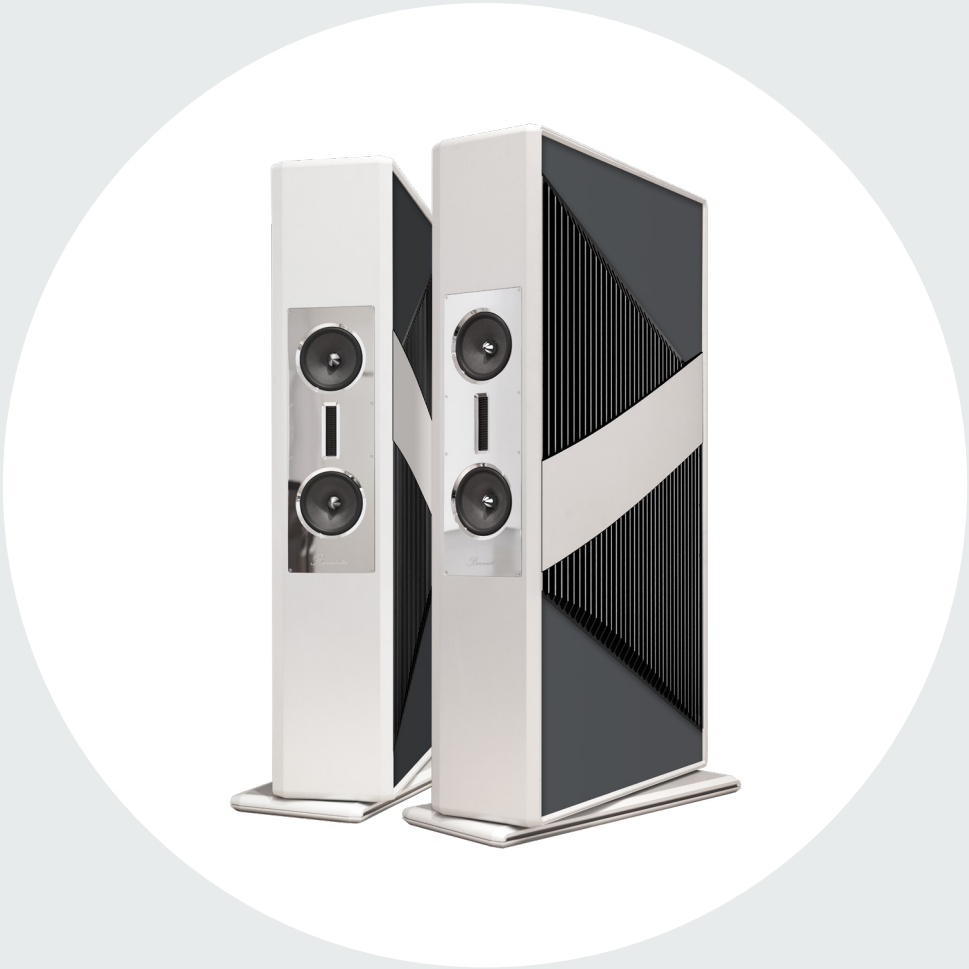
Burmester

PRODUCT INFORMATION

BC350 LOUDSPEAKER



SIGNATURE LINE

BC350 Loudspeaker

Elegant design, imposing dimensions and an absolute lack of compromise in terms of materials and components used deliver the foundations for monumental performance where power and control form a congenial liaison. The BC350 loudspeaker from the new Burmester Signature Line represents the zenith of what is technically possible, with irreproachable musical reproduction.

The impressive shape allows this versatile loudspeaker to reach to the deepest frequencies with almost limitless dynamics - yet the BC350, with its high resolution, also produces a musical, delicate and highly-detailed performance that fills any listening space.

HOUSING
The housing is enclosed by a lavishly milled aluminum frame, which lends the loudspeaker solid support at all frequencies. The dimensions are 1889 x 1000 x 420 millimeters and it weighs more than 420 kg.

DESIGN PRINCIPLE
The BC350 Loudspeaker is able to reproduce music in two different tunings. A switchover of the discrete crossovers, which are set up in a precisely separated configuration, allows the listener to select between intricate detail in Pure Mode and high-level performance and involvement with a psycho-acoustically lifted stage in Live Mode. Thus the BC350 offers the opportunity to realize different focal points in the sound image according to particular listening situations. The elaborately constructed switchover is designed for high power rating and longevity. It enables minimum contact resistances to reach a high damping factor, which is scalable to a maximum with the Burmester 159 Power Amplifier.

Two 32 cm woofers, precisely defined in terms of surface and mass and perfectly matched to the bass reflex design with one bass reflex tube per woofer provide powerful bass depth, two 22 cm mid-woofers with light glass fiber papyrus membranes offer superior sound clarity and two AMT (Air Motion Transformer) tweeters with folded foil membranes allow for a naturally nuanced sonic image at the higher frequencies. In this way, a large AMT sends its sound directly to the listeners, while a smaller one is directed upwards to provide, on request, spaciousness of the music playback by means of indirect sound.

PURE MODE
For audiophile enjoyment of music, the loudspeaker is used in "Pure Mode". This audio tuning focuses on the priorities of a pure high-end music experience: authenticity, tonal balance, highest resolution, precision and agility.

In this mode, the tweeter at the front, one of the two midrange drivers and both woofers are active. The stage presentation allows the differentiated placement of individual instruments and voices, yet at the same time captivates by means of its homogeneity. Audio and voice playback benefit from vastly superior resolution and fine dynamic reproduction.

LIVE MODUS
In "Live Mode", the speaker offers a truly immersing 'live' audio experience. The focus of the tuning here concentrates on dynamism, involvement and spaciousness.
To increase the sense of space according to individual preferences, an adjustable tweeter is activated at the top of the housing. Additionally, in this arrangement both mid-range speakers are switched in parallel in accordance with the D'Appolito principle. In this way, the membrane surface is increased and, in the mid-range at a constant volume, only half as much individual driver movement is necessary. The sound in this mode is dynamic and powerful yet at the same time impresses with its differentiated stage and the ability to perform at very high sound levels without distortion.

HOUSING CONSTRUCTION

Extremely low vibration housing walls with solid cross struts allow the BC350 unusually accurate, resonance free, basic tone reproduction.

The high overall rigidity of the chassis is achieved with the help of the massive aluminum frame and the fully-developed internal bracing concept. This allows the housing construction to compensate any arising forces without effort. It was possible to achieve these outstanding results by means of the Finite-Elements-Method optimized housing development. This is a numerical method well known in the aviation and space industry. To this end, special material investigations took place at the Institute for Fluid Mechanics and Technical Acoustics at the Technical University of Berlin using acceleration sensors. In addition, highly complex laser light measuring procedures were used in order to avoid even the slightest undesired vibration effect.

The rigidity of the housing has been precisely optimized in order to achieve special natural frequencies of the housing, which keep any arising excitation frequencies as far away as possible from the natural frequency. These relate to the area of application of the respective speaker chassis. By this means, any transfer of resonance is eradicated. The vibration response of the housing is extremely low.

Each speaker chassis has been equipped with its own housing in order to exclude any mutual interference. A sandwich front additionally ensures the decoupling of the mid and treble baffle and the bass chambers. Within the housing, attention has been paid to optimized cable routing exclusively with Burmester cables. They are routed in dedicated cable channels, which are acoustically disconnected with the interior speaker housings.

Specially designed feet for maximum stability make it possible to place the loudspeaker on a variety of surfaces. Integrated adjustment enables precise levelling of the loudspeaker. Here also, the materials selected stand for a refusal to compromise in terms of optimized rigidity, internal damping and unprecedented decoupling of the loudspeaker from the floor.

The consistent and perfectly coordinated use of high-quality materials in the loudspeaker base such as stainless steel, tool steel, aluminum and brass lend the BC350 the very best conditions for its solid foundation.

A special pivot bearing is integrated into the body of the loudspeaker for making fine adjustments and adapting to personal listening habits and preferences. This means that aligning the loudspeaker precisely is child's play; the entire body does not need to be moved.

CROSSOVERS

To develop the crossovers, the Burmester R&D team used the perfect conditions of one of the world's largest anechoic rooms in the Institute for Fluid Mechanics and Technical Acoustics at the Technical University of Berlin. The crossovers for the live and pure modes are individually set up in a strictly separated manner and thus allow co-ordination of both modes entirely independently of each other and without the need for any compromise.

The high-strength and extremely low-loss crossover components are selected to ensure all of the signals are transported to the individual speakers with the highest degree of quality. These include the lightning fast-acting silver-gold-oil capacitors for the tweeter and the mid-range drivers.

KPM BASS-REFLEX TUBE

A further highlight of this extraordinary speaker is the handmade bass reflex tube from low-loss, double-walled porcelain, manufactured by the collaborative partner, KPM Königliche Porzellan-Manufaktur. The design and development teams from both manufacturers have taken up the challenge of creating an exclusive component that is unique both in form and function, and in design.

The rigidity of the material offers ideal conditions for use as a bass reflex tube. The stability of the overall design ensures unrivalled low levels of vibration. The smooth surface of the material minimizes any acoustic losses or flow noises arising from the low bass reproduction.

TECHNICAL SPECIFICATIONS

Design	3-way bass reflex
Weight (per speaker)	Ca. 420 kg (925.9 lbs)
Width	420 mm (16.5'') (base)
Height	1889 mm (74.4'')
Depth	1000 mm (39.4'')(base)

PURE MODE

Power rating	550 Watt to IEC 60268
Sensitivity at 2.83V/1m	90dB
Impedance	3 Ω
Frequency response +/-3dB	28-23,000Hz

LIVE MODE

Power rating	900 Watt to IEC 60268
Sensitivity at 2.83V/1m	90dB
Impedance	4 Ω
Frequency response +/-3dB	38-23,000Hz

Burmester Home Audio GmbH
Wilhelm-Kabus Straße 47 · 10829 Berlin, Germany
www.burmester.de