SPECIFICATIONS LS432

FEATURES

- High performance Column Array(tm) system
- 4x 4-in LF/3x 1-in tweeters
- Line array effects create consistent 20° x 140° coverage
- For permanent installation only

DESCRIPTION

EAW's LS432 line source loudspeaker system brings the classic column speaker up-to-date. Sophisticated frequency shading and all-pass filtering integrates the 4x 4-in woofers and 3x 1-in soft dome tweeters, maximizing the benefits of line source coupling while eliminating grading lobes.

The system maintains a well behaved nominal vertical coverage pattern of 20° to below 1000 Hz. Even at 500 Hz, the vertical pattern is still 80°. With the enclosure baffle defining a gentle arc, the drivers form a curved line source to help prevent the vertical pattern from collapsing in the crossover region.

At the same time, the drivers act as direct radiators in the horizontal plane, giving the system an extra-wide 140° horizontal coverage pattern with response that meets professional standards for fidelity and intelligibility.

The internal passive crossover/filter network uses complex, asymmetrical slopes to integrate the subsystems and goes beyond merely dividing the signal to perform critical equalization functions.

APPLICATION

Like the classic column speakers of the '50s and 60's, the LS432 was designed to solve speech-only installation problems in highly reverberant spaces with low ceilings and hard floors. These might include small houses of worship, libraries or other civic spaces, and transportation hubs.

The 26-in tall, 6.25-in wide enclosure fits nicely on architectural columns and can be custom painted to blend in with any decor. The enclosure includes a comprehensive system of 1/4"-20 threaded mounting points for easy installation. The LS432 is available as the LS432-SLT with a 15° downward angle to the front baffle, letting the system be mounted near a higher ceiling without sacrificing coverage.

PERFORMANCE

Frequency Response (1 Watt @ 1m)	
±3 dB	200 Hz to 20 kHz
-10 dB	100 Hz
Axial Sensitivity (dB SPL, 1 Watt @ 1m)	
Full Range	95
Impedance (Ohms)	
Full Range	8
Power Handling, AES Standard (Watts)	
Full Range	150

Calculated Maximum Output (dB SPL @ 1m)	
Full Range Peak	122.8
Full Range Longterm	116.8

DESCRIPTIVE DATA

Configuration	2-way, full range
Powering	Passive (LF/HF crossover)
LF Subsystem	4x 4-in woofer
HF Subsystem	3x1-in soft dometweeter
Coverage Angles (h° x v°)	140 x 20
Cabinet Type (shape)	Rectangular
Enclosure Materials	Baltic birch plywood
Finish	Black polyurethane
Connectors	2-terminal barrier strip
Suspension Hardware	(8) 1/4"-20 threaded mounting points (1 each top, bottom, and sides; 4 back)
Grille	Vinyl coated perforated steel
Options	FC142 forged shoulder eyebolt

Dimensions	**Inches**	**Millimeters**
Height	26.00	660
Width	6.25	159
Depth (max)	6.00	152
Depth (top)	5.75	146
Depth (bottom)	5.75	146

Weights	**Pounds**	**Kilograms**
Net Weight	20	9.1
Shipping Weight	23	10.5

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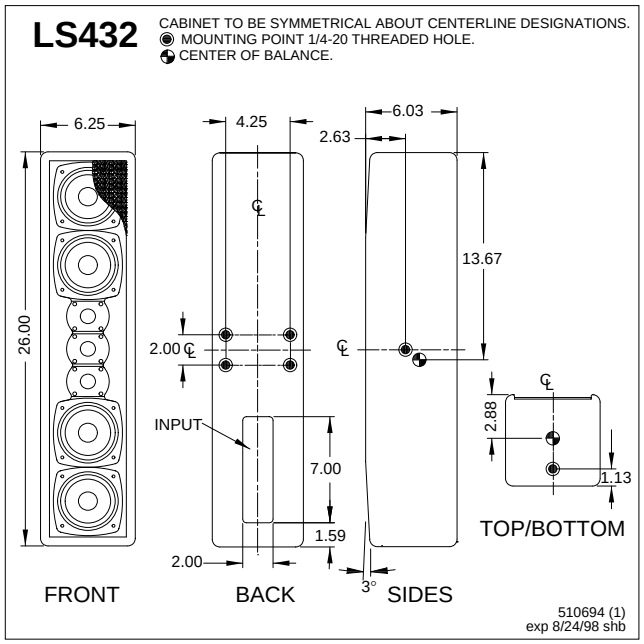
DIMENSIONAL DRAWING



A & E SPECIFICATIONS

The two-way full range loudspeaker systems shall incorporate four 4-in LF transducers and three 1-in soft dome tweeter HF transducer.

All seven drivers shall be mounted in a vertical column to create a line source. The LF drivers shall be mounted two each above and below the three HF drivers. An internal frequency shading filter set shall maximize beneficial line source coupling while minimizing grading lobes. An internal passive filter network shall provide fourth order acoustical crossover and system equalization between the low and high frequency sections.

System frequency response shall vary no more than ±3 dB from 200 Hz to 20 kHz measured on axis. The system shall produce a Sound Pressure Level (SPL) of 95 dB SPL on axis at 1 meter with a power input of 1 Watt, and shall be capable of producing a peak output of 122.8 dB SPL on axis at 1 meter. The system shall handle 150 Watts of amplifier power (AES Standard) and shall have a nominal impedance of 8 Ohms.

The loudspeaker enclosure shall be rectangular in shape with a convex arc to the front baffle. It shall be constructed of 1/2-in thickness void-free cross-grain-laminated Baltic birch plywood and shall employ extensive internal bracing. It shall be finished in black catalyzed polyurethane. Input connectors shall be two-terminal barrier strip. A total of 8x 1/4"-20 threaded mounting points (1 each top, bottom and sides, 4 back) shall be provided. The front of the loudspeaker shall be covered with a vinyl coated perforated steel grille.

The 2-way full range loudspeaker shall be the EAW model LS432.

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