

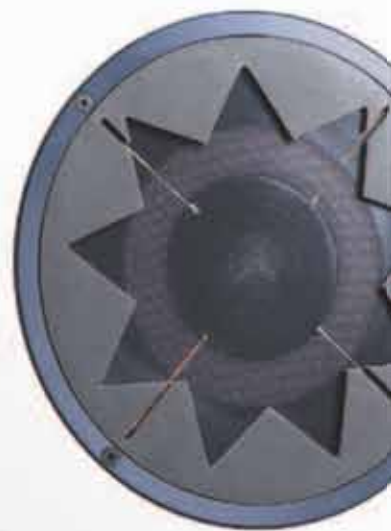
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**TEST**

Passive Compact Speaker with Manger Transducer

**MANGER Z1**

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# ANTIHERO

Manger's z1 compact passive speaker is not a typical all-rounder – and it dispenses with any gimmickry. A drawback? Quite the contrary: hi-fi fans can enjoy a congenial, straightforward-truthful loudspeaker that fascinates by its enormous fidelity.

■ Test: Alexandros Mitropoulos

As the z1 is only about 20" high, audio fans will wonder how to set up the new Manger speaker. It's too low to be placed on the floor (the famous Manger Sound Transducer must be positioned on ear-level) and a flimsy shelf won't probably be strong enough to securely support the 57 lbs speaker. "Thanks for the hint," responds Daniela Manger, manager of the loudspeaker company from Mellrichstadt, "I will tell our carpentry to design suitable stands."

Lo and behold, our tester is dealing with a manufacturer of high-end products who's not only pleasant but also listens to constructive criticism. And of course, the stand will match the selected finish of the speakers,

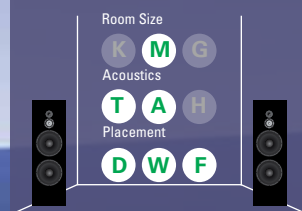
which are also available in wooden veneer, high-gloss lacquer and other variations at a surcharge.

But even the basic version of the z1 which comes with a silk-matt makeup in freely selectable RAL colors already cuts a good figur. Our perfectly finished white z1 test pair looks high-class and reminds us of the p1 floorstanding loudspeaker (test in AUDIO 11/13). And the similarities of the duo go beyond the looks. Since the cabinet of the compact model is deeper, it features the same volume as the floorstanding version. Even the same chassis are used: Frequencies up to 350 hertz are handled by a conventional 20" bass-mid driver manufactured

by Scan-Speak. There were good reasons for choosing a pretty high crossover frequency. This way the rather small efficiency factor of older versions of the Manger transducer could be increased by a few decibels to a perfect level.

For the same reason the most current evolutionary step of this special transducer uses several powerful neodymium magnets which are arranged in a circle on the back – just in case. Even so the z1 still won't be able to shatter your walls. Because that's not what it's made for. Like the first sound transducer from Mellrichstadt the z1 is built for optimum impulse fidelity. It all begins with a cunning driver system which mainly consists

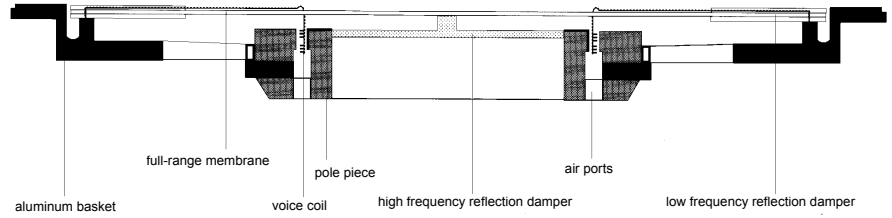
## ROOM AND PLACEMENT



Flexible wall distance.  
Angle: between 45 and 60 degrees, depending on the listening distance.

of a very light 70 mm dual voice coil. As the two voice coils are wound in opposite directions they are generating bending waves which propagate on the surface towards the edge of the membrane, where the star-shaped absorbing surround prevents any detrimental backward motion of the waves. However, the actual knack of the Manger and the main reason for its impulse fidelity is the fact that the sound-generating membrane surface decreases the more the frequency increases. That's why the voice coils don't have to constantly work at their limit and excite all the parts of the membrane surface, but rather are allowed to concentrate on small parts that are easy to handle. Result: The sound generation of higher frequencies (that's where our hearing is the most sensitive) occurs at lightning speed.

It took the z1 only a few seconds to make the testers believe they were listening to the p1 floorstanding loudspeaker. OK, a few hertz in the bass range were missing, but apart from that the compact model featured all the qualities of its bigger sister model: The z1 reproduced music totally balanced at high resolution and performed in a more effortless, detailed and authentic way than conventional systems. However, heavily compressed recordings such as the Red Hot Chili Peppers were not so easily digested by the Manger and lo-fi punks such as Ideal were only being played with disgust. First and foremost the z1 develops its full potential with recordings of sophisticated artists of



her own kind: All the Brad Mehldaus, Kyle Eastwoods and David Cheskys, whose albums were stored in HD-quality on the AUDIO server (delivered by a brilliant Linn Klimax DSM and amplified by a T+A PA3000 HV), made everyone happy again.

**SUMMARY**



**Alexandros Mitropoulos**  
AUDIO Editor

**The z1 provides Manger fans with a compact loudspeaker that offers the same technology as the p1 floorstanding speaker at a considerably lower price. In addition the little sister features the same sonic qualities: If the music fits, the z1 is very hi-fi, depicts the stage in a spectacularly natural way and preserves its sensitive character in every situation.**

**HOMEGROWN:** The sectional drawing of the Manger transducer makes clear how complex the driver is designed. Each chassis is still handcrafted at the Manger factory. The massive bass-mid driver is being manufactured at Scan-Speak according to Manger's specifications and adapted to the sealed enclosure of the z1.

**PROFILE**

	<b>MANGER Z1</b>
Distribution	Manger MSW +49 9776 9816 www.mangeraudio.com
Warranty	3 years
Dimensions WxHxD	10.6 x 21.02 x 14.33"
Weight	57 lbs
Veneer/Foil/Lacquer	• / - / •
Colors	RAL-colors, high-gloss lacquer or veneer at a surcharge
System	2-way, sealed
Room Adaption	-
Features	bending wave transducer



**AUDIO CHART**

		<ul style="list-style-type: none"> <li>➕ Effortless, consistent and detailed sound, authentic soundstage, three-dimensional imaging.</li> <li>➖ -</li> </ul>
Neutrality (2x)	100	██████████
Attention to Detail (2x)	100	██████████
Localization	100	██████████
Spaciality	95	██████████
Micro-Dynamics	95	██████████
Maximum SPL	85	██████████
Bass Quality	95	██████████
Bass Depth	90	██████████
Workmanship	outstanding	

**SOUND RATING 96 POINTS**  
**PRICE/PERFORMANCE OUTSTANDING**

**MEASUREMENT LAB**

On-axis the frequency response of the Manger z1 is pretty smooth except for a narrow-band dip at 1.8 kHz (1). At 30 degrees off-axis the high range starts to decline already below 3 kHz. A fact that should be considered when setting up the speakers. THD measurements showed negligible distortion up to 95 dB and only little more at 100 dB. The rather high harmonic distortion attenuation factor of 73 requires a powerful, stable amplifier.

