technical specifications

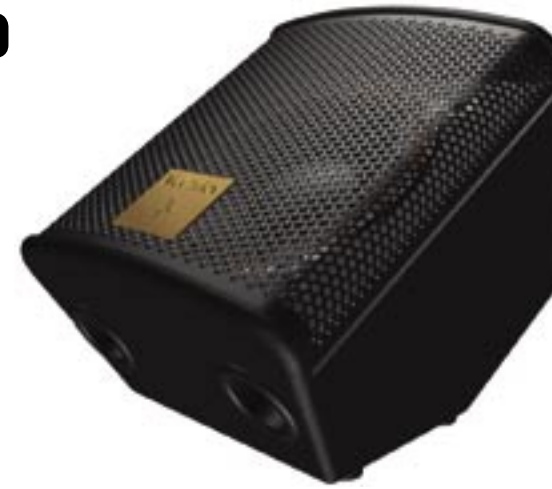
2-WAY FULL RANGE STAGE MONITOR

SM90-1

product group: Stage Monitor
system type: 10”x 1” POINT-SOURCE COAXIAL

construction

The SM90-1 is a full range, 2-way point-source coaxial systems in an computer optimized enclosures. Loudspeaker complement consists of a single proprietary coaxial device. Mechanical attachment aligns the acoustic center of the high frequency driver with that of the low frequency transducer, distributing perfectly aligned high and low frequency energy along an 80° conical coverage pattern. An optimized switchable biamp to passive crossover network is included standard. The enclosure is constructed of durable 12-ply void-free birch laminate, dadoed for strength and durability. Perforated steel is employed for frontal protection of the loudspeaker complement.



Features:

- **Coaxial Point-Source Design**
- **Switchable Passive to Biamp Crossover**
- **12 ply Dadoed Construction**
- **Durable ProCoat™ Elastomeric Finish**

W
Wedge Profile

OPTIONAL: X
Available without Crossover

the idea behind it

The SM90-1 was designed as a compact, full range monitoring system for smaller scale environments where an extremely small footprint and very low stage profile are required. The SM90-1 offers extraordinary acoustic quality and high SPL output, rivaling conventional systems many times its size.

Applications:

- **Multipurpose Stage Sound**
- **Rehearsal Monitor**
- **Portable Sound Reinforcement**

performance parameters

power handling	**400w RMS**
frequency response	**50Hz - 20kHz**
nominal impedance	
Low	**8Ω**
High	**16Ω**
sensitivity	
Low	**93db**
High	**109db**
maximum output SPL	
Continuous	**120db**
Peak	**126db**
recommended crossover	**1.2kHz**
directivity/coverage	**80°x80° (HxV)**

physical properties

weight	**52lbs / 23kgs**
dimensions	
inches	**14H x 13W x 12D**
centimeters	**36H x 33W x 31D**
finish	**ProCoat™**
enclosure material	**5/8” 12-ply Finland Birch**
construction	**rabbet & dadoed**
suspension	**none**
connectors	**parallel NL4**
transducers	**(1) 10”x1” Full Range Coaxial Transducer**

McCauley Sound Inc. - 16607 Meridian Avenue East - Puyallup, WA 98375 - U.S.A.
Call Toll Free: 1.877.McCauley - fax 253.841.3050 - http://www.mccauley.com

McCauley sound

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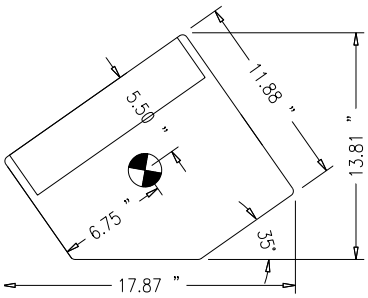
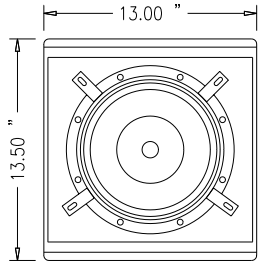
architectural specfications

The loudspeaker shall be a two-way floor monitor type with one 10" Full Range 2 Way Coaxial Point Source driver mounted in a bass reflex enclosure. The low frequency section shall contain one MCX 10" “Focused Field” driver with a power handling capacity of 300 watts RMS and shall have a sensitivity of 93 dB SPL measured at 1 meter with 2.83 volts into a nominal 8 ohm load. The high frequency section shall consist of one MCX 1" exit compression driver and horn combination with a power handling capacity of 100 watts RMS and a sensitivity of 109 dB SPL measured at 1meter with 2.83 volts into a nominal 16 ohm load. The combined loudspeaker system shall be capable of 120 dB SPL continuous and 126 dB SPL peak maximum output. The loudspeaker system shall have an effective operating range of 90 Hz to 17 kHz +/- 3 dB (55Hz to 20 kHz -10 dB). The loudspeaker shall offer symmetrical coverage angles of 80° Horizontal, and 80° Vertical. The enclosure shall weigh a total of 58 lbs. and shall measure 13.5 inches tall, 12.5 inches wide (7.5 inches at rear), 12 inches deep. The enclosure shall have a 35° fixed angle bottom, and the sides shall be angled at 15° from front to back forming a trapezoidal shape. The enclosure shall be made of 12-ply birch hardwood and shall have a weather and wear resistant ProCoat™ elastomeric finish. The enclosure shall incorporate one steel handle on the top for easy mobility. Electrical connections shall be made via paralleled Neutrik NL-4 connectors, or optional NL-8 or EP series connectors. An optimized passive crossover network shall be switchable between full range and biamp modes. The loudspeaker shall be the McCauley SM90-1.

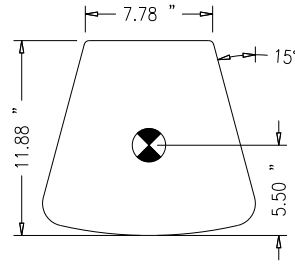
dimensional illustrations



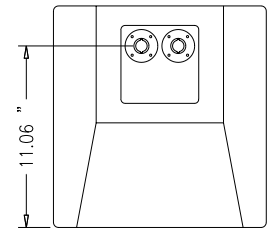
RIGHT



FRONT

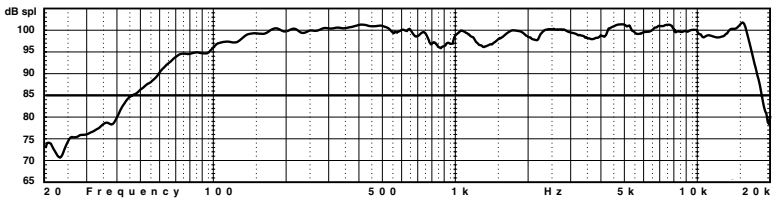


TOP

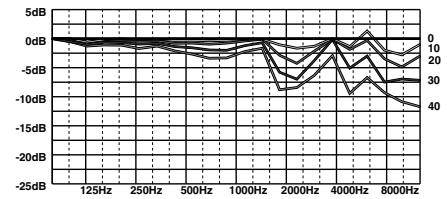


BACK

response data



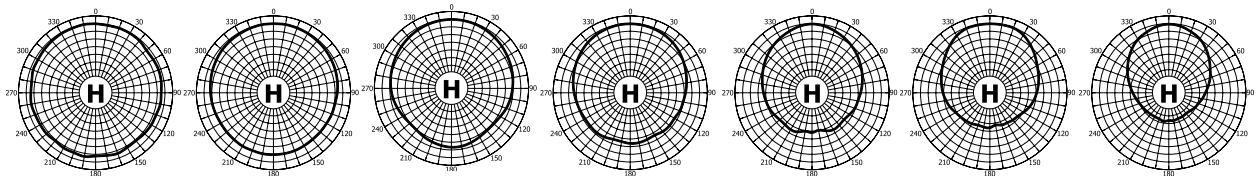
on axis response (2.83v@1m, free-field conditions)

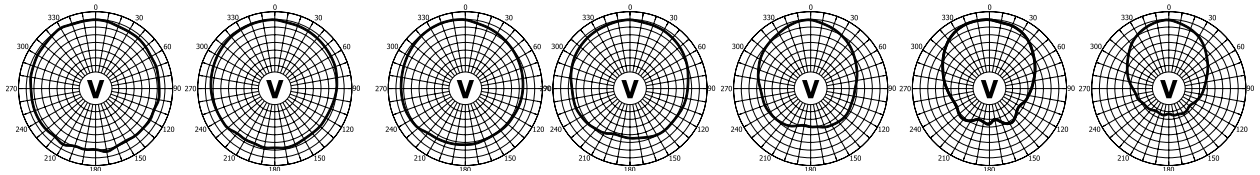


off axis response (normalized to on axis response)

polar data

Outer ring is +6dB, each ring represents an additional -6dB down.
For vertical plots, 90° represents the top of an enclosure, 270° is the bottom.





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