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# Wilson Benesch A.C.T. One Evolution floorstanding loudspeaker

by Alan Sircom

**W**hen Wilson Benesch stopped being 'just' a maker of turntables and started branching out into those transducers at the other end of the system, the company's first and arguably most important design was the A.C.T. One. Using the company's 'Advanced Composite Technology' monocoque, this floorstander hit the streets in 1995 and won a dozen awards. The A.C.T. One has passed through three iterations to date, including the ACT C60 and A.C.T. The A.C.T. One Evolution is a fitting name for a truly evolving design.

The A.C.T. One Evolution is the distillation of all the engineering and materials science development that Wilson Benesch can throw at a loudspeaker. Of course, 20 years later, there is a lot more loudspeaker history and engineering to throw around, and where the original A.C.T. One began 'tabula rasa', the A.C.T. One Evolution draws upon drive unit and high compression cabinet construction derived from two decades of loudspeaker design, which includes the company's Cardinal flagship.

Like the Cardinal, the A.C.T. One Evolution is a four-driver, two-and-a-half way floorstander, featuring Wilson-Benesch's novel Hemisphere hybrid silk-meets-carbon dome tweeter with a series of Tactic II drivers. The hybrid nature of the company's own 25mm Hemisphere driver is a method of harnessing the speed of modern hard dome tweeters with the frequency extension and tonal accuracy of a classic soft dome. This innovative tweeter unit remains one of the jewels in Wilson Benesch's crown.

The 170mm Tactic II is also unique to Wilson Benesch, a development produced in association with Sheffield University (its physics department designed a unique motor assembly encasing neodymium magnets that optimised flux across the geometry of the driver). The driver features a light-yet-stiff isotactic (hence the name) polypropylene cone in a streamlined basket.

Clever officially starts here: the Tactic II is a multi-purpose drive unit. So, the Tactic II driver in its own 26 litre chamber is built precisely for its function as a bass driver, while the one below the tweeter is devoid of any crossover and built as a pure midrange. Wilson Benesch class the Tactic II as a 'multirole' drive unit, rather like a multirole combat aircraft like a Dassault Rafale, but with fewer hard-points and gun platform options.

That last line wasn't as throwaway as it might have first seemed, because Dassault – the group that includes the makers of the French fighter – developed the 3D CAD/CAM software that Wilson Benesch uses in the development of all its products, including the A.C.T. One. While CAD/CAM is not a new thing in loudspeaker design, it's relatively rare for a company of Wilson Benesch's size to use the technology so thoroughly. When you look at the design of the company's speakers, you can see precisely why that design program is money well spent.

Nevertheless, the carbon-fibre monocoque design found in the original A.C.T. One is still a vital part of the new loudspeaker's development. It means the loudspeaker can be completely unbraced internally, and yet retain the level of stiffness required of a loudspeaker at this level. And that means the internal volume of the cabinet is far larger than most loudspeakers of the A.C.T. One Evolution's footprint, which spells deceptive amounts of bass for the size of speaker. It also uses Wilson Benesch's 'Troika' arrangement of upper and lower midrange units flanking the tweeter. This is not a typical 'MTM' or 'D'Appolito' arrangement, because the upper driver sits in its own enclosure. This also acts as a lower midrange/bass unit, instead of another midrange driver, as befits the Tactic II's 'multirole' use. The look also harks back to the original A.C.T. One, with its sculptured and curved lines, and sloping top, but there are also clear elements of the company's other Geometry Series speakers at work here. A lot of this comes down to what other companies might dismiss as 'trimmings' but in fact are vital components of how the A.C.T. One Evolution is sited in its surroundings, with hand wheels, inverted cones, and even cups available to help make adjustments to the positioning. The biwire loudspeaker terminals are set into the integrated plinth, and the rear panel just features two small rear ports for the upper and lower midrange chambers.

Wilson Benesch loudspeakers present a relatively easy load (89dB sensitivity, a nominal six-ohm impedance with a four-ohm minimum and no evil phase angles in the impedance plot) but they do like being driven hard. Good, solid-state power and plenty of it is the order of the day. They were in their element on the end of a Devialet 250 and this suggests a brute force amplifier that can deliver enough current to drive an arc welder is not as important as an amplifier with good power delivery. The function of a beneath the plinth cable entry system precluded significant cable playtime, and perhaps not surprisingly the A.C.T. One Evolution seemed perfectly comfortable on the end of a squillion pounds worth of Nordost Odin 2.

Positioning is key with these speakers, although it is not perhaps as 'millimetre-sensitive' as some of the Geometry Series seem to be. The A.C.T. One Evolution is surprisingly room tolerant, working well in big and small rooms. Naturally, the more you can nuance the system in terms of installation, room acoustics, and precise adjustment, the better. This is a loudspeaker that always gets to 'good' but with some fine-tuning can easily get to 'great'. The one caveat to the small room demands is it does need some free-space at the rear in order to deliver bass properly. Put it less than a metre from the rear wall and those two ports begin to interact with the surroundings.

I'm very fond of Wilson Benesch loudspeakers. They are extremely focused and precise. That doesn't mean they constrain the life out of music, however. They are just dry and sophisticated, like a really good Martini. They are also extremely dynamic when correctly partnered; not in the writ-large style of Wilson loudspeakers, or horn designs, but more than capable of showing precisely what dynamic range is in your recordings. But I understand that this combination is not for everyone, and some would like a bit more bottom end authority to match ▶

*“The A.C.T. One Evolution changes that. It has the perfect combination of extraordinary control and deep, primal bass.”*

▶ that mid and top. Yes, that powerful bass comes with the Cardinal and when using the company’s Torus not-a-subwoofer Infrasonic Generator, but in some respects the gusto of cheaper models like the Square Five is hard to find in the brand’s top models.

The A.C.T. One Evolution changes that. It has the perfect combination of extraordinary control and deep, primal bass, though not in a wild way; this is no rabid, Jekyll and Hyde speaker, more a classical guitarist who plays bass for Iron Maiden in his spare time. The A.C.T. One Evolution has all the cerebral, sophisticated properties people have come to expect from Wilson Benesch loudspeakers, but these are harnessed to a deep, potent, powerful bass line that could easily be set to threatening levels. What is truly inspiring here is the fact that these two elements combine naturally in the way Guinness and Cadbury’s Dairy Milk chocolate do: it’s the kind of combination that shouldn’t work, but does... and does magnificently. Try it!

In the case of the Wilson Benesch A.C.T. One Evolution, the precision of the midrange and treble do not seem like comfortable bedfellows with that much bass, but the level of clarity and control into the deepest recesses of the loudspeaker make for an excellent loudspeaker. ‘Dayvan Cowboy’ from Boards of Canada’s *The Campfire Headphase LP* [Warp Records] is a deceptive slice of mid 2000s electronica – there doesn’t seem like much bass going on at all, except that it completely underpins the treated, distorted, synthesised sounds and tremolo guitar, making everything seem less of a swirling, cacophonous mess and more like a slice of post rock brilliance.

I don’t want to get carried away by the bass. There is a lot more to this loudspeaker than bottom end. It’s just that the loudspeaker does bass so well, and so deep: that unbraced cabinet ▶



*“So deep in fact, I kept expecting passers-by to be hit in the face by an invisible tympani player!”*

- ▶ makes it TARDIS like and far bigger on the inside than you'd expect and that means more cabinet volume and that means more bass – but the level of control the A.C.T. One Evolution has over that bass is insane. But, let's move on. What the speaker also does extraordinarily well is create a good soundstage. That requires some space around the loudspeakers that my tiny room generally precludes, but even here it was clear the loudspeakers were doing something remarkable to the soundstage. There was greater depth and width that extended far beyond the limits of the room: so deep in fact, I kept expecting passers-by to be hit in the face by an invisible tympani player!

The A.C.T. One Evolution is also extraordinarily detailed from top to toe. These are great loudspeakers for musical analysis, for listening into the music and extracting both a lot of information and – more significantly – a lot of fun. Play something like Bach's *The Art of Fugue* [Emerson String Quartet, DG] and you need to hear both the cerebral and the visceral. This should be extremely precise and very clearly a string quartet, but it should also come with a sense of musical joy and vivacity, taking the birthplace of modern music and making it their own. Less detailed loudspeakers fail at one of these two aspects, either making the precision or the fun-factor disappear. Wilson Benesch's A.C.T. One Evolution combines both elements of the recording with lithe elegance. Paradoxically though, what the A.C.T. One Evolution doesn't do is pretend to be a studio monitor. If you want that stark, flat sound... look elsewhere. By comparison to that monitor-like sound, the Wilson Benesch has a slight zing in the upper mid to treble. Not much, and the kind of thing that makes vocals and pianos come to life in normal domestic listening rooms. Ultimately, I'd prefer this presentation in the home to a flatter, more dreary sound.

Some of the reason why this isn't a monitor sound is the A.C.T. One Evolution appears more dynamic than many monitors. This is perhaps excusable in monitor loudspeakers (that close to the real instruments, dynamic range is something studio monitors 'tame' rather than 'exploit'), but the Wilson Benesch loudspeakers do present an effortless, and easy dynamic range.

The A.C.T. One Evolution also goes loud. OK, so not as loud as that other Wilson product line, but for real world users who aren't looking at using their £20,000 loudspeakers in endless party mode, they will play 'La Grange' by ZZ Top [*Tres Hombres*, London] at air guitar levels quite, quite happily.

In short, this is a great all-rounder. You could happily spend hour upon hour sitting in front of these loudspeakers loving every minute. Alongside the analysis and the soundstaging and all the other great aspects of this loudspeaker, that 'sitinfrontability' (a poor neologism, I know) is all important. This is a loudspeaker that simply works for long term listening.

The interesting thing with loudspeaker buyers is sometimes we have a taste for the exotic. This means UK high-enders often buy products from far away lands, and ignore home-grown devices, where our international

## TECHNICAL SPECIFICATIONS

**Type:** four driver, 2.5 way ported floorstanding loudspeaker

**Drive Units:** 1x 25mm Semisphere hybrid silk/carbon dome tweeter, 1x 170mm Tactic II upper midrange driver, 1x 170mm Tactic II lower midrange driver, 1x 170mm Tactic II bass driver

**Frequency Response:** 34Hz–30kHz (±2dB on axis)

**Sensitivity:** 89dB

**Impedance:** six ohms nominal, four minimum

**Input Connections:** bi-wireable, manufactured in house

**Internal volume:** 46 litres

**Finish:** Standard/Bespoke Wood/High Gloss

**Dimensions (HxWxD):** 119x22.5x40cm

**Weight:** 50kg

**Price:** £19,950/pair (£21,350/pair in bespoke or high gloss finish)

**Manufactured by:** Wilson Benesch

**URL:** [www.wilson-benesch.com](http://www.wilson-benesch.com)

**Tel:** +44(0)114 285 2656

counterparts will consider a UK based loudspeaker on its own merits, because it has its own taste of the exotic if you are on the other side of the world. While 'designed and built in the UK' has significant traction outside of the UK, many British people may well skip over the A.C.T. One Evolution because of its local origin, and it's very much their loss. This is a wonderful loudspeaker, capable of great subtlety at the same time as deep bass wiggling out. If this were a sane and fair world, the A.C.T. One Evolution would be considered in the same breath as that other Wilson loudspeaker brand, as well as that handful of big names at the top of the audiophile tree. Very highly recommended! +