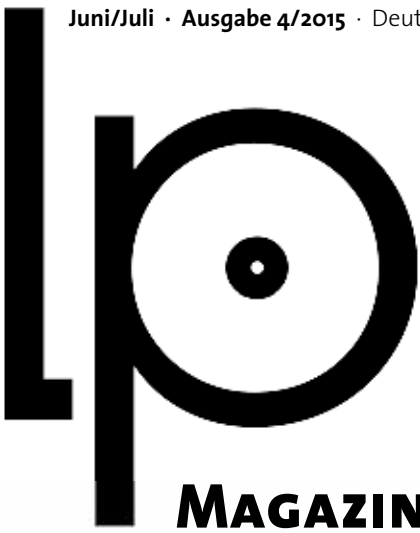
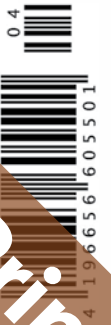


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**MAGAZIN FÜR ANALOGES HiFi & VINYL-KULTUR**

**Special Print  
Manger z1**



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## TIME FOR STARS

Zerobox? That's all past now. With the introduction of the z1 Daniela Manger has replaced the last classic of her product line by an updated model.

**Y**es, exactly, it was called Zerobox 109. The compact Manger 2-way loudspeaker, which has been popular and successful for many years and which I remember very well. Fans of the concept can be reassured: The new z1 has everything the precursor had to offer. And even more.

Given that there's an abundance of 2-way speakers on the market, you might ask what's so special about the z1. In the first place it's the sound transducer, which Josef W. Manger designed and perfected over decades and which has become a synonym for his name. Manger has been and still is a convinced proponent of uncompromising impulse reproduction and he designed a loudspeaker with this ide-

al in mind. The resulting typical circular disk with its distinct star-shaped damper is called a bending wave transducer and its sound radiation differs quite a bit from that of conventional drivers: Firstly, the piston motion of the membrane does not have top priority. Secondly, the Manger membrane is not rigid – as is usually the case – but different portions of the surface are set into vibration depending on the frequency reproduced. Low notes are radiated by larger areas, while higher notes are radiated by smaller areas. This results in excellent impulse behavior, as minimum mass is required to drive high frequencies. Due to the concentric functional principle all requirements for an efficient full-range loudspeaker are met.

According to Manger the driver has a low cut-off frequency of 80 Hertz and indeed, there have been loudspeakers in the past which used the transducer as a full-range driver. It works, although it puts a lot of stress on the design. It makes more sense to operate the Manger transducer in a 2-way system together with a woofer.

All Manger loudspeakers are based on this principle. Partly as active systems for sound studios and living rooms, partly as passive systems in the old-fashioned way. The z1 is the entry-level model, which comes with a matt lacquer finish in all kinds of RAL color shades including the nice gray blue color of our test pair.

Although the z1 is called a compact speaker, considering its dimensions and weight of 57 lbs, it is definitely more than that. When you look closely at the p1 floorstanding loudspeaker, you will discover many constructional similarities: The p1 is only 4.4 lbs heavier and 7.8" deep (compared to the z1 with a depth of 14.6"). So the volumes of the enclosures are quite similar. The z1 must be operated on a stand, which is still in the works at the Manger factory, but will be completed before this year's High End in Munich. Of course, third-party stands will do the job as well, as long as they are stable and not too high.

The z1 cabinet is sealed. No reflex ports, no tricks, no frills. That's Manger tradition and CEO Daniela Manger states quite rightly that only a sealed bass compartment has a chance to cope with the Manger transducer as far as impulse behaviour is concerned. The low frequencies are taken care of by a tried and tested specialist: The 8" woofer with its membrane of handmade paper comes from Denmark and is one of the few that can handle the job perfectly. A reflex design would have certainly allowed an even lower cut-off frequency, but only at the cost of impulse behaviour. The woofer is hidden on the front-side under a tight-fitting fabric cover which gives the surface all in all a very

homogeneous look. In combination with the smoothly rounded corners the visual style is modern and polished. On the rear there are two pairs of WBT Nextgen binding posts mounted on an aluminum plate to facilitate bi-wiring – Manger also includes two cable bridges for those who prefer to use only one loudspeaker cable. On the technical side there's only one essential difference between the z1 and its precursor: The crossover frequency of the drivers has been raised considerably which decreases distortion. And that's about all there is to describe technically, so let's turn the focus to music reproduction.

During our listening test the z1 had to cope with our original design of a sealed loudspeaker called "Nada." Actually I attended the installation of the Manger system with mixed feelings and expected a totally different sound stage. What followed was a huge surprise – you had to listen very closely to be able to tell both monitors apart. Let's start with the low frequency range. Lyn Stanley's rhythm section does an excellent job with both models: relaxed, colorful, dry, but not boring. And Manger's 8" woofer sounds somewhat fuller than the Nada's 18" counterpart, what was to be expected with respect to the considerably larger volume of the enclosure. Both share a direct, snappy attack, a kind of straightforward "instant bass" attitude. I remember the many pleasant hours I spent with the Zerobox 109 and the z1 has the same qualities, of course. At that time, the 109 had been the first Manger model, that no longer exhibited the special tonality which had characterized this in many ways extreme sound transducer in the past. At normal volumes it wasn't an issue any more and the same goes nowadays for the new entry-level model. The transition between the Danish woofer and the bending wave transducer works perfectly. It doesn't yet offer the intrinsic spatiality of a true full-range driver, but nonetheless opens awe-

## Fellow Players

### Record Player:

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### Cartridge:

- [Clearaudio DaVinci](#)

### Phono Preamplifiers:

- [MalValve Preamp Three Phono](#)

### Preamplifiers:

- [Accuphase C-2420](#)

### Power Amplifiers:

- [Accuphase A-46](#)

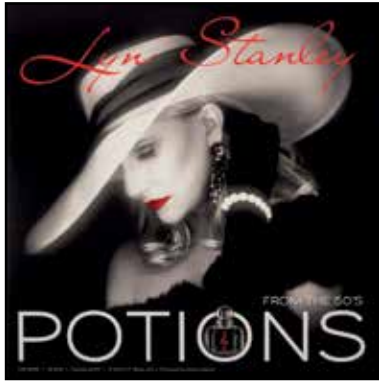
### Accessories:

- [PS Audio P10 Power Generating Station](#)
- [NF Cables from Van den Hul and Transparent](#)
- [Van den Hul Phono Cables](#)
- [Transparent Loudspeaker Cables](#)
- [Clearaudio Record Cleaning Machine](#)

## Opposing Players

### Loudspeakers:

- [Klang+Ton Nada](#)
- [Audio Physic Avantero pluS+](#)



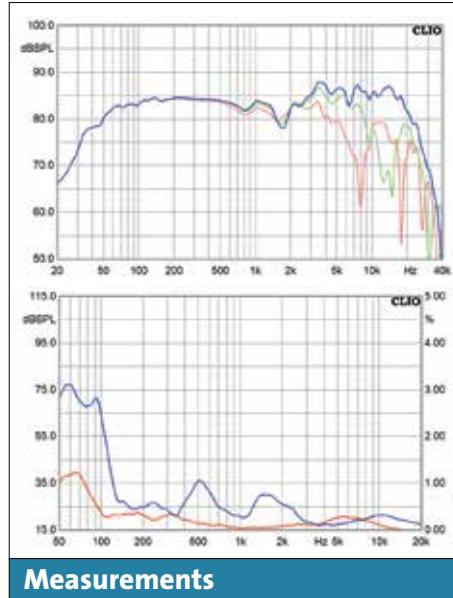
Audio Material

**Lyn Stanley**  
Potions from the 50s

**E.S.T.**  
Viaticum

**Cassandra Wilson**  
Coming Forth By Day

**Jackson Browne**  
Standing in the Breach



### Measurements

#### Notes on Measuring Techniques

*Although the bending wave transducer is not so easy to measure, it behaved pretty well even in front of the microphone. The Manger exhibits an even frequency response and an efficiency factor of 85 dB on average. The impedance diagram at 4 ohms looks so good, that even strong tube power amplifiers will not pose a problem.*

*THD at 85 dB is normal except for two small peaks in the midrange.*

some spaces especially in the low range and completely disappears physically, if set up correctly.

The z1 was pleasantly easy to position, the classic equilateral triangle and a slight inward correction towards the listener was all that was needed. We play the beautiful reissue of the “Viaticum” album by

*A tried and tested driver specialist from Denmark takes care of the low frequency range. Everything else is Made in Germany.*



*Luxurious rear side: The z1 features a premium connector panel with WBT terminals and a hand-signed mounting plate.*

the Swedish Esbjörn-Svensson trio and are fascinated again – as before with Ms. Stanley – by the key strokes of the piano. This is one of the Manger transducer's strengths: The sonic energy and clarity are impressive and unrivaled.



### Manger z1

· Distributor	Manger, Mellrichstadt
· Telephone	+49 9776 9816
· Website	www.mangeraudio.com
· Warranty	3 years
· WxHxD	10.6 x 21.0 x 14.3”
· Weight	57 lbs

### Summary ...

“Manger’s new compact loudspeaker easily joins the top ranks of this market segment. The z1 provides a wonderful synthesis of absolute tonal correctness and dynamic high-performance. As far as peripherals are concerned, only the best is good enough. The Manger z1 reflects every nuance in quality.”





*The star shines bright: In the z1 the Manger transducer does a great job.*

In comparison, the Nada is almost as dynamic, but sounds a bit rounder and “cuddlier.” The current Manger loudspeaker excels at a degree of tonal neutrality, that is only matched by the active models

from the same manufacturer. Its airiness and dynamic scope fully exonerate the z1 from the suspicion of primness. Although I believe that a loudspeaker should be allowed to express its own sonic “opinion,” I must admit that the z1 doesn’t have one. And it is working great. How much atmosphere the Manger is able to reproduce exemplifies Cassandra Wilson’s exciting “StrangeFruit” interpretation. The sound of the recording is not beyond all doubt, but you can intensely feel the dramatic mood, while the singer’s compact voice is almost humbly positioned in the center and clearly separated from the surrounding instrumental thunderstorm. This is high fidelity on the highest level.

*Holger Barske*



*The woofer is normally hidden under a tight-fitting cover.*