

New listening experience.



Describing the least expensive model in a range as an “entry model” often has the slightly negative overtones of a cheap product that doesn’t quite come up to requirements. That the Zerobox 109 is an exception to this rule is adequately demonstrated by the test report by Bernd Timmermanns in the German hi-fi magazine “Klang & Ton”:

“This miniature offered such a sovereign performance that the idea of buying an even larger Manger model is simply moot. With regard to the value-for-money factor the smallest Zerobox is top of the range. The bass also deserves a special mention as it goes remarkably low despite the closed cabinet design. Even the depiction of the lowest organ basses or the tightly stretched skins of the huge kodo drums are no problem whatsoever for the Zerobox 109, and appear deep and dry without a trace of exaggeration.”

The Zerobox 109 embodies the whole world of Manger at an affordable price. It should be noted that the difficult part of the task, reproducing music authentically and realistically, is the responsibility of the Manger sound transducer. As with the larger models, the Zerobox 103 and 107, the specially designed woofer magnificently supports the Manger sound transducer only in the regions below 150 Hz. Only the lowest octave between 80 Hz and 40 Hz is

reserved for the woofer on its own. And it is this constellation that ensures the ideal of a punctiform sound source with the Zerobox 109.

The crossover must meet precise requirements to ensure transient-free and temporally exact matching of subwoofer and Manger sound transducer. A 3rd order filter with a precise time delay lets the woofer driver ideally continue the transient of the Manger sound transducer. And finally the top-of-the-range components with closest tolerances are the reason for perfect interaction in the newly designed crossover.

The cabinet is designed in trapezoidal form to suppress standing waves in the interior and this makes a significant contribution to unhindered music reproduction. A cleverly designed system of internal struts, optimised using measuring engineering experience, and the use of state-of-the-art damping materials prevents any resonance of the cabinet even when at high volume levels.

All that remains is to say that in spite of the small dimensions of the Zerobox 109 you will never miss even the finest detail of the music. In line with its name this is a sound transducer system that does not present itself, but the music. Without compromise.

Manger Zerobox 109 IIe data sheet

Driver

Manger sound transducer (MSW, W05, 8 Ohm) – patented broad-band sound transducer with bending-flexible sandwich diaphragm, 70 mm double voice coil (0.4 g in weight) and 15 extremely powerful neodymium magnets for impulsive dynamics and concentric sound propagation (point sound source).

ScanSpeak woofer (20 cm), custom-built, with optimum parameters for a dry, low and natural bass.

Crossover

Crossover frequency 140 Hz

MSW: High-pass 1st order filter, Mcap + Mcap Supreme capacitors, air coils, MOX resistors

Woofer: Low-pass 3rd order filter, MKP capacitors, vacuum-impregnated Zero Ohm transformer coils in the signal path

System data

Impedance: 4 Ohm

Rise time: 13 μ s

Sensitivity: 88 dB 1W/1m

Cabinet

Cabinet made of medium-density wooden fibreboard. Interior lined with floating polymer resin damping panels. Trapezoidal cabinet design to suppress standing waves in the cabinet's interior.

Dimensions and weight

49 x 26 x 36 cm (H x W x D), 21 kg

Finishes

- silk matt lacquer: black, white and aluminium (silver).
- silk matt veneers: alder, beech, cherry.
- fine wood veneers: Macassar ebony, Santos rosewood, Poplar burl, Birdseye maple. Other veneers on request.
- Piano High Gloss black: a high-gloss polyester lacquer applied in several layers.

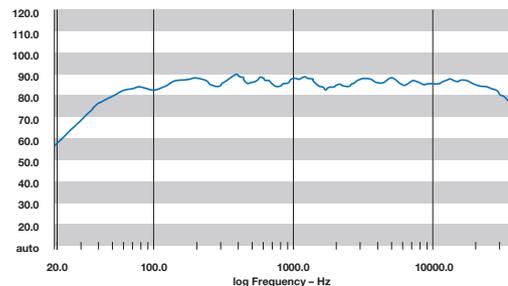


Macassar
ebony

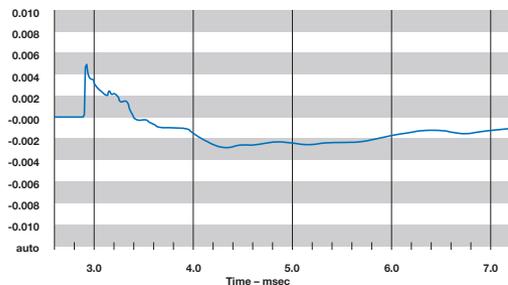
Santos
rosewood

Poplar burl

Beech



Frequency Response: A very balanced frequency response with a remarkably low bass for a cabinet of this size. Linear from 40 Hz to 25 kHz (- 3dB).



Step response: Just about perfect and without any trace of post-oscillation. The instantaneous rise and the optimum addition of the MSW and woofer means that the finer details are never missed.