimal distortion.

When Peter Walker of Quad unveiled the first practicable working electrostatic in 1957 Gilbert Briggs of Wharfedale said he and other manufacturers "agreed to change into black and meet at the workhouse". The electrostatic could do things other loudspeakers just could not do and they feared for their futures.

Luckily for Quad's rivals, it also had problems that limited usage, namely it couldn't go very loud, produced weak bass and was insensitive so needed power. It also came as a big, oblong panel likened to a radiator.

Martin Logan have overcome these problems, whilst also teasing far more out of the basic electrostatic drive unit by using advanced materials and clever design techniques. In particular the see-through appearance – sound travels out unobstructed. The Classic ESL 9 offers a large XStat panel of 405 square inches area that gives it plenty of acoustic push. It is a single drive unit with smooth output that covers the audio band from 20kHz all the way down to 400Hz, eliminating the phase issues of conventional multi-way loudspeakers.

The lower cabinet works from 400Hz downward. Martin Logan ease the sonic transition between 'sluggish' box bass cabinet and fast electrostatic panel – something that afflicts hybrids – by having a two-part bass chamber.

A forward firing 8in bass unit with aluminium cone is tuned to well match the XStat electrostatic panel above for 'speed'.

The front bass unit uses an 8in aluminium cone driver in a sealed enclosure to give a fast sound, measurement showing it works down to 60Hz only, to avoid high cone excursion and associated distortion. So the front firing 'bass unit' has been optimised to match the XStat panel, but this doesn't include the sharp change in radiating pattern between box bass and open baffle electrostatic.

The rear facing bass unit is an altogether different beast. It sits in a reflex ported chamber and peaks around 60Hz to add a bit of speed to bass, whilst the port outputs lower frequencies down to a very low 20Hz. The cabinet is able to produce subsonics then – if not with any great force from an 8in unit except in long-ish rooms (18ft) that have a main mode around 30Hz that will amplify low bass through resonance.

The Classic ESL 9 has a much stronger XStat panel support frame than the ESL-X – and I don't recall seeing a frame like it on earlier models. It uses thick, rigid vertical aluminium bars, tied together at top by a similar cross-piece. The result is a very rigid frame with clean-cut outlines and a sharp appearance. I also suspect it improved sound from the XStat panel. The Classic ESL 9 was well built and finished all-round in fact, giving it a quality feel.

Electrostatic panels have to be powered, so they need a mains connection. This one comes with external wall-wart power supplies, one for each loudspeaker. Each has a slim, black power lead 300cms long that plugs into the loudspeaker, feeding it 15V at 0.4A. This is stepped up internally to provide a high voltage charge to the outer, insulated stators.

Amplifier connection is via bi-wire terminals with removable mono-wire links. This allows the XStat panel to be split from the bass unit for those who wish to use separate cables from the amplifier (bi-wire) or possibly separate amplifiers for bass and treble. For sonic coherence they should be identical amplifiers, since this is a loudspeaker that reveals amplifier differences rather more than most.

The subject of amplifiers – and of hi-fi systems in general – crops up with the Classic ESL 9. A big electrostatic panel like this puts a large value (2µF) capacitor across the output terminals of an amplifier, impedance drops to 2 Ohms or so above 10kHz, drawing strong current. Crossover distortion rises, typically causing transistor amps to sound 'hard' and suffer glare, made worse by the electrostatic's revealing nature. Amplifier choice is critical and many big transistor power amps just don't suit, turning hard and clattery, even coarse.

Quad's big power amplifiers are purposed for electrostatics and work

well but I used the 2 Ohm output terminal of our McIntosh MC152, also purposed for electrostatics. Valve amplifiers are the best match and as always I did most of my listening through our Icon Audio Stereo 30SE that, being single-ended, lacks crossover distortion and shrugs off electrostatics as a difficult load.

SOUND QUALITY

The sources I used were hi-res digital from an Astell&Kern AK120 player optically linked to an Oppo BDP-105D player acting as a DAC as well as CD from this player via the same internal ESS Sabre32 DAC. The Oppo fed a McIntosh MC152 power amplifier direct (no preamp) or similarly an Icon Audio Stereo 30SE single-ended valve amplifier.

I also span LP from our Timestep Evo modified Technics SL-1210 Mk2 turntable fitted with SME309 arm and both Ortofon A95 and Cadenza Bronze moving coil pickup cartridges, working through an Icon Audio PS3 all-valve phono stage.

Generalising, the big panels of the Classic ESL 9 sounded obviously 'brighter' than those of our ESL-X loudspeakers – and that's because they radiate more sound power due to larger area. Martin Logan's XStat panels get more challenging as they get bigger – and these are big, make no mistake about it, at 5ft tall. You get more 'push' though, and I noticed straightaway stronger dynamics from the Classic ESL 9 than most else. I suspect the rigid XStat frames help here as the sound was tighter and better defined than the little-smaller ESL-X and – by any standard – brutally revealing. You would have to hear a Classic ESL9 before buying it as it buries all else for revelation and because it lacks the warmth of a box loudspeaker by nature of its big, open electrostatic panel. The ESL-X is gentler! In a nutshell then, the Classic ESL 9 is vastly revealing but powerfully pushy.

The one-piece XStat panel has no phase changes to upset violin and this was very evident with Nigel Kennedy playing 'Massenet's Meditation' (CD) where his instrument took big, clear form high up in front of me having a wholeness and solidity you don't hear from multi-way speakers. Imaging from electrostatics is always pin sharp but the Classic ESL 9s were not only sharp in outline but solid in centre stage form too.

The only effect that caught

The rear 8in aluminium cone bass unit works in a chamber loaded by a slot-port at floor level. Bi-wiring is possible. A small d.c. power input and blue LED are sited here too.

me here was that as bowed cellos produced lows the image moved downward a bit at left and right, something I had not noticed before. But then I had not noticed a gently plucked acoustic bass either – but I did here because the forward firing bass unit integrates well and has excellent resolution in itself.

As always, Martin Logan's see-through XStat panel has a crystalline clarity about it – completely devoid of colour or overhang that little else can match. It teased out every fine detail in Nigel's performance to a degree where I held my breath. This loudspeaker is a riveting, dramatic listen.

The new bass cabinet integrates well with the XStat panel. For the most part I was little aware of differences between the two, largely because the box possesses little colour or boom, coming over as dry and tight – an important factor. These speakers don't have the conspicuous bass of the powered models – instead showing better subjective integration whilst also reflecting the qualities of a good drive amplifier.

Interesting then that with bass-heavy material like Lady GaGa's 'Bad Romance' and 'Monster' (CD) the low frequencies sounded tight and controlled even through our Icon Audio Stereo 30SE, whilst McIntosh's MC152 was exemplary. However, with this CD the XStat panel dominated; bass was powerful but came from low down and was a lesser part of the song than I am used to. The Classic ESL 9's giant panel throws out so much power it dominates and can sound overwhelming – but not always.

My view changed completely moments later when I turned to the Astell&Kern AK120 portable and played Fleetwood Mac's Dreams (24/96 from analogue master tape). Now, suddenly, all was in balance. Mick Fleetwood's kick drum had power and punch, bass was speedy yet controlled. The performance was seemingly better integrated in itself, leaving me wondering whether I was hearing digital production problems in Lady GaGa's music that box loudspeakers mask. Source quality becomes a big issue with these 'speakers – sometimes a discon-certing one.

Underlining this was my discovery of some midband hardness – a small amount of glare – to the 24/96 Fleetwood Mac files from their LP Rumours. I have never heard this before. Puzzled, it took our best all-analogue LPs to convince me this had nothing to do with the big XStat panels, but was a quality of the digital Rumours files derived from analogue master tape. In other words, I was now hearing problems of the transfer to digital, perhaps limitations in the analogue-to-digital convertor (ADC) used by the studio.

All of which is to note that the Classic ESL 9s are wonderful for reviewers like me or perhaps studio producers who want to hear every fine nuance and detail – but they can be a brutally revealing sonic experience if the source material is less than perfect.

However, when I played Neil Young's re-mastered (all analogue) After the Goldrush LP, or Mark Knopfler's Kill To Get Crimson, also all-analogue I believe, these 'speakers delivered a sound that stood head and shoulders above all else. As a 5ft high line source they set up a huge sonic canvas with smoothly

cohesive yet sharply-defined images, have a sense of see-through clarity you cannot get from box loudspeaker, and mine detail like it was gold. Little comes close. This is a loudspeaker for the arch enthusiast, or professional.

That these LPs sounded so good is no coincidence because both artists are known for their production standards; their LPs well reflect this. In my experience there is plenty of good vinyl around nowadays and no shortage of music to play; top quality CDs such as our high dynamic range Dali music sampler discs also span well through the Martin Logans, but over-produced and upwardly compressed Rock didn't fare so well.

Strong aluminium side bars support the electrostatic panel, their strength and rigidity adding to the loudspeaker's dynamic punch.

CONCLUSION

The Classic ESL9s are arguably the best loudspeaker I have ever heard, frightening me at times. They were also challenging, even by Martin Logan standards, when playing poor recordings.

A thoroughbred all the same, tuned to a high state of ability, these are loudspeakers worth hearing. They offer a sound far different to most else. Stunning is the word that summarises them. I walked away dazed but in no way confused as to their abilities.

JON MYLES WRITES...

Like other Martin Logans, the ESL 9s need acclimatising to when moving from traditional box and cone loudspeakers.

The presentation is radically different – but in the best possible way. Midrange and treble especially float free of the panels and project into the room with a lifelike presence that few other loudspeakers can match.

With Sinead O'Connor's 'Nothing Compares 2 U' the range and vocal inflections are laid bare in a way that makes the hair on the back of your neck stand up. If anything, this new model sounds a little sharper in the higher registers than other Martin Logans I've heard – but not so much as to be unduly harsh. Instead it's evidenced in a little more bite to the leading edges of notes.

Driving them with the exceptionally open Devialet Expert Pro 220 accentuated this and the ideal match proved to be an Icon Audio Stereo 30SE valve amplifier with its slightly lusher sound bringing out the best in the Martin Logans.

The new bass cabinet is also better integrated with the electrostatic panel above, bringing a healthy dose of low-end power but crucially being speedy enough to marry with the clarity of the midband and treble.

Playing my favourite test track of James Blake's 'Limit To Your Love' – with its deep bass overlaid by a simple piano melody and plaintive vocals – showed just what these Martin Logans can bring to a song. The bass thundered but never dragged, while the piano sounded full-bodied and totally realistic. Even pushed hard the 'speakers remained composed throughout where other more traditional box models might start to complain.

Put simply, the ESL 9s are a rare treat and one you should make the effort to hear.

MEASURED PERFORMANCE

Frequency response of the Classic ESL 9 Classic smooth but steadily falling output across the audio band. In a conventional (box) loudspeaker with dome tweeter this would give a warm sound balance, but the large-area 9.2in wide XStat electrostatic panel produces far more high frequency sound power than a small-area dome tweeter, so this roll-off is subjectively necessary to balance out the 'speaker, to prevent it sounding bright. It will not sound mild or warm in spite of what the response seems to suggest.

The XStat panel offers smooth output over a wide range of forward heights and angles, avoiding the beaming and phase cancellations flat panels suffer. It gives a consistent tonal balance to listeners moving around a room, or seated off-axis, and also covers a very wide frequency range of 400Hz up to 20kHz.

The bass cabinet extends output from 400Hz down to 25Hz. The front and back drivers work in-phase to give a normal monopole radiation pattern. The front driver in its own sealed enclosure handles the lower midband and upper bass only, working from 400Hz down to 70Hz.

The rear drive unit extends output from 70Hz down to 25Hz, mostly through the slot port. Subsonics are possible but their power will be limited, since the rear drive unit, chamber and port are relatively small, equivalent to a stand-mount loudspeaker in volume terms.

Our third-octave response of pink noise shows low frequency output is strong down to 100Hz and peaks by +5dB below 100Hz, suggesting the 'speaker has prominent bass. However, in use it does not; the big XStat panel generates so much acoustic power at high frequencies because of its massive radiating area that the two balance subjectively.

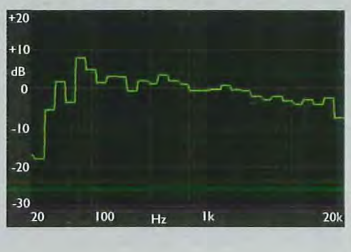
Sensitivity was high at 88dB from one nominal Watt (2.8V) of input, so amplifiers of 40 Watts or more will deliver high volume.

Our impedance analysis shows a resistive characteristic across most of the audio band, including the bass region where most loudspeakers peak and become reactive. The ESL9's smooth impedance aids bass current delivery, improving bass quality. As always with electrostatics though, impedance falls to a very low 1 Ohm at 20kHz, which may be a problem for some amplifiers when playing music with strong treble very loud.

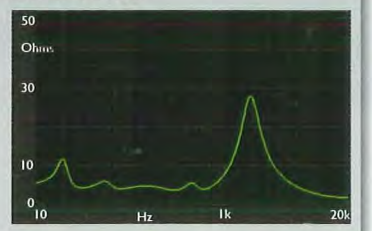
The Classic ESL 9 measures well in all areas. Its big electrostatic panel has smooth output across the audio band from 400Hz up to 20kHz but has been tailored not to overpower at high frequencies. The bass cabinet works down to a low 25Hz, for deep bass. Being sensitive as well, low power amplifiers of 40W suit. Measurement shows superb design and effective execution all round.

NK

FREQUENCY RESPONSE



IMPEDANCE



MARTIN LOGAN CLASSIC ESL 9

£7,998

OUTSTANDING - amongst the best

VERDICT

Arguably one of the finest loudspeakers available, but brutally revealing.

FOR

- massive insight and clarity
- strong bass
- huge sound stage

AGAINST

- large
- box bass
- needs mains power

Absolute Sounds
+44 (0)20 89713909
www.absolutesounds.com