

# Speed Trap

**So fast they are dangerously good. Acoustic Energy AE309 loudspeakers impress Noel Keywood.**

**A**s their name suggests Acoustic Energy produce loudspeakers that sound fast and punchy. Add this quality to a floorstander that brings scale and you have the AE309 floor stander I'm reviewing here, price around £1000.

The '309 is a conventional design standing 900mm high, 175mm wide and 280mm deep. Going to move one for test I was initially puzzled by its dead weight that obviously was low down, wondering whether it was mass loaded. There – sure enough – was a plastic stopper at the rear just above the base, sealing a loading port. In the past, with Mission loudspeakers and my own designs, I have used dried silver sand, available in packs from builders merchants, for mass loading – and very effective it is too. You get a sound with more focus and dynamic punch, for relatively little cost and effort. The downside is weight – a problem when shipping. Surprisingly Acoustic Energy don't make this a user option, the AE309 comes already loaded – hence a weight of 22kgs. It sits on spikes for stability.

To deliver a fast sound Acoustic Energy use a light but stiff ceramic coated aluminium sandwich cone in their drive units, of which there are three in a two-and-a-half way design. This means it's a conventional two-way comprising 150mm bass/mid-range unit crossing over at 2.6kHz to a 25mm (1in) aluminium dome tweeter, bass being augmented by a third driver (this is the half bit) that they say works up to 300Hz. So there are three drive units on the front baffle, and a slot port on the rear baffle, at top, that provides cone damping and low bass output as usual.

The cabinet is internally braced and felt solid and well damped when rapped with a knuckle, but the walnut veneer finish of our review samples wasn't especially attractive I felt – I initially





**Veneered all round, a slot reflex port at top and a mass loading port at bottom.**

thought it was an artificial veneer. Oh sad. But it is well applied for a smooth edge finish and full coverage, including the rear panel. There are gloss black and white finish alternatives.

The connecting panel has two terminals, so bi-wiring is not on offer. As usual connection is via 4mm banana plugs, spade terminals or bare wires.

## SOUND QUALITY

Acoustic Energy loudspeakers have a particular sound, the one that made them popular in the first place. That "first place" was long ago when metal cones ruled and speed was the name of the game, especially in the bass. The company keep a tight rein on their sound and I've always been impressed at how well they have both maintained and developed it. I drove the 'speakers from the Vincent SV-237MK reviewed in this issue and a Creek Evolution 100A, fed by an Oppo UDP-205D Universal player spinning CD and delivering hi-res files from an Astell&Kern AK120 portable

player connected optically.

Whilst the AE309s measure like many other well engineered loudspeakers they still hit me with a startlingly vivid presentation of Josefine Cronholm singing In Your Wild Garden (CD). What I got here was an expanded sense of dynamic range in the subjective sense of a rush from nothing to a singer powerful in front of me, every vocal inflection made startlingly obvious. The clarity, speed and dynamic contrast of this loudspeaker was as good as it gets – and impressive. Their sound is viscerally gripping and a totem of hi-fi: listen to them and I guarantee you will be wowed by their delivery – a notch above most else.

Bass was clean and tuneful in character with Loreena McKennit's Gates of Istanbul (uncompressed CD). Introductory low notes were strong and well defined, if not heavy in our large room. As an over-damped design it needs to be close to a rear wall in a normal UK living room 12ft -18ft long where modal support adds weight.

With classical the AEs remained vivid, but here it was less welcome. Whilst Renee Fleming was pushed out at me there was some glare in the delivery, making it a tad forced. Similarly with Nigel Kennedy, whose Stadivarius was more forward than I know it, if impressively detailed and

timbrally rich.

With Arkadi Volodos working his way through Liszt's Vallee d'Obermann (lovely) the Steinway had a hard tone and lacked body (not so lovely). Although a dry recording I have heard more natural renditions.

## CONCLUSION

Acoustic Energy loudspeakers are punchy and forceful, but clear and vivid too. The AE309s were right on form, pushing me back with their dynamics. At the same time they were slick in their powerful delivery, having razor sharp transients that made for great pace and timing. Their character better suits Rock than classical where subtly wasn't at the forefront – but even here their drama has appeal.

In all, the '309s are exciting loudspeakers that give a full-on musical experience, with no attempt to smother the truth. Well worth hearing, especially if you love fast Rock.



**A 25mm aluminium tweeter at top and bass/midrange plus bass-only unit below.**

## MEASURED PERFORMANCE

Our third-octave frequency response of pink noise from the AE309 shows a flat but wide characteristic, stretching from 40Hz to 20kHz. There was some treble lift (+2dB) on-axis but slightly off-axis (the cabinets pointing down the room, not directly at listeners) they gave the result shown here.

Absence of a dip at crossover (3kHz) and the small lift above 8kHz ensure subjectively strong delivery of detail.

Especially interesting is bass output as it is flat and smooth to a low 40Hz, but with slight roll-off – an over-damped design. This will give good note definition in itself and is ideal for use close to a rear wall. The rear slot port is tuned to 45Hz (red trace) to support deep bass.

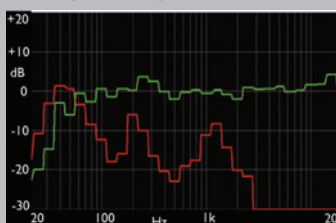
Our analysis of impedance shows classic reactive peaks around the port's damping influence at 45Hz. The trace sits high with 6 Ohm min; this is a high impedance design that measured 9.5 Ohms overall, explaining a so-so sensitivity of 87dB Sound Pressure Level

from one nominal Watt (2.8V) of input. Around 60 Watts or more will suit for high volume.

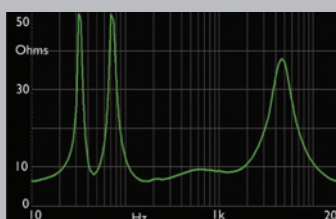
The AE309 measured well in all respects. It's accurate but with obvious treble and deep, well damped bass. NK

### FREQUENCY RESPONSE

**Green - driver output**  
**Red - port output**



### IMPEDANCE



## ACOUSTIC ENERGY AE309 £1099



**OUTSTANDING - amongst the best.**

### VERDICT

Viscerally fast, powerfully dynamic, but also clear and accurate.

### FOR

- fast transients
- detailed
- dynamic

### AGAINST

- lacklustre finish
- mono wire only

Acoustic Energy  
+44 (0)1285 654432  
www.acousticenergy.co.uk