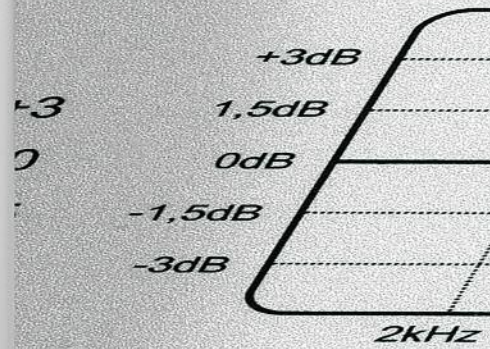
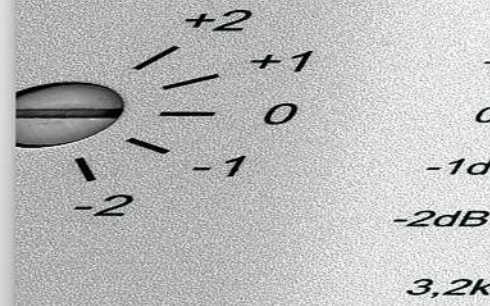




REFERE



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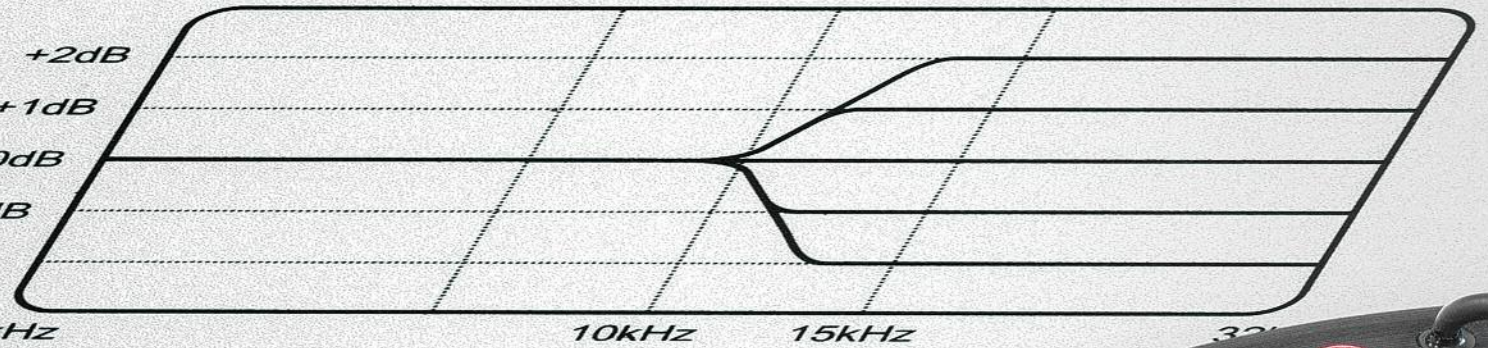


# M A N G E R

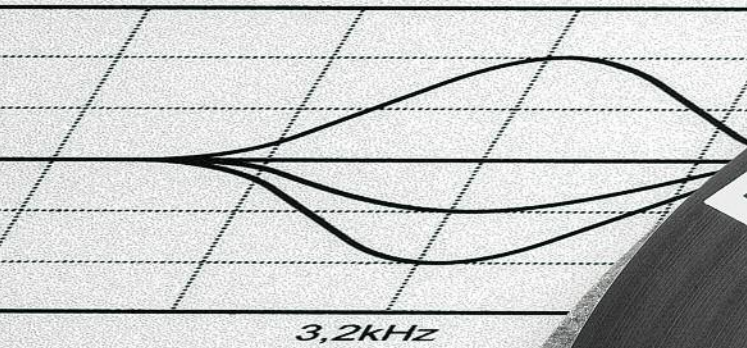
P R E C I S I O N   I N   S O U N D

ANCE ACTIVE SYSTEM MSM

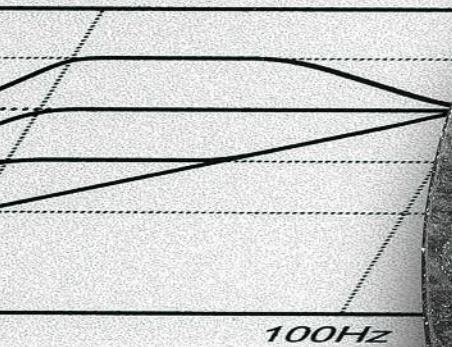
## HIGH-FREQUENCY-TRIM



## NEARFIELD-/CINEMA SCREEN-CORRECT



## OM-ACOUSTICS-COR



## MODULE







## Loudspeaker Manger MSMs1

Author: Josef Bruckmoser Photography: Rolf Winter

**The new Manger MSMs1 active loudspeaker is another perfect example of the bending wave transducer's exceptional quality: The music is totally purged!**



## Smooth and Pure

The Jadis audio player which has gained sort of reference status in my test (page 86) plays *Fön* by Hubert von Goisern. It is not the latest CD by the folksy pop musician from Styria but still one of his best. And it is perfectly suited as test software since the singer demonstrates all the possible – and almost impossible – qualities of his voice. For example, the song “Kalt”: Hubert starts with a pretty viperish and aggressive falsetto followed by his sonorous baritone which is complemented by a full-grown choir as a third timbre.

After my meticulous testing of the French player I had no doubt that the Orphée 1 would process these three different and contradictive registers very subtly and vividly. And my earlier encounters with Manger products made me look forward to hear how the MSMs1 Reference Active System would track all the musical dashes of color which the player was capable of reproducing. The elegant and almost graceful looking Manger MSMs1 surpassed my expectations.

The bending wave transducer of the Manger Reference Active System has mastered an art which is hard to find even among premium monitors: it reproduces music without any sonic by-products and directs the attention of the listener completely to the performing voices and instruments. The falsetto is being raised above the other sources in such a clear and unaltered way that you even understand the sense of the onomatopoeia – at least you believe you do, although it is depicted in the voluminous booklet of the *Fön* CD only as mazy symbols ... well, mazy or not, you never know. With Hubert von Goisern, who is nicknamed the “Goiserer” in his home country, chances are that even this onomatopoeia has some kind of hidden meaning.

Hubert sings: “Jessasmarantjosef”, which means something like “Holy mackerel”. And this expression is perfectly suited to describe the vibrato and smooth texture with which the Manger MSMs1 reproduces the strings on *Fön*. A long gliding sound that nonetheless can cut abruptly at the end.

One of the most important qualities of the bending wave transducer is the absence of “intervening periods” between musical time units and time units. The sound starts immediately with-

out physical preparation and when it's gone, it's gone. This can sound rather dry at times. But firstly, the ear gets used to it pretty fast, and secondly, you will soon be convinced that this is exactly the way it should be. The things you miss at first do actually not belong to the music. What is missing are the side effects, things that other drivers normally add because they are not fast enough and/or their membranes are not even enough.

On "Famous Blue Raincoat" (BMG 258418-222) Jennifer Warnes provides evidence for this quality. Very rarely have I heard the newscaster's voice at the very beginning so clearly even at low volumes. And this transparency does not reduce the warm timbre of the singer's voice. Also remarkable is the wonderful presence of the background choir which never gets mixed up with the voice of Jennifer Warnes and is clearly positioned behind her.

New is the fact that this quality feature now sets in at a lower crossover frequency of 330 Hz – earlier incarnations of the bending wave transducer used a slightly higher value and the connected woofer had to advance further into the upper frequency range. Now the relevant driver covers a very broad ran-

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## Teammates

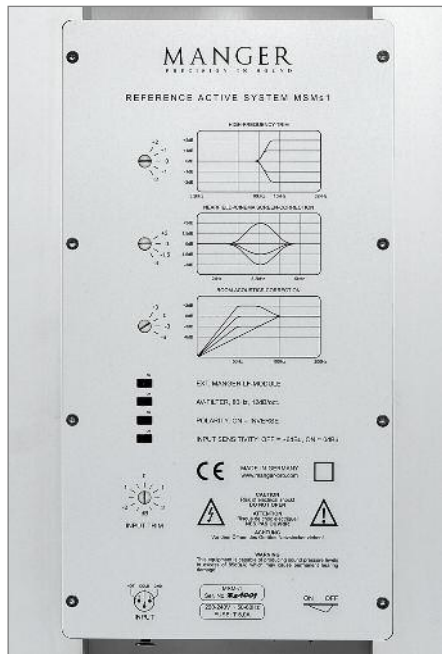
**Drive:** Kuzma Reference **Pickup Arm:** Kuzma Stabi Reference **Pickup:** Benz Micro Ruby Open Air, Benz LP, Ortofon Rohmann **CD Player:** Theta Data Basic (Philips CDM-9) **D/A Converter:** Theta DSPro Generation III **Phono Stage:** Jeff Rowland Candence **Pre-Amplifier:** Jeff Rowland Synergy II **Power Amplifier:** Jeff Rowland Model 12 **Cables:** Brodman Acoustics (loudspeakers), Cardas Golden Reference, Cardas Neutral Reference (phono and line) **Loudspeakers:** Trenner & Friedl, Parker 95 (update 2005) **Accessories:** SID Analog (sound improvement disc "A"), Millenium Karbon LP Mat, Clearlight Audio RDC Cone, SIC (sound improvement coupler), Audioplan Sicomim Antispikie SIAS, ART damper

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# Loudspeaker Manger MSMs1



ge in which at lower frequencies the bending waves propagate across the whole membrane up to the rim. At higher frequencies – up to 40 kHz! – only small portions of the membrane are excited. This makes the MSMs1 a pure point sound source in the range of 300 Hz to 40 kHz.

The woofer consists of a 200 mm fiberglass/polyester sandwich-type membrane and is driven by a 250-Watt power amplifier with bipolar power transistors. The amp is integrated into the enclosure and is able to supply the voice coil of the chassis with the necessary amount of (peak) current. The midrange/treble power amplifier produces up to 180 watts. According to Daniela Manger the amplifier features exceptionally fast DMOS transistors and a unity gain output stage. They are typically used to ensure very clean and undistorted signal transmission. Maximum power bandwidth is 250 kHz and the analog filter stages are equipped with BurrBrown op-amps. Fortunately classic A/B amplifiers are used instead of off-the-shelf Class D modules, although they are not as energy efficient as switching amplifiers during idle running times. But 25 watts power consumption is economical enough to leave the loudspeakers switched on during weekends of intense listening. And on weekdays it is sufficient to turn on the integrated power amps when you come home. You can then enjoy your dinner and dive into the sonic universe of the bending wave transducer after the system has warmed up for about an hour.

Compensation filters for bass, presence, and treble as well as near-field monitoring, sensitivity, and polarity are available on the back panel. The room acoustics switch is actually a high-pass filter at 100 Hz. The shelving filter for the treble range can be used in steps of 1 dB starting at 10 kHz. Thanks to the balan-

Top: The diagrams on the back of the enclosure show the various room compensation options: treble, nearfield/presence and bass

Bottom: The two power amplifiers are housed in a metal enclosure and are thus completely separated from the loudspeaker enclosure

ced input connector the distance between loudspeaker and preamplifier can be pretty large. In our privileged case Nordost Valhalla cables transmit the signals from the Rowland preamplifier to the MSMs1 power amps. A high-quality Nordost power cable with Furutech connectors supplies the loudspeaker with mains voltage. However, comparisons with affordable Einstein power cords prove that you do not have to use rather expensive Nordost power cables to get good results.

An unobtrusive green LED lights when the MSMs1 is activated. The se-

cond green LED turns red as soon as the maximum sound pressure level of 110 dB has been reached. During normal listening I never came even close to this limit. It should be clear though, that this loudspeaker is not made for sound reinforcement in a disco environment. It is rather a very sensitive and subtle sound transducer which embodies the sophistication of premium sound studios. And with dimensions of 45" (1.14 m) height, 10.6" (27.0 cm) width, and 8.5" (21.4 cm) depth it is best suited for medium-sized central-European living rooms.

My listening room exhibits a slight resonance around 2 kHz, so I first tried to attenuate the presence by 1.5 dB. But since the Manger loudspeaker is very well suited for low volumes and I like to listen to music late in the evening or at night I preferred to boost the bass a little and leave the presence flat. It was the better solution for this room and this purpose. In either case the integrated amps and the active crossover facilitate such fine tu-

The famous Manger star. The bending wave transducer is the result of decades of development and experience. Its star-shaped cover controls how far the membrane is excited by different frequencies







## Loudspeaker Manger MSMs1

ning and there is no need to use additional passive equipment.

Which brings us to the sticking point of “active speakers”. First the pros: An active design is almost mandatory for bending wave transducers and it is proved and tested. With the passive versions the Manger company spent many years of development to adapt the woofer chassis to the ridiculously fast and clean point sound source and its rise time of 13 microseconds. The now available lower crossover frequency is part of the solution which facilitates smooth interplay and coherent timing of the two drivers. The optimum, however, is the active design of the Manger Reference which directly connects each driver to

its own amp. It is one of the best ways to control a woofer, to accelerate it and to keep it on track.

The MSMs1 must be regarded as a coherent comprehensive design. And even finicky high-end aficionados, who would like to hear how this fantastic bending wave transducer sounds in combination with their outrageously expensive and amazing power amplifiers, will fall silent since the Manger MSMs1 is in a league of its own. Not least because 13,200 EUR for a pair of loudspeakers from Mellrichstadt definitely belongs to the category “Price of the Century”.

This active speaker is the ideal basis for a minimalist audio system which only needs a high-quality D/A converter with adjustable volume to be complete. For example, a device with valves such as the Lector Digicode S-192 which we tested not long ago. The active MSMs1 can be directly driven by such a DAC preamplifier or a network media player – including title selection and volume adjustment via iPhone oder iPad. Additional costs for power amps can be saved and you are ready for a high-end experience.

In addition to its own powerful drive the woofer is tightly controlled by an individual power amplifier

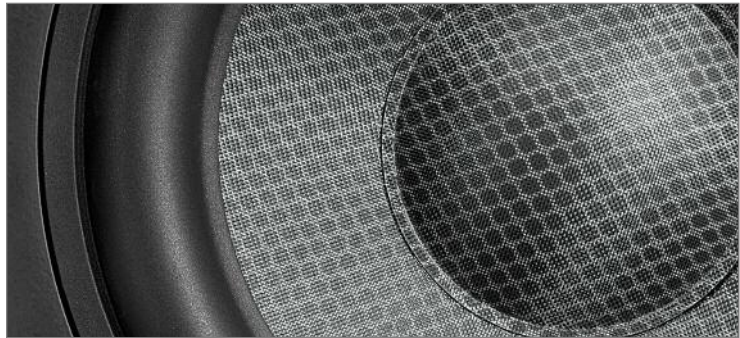


Unless you belong to the club of vinyl lovers like Allegro-HiFi, the busy Austrian Manger distributor in Vienna. In addition to the normal must-have devices they installed premium auxiliary equipment in their listening room to offer people an alternative auditory impression. The signals are captured by a Van den Hul DDT2 Special pickup and pass through a “The Grail” phono preamplifier by the same manufacturer before they reach the “small” Audio Research preamplifier. Nordost cables ensure a transparent signal flow.

The German loudspeaker was pleased to reproduce the beautiful “Vier Jahreszeiten”, interpreted by Neville Marriner and his Academy of St. Martin in the Fields, with utmost vibrancy. The completely different character of the Van den Hul compared to the Benz Ruby Open Air of the reference system at home was immediately noticeable.

It was not only the vibrancy of the finely nuanced strings that stimulated the attentive ear. The sound of the harpsichord unfolded an unexpected diversity of tonal shades, too. This was certainly not only due to Marriner and his Academy. The decisive contribution to this excellent performance came from the smooth and dynamic bending wave transducer.

But let us return to our reference system and the Fön CD. At first only two or three tracks should be used for our listening test. However, the music sounded so fresh and beautiful that we kept on listening just for fun. The same thing happened with Ronald Brautigam’s pianoforte which he



The 200 mm woofer is equipped with a fiberglass/polyester sandwich-type membrane



For extreme volumes: like the studio monitor version the MSMs1 provides a connector for an additional subwoofer



No frills: the connector panel consists of balanced input, power socket, and power switch





## Loudspeaker Manger MSMs1



played during two of Mozart’s piano concerts on original instruments (BIS-SACD-1894). Especially noteworthy is the way in which the Manger transducer reproduces the depth of the stage. The pianoforte is located right in front and flush with the front panels of the MSMs1 – virtually within reach. On the other hand, the stage seems to be unlimited toward the back. Each instrument group of the orchestra is assigned to a clearly defined virtual section of the stage. The listener not only hears but almost sees that the woodwinds are sitting in the back and the kettledrums are standing in the next row behind them. When you close your eyes the musicians on stage mutate into a three-dimensional sculpture.

Nothing disappears in a diffuse orchestral cloud of sound and each musical part, whether woodwinds or principal violinists, can be heard separately. Not in the sense that the orchestral sound disintegrates into individual components and falls apart. No, it is a type of transparency which only few sound transducers achieve and which makes the musicians “visible” row by row. “Localization is pretty unfamiliar at first as the driver slip completely out of focus”, report the listening notes. “But this makes you realize how strongly tones stick to the drivers with other brands”.

The “Mirror” album by Charles Lloyd (ECM 2010) is an excellent example of this three-dimensional imaging of instruments. The upright bass played by Reuben Rogers swings and Jason Moran’s piano is clearly separated from Eric Harland’s drums. And, above all, float the alto and tenor sax lines of the phenomenal Charles Lloyd. You can look at each instrument as you please. Similar to a live concert, when you direct your attention to one musician in particular and the other band members play along.

Top: The rearward sound of the bending wave transducer is heavily damped within the enclosure

Bottom: Toroidal coil transformer of the integrated power amplifiers

To hear how a large orchestra sounds we listened to Symphony No. 2 D Major by Jean Sibelius. On the Chesky CD 3A Sir John Barbirolli has recorded Opus 43 together with the Royal Philharmonic Orchestra. In the crescendo sequences of the allegretto you can hear a resonance in the string section – but only if the resolution of the reproduction chain can depict these subtle vibrations. The bending wave transducer handles everything with ease and reproduces the resonating bodies of the strings even at moderate volumes. The strongly plucked pizzicatos of the strings have a completely different timbre than the subsequent full chords. In the back of the stage the sound of the kettledrums fill the space while staying clearly separated from the string section in front.

Again, the excellent recording of the Chesky CD exhibits impressive spatial positioning of instruments and transparent, diversified imaging while retaining a coherent sound. The full body and the multifaceted timbres of the Sibelius symphony are always present. The same goes for the classic recording of Bizet's opera "Carmen" with Teresa Berganza and the London Symphonic Orchestra conducted by Claudio Abbado (DG 437 007-2, Abbado Edition). The piccolo flutes and the fresh and bright voices of the Watson's George College Boys' Chorus float above all the instruments in "Avec la garde montante".

The MSMs1 Reference Active System from Manger is a high-precision instrument for music reproduction. Its point-shaped dispersion and unique timing make the bending wave trans-

ducer stand out from the crowd. The investment of 13,200 EUR per pair is far more than the foundation of a high-end audio system. It is the beginning of sophisticated musical enjoyment. □

### Loudspeaker Manger Reference Active System MSMs1

**Functional Principle:** active 2-way system **Frequency Range:** 30 Hz – 40 kHz, crossover frequency: 330 Hz **Maximum SPL:** 110 dB peak **Chassis:** HF driver: bending wave transducer, bandwidth 80 Hz – 40 kHz, rise time 13µs, LF driver: 200 mm fiberglass/polyester sandwich-type **Amplifier:** LF 250 W @ 8 ohm, HF 180 W @ 8 ohm, power bandwidth 250 kHz (-3dB) **Input Sensitivity:** 6 dBu (1.55 V) or 0 dBu **Input Impedance:** 10 kOhm **Control Switches:** bass, presence, treble, input sensitivity, polarity etc. **Input:** XLR (balanced) **Finish:** silk-mat RAL, Nextel or piano lacquer **Dimensions (W/H/D):** 10.6/44.8/8.4" **Weight:** 48 kg **Warranty:** 3 years **Price per Pair:** starting from 13,200 EUR



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