



# The magic number

Channeling one of its classic affordable speakers, Acoustic Energy's AE109 goes back to the future, says **David Price**

**S**ome 30 years ago, a small British company launched the AE1 loudspeaker from its West London factory. In much the same way as the Volkswagen Golf GTi epitomised that heady time in cars, the AE1 fast became an audio icon. Small but perfectly formed, it provided the sort of performance that you'd only have got from a large loudspeaker before. Yet its size helped make it nimble, fast and fun. Acoustic Energy Ltd. hit the ground running, making one of the most memorable speakers of the eighties.

## Micro dynamics are very good, but it also proves to be pretty good going macro

As the AE1 found itself in ever more recording studios and audiophile listening rooms, the company embarked on widening its product line. In the mid-nineties Acoustic Energy launched a range of more volume-oriented speakers, of which the 100-series was the most successful. 1996's 109 became an instant hit, offering a wonderfully warm, inviting sound with oodles of power and punch from a relatively affordable floorstander. It was a taste of the high end, but cheaper.

Now based in Cirencester, Acoustic Energy recently underwent what is effectively a management buyout and is now wholly British owned once again. Its 30th anniversary year is an important time, and the new 100-series – which the AE109 tops – is a key new range. A budget, slimline floorstander, it sees the company's design direction focus on traditional values in a modern setting. It uses a conventionally shaped cabinet with no gimmicks, but every aspect of the design has been carefully thought

through. The headline news is the WDT waveguide technology, which is an evolution of the DXT lens developed for the Reference Series and AE1 Active. This is said to integrate the tweeter with the room better, for superior dispersion and imaging.

The high-frequency unit is said to be much improved on the company's previous budget tweeter; it's a 28mm soft dome. This is married up to twin 110mm paper coned mid/bass drivers, which are said to sport high-powered motor systems. A carefully worked out 2.5-way crossover does the business at 2.3kHz, just a little higher than some, switching in the tweeter above this. Attention has been paid to the phase and time alignment for the most cohesive performance possible, says the company.

The cabinet is a conventional design; AE engineer James Luce says it has been easier to correctly time align than others. Channelling the original AE109 design perhaps, it is mass-loaded at the bottom, conferring stability and obviating the need for plinths. The cabinet walls are made from decently thick 18mm medium density fibreboard, and there's a choice of walnut vinyl veneer and satin black finishes – the latter costing £50 extra. Round the back, there's a slot port; earlier budget Acoustic Energy speakers had been forward-firing, but the listening process revealed that the rear port wasn't too intrusive and brought various other benefits too. The front baffle sports full-length magnetic grilles, which I find best left off for maximum sound quality. AV fans will be interested to know that there's a matching new AE107 centre speaker and AE108 subwoofer following soon.

This isn't the largest floorstander in the world, and so it's limited by its own relatively diminutive dimensions in its sensitivity. The company quotes 89dB/1W/1m, which is good for its

### DETAILS

**PRODUCT**  
Acoustic Energy AE109  
**ORIGIN**  
UK/Malaysia  
**TYPE**  
2.5-way floorstanding loudspeaker  
**WEIGHT**  
16kg  
**DIMENSIONS (WxHxD)**  
160 x 800 x 240mm  
**FEATURES**  
• 1x 25mm tweeter  
• 2x 110mm mid/bass drivers  
• Quoted sensitivity: 89dB/1W/1m  
**DISTRIBUTOR**  
Acoustic Energy  
**TELEPHONE**  
01285 654432  
**WEBSITE**  
acoustic-energy.co.uk

size, but you'll still need a decently powerful amp to really get it going; I use the 60W RMS per channel Exposure XM5 (HFC 424), which works very well indeed. Room placement is pretty easy; best results are about 80cm from the boundary walls, with just a slight toe-in. A nominal impedance of 4ohm is quoted.

### Sound quality

One cannot help but be impressed by the sound of this small floorstander. It's far less cold and analytical than some similarly priced products, and as it warms through and loosens up, you begin to realise it's an extremely capable design. It seems to channel the original AE109; you instantly mark it out as being dynamic and pacy, without being harsh and shouty. If anything, the new AE109 is a little rolled off up top and has a surprisingly sweet treble that's substantially better than budget AEs of yore. Tonally most agreeable, it is nevertheless quite a 'seat of the pants' listen. It gets straight into the music, with no messing about.

Evidence of this comes from its handling of Sheila and B Devotion's disco classic, *Spacer*. This is a Chic song in disguise, and that fabulous walking bassline and super funky rhythm guitar is apparent from the moment I drop the needle in the groove. The AE109 – after I get it firmly spiked into the carpet – is well ▶

The design of the AE109 focusses on traditional AE values



## Q&A

**Neil Truckell**

Managing director, Acoustic Energy



**DP:** What sound did you set out to achieve with the AE109?

**NT:** A classic Acoustic Energy sound to mimic the original AE109 from 1996, while using new drive unit technology to update the audio performance to today's modern standards. We designed it for people who appreciate good quality audio at an affordable price, and who prefer elegant slimline floorstanders over standmount alternatives. The AE109s are the floorstanding speakers within our new 100 Series 'entry-level' range. The new 300 Series follows in the summer with the current Reference Series being our flagship range... so that's 100 Series (good), 300 Series (better) and Reference (the best).

**Can you describe the design process behind the speaker?**

Mat Spandl and James Luce worked together to design the new 100 Series – including the AE109 – within a timescale of approximately nine months. Conventional cabinets were chosen with a slimline rectangular design that benefits from an efficient use of space with a smaller footprint than the original. The subtle curvature of the cabinet adds differential when compared with a square box, while adding value to the overall appearance. An 18mm braced MDF box is used, reflex-loaded using a slot port to maximise power handling and optimum bass response.

**Can you explain your choice of drive units?**

The drive units were designed inhouse, to meet our exacting sound quality standards. They are then manufactured by several of our overseas suppliers. The mid/bass drivers are made of a coated paper type for a more natural sound, which is well suited to a wide range of audio sources. They cross over to optimise the dispersion pattern of the loudspeaker and minimise distortion artefacts in the drive units. The doped fabric dome tweeter is chosen for a sound that's well matched to the paper coned mid/bass units.

### IN SIGHT



- 1 25mm tweeter
- 2 Rear-facing bass port slot
- 3 Loudspeaker binding posts
- 4 2x 110mm mid/bass drivers

### HOW IT COMPARES

Q Acoustics' 3050 is the only cloud on the AE109's horizon; it's a damned good loudspeaker that's been really well designed – and it shows. It looks a little nicer and seems better finished than the Acoustic Energy, and is larger too. Sonically it has a bigger and more dynamic sound – making full use of its extra cabinet volume. Nevertheless, the AE is more lively and seems better involved with the music's rhythmic flow. The result is a more characterful and emotional speaker that makes the Q Acoustics seem a little on the cerebral side by comparison. As ever, you pay your money and take your choice.

up for it. It sets up a powerful groove, which really pulls the listener in; within this there is a good degree of detail and everything slots together neatly. The hi-hat cymbal work is carried with real subtlety; you can hear the beautiful way it syncopates with the snare and bass guitar. Meanwhile, down at the other end, bass is bouncy and supple. If we're being honest, the modest cabinet isn't quite able to remove itself from the equation; there's a slight touch of boxiness, which you expect from every speaker at this price. The clever trick is not to let this distract the listener; even at highish volumes in a bass-led disco anthem, it comes out smelling of roses, fixating on the song's glorious rhythms.

Switch over to classic rock, and you hear a different side to this speaker. Supertramp's *Child Of Vision* is a polished production and the AE109 makes this perfectly apparent. Again, the tweeter impresses with its smoothness at the price, although it's not especially open or extended. It ties in seamlessly with the midband, and Roger Hodgson's falsetto vocals, which are carried with surprising accuracy and immediacy – I have heard other budget boxes make him sound distinctly nasal. Dynamically the AE impresses here, too. It's nowhere near as wide ranging as a

high-end loudspeaker, but by the standards of its price it does exceptionally well. Particularly good are the so-called micro dynamics – those tiny musical inflections, accents and nuances – but it also proves to be pretty good going macro too. For example, the song's opening drum break is carried with a good deal of weight and force. This aspect of the speaker's sound – allied to its obvious rhythmic proficiency – is what really gives it appeal.

Different traits shine through with jazz music. I cue up Herbie Hancock's *Maiden Voyage* and take in the speaker's wide soundstage; larger than expected from such a small floorstander. Although not quite approaching the sort of thing you'll get from a Tannoy Dual Concentric, it does very well with its conventional driver layout. Elements of the mix are placed with a decent degree of accuracy and the overall effect is an expansive sound that easily runs out of the box. The AE109 serves up a big sound from a fairly small cabinet, and this stays surprisingly composed as the volume is turned up. In ultimate terms there is a good deal of compression – as expected from any smallish speaker – but the Acoustic Energy goes surprisingly loud with unexpected ease before this begins. The speaker's slinky rhythms, great dynamic accenting and warmish tonality really make this classic jazz record a joy. At the same time, there is little sign of any hardness in the midband or treble, showing just how finessed it really is.

### Conclusion

An attractive, affordable small floorstander, Acoustic Energy's AE109 sounds unexpectedly refined for its price and yet is unerringly good fun to listen to, across a wide variety of music. If you're in the market for this sort of loudspeaker, it's an essential audition. Hear it if you possibly can ●

### Hi-Fi Choice

#### OUR VERDICT

<b>SOUND QUALITY</b> ★★★★★	<b>LIKE:</b> Vibrant, lively, engaging sound; fine build at the price
<b>VALUE FOR MONEY</b> ★★★★★	<b>DISLIKE:</b> Nothing
<b>BUILD QUALITY</b> ★★★★★	<b>WESAY:</b> Charming and endearing small loudspeaker
<b>EASE OF DRIVE</b> ★★★★★	

#### OVERALL

