technical specifications

2-WAY FULL RANGE COAXIAL
ADVANCED CONTRACTOR

AC90-1

product group: Advanced Contractor's Series
system type: 10"x 1" POINT-SOURCE COAXIAL

construction

The AC90-1 is a full range, 2-way point-source coaxial system in a trapezoidal, computer optimized enclosure. 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 passive crossover network is optionally available. Eyebolt receptacles are located on the top to facilitate installation. 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**
- **Optimized Internal Crossover**
- **Integrated Eyebolt Suspension**
- **12 ply Dadoed Construction**
- **Durable ProCoat™ Elastomeric Finish**

F — Flyware
T — Trapezoidal
OPTIONAL: Available with Crossover

the idea behind it

The AC90-1 was designed as a compact, full range system for smaller scale environments where high quality, high SPL sound is needed from an extraordinarily small enclosure. The AC90-1 takes advantage of McCauley's proprietary MCX coaxial transducer technology, which allows the AC90-1 to outperform conventional systems many times its size. Custom finishes are available.

Applications:

- **House of Worship**
- **Theme Restaurants / Bars**
- **General Sound Reinforcement**

performance parameters

power handling	**400w RMS**
frequency response	**70Hz - 17kHz**
nominal impedance	
Low	**8Ω**
High	**16Ω**
sensitivity	
Low	**95db**
High	**109db**
maximum output SPL	
Continuous	**122db**
Peak	**128db**
recommended crossover	**1.5kHz**
directivity/coverage	**80°x80° (HxV)**

physical properties

weight	**48lbs / 21.7kgs**
dimensions	
inches	**14.5H x 13W x 12D**
centimeters	**36H x 33W x 30D**
finish	**ProCoat™**
enclosure material	**5/8" 12-ply Finland Birch**
construction	**rabbet & dadoed**
suspension	**integrated eyebolt**
connectors	**binding posts**
transducers	**(1) 10"x1" Full Range Coaxial Transducer**

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McCauley sound

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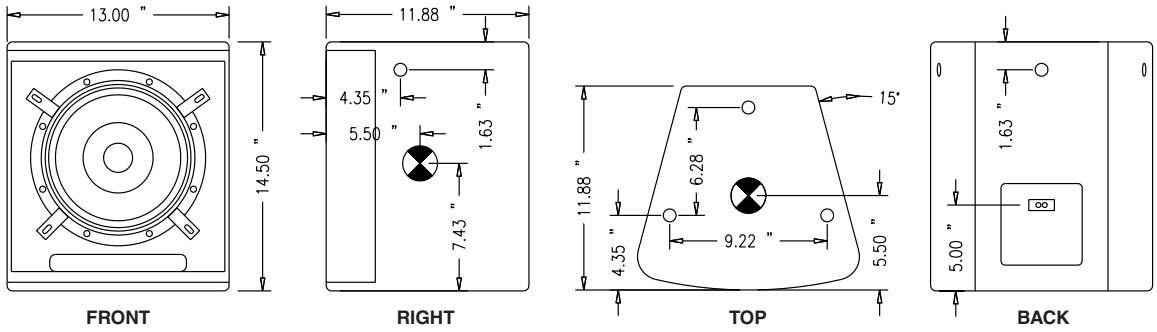
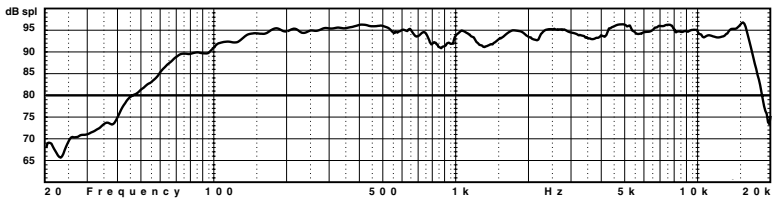
architectural specifications

The loudspeaker shall be a trapeziodal 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 95 dB SPL measured at 1meter 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 122 dB SPL continuous and 128 dB SPL peak maximum output. The loudspeaker system shall have an effective operating range of 70 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 48 lbs. and shall measure 14.5 inches tall, 13 inches wide (7.5 inches at rear), 12 inches deep. Shall have a flat top and 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 standard binding posts or barrier strips. An optional optional optimized passive crossover network shall be mounted internally. The loudspeaker shall be the McCauley AC90-1.

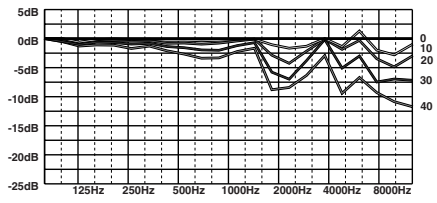
dimensional illustrations



response data



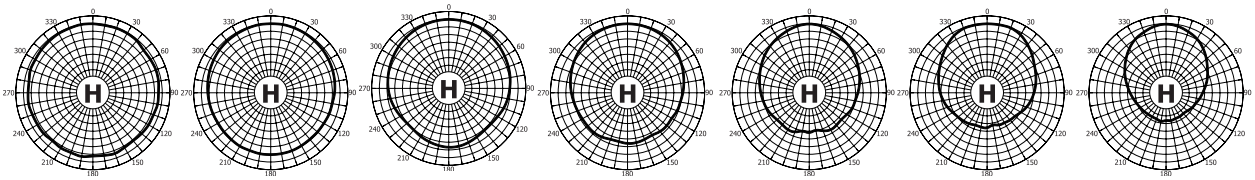
on axis response (2.83v@1m, free-field conditions)

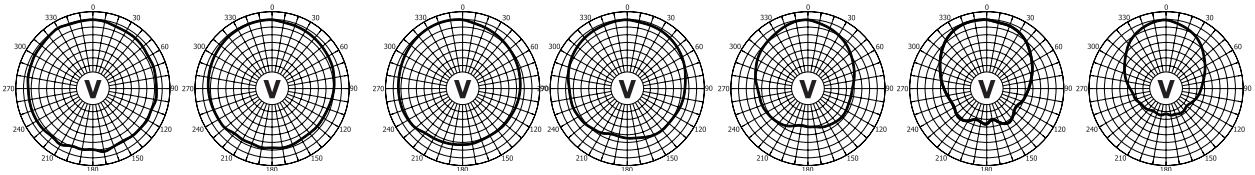


off axis response (normalized to on axis response)

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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