

CORINIUM

BY
ACOUSTIC ENERGY



David Price auditions one of the most interesting new mid-price floorstanders in a long time...

Nineteen eighties throwbacks among us will remember Acoustic Energy's AE1 loudspeaker – an excellent little mini-monitor that absolutely caught the zeitgeist back in the day. Lest we forget, this little speaker was so important because it epitomised that decade's trend towards small footprint, 2-way, standmounting speakers. It was more about delivering great time domain performance than excelling in the frequency domain – in other words, it didn't have the widest bandwidth but was bloody good fun to listen to.

Since then, Acoustic Energy has made a successful business for itself, designing and manufacturing all sorts of speakers that follow the AE1's fundamental philosophy. At more or less any time from the late eighties up until now, its products have been especially musically enjoyable rather than absolutely technically accurate. As time has passed, the company has focused ever more on the affordable end of the market – despite the original AE1 being a pretty high-end design.

THE STORY

Three years ago, Acoustic Energy embarked upon what managing director and designer Mat Spandl calls "a research project". It started just after he'd finished the (then) range-topping 500 series. "This was the end of a period of design evolution that started with the 100 series, which launched in 2017", he tells me. "We had just finished with the launch of the 520 in 2020 and came to the realisation that we couldn't push that design concept much further. Of course, you can always make small refinements, but it is a case of diminishing returns. We always want to push forward, to make better sounding loudspeakers, so we asked the question, how do we make a step change in performance?"



The design team duly experimented with different cabinet layouts, concepts, and materials, and things naturally evolved. "Even by last year," he says, "we did not know whether this research project would result in an end product. Rather, it was considered to be a learning process that we could feed into new ranges. But we found we had something that we could feasibly turn into a flagship product. Something which wouldn't cost the earth but would offer a step change in performance over our existing models. This is when the Corinium concept was born..."

All well and good, but there was much at stake for this British brand. It was only the positive feedback that the design team got that kept the concept going. "When we started showing prototypes to people, we got such a good reaction that it gave us the confidence to develop it further. The research part of the project has been really great because it allowed us to try such a wide range of ideas. Usually, when you start product development, you have a pretty good idea of what you need to do. We believe that we've ended up with something that offers genuinely high-end performance, high-end looks, and high-end build quality for a mid-market price."



"Acoustic Energy is known for a fast dynamic sound but with a warm, rich balance", Mat continues. "We wanted to maintain that but also make a speaker that was more open and detailed without simply turning the brightness up, and we wanted to make the speaker more musical, which means it has to start and stop better to create space within the music. So we really focused on the bass-mid balance; this is an area responsible for much of the blurring in box speakers as you have a lot going on with room interaction, as well as stitching the drive units together acoustically. We wanted a bassline which underpins the midband even at low volumes, so this is not a speaker that you have to turn up in order for it to sound good. So once we set our priorities in place, the components had to be developed accordingly."

He explains that there was "no pressure" to make something which measured nicely. Instead, it was developed with extensive listening tests and progressively refined so the design team found that "good measurements came naturally with the sound". He points out that often, the reverse can be true, where something can measure well but sound terrible. "We've always used a lot of listening to develop our speakers in conjunction with computer modelling and

measurement. However, for this model, since it started out purely as research, we didn't bother too much with the computer stuff; we just sat down and listened to the components. The challenge was getting the sound to where we wanted it. The hard graft was always to question: can we get it to where we want it, and are we following the right path? You just have to keep grinding away!"



UP CLOSE

The result is a tallish but slim 3-way floor stander with four drive units per speaker. Technically, it is a bass-reflex design, although Mat confided that "it's more of a sealed box design that's underlined by a bass port" – and that port is tuned at a low 28Hz. In early development, its working title was AE720, but it turned out to be so much more than 'just' an Acoustic Energy AE520 on steroids. As we shall see, the cabinet, drive units, crossover and other details are all very major evolutions of the latter...

Starting with the 29mm tweeter, the company has chosen a soft dome design that's said to be "even lighter" than the excellent carbon dome design of the 500 series. This was to maximise transient response, or, in other words, to make the speaker sound as snappy as possible. The new soft dome material is said to be less coloured, too. The matching 120mm midrange driver, sitting close to the tweeter at the top of the front baffle, uses a carbon fibre cone. As it covers five octaves, Mat says, "It's the key element which produces most of the sound from the loudspeaker system". Twin 140mm bass units take care of low-end duties, working in parallel. These were specially developed for Corinium.



As you would expect, the crossover was optimised for a flat response between the respective drive units and the best possible transient response. The company says that high-quality components are used throughout, including air core inductors, metallised polypropylene film capacitors and metal oxide resistors – and audiophile-grade internal wiring from Wireworld is fitted. This is said to have a special and patented arrangement of conductors for optimal sound. Crossover frequencies are put at 260Hz and 3.4kHz.

Last but certainly not least is the cabinet, made of so-called Resonance Suppression Composite (RSC). Some walls have a minimum thickness of 22mm, yet others go as thick as 50mm. This minimises vibrations alongside the 6mm rigid aluminium front baffle. Furthermore, a subtle 4-degree tilt is said to improve time alignment. The speaker's vital statistics are 1,100x235x385mm [HxWxD] and 40kg, making it a largish and very heavy design. Indeed, it's surprising how much better made the Corinium is compared to the AE520, which was Acoustic Energy's largest floorstander before this new flagship model arrived. Overall, build quality is far superior, despite the new speaker not being several orders of magnitude more expensive.



The Corinium comes in a choice of black, real wood, or British Racing Green painted finishes – the latter's fourteen layers of paint look especially beautiful – but whichever you choose, this is a most attractive, contemporary design. Despite Acoustic Energy being a proudly British brand, Mat says the speaker is made in the company's partner factory in China. He says that he's been working with it for fifteen years and believes it to be truly world-class. "They produce hundreds of speakers a day for various well-known brands, not just us. Some of the models are absolutely cost-no-object, so this tells you how capable they are. When deciding where to build this, we decided it is better to stick to what we know, with the highest quality and value. We manufacture there for good reason."



The result is a large loudspeaker with an impressive claimed frequency response of 38Hz to 25kHz (-3dB) and a quoted power handling of 200W. Sensitivity is put at 92dB/m/2.83v, which is a very healthy figure – although nominal impedance is an unusually low (by modern standards) 4 ohms. This isn't a problem in itself, as most modern amplifiers can deliver lots of power this low, but it excludes some designs or at least makes them sub-optimal.

One such example was my own Sony TA-N86 power amplifier; this is a superb-sounding classic design that gives 90W into 8 ohms but is less sturdy into lower loads and actually seemed a little out of breath when driving the Coriniums at anything past medium sound levels. The Sony rarely runs out of puff with any speaker I ask it to drive, yet it did here – meaning that this speaker has what I would call 'special needs'. It requires a gutsy amp that's good on low-impedance current drive. I got great results with an Exposure 3510 pre/power amp combination and even a humble Musical Fidelity M5si integrated, among others – both of which have rated power outputs that go well into three figures. Mat put this diplomatically, telling me: "It is both highly transparent and excellent value for money, so it may well ask questions of your partnering equipment and set you on an upgrade path!"

THE LISTENING

This is one seriously special-sounding loudspeaker – and of particular interest if you're already a fan of Acoustic Energy's current 500 series, as I am. It has the same distinctively velvety, dark chocolatey smoothness but adds copious amounts of extra detail, speed and grip, plus superb stereo imaging and soundstaging ability. Despite it being highly revealing of both the recording and your source component and amplifier choice, it is never shrill, sibilant or glassy. Indeed, it's the very model of speaker sophistication – think suave Roger Moore compared to the more déclassé Sean Connery!

This is both a good thing and a bad thing. Firstly, just because the Corinium is smooth doesn't automatically mean it's boring. In the same way that Quad's classic ESL 57 electrostatic has a flat response with little to show in tonal peaks yet can be quite gripping and enthralling, so is this. This demonstrates that speakers can be fun without the need to shout, hiss, honk or boom at the listener. However, if you have an overly smooth and/or bland-sounding front end, this big Acoustic Energy floorstander will tell you so in an unrepentantly matter-of-fact way. It is crying out for a good source and a vibrant, powerful amplifier with good resolution and drive.

Its butter-smooth tonality is in no small part down to excellent integration between the drive units. There is no sense of a sonic 'sweet spot', and nor is there any suggestion of the drivers fighting it out between one another as you go up the frequency range. The end result is an extremely mature and sophisticated-sounding speaker, but not a vague one. The Corinium is actually very revealing, as it puts out a lot of information in a meticulously controlled way. It's hard to zero in and mark up one particular aspect of its sonic performance as everything seems to be right and working together well. This goes for the bass, which is tight, taut and propulsive, and the subtle yet detailed midband, plus the crisp, fast and extended treble.

Cue up a slice of classic late seventies rock, and you soon appreciate that this speaker is a real class act. U.K.'s *In The Dead of Night* is very well recorded and largely unspoiled by compression, processing or equalisation; it's tonally very flat and even. The Corinium tells you precisely this in seconds, giving a clear window on the recording that leaves no corner of it obscured. Yet you don't spend too long dwelling on this speaker's innate balance as you quickly hone in on the music itself.

This speaker gives great insight into the musical event, casting a vivid light on the proceedings. The gritty lead vocals of John Wetton are instantly apparent, with a hint of gruffness to his impassioned voice. At the same time, the Corinium gives an excellent rendition of the band's (now) vintage Yamaha CS80 synthesiser, with its vibrant analogue timbre. And Allan Holdsworth's soaring solo on his Gibson Firebird guitar is enthralling. There is so much to take in, and the big Acoustic Energy works valiantly to signpost all of it.

You would never call the Corinium an especially analytical loudspeaker, however. It's undoubtedly highly detailed, but what really stands out is its rhythmic drive and dynamic prowess. With fast, pounding modern recordings such as *Rudebox* by Robbie Williams, this speaker shows its DNA. The beat shuffles along in a propulsive and persuasive way, the speaker's grippy bottom end really earning its money here. The vocalist's voice sounds typically anaemic, yet you're drawn to his phrasing, which syncopates with the drum track superbly. There's no banging, booming or thrumming from that big cabinet; instead, this speaker sounds as tight and together as the classic AE1 standmounter ever did.

This Corinium really shows its mettle on tracks like Simple Minds' *Speed Your Love to Me*. It's a crowded mid-eighties production with vast amounts of stuff happening, including great swathes of bass. The statuesque Acoustic Energy kicks this out in a serious and committed way, remaining resolute and rock-steady even on the loudest peaks at high listening levels. Moreover, its sophistication

makes typically forward pop recordings seem all the more bearable. Yet it doesn't mask more subtle ones; for example, it makes a fine fist of the gentle eighties guitar pop of Suzanne Vega's *Cracking*. It sounds wonderfully subtle and nuanced with this intimate production.

Allied to the Corinium's smooth treble, velvety midband, and grippy bass is the ability to reproduce a stereo soundstage with superlative accuracy. It images brilliantly, as Kraftwerk's superb modern reworking of *Tour de France* shows. The sound is pushed out well beyond the physical location of the loudspeakers, which makes for huge, rock-solid stereo imaging at high volumes. This gives a highly immersive effect that's helped even further by the ability to hang aspects of the recording well behind the plane of the loudspeakers.

Hearing *Wishing on a Star* by Rose Royce is a joy through this big floorstander, not just in how the Acoustic Energy imparts the scale of this classic soul/disco ballad but also in its soaring dynamics. This is where carefully partnering a suitably good amplifier comes into its own with the Corinium because the speaker isn't just able to go loud when called upon to do so but is also very fleet of foot and agile. It's excellent at reproducing the subtle dynamic inflexions of the singer's voice, as well as showing how she really belts out the vocals in the bridge of the song before the chorus.

For this exact same reason, it also works great with classical music. Beethoven's *Pastoral Symphony* switches from lovely, lilting,





brooding sections to thunderous orchestral climaxes, and so is a real workout for any serious hi-fi loudspeaker. The Corinium again proves to be utterly unfazed by this sort of programme material; it's perfectly happy reproducing those big dynamic swings yet seemingly relishes the gentler sections, too. Additionally, its string tone when handling violins and cellos is equally quite remarkable. In tonal terms, it isn't as rich as a vintage Sonus faber speaker, for example, yet it is more full-bodied than most modern rivals. Its smooth, dark tonality allows the lustre of strings to shine through without ever descending into screechiness.

THE VERDICT

This superb new loudspeaker is not only Acoustic Energy's finest-ever design, in my view, but also one of the best mid-price bargains on the market right now. The Corinium costs a lot of money compared to the company's cheaper products but is far superior – so the law of diminishing returns certainly does not apply in this case. It's an excellent all-rounder with few apparent vices and delivers a subtle but powerful and musically enjoyable sound that many will relish. Its classy carbon fibre drive units and highly inert cabinet make for a slightly less 'well-lit' sound than is normal – there's never so much as a hint of harshness or roughness here. Yet, just as with its cheaper siblings in the range, this speaker can rock out with the best of them – so you would never, ever call it dull.

The only downside is that it's a wee bit harder to drive than many of its rivals. I'm not talking about its impressive 92dB efficiency figure here, but the demands it places on amplifiers to pump power into low impedance loads. Most modern Class AB and Class D amplifiers should be fine, but sadly, it precludes some less robust and/or lower-powered Class A designs from giving their best. Another issue is that the Corinium is an exceptionally neutral performer at its price point and soon sorts out the wheat from the chaff in terms of amplifier quality. That's why it is worth taking more time than perhaps you normally would auditioning it with your existing amplifier and/or upgrading your amp to something that will live up to this speaker's very high standards. Think of the new flagship Acoustic Energy speaker in terms of being a 'budget high-end' design rather than a 'souped-up mid-price' one, and you won't go far wrong.

VIDEO

<https://youtu.be/6fHMExxuQIQ>