# ASCENDO

LOUDSPEAKER · SCHALLWANDLER

# ASCENDO

In audio chains, loudspeakers have one of the most critical tasks to do: the reconstruction of the original acoustic signal from the incoming electrical signals in the desired listening room. To solve these problems perfectly, new requirements on the electro-acoustical systems are defined:

### Time-Alignment

High-frequency modules are reacting much faster to impulses than the heavier low- and middle-frequency modules. Therefore the high-spectral contents of the signal arrives at the listener before the low-spectral contents in case of having the same speaker-listener distance. In displacing the tweeter, the signals arrive at the listener without any time gap. This time-coherent-technology is called Time-Alignment.

### Adjustment to the Listener's Position

To achieve a perfect phase reconstruction, at the actual position of the listener, the tweeter must be adjusted mechanically. This variable adjustment ensures the perfect time-coherency for individual listening positions.

### Extended Dynamic Range

The dynamic possibilities of new recording technologies imply higher requirements as to construction of the loudspeaker and the chassis. Especially on the membrane of the woofers the acceleration rises to high amounts. The constructive combination of a closedbox-type low-mid driver and a special inner-driversystem means a solution with big dynamic headroom and ideal impulse-response

### Decoupling of High- and Low-frequency Units

The mechanical decoupling between the high-frequency system and the low-frequency transducer increases the transparency and the reproduction details.

### The ASCENDO® Loudspeakers

The consequent solution of this task demands higher standards for the loudspeakers. Therefore ASCENDO loudspeakers have four basic constructive features:

- modular design
- mechanical and electrical decoupling
- variable time-alignment
- three-way SASB-technology (dynamic current-damped woofer/ semisymmetrical bandpass)

The technical results are loudspeakers with ideal impulseresponse and extreme headroom. The personal result is to experience music.

# SYSTEM M-S

## System M-S

**Technical Features**

Modular design: high-frequency-module, low-frequency-module, stand
- time-alignment for the listener's position
- mechanical and electrical decoupling of tweeter and woofer
- mechanical decoupling between system and ground

High-freqency unit with ribbon-tweeter:
- perfect impulse response and extended dynamic range
- wide directivity
- impedance adjustable for damping factor of power amp

Low-frequency unit:
dynamic-current-damped woofer and semisymmetrical bandpass (S.A.S.B.-unit)
- fast and synchronous rising edge of signal
- resonance-free and homogeous spectral decay
- very precise and fast reproduction of low-spectral signals

Selective crossover-network design
- linear phase 18 dB design plus constant-voltage-kernel
- impedance adjustable for damping factor of power amp
- tri-wiring and tri-amping possibilities

Use of selected high-grade parts and loudspeakers
- best impulse response and phase
- no degradation of damping and performance of used power amps and electronics


**Technical Data System M-S**

*Principle*
three way SASB-technology
(dynamic-current-damped woofer and semisymmetrical Bandpass)

*Design*
- modular: discoupled mounting of speaker, variable time-alignment for listening positions between 50 and 190 cm over floor
- material: prass, stainless steel, low-resonance wood / bitumen sandwich housing

*Dimensions (W/H/D)*
- Loudspeaker: 40 / 148.5 / 45 cm
- Stand: 50 / 128.5 / 65 cm
- Both (M-S): 50 / 156 / 65 cm

*Weight*
System M-S: 120 kg

*Power*
600 Watt programm (min)

*Impedance*
8 Ohm

*Sensivity*
91 dB / 1W/m

*High-frequency-unit*
- Speaker: ribbon-tweeter
- impedance adjustable for damping factor of p.a.

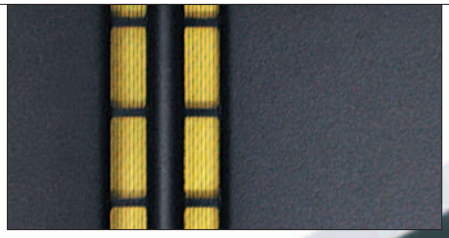
*Low-frequency-unit*
- outer chassis: 21 cm chassis, HPC diaphragm, phase plug
- inner chassis: 28 cm chassis, hexacone
- impedance adjustable for damping factor of p.a.

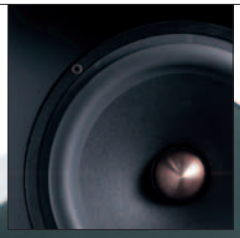
*Sockets*
Single / Bi / Tri-Wiring

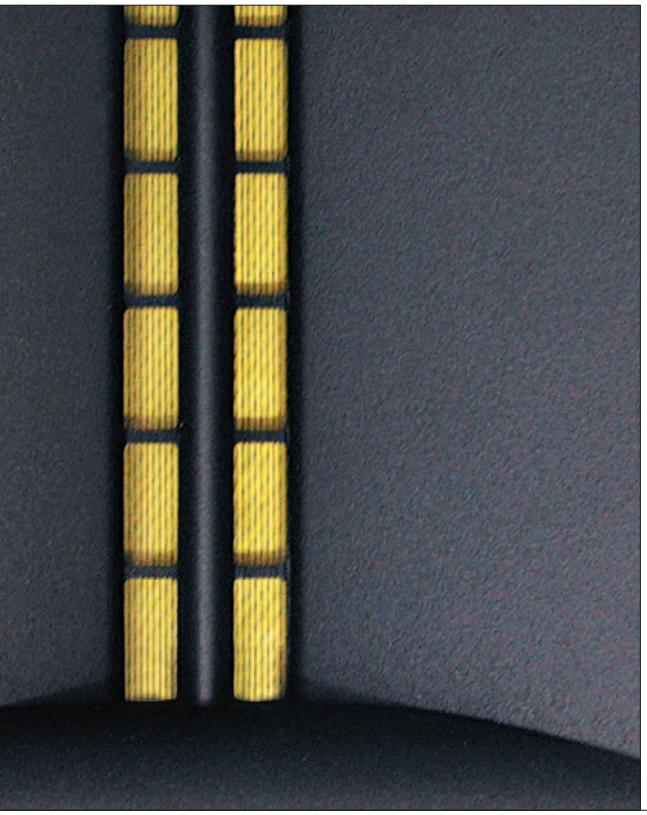
*Finish*
piano-lacquer: black / white
lacquer: all RAL-colors,
veneer: possible

Also availible:
System M-F2
(without stand)
(Dimensions w/h/d:
40 / 121.5 / 45 cm).

# SYSTEM Z-F3







## System Z-F3

**Technical Features**

Modular design: high-frequency-module, low-frequency-module
- time-alignment for the listener's position
- mechanical and electrical decoupling of tweeter and woofer

High-freqency unit with ribbon-tweeter:
- perfect impulse response and extended dynamic range
- wide directivity
- impedance adjustable for damping factor of power amp

Low-frequency unit:
dynamic-current-damped woofer and semisymmetrical bandpass (S.A.S.B.-unit)
- fast and synchronous rising edge of signal
- resonance-free and homogeous spectral decay
- very precise and fast reproduction of low-spectral signals

Selective crossover-network design
- linear phase 18 dB design plus constant-voltage-kernel
- impedance adjustable for damping factor of power amp
- tri-wiring and tri-amping possibilities

Use of selected high-grade parts and loudspeakers
- best impulse response and phase
- no degradation of damping and performance of used power amps and electronics

**Technical Data System Z-F3**

*Principle*

three way SASB-technology
(dynamic-current-damped woofer and semisymmetrical Bandpass)

*Design*
- modular: discoupled mounting of speaker, variable time-alignment for listening positions between 50 and 190 cm over floor
- material: stainless steel, low-resonance wood / bitumen sandwich housing

*Dimensions (w/h/d)*

27 / 108.5 / 43 cm

*Weight*

43 kg

*Power*

500 Watt programm (min)

*Impedance*

5 Ohm

*Sensivity*

89,5 dB / 1W/m

*High-frequency-unit*
- Speaker: Ribbon-tweeter
- impedance adjustable for damping factor of p.a.

*Low-frequency-unit*
- outer chassis: 21 cm chassis, HPC diaphragm, phase plug
- inner chassis: 21 cm chassis, kevlar diaphragm
- impedance adjustable for damping factor of p.a.

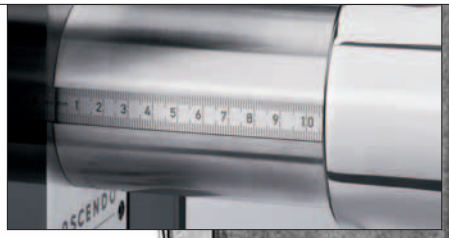
*Sockets*

Single / Bi / Tri-Wiring

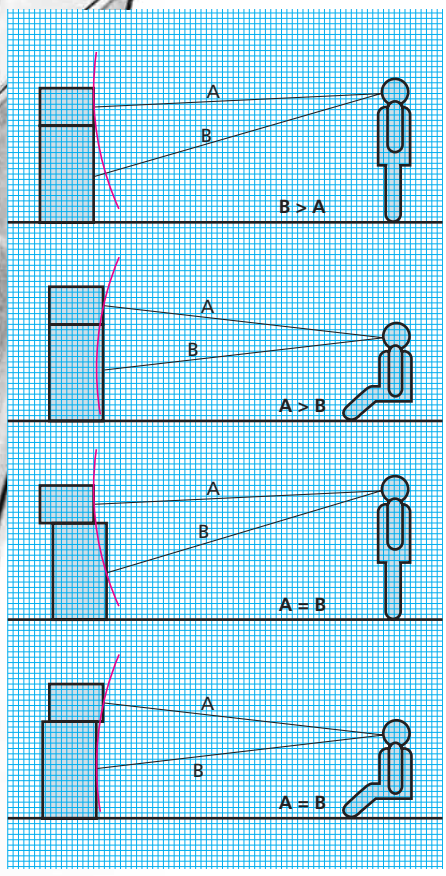
*Finish*

piano-lacquer: black / white
lacquer: all RAL-colors,
veneer: possible

Also availible:
System Z-S with stand
(Dimensions w/h/d
Loudspeaker:
29 / 148.5 / 35 cm
Stand: 40 / 128.5 / 60 cm
Both: 40 / 156 / 60 cm).




Due to the precise shifting of the tweeter section all signal components are arriving exactly at the same time at the listener's ear. This technique is called time-alignment.



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