



GEOMETRY SERIES
THE FUTURE IS CARBON





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// 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 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. - **Alan Sircom, HiFi+, Issue 130**



The name A.C.T. is an acronym for 'Advanced Composite Technology' - it is a reference to the carbon fibre composite technologies upon which the Wilson Benesch brand was founded and subsequently became synonymous with. The A.C.T. acronym was used when naming the company's first loudspeaker, the A.C.T. One, the year was 1991. The name was subsequently used for successive designs in the loudspeaker line; A.C.T. Two, A.C.T. and A.C.T. C60; along with the company's range of tonearms which employ the same carbon fibre technology. Thus the A.C.T. One Evolution is a design born from impeccable heritage and the latest loudspeaker that has evolved from an iterative design process.

DRIVE TECHNOLOGY

The A.C.T. One Evolution features cutting edge Geometry Series drive technology. in the shape of the Tactic II Multirole Drive Unit and the Semisphere Silk-Carbon Hybrid Dome Technology Tweeter.

A defining characteristic of the A.C.T. One Evolution is the departure from the traditional drive topology seen in the previous models. This is a true evolution in the design, borne from R&D completed in the development of the company's flagship loudspeaker, the Cardinal. The Troika System sees two Tactic II Drive Units deployed either side of the Semisphere Tweeter, with a third Tactic II Bass Driver at the foot of the array.

TROIKA SYSTEM

The Troika System is central to the success of the lucid and highly detailed midrange presentation of the A.C.T. One Evolution. The Semisphere Tweeter is flanked at close proximity by a lower midrange/bass drive unit and an upper midrange drive unit.

It is important to recognise that this is not a conventional 'MTM' or 'D'Appolito' arrangement, since each drive unit is actually confined within its own enclosure. The midrange presentation has been subject to extensive R&D during the development of the Geometry Series. By confining each drive unit to its own enclosure, Wilson Benesch are able to fully exploit the control it has over each Tactic II Multirole Drive Unit, optimising every component in each driver according to its specific function. In the process the crossover design can be simplified, making complex circuit boards, with multiple components in the signal path superfluous. Ultimately the amplifier is wired almost directly to the drive units, allowing truly phenomenal amplifiers to shine. The A.C.T.

One Evolution achieves a degree of temporal coherence, immersive soundstaging and lifelike presentation that set the product apart from its contemporaries.

SEMISPHERE TWEETER

At the centre of the A.C.T. One Evolution's Troika System, resides the crown jewel of the Geometry Series. The Semisphere Silk-Carbon Hybrid Dome Technology Tweeter is a revolutionary, wide bandwidth tweeter. It features six-axially mounted NdFeB magnets sandwiched between precision CNC machined front and back plate. A metallic chassis holds captive the silk-carbon dome, which produces a natural, open sound. The strength of the design is its capacity to create high resolution sound, with the total absence of any sibilant, fatiguing characteristics commonly experienced with hard dome technologies. Designed in parallel with the Wilson Benesch Tactic II drive unit, the units integrate seamlessly.

MATERIAL SCIENCE R&D

The Advanced Composite Technology (A.C.T.) Monocoque, which forms the principal component of the A.C.T. One Evolution's cabinet is the result of more than twenty-five years' research into emerging carbon fibre composite materials and the complex manufacturing methods required to integrate them within product design.

Although carbon fibre is renowned for its high strength-to-weight ratio, the material property of primary concern in the A.C.T. One Evolution cabinet is its damping coefficient; its ability to dissipate energy in a controlled manner. Employing this material property of carbon fibre in an optimised U-shaped geometry, the damping capacity of the A.C.T. Monocoque significantly surpasses that of a cabinet constructed using conventional materials.

GEOMETRY AND FORM

The A.C.T. One Evolution is a bold redefinition of the companies heritage A.C.T. moniker. Geometry Series design cues can be observed throughout; taking its Troika System arrangement directly from the series flagship; a solid alloy baffle with its characteristic machined finishing; the highly engineered foot with adjustable hand wheels; and its recessed terminal plate underside the foot. The A.C.T. One Evolution is an ultra high-end design and an ambassador for the Wilson Benesch brand, redefining performance within its class.

A.C.T. ONE EVOLUTION LOUDSPEAKER SPECIFICATIONS

DRIVERS

1 x 25mm (1") Wilson Benesch Semisphere Tweeter
1 x 170mm (7") Wilson Benesch Tactic II Mid Drive Unit
1 x 170mm (7") Wilson Benesch Tactic II Lower Mid / Bass Drive Unit
1 x 170mm (7") Wilson Benesch Tactic II Bass Drive Unit

CROSSOVER ARRANGEMENT

1st-Order Lower Bass Roll-off
1st-Order Upper Bass Roll-off
Midrange Drive Unit Directly Amplifier Coupled
2nd-Order High Pass Tweeter Filter

LOW FREQUENCY LOADING

Bessel Alignment of Fourth Order Reflex
Multiple Chamber Differential Tuning

CABINET CONSTRUCTION

Poly-alloy high compression hybrid construction
A.C.T. Carbon Fibre Composite Arched Monocoque Alloy U Section Baffle
High Tensile steel high compression construction
Tri-wireable, terminal plate recessed underside

MEASUREMENTS

2.5-way
Nominal Impedance: 6 Ohms Nominal / 4 Ohms Minimal
Sensitivity: 89dB @ 1-Meter on axis, 2.83V Input
Frequency Response: 34Hz - 30KHz +/- 2dB

DIMENSIONS

// Height: 1190mm (46.8")
// Width: 230mm (9.1")
// Depth: 400mm (15.7")
// Air Volume: 46L
// Weight: 50kg (110 lbs)

FINISHES

Standard: Black, Regal Silver, Titanium
Wood Satin: Natural Cherry, Maple, Oak
Wood Gloss: White Gloss, Birds Eye Maple, Red Birds Eye, Burr Walnut, Ebonised Walnut, Walnut, Red Tulip, Zebrano

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