

# stereoplay



**Heco contra KEF**  
Die beste Box  
unter 2000 Euro



**Anthem AV-Receiver**  
Klang-Alternative  
zu Onkyo & Co.

**Mit umfassender  
Technik-  
Erklärung**

## Überlegene Prinzipien

- ▶ Biegewellen-Schwinger Manger MSMs1
- ▶ Elac FS 509 mit patentiertem Verstell-Koax
- ▶ Elektrostaten-Hybrid Martin Logan Montis

### Die wichtigsten Wandler-Verstärker

Test: **Audionet DNA**

Präzise wie kein anderer

Test: **Cambridge DacMagic Plus**

Hi-Res zum Einstandspreis

Test: **Peachtree Grand Integrated**

Röhren-Hybrid mit 1400 Watt



**SPECIAL REPRINT**  
**Manger MSMs1**

## Manger MSMs1, 13200 EUR

Introducing monitor aficionados to the Manger loudspeaker is like bringing coals to Newcastle. After all, the bending wave transducer named

after its inventor Josef Manger exists for almost thirty years now. Many audiophiles have

run across this completely flat driver in one form or another, usually as a highly esteemed component for assembly kits or professional devices.

The Manger monitor seems to maintain a rather low profile, though, because many other (and bigger) manufacturers advertise their products more intensely and introduce new models more frequently than the small Franconian company. Here, Daniela Manger, daughter of the founder and electrical engineer in her own right, has taken over leadership some years ago. Her father Josef, born in 1929, is still working in the background, writing scientific papers and planning several patent applications.

The Manger transducer is based on assumptions from auditory physiology and focuses on transients which are omnipresent in all noises and sounds. Manger's conclusion: Conventional sound transduc-

### Summary

The Manger monitor impresses with unique transparency and precision which you will find indispensable pretty soon. The acoustical imaging is holographically accurate and authentic.

ers store energy in their membranes and suspensions and add soft transients to the signal which distract our hearing and impair intelligibility. His solution is a system consisting of a flexible plate whose weight and rigidity varies according to the length of its radius. Electrical energy is induced via a large dual voice coil. The membrane generates bending waves and is terminated at the edge by its wave impedance. Sophisticated fine-tuning prevents energy from being stored – and enables verifiable paramount transient response



The monitor is available in almost any color. The MSMc1 can be auditioned at your home for a service charge of 160 Euros which will be deducted from the purchase price.

## Technical Details

### How the Manger Sound Transducer Works

The Manger transducer processes the amplifier signal similar to a conventional chassis: A live voice coil is exposed to a field of 15 neodymium magnets arranged in a circle and it converts the electrical signal into mechanical vibrations. The extremely large double-wound voice coil has a diameter of 70 mm, weighs only 0.4 g and provides extremely short rise times according to the manufacturer. While conventional membranes in theory work like rigid pistons the Manger transducer uses a soft membrane with variable thickness and consistency. Size and material are balanced in such a way that the circu-

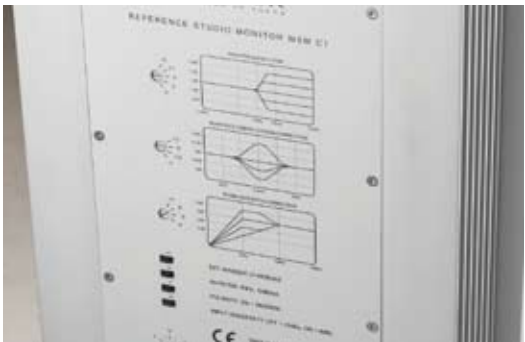
larly spreading bending waves cover an extreme bandwidth which ranges virtually from 80 up to 40,000 Hertz – more than nine (!) octaves. There is no other fullrange driver that offers identical specifications and comparable omni-directional radiation. The exact composition of the membrane as well as other details are top-secret. Neither Daniela Manger who is managing the company for several years now nor her father are willing to disclose any information. This is understandable as the patents protecting against plagiarism have run out. The electronic filters of the active monitor correct the frequency re-

sponse slightly without impairing the outstanding impulse response. For example, the electronics even out the small inherent dip generated by the soft membrane at about 1.5 kHz. The transducer consumes considerably less watts than years ago and sounds even more pristine and precise in combination with the active design. The woofer and Manger transducer are equipped with separate limiters which work softly and gently and focus on the characteristics of the respective drivers. When one of the limiters is activated the front panel LED at the right changes color. The LED at the left is the power indicator.

For about two years Manger offers an active system which enhances the transducer's abilities better than ever before. Features include not only analog power amplifiers and filters „Made in Germany“ but also finesses typical for active monitors like sound-friendly limiters located outside the signal path and practice-oriented correction filters. A separate woofer in a closed chassis relieves the strain on the bending wave transducer in the bass range. In comparison with the compact MSMc1 which is based on the same concept and has been tested with excellent results in *stereoplay* 10/10 the

floorstanding MSMs1 packs the unchanged assembly in a design which most private customers will prefer: The depth of the housing is smaller and the additionally required stand for the compact model is already integrated. Despite its smaller housing depth the floorstanding model offers the same volumes. Since the differences in front geometry are compensated electronically the test results for both products are virtually identical. The sonic differences are surprisingly noticeable, though. The longer front baffle and the uniform solid enclosure seem to further enhance the extremely

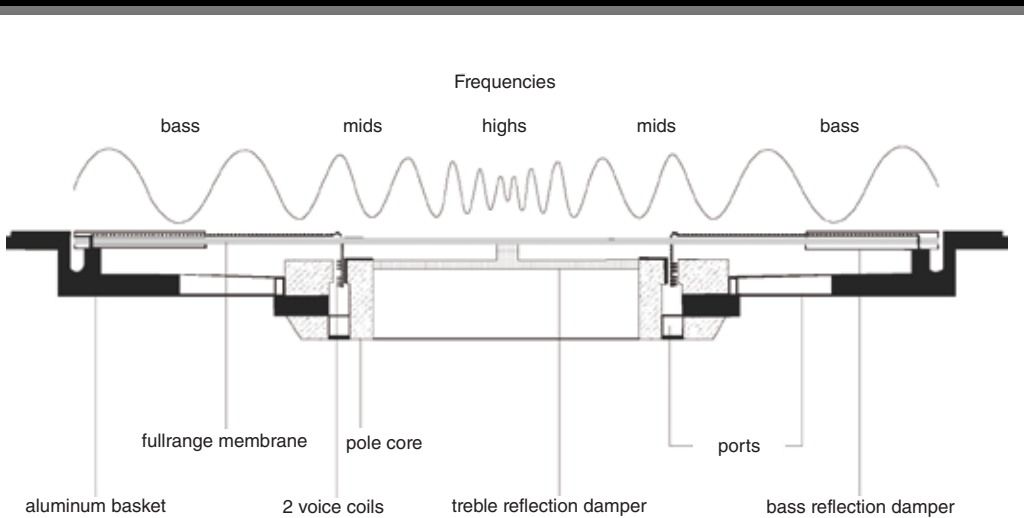
natural high-resolution quality of the Manger transducer. There are no special recordings required to demonstrate its abilities. Simple sounds such as speech, a drum set or church bells will suffice to let the Manger transducer sound far more authentic, detailed and vibrant than anything you heard before. Although its stability under load could still be improved this characteristic is soon forgiven and forgotten. For people willing and able to adapt their listening habits – which is a rather enjoyable process – the MSMs1 will make their dreams come true.



Bass, upper mids and treble can be conveniently adjusted.



The enclosures have rounded edges and are shallower than the MSMc1 housing.



The flexible membrane is completely flat. The rigidity varies and distributes the frequencies accordingly. High frequencies are generated in the center, mids and bass are generated closer to the edge.

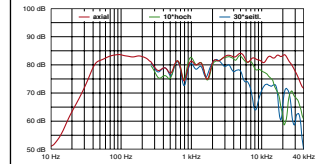
## Manger MSMs1 13,200 EUR (as per manufacturer)

**Distributor:** Manger Products, Mellrichstadt  
**Fon:** +49.9776.9816  
**www.manger-msw.com**  
**International distributors:** see website  
**Dimensions:** W: 10.6" x H: 44.8" x D: 8.4"  
**Weight:** 105.7 lbs (48 kg)

**Placement Hint:** free-standing or close to wall, min. listening distance: 2 m, normally damped rooms up to 35 m<sup>2</sup>

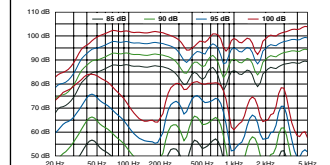
### Measurements

#### Frequency Response & Impedance



Smooth with slight ripples in the midrange and articulate directionality in the treble range

#### Level & Distortion: 85 - 100 dB SPL



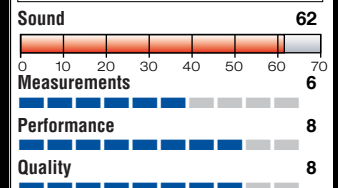
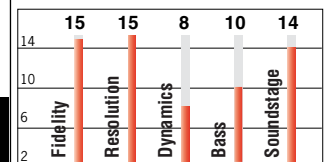
Strong distortion in the midrange with minimum compression

**stereoplay profile**

n/a with active loudspeakers;  
**Power Cons.:** Standby/Use: -/ >27 W

**Lower Cut-Off Freq.:** -3/-6 dB 38/33 Hz  
**Max. Level:** >38/80 Hz 101/89 dB

### Rating



Premium quality floor-standing loudspeaker with lacquer finish in all colors. Integrated power amplifiers and convenient correction filters. At moderate levels the Manger Sound Transducer still sets the standard for transparency and micro-dynamics.

### stereoplay Test Rating

**Sound**  
 Absolutely Top Notch 62 points

**Total Rating**  
 Excellent 84 points

**Price/Performance** very good