

R

REFERENCE



CANTON

REFERENCE ALPHA



A new Era of Sound

Made in Germany

With the Reference series we created a masterpiece in 2023, in which every detail, no matter how small, was carefully considered and implemented at the highest standards. Innovative materials, carefully selected, refined and perfected, meet perfect craftsmanship.

Now the Reference Alpha rise to the top of the iconic Reference series and represents the new standard. This describes our ambition and

achievement of perfecting the exclusivity and precision in every detail once more in order to do justice to the Reference series, both technologically and aesthetically in every respect.

The new Reference Alpha impresses with their overwhelming musicality, high-quality technical components and excellent cabinet quality. They are our answer to pure high-end sound.

Content

Reference Alpha 1 ⁴

Reference Alpha 2 ⁸

Variants ¹⁰

In Detail ¹²

Technology ¹⁶

Data sheet ²²

”

THE NEW REFERENCE ALPHA SPEAKERS REPRESENT THE PINNACLE OF THE CURRENT REFERENCE SERIES AND STAND FOR OUTSTANDING SOUND QUALITY, HIGH PRECISION AND AN UNPARALLELED MUSICAL EXPERIENCE.

The Reference Alpha models are the new flagships of the iconic Canton Reference series. They are exceptional in their entirety and forge their own paths in terms of technical excellence, sound quality and craftsmanship. There should be no limits in the development of these new super loudspeakers: utmost in research, the most exclusive materials and the unbridled pursuit of perfection were the sole goals. The new Reference Alpha models represent the culmination of the highest technical and craftsmanship standards. As a result, we present the two models Reference Alpha 1 and Alpha 2, which transport the listener directly to a place where the everyday life can be forgotten. World off. Music on.





Reference Alpha 1

Impressive. Innovative.

The Reference Alpha 1 impresses with a majestic design that combines elegance and power. They represent the sonic pinnacle of our most advanced loudspeaker. The newly developed, diamond-coated midrange and tweeter systems shine in the high-quality matt lacquered cabinets, framed by elegant walnut wood side panels. Despite their imposing dimensions, the loudspeakers appear light and graceful thanks to their harmonious proportions and flowing lines, and can confidently and unfazedly take on any style of music.



Warm Grey / Walnut



Midnight Blue / Walnut

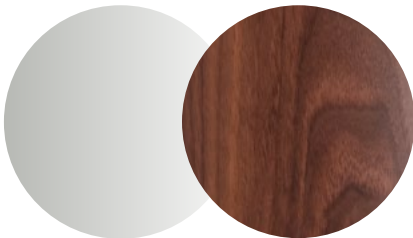
Dimensions

W 46 × H 164 × D 72 cm

Reference Alpha 2

Iconic Sound

The Reference Alpha 2 is the smaller counterpart to the Reference Alpha 1 and is in no way inferior in terms of features, design and technical sophistication. With the advantages of smaller proportions, they are convincing in a wide variety of living spaces and provide indescribable musical enjoyment. They are also equipped with the exclusive diamond ceramic transducer systems in the mid and treble frequency ranges and are also available in the stylish 'Warm Grey' and 'Midnight Blue' finishes.



Warm Grey / Walnut



Midnight Blue / Walnut

Dimensions

W 31 × H 142 × D 66 cm





”

THE GOAL WAS TO CREATE AN INTENSIVE LISTENING EXPERIENCE TO EXPERIENCE THE PURE NATURALNESS OF MUSIC. A SPEAKER THAT IS OPTICALLY AS IMPRESSIVE AS ITS SOUND.

Stylish Colour Selection

The high-quality lacquer finishes underscore the sophisticated character of the new Reference Alpha loudspeakers and are a real treat for the hands and eyes. They require the finest surface finishing during production and are coated with two layers of UV-resistant semi-gloss lacquer. The stylish 'Warm Grey' or 'Midnight Blue' colour variants elegantly integrate the speakers into any high-end living room. The cabinets have been reinforced with multi-layered, curved side panels in an exclusive walnut finish. These are not only a feast for the eyes, but also offer advantages in terms of sound. One-piece, acoustically neutral and magnetically attached fabric covers for each driver fit seamlessly to the shape of the cabinet.

Sophistication to the smallest detail

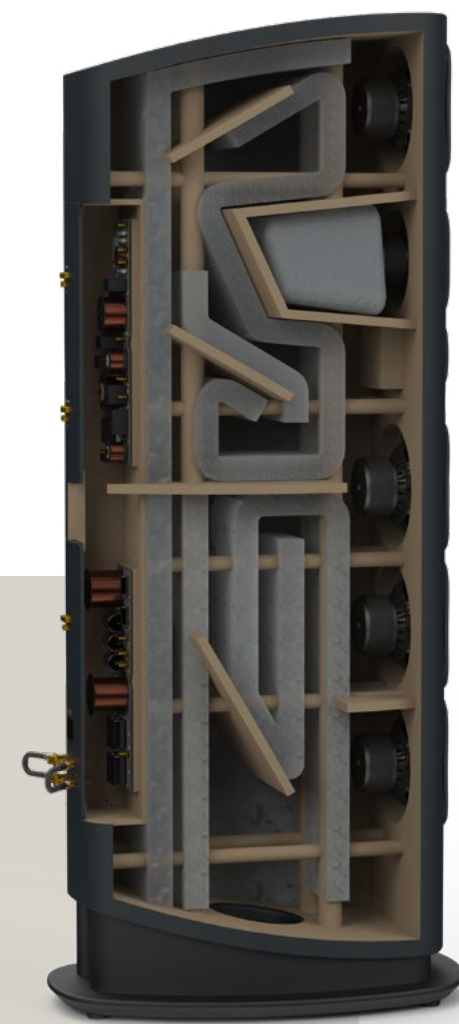


The cabinets. Thinking ahead.

The elegant, curved design of the Reference Alpha combines aesthetics and function: acoustically optimised cabinet curves prevent internal edge reflections. Double-layered side panels with curved walnut wood cheeks provide exceptional stability and minimise resonance. The combination of a high-quality materials and the stylish choice of colours give the speakers their timeless appearance.

The interaction of the newly developed anti parallel stiffened internal construction with the elaborately curved side panels, as well as the bases and lids, ensures significantly reduced natural resonance and contributes significantly to the outstanding sound quality. Thanks to the extremely elaborate design without an attached baffle, the cabinet look particularly elegant and harmonious.

In order to control the enormous forces inside the new Reference Alpha loudspeakers, the internal construction has been further stiffened. The careful selection of the front shape, together with the anti parallel reflector chamber system with special fleece damping, prevents standing waves inside the cabinet.



Optimised Bass Guide

Like all speakers in the Reference series, the Reference Alpha also features the latest generation Bass Guide. Low-frequency signal components are thus reproduced precisely and evenly from the cabinet to the front and rear, with increased efficiency. Furthermore, the special geometric design reduces airflow noise and the coupling to the floor increases flexibility in choosing a placement location.





WBT Connection Terminals

The high-quality WBT nextgen™ connection terminals set new standards for optimal signal transmission. Together with the terminal carriers made of ultra-high-density, low-resonance CDF and painted in the same colour as the cabinet, they offer an outstanding solution for audiophile applications and contribute to precise sound reproduction.



in-akustik Cable Bridges

Instead of conventional bridges, the new Reference Alpha speakers are equipped with special high-end cable bridges. Similar to the internal cabling, the quality CantoLink 600 cable from the renowned German cable manufacturer in-akustik is also used here. This ensures that the same cable thickness is used for the entire signal path. Gold-plated cable lugs and a high conductor cross-section guarantee fewer losses and prevent degradation in sound.

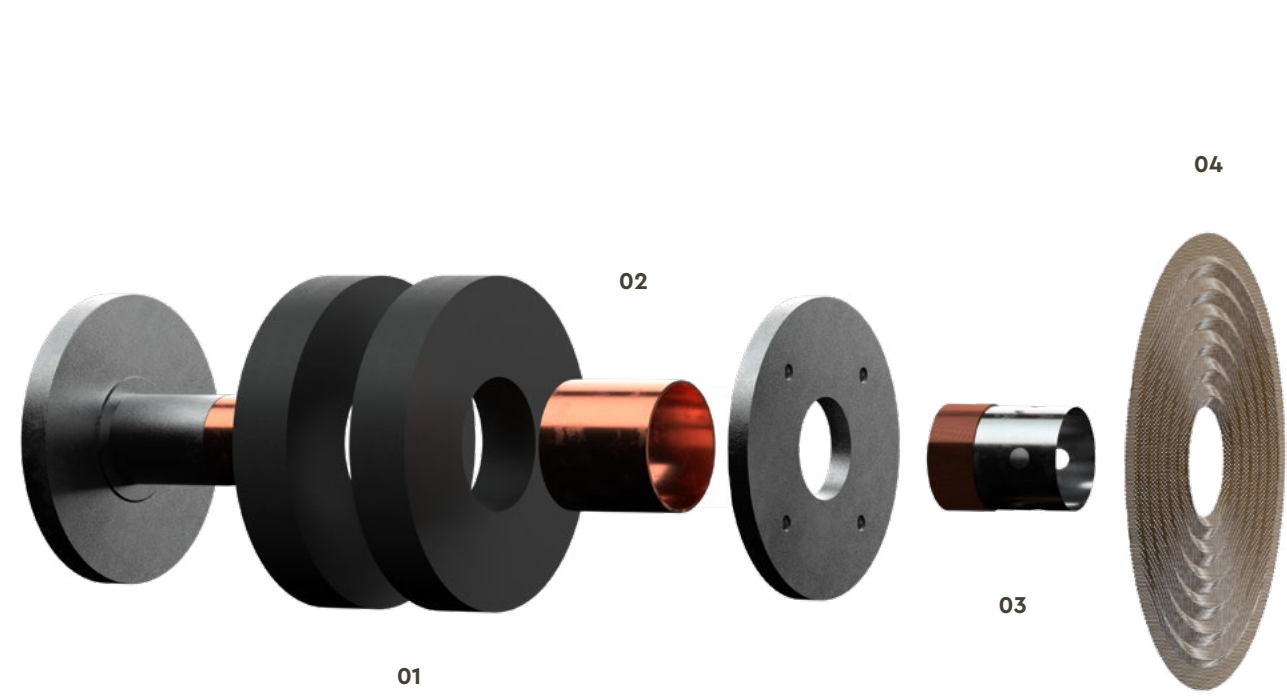
RC-Technology

Thanks to innovative Room Compensation technology with integrated high-, mid- and low-frequency adjustments, the levels of the new Reference Alpha can be adjusted to the room acoustics and individual listening preferences. For an overall harmonious appearance, the connection panels are painted in the same stylish colour as the speaker cabinets.



Material vs. Technology

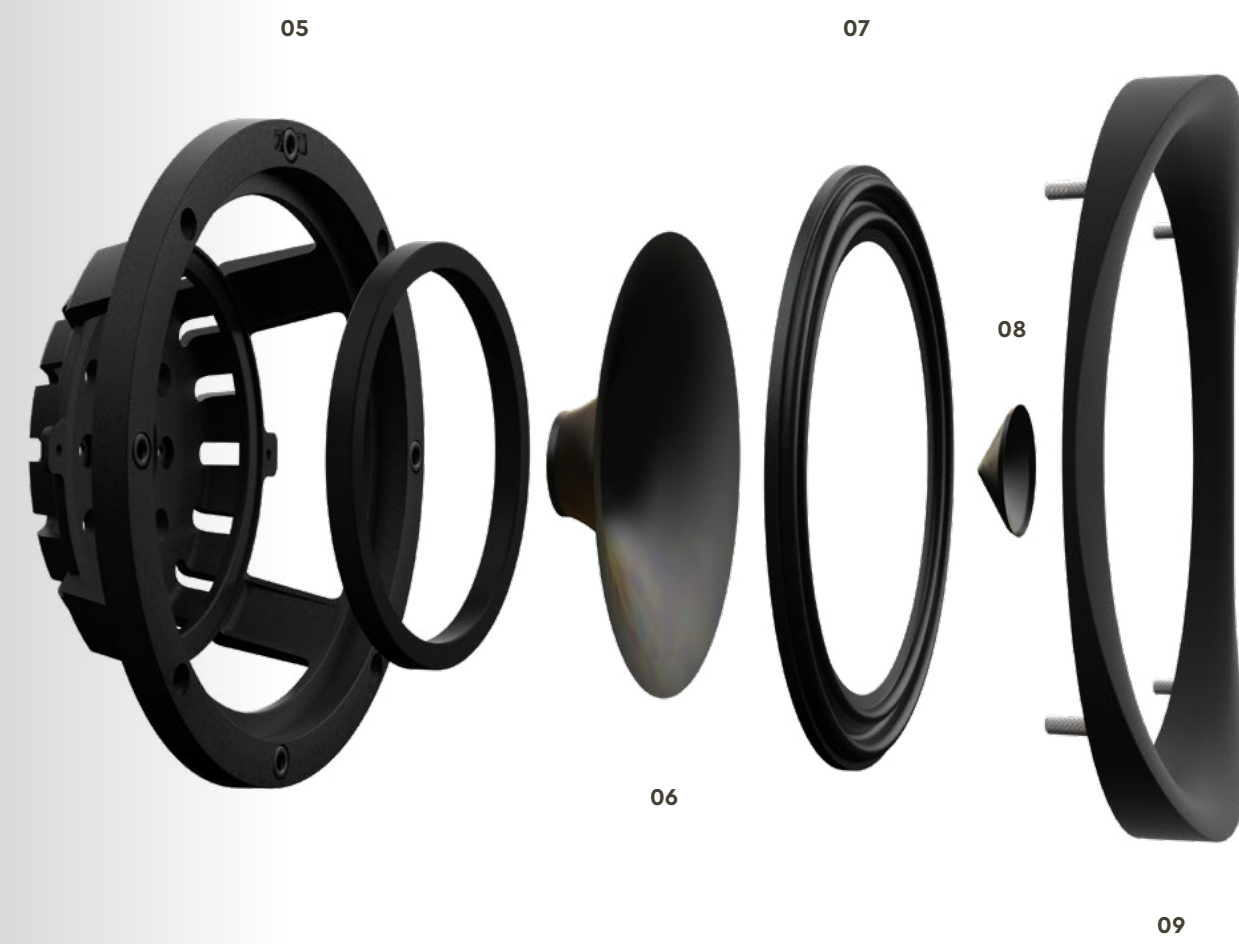
Highest Quality Standards



- 1. Magnet:** Because of the targeted performance and structural optimization of the magnetic drive by using a pole core bore, the coil (3) is embedded in a balanced inductive field.
- 2. Copper ring:** Additional short-circuit ring (short-circuiting of the inductance) on the pole core, with a positive effect on the magnetic field. Significantly reduces distortion in the transfer function. Cleaner sound with significantly less distortion, even at higher volumes.
- 4. Spider:** An optimised spider with a precisely defined number of springs forms the connection between the coil carrier and the basket.
- 5. Speaker basket:** Fibreglass-reinforced polycarbonate baskets combine remarkable lightness with great stability, making them an optimal choice for a wide variety of applications.

Diamonds for brilliant sound

The BCT cones used for the first time in the Reference series take the Reference Alpha to the next stage of development: the new DLC (Diamond Like Carbon) cones in the mid-range have been coated with an additional diamond coating. This gives the chassis even greater rigidity and precision - for a neutral, dynamic and natural sound.



- 6. TCC cone:** The midrange driver of the new Reference Alpha are additionally refined with a diamond coating. Furthermore, shape-optimised cone with three different radii is used (Triple Curved Cone).
- 7. Wave surround:** The wave surround design of the transducer system enables enormous reciprocating movements and precisely controls the attack and decay behavior.
- 8. Triple-curved, funnel-shaped cone:** Ultra-light and rigid, triple-curved, funnel-shaped, inward-facing cone. The phase-optimised dome is concentrated at one point, is significantly more responsive and thus ensures more uniform sound radiation.
- 9. Cover ring:** The amorphously shaped front ring made of the low-resonance material POM serves as an asymmetric waveguide and further increases the mechanical stability of the transducer system.



BCT diaphragm and Diamond-ceramic oscillating system

The Reference Alpha models feature the proven BCC (Black Ceramic Tungsten) cones from the Reference Series in the bass range.

The newly developed DLC (Diamond Like Carbon) cones with a diamond coating are used for the first time in the midrange and tweeter system. They deliver an optimal ratio of stiffness, internal damping and weight.

Also new and exclusive to the midrange of the Reference Alpha is the triple-curved, funnel-shaped cone with an ultra-light, phase-optimised dome dustcap. It is centred on a single point and combines



increased impulse response with uniform sound dispersion. The specially shaped Triple Curved Cone (TCC Technology) stabilises and reduces unwanted resonances and distortions. The iridescent surface of the cone enhances the extraordinary appearance of the mid-range driver. We are one of the few manufacturers to use this diamond-coated technology in our midrange systems.



Diamond dome tweeter

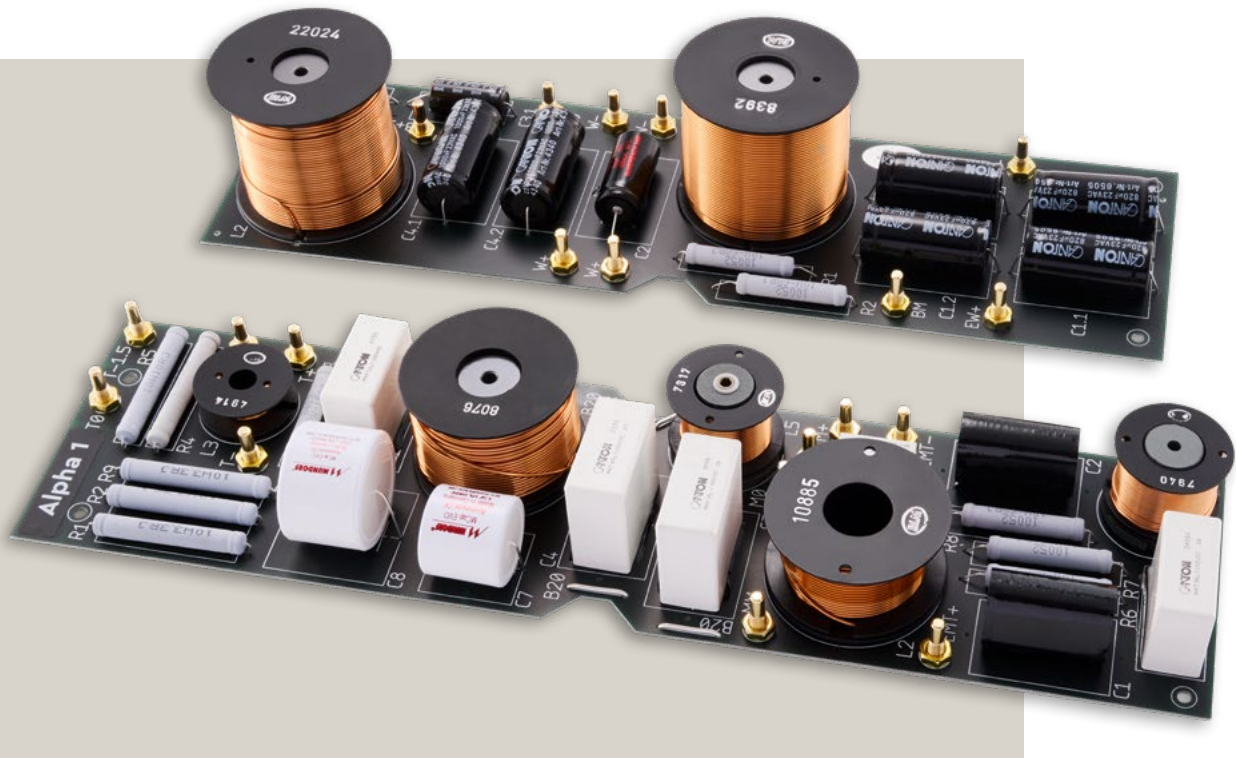
The diamond-coated, extremely lightweight and rigid DLC transducer systems ensure the crystal-clear high frequencies of the Reference Alpha. They offer high internal damping, greater efficiency, extremely good impulse response and low-distortion broadband frequency response linearity. The 3D Wave Guide baffle integrated into the cabinet in matching colours to the cabinet ensures improved dispersion characteristics, both in the crossover range and in the high-frequency range above 15,000 Hz.

The newly developed acoustic lens acts as an additional wave guide and mechanical air cushion, contributing to the exceptional efficiency and bandwidth of the



tweeter systems – to create a listening experience in which even the finest nuances and details in the music can be experienced. The latest generation of wave surrounds is used in all transducer systems. Three congruent surround arches ensure a balanced symmetry of force, which ensures smooth transient and response even at higher levels and diaphragm excursions. This is achieved while maintaining the same surface area and weight utilization of the transducer system.

When developing the crossover, it is not just about splitting the sound signals, but also about sound-forming measures. Optimally designed, it extends the frequency response and improves the group delay in the interaction of the drivers. With the help of Displacement Control, the crossover prevents uncontrolled excursion of the woofers and increases the bandwidth with the same cabinet size.



The crossovers in all Reference models are equipped with capacitors specially manufactured for Canton. To underline the exclusivity of the Reference Alpha, exclusive Mundorf MKP capacitors are also used. Mundorf manufactures in Germany and has been the epitome of high-quality crossover components in the hi-fi sector for decades. To avoid structure-borne noise, the crossovers in the Alpha loudspeakers are mounted on damping cork discs in a separate housing. As the control centre of the speakers, the newly developed crossovers make a decisive contribution to stress-free music enjoyment at all levels. They ensure brilliant treble, impressive bass and maximum precision in the fundamental range.



Powder-coated device feet

The CNC-machined device feet, made in Germany from high-quality steel and with an elegant black PVD coating, enable ideal decoupling in conjunction with special rubber pads and combine stability with audiophile quality.



High-end cabling

The cable runs inside the cabinet are minimised and, like the cable bridges, house the quality CantoLink 600 cables from the renowned German cable manufacturer in-akustik. The construction consists of high-purity copper and a special sheathing for balanced electrical parameters, thus ensuring optimum sound transmission from the connection terminal to the chassis.



POM

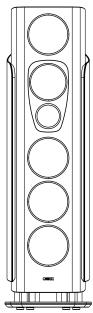
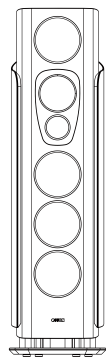
With the thermoplastic POM, we are also sticking with the proven quality material of the Reference series for the Reference Alpha. POM is characterised by its high rigidity, excellent acoustic damping behaviour and good dimensional stability.

Sealing Ring

The flocked sealing ring for speaker chassis, used for the first time in the new Reference series, also ensures effective decoupling in the Reference Alpha and contributes to the impressive listening experience with exceptional attention to detail.

Technical data

Everything at a glance



	REFERENCE ALPHA 1	REFERENCE ALPHA 2
Usage	High-end floorstanding speaker	High-end floorstanding speaker
Principle	3-way, bass reflex system	3-way, bass reflex system
Nominal/ music load capacity	500 / 950 Watt	450 / 820 Watt
Driver sizes		
Woofer system	4 × 219 mm	4 × 192 mm
Mid-Woofer system	1 × 174 mm	1 × 174 mm
Tweeter system	1 × 25 mm	1 × 25 mm
Efficiency (2,83 V / 1 m)	89 dB	89 dB
Transmission range	18...40.000 Hz	19...40.000 Hz
Crossover frequency	170 / 3.100 Hz	170 / 3.300 Hz
Impedance	4...8 Ohm	4...8 Ohm
Dimensions (W × H × D with base)	46 × 164 × 72	41 × 142 × 66
Weight	145 kilogramm	91 kilogramm
Colours	Warm Grey Midnight Blue	Warm Grey Midnight Blue



The Reference Alpha speakers in your living room

The code allows you to place the new Reference Alpha models in any room you are in using augmented reality. Just point your smartphone camera at the QR code to scan it and experience the Reference Alpha up close. How about in your living room, for example? Try it right now! *

*Currently supported by the following devices:
iPhone from iOS 12+ and Android phones from Android 8.0+ with ARCore 1.9 support



For further information on the Reference series,
please visit **canton.de** or contact your authorised
Reference dealer.

Product advice:

Phone: **+49 (0) 6083 287 77**

E-Mail: **service@canton.de**

