

Product Information B10 Loudspeakers



Originally, the B10 loudspeakers were conceived solely for use as nearfield monitors, to be deployed when recording music in Dieter Burmester's private studio. However, thanks to their extraordinary performance, the concept has now been extended to create a pair of shelf speakers capable of astounding performance, with low space requirements.

A whole series of special features sets the Burmester B10 loudspeakers apart from normal compact speakers. The thickness of the baffle, for example, is as much as 48mm in places, while the front terminates in a panel of solid, 10mm thick aluminium. In most speaker designs, the vibrations from the bass units are transferred to the baffle, which in turn transmits the vibrations to the rest of the enclosure walls. Our B10 speaker cabinets, on the other hand, feature an unusually solid front panel in a sandwich construction. The deliberate decision to dimension both the bass unit and the frequency crossover for extremely rapid transients in the fundamental range constitutes another special feature and impacts extremely positively on the sound characteristics. Transient response has a major influence on a person's sense of spatiality and perceived transparency of the overall sound. In this aspect, there simply is no other loudspeaker that outperforms the B10.

For delicate overtone reproduction, we have perfected the extraordinary annular highringtweeter principle. The result is a unique tweeter unit with ringshaped diaphragm, produced exclusively for Burmester. Its sound benefits are due in no small measure to the fact that the middle and edge of the membrane are located at a distance of very few millimetres from the driving coil, enabling them to react in a fraction of a second to any changes in the audio signal.

For adjusting the bass reproduction to the conditions in the room and to the listener's personal taste the B10 has an integrated foam cylinder providing mechanical damping to the vented cabinet and additionally a bass switch.

The following diagram shows the maximum and minimum bass pressure that can be set using both the foam cylinder and the bass switch in the connection terminals.

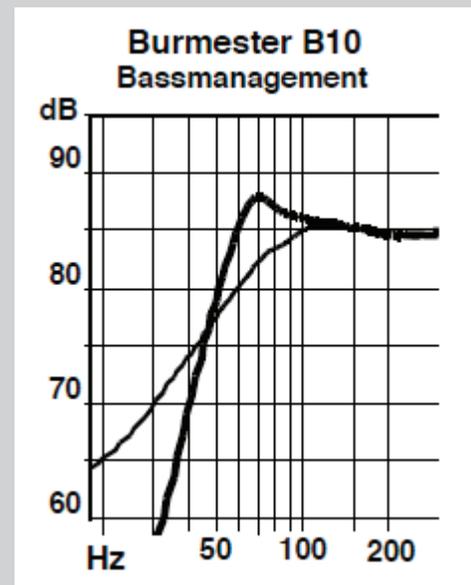
THICK CURVE:

Reflex tunnel open (no foam cylinder) and bass switch set to the right (+).

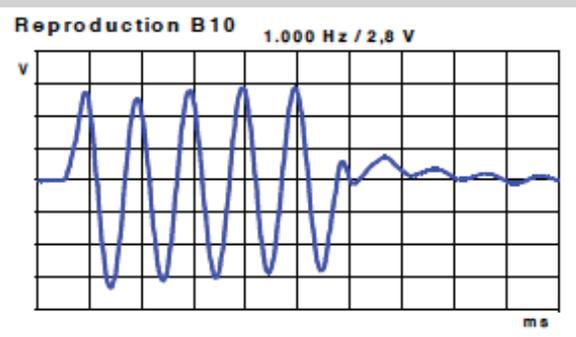
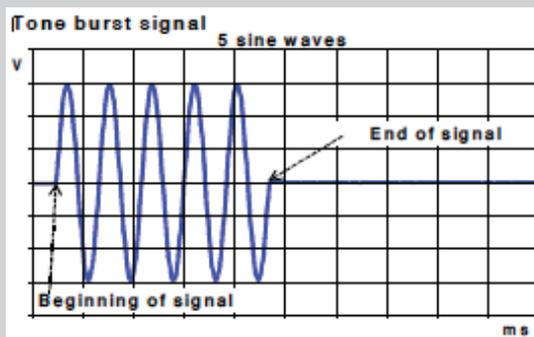
THIN CURVE :

Reflex tunnel closed by foam cylinder and bass switch set to the left (-).

Intermediate values can also be set, e.g. reflex tunnel closed and bass switch set to right (+).



The following diagrams show so-called tone bursts. Tone burst consist of an accumulation of, for instance, five sine waves; they illustrate how accurate loudspeakers reproduce the start and the end of a signal. If the crossover network and the drive units are adapted in elaborate precision work the speaker's accurateness will be audibly enhanced. It is evident at a glance that the B10 comes very close to the theoretical ideal.



FEATURES:

- Low-vibration cabinet walls made of 19mm MDF (medium-density fibreboard) with additional internal struts
- Baffle in sandwich construction up to 48mm thick. This results in low resonance levels and high sound neutrality in the fundamental range
- Reflex construction for low bass distortion. Bass-reflex tunnel in the back wall of the cabinets, can be closed off with the foam cylinder supplied to damp the bass reproduction to a degree
- Bass notes can be boosted to a degree by means of the switch on the rear terminal box
- Special dimensioning of lower mid-range units and frequency crossovers for unusually fast fundamental transients (approx. 200Hz to 2kHz)
- 17cm lower mid-range units with strong magnets and special glass-fibre membranes to maximise efficiency factor and reproduction precision
- Ringtweeter for extremely accurate, stable-level overtone reproduction
- Despite the compact dimensions, suitable for medium-sized rooms (up to 30m²)
- Internal wiring comprises 4mm² pure copper strand for lossless transmission of all signals
- Felt pads for decoupling and surface protection

TECHNICAL SPECIFICATIONS:

Dimensions (W x H x D):	220 x 390 x 280mm 8.7" x 15.4" x 11"
Weight per speaker:	11.5 kg 25.4 lbs
Frequency response:	50 Hz-24 kHz
Rated power:	80 watts
Efficiency:	2.83V/1m 87 dB
Nominal impedance:	4 ohms
Crossover frequencies:	2,300Hz
Bass units:	170mm Æ in bass reflex housing
High-frequency:	units Ringtweeter
Finish:	French Walnut, Makassar, high-gloss white