TECHNICAL SPECIFICATIONS LS832

- Line source loudspeakers with coherent, intelligble, consistent coverage from 200 Hz to 20 kHz
- System includes 8x 4-in woofers and 3x 1-in soft dome tweeters
- Sophisticated frequency shading produces coherent summation of the multiple drivers
- Line source coupling effects keep vertical coverage narrow throughout the vocal range
- Direct radiating drivers provide extra wide horizontal coverage
- Low ceiling, hard floor – no problem

DESCRIPTION

EAW's LS832 line source loudspeaker system brings the classic column speaker up-to-date. Sophisticated frequency shading integrates the 8x 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 630Hz. Even at 500 Hz, the vertical pattern is still 45°. 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 LS Series 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 44.08-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.

DESCRIPTIVE DATA

Configuration	2-way, Full Range	
Powering	Passive (LF/HF Crossover)	
LF Subsystem	8x 4-in Woofer	
HF Subsystem	3x 1-inSoft Dome Tweeter	
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	6 1/4"-20 Threaded Mounting/ Suspension Points (1 each Top, Bottom, 4 Back)	
Grill	Vinyl Coated Perforated Steel	
Options	FC142 Forged Shoulder Eyebolt	
Dimensions	**inches**	**millimeters**
Height	44.08	111:
Width	6.25	159
Depth (Max)	6.00	152
Depth (Top)	5.25	133
Depth (Bottom)	5.25	133
Weights	**pounds**	**kilograms**
Net Weight	30	13.7
Shipping Weight	35	15.9

EASTERN ACOUSTIC WORKS

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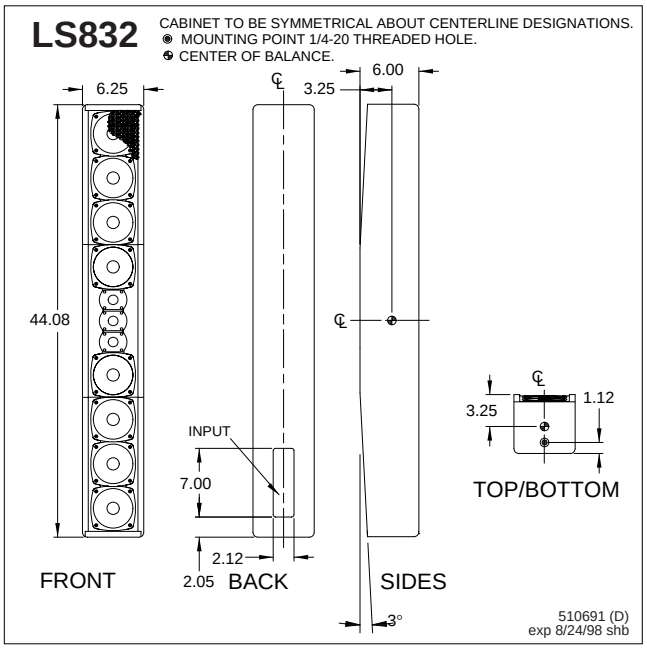
DIMENSIONAL DRAWING



SERVICE ITEMS

LF: Complete Cone Driver
EAW Part No. 804082

HF: Complete Compression Driver/Tweeter
EAW Part No. 805015

Filter/Crossover Network
Complete Assembly: EAW Part No. 225396

NOMINAL DATA

Frequency Response (1 Watt @ 1m)	
±3 dB	200 Hz to 20 kHz
-10 dB	100Hz
Axial Sensitivity (dB SPL, 1 Watt @ 1m)	
Full Range	97
Impedance (Ohms)	
Full Range	12
Power Handling, AES Standard (Watts)	
Full Range	200
Calculated Output (dB SPL)	
Flat SPL	126 dB
Max SPL	132 dB

ARCHITECTURAL SPECIFICATIONS

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

All eleven drivers shall be mounted in a vertical column to create a line source. The LF drivers shall be mounted four 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 97 dB SPL on axis at 1 meter with a power input of 1 Watt, and shall be capable of producing a peak output of 126.0 dB SPL on axis at 1 meter. The system shall handle 200 Watts of amplifier power (AES Standard) and shall have a nominal impedance of 12 Ohms.

The loudspeaker enclosure shall be rectangular in shape with a convex arc to the front baffle. It shall be constructed of 15mm 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 6x 1/4"-20 threaded mounting/suspension points (1 each top, bottom, 4 back) shall be provided. The front of the loudspeaker shall be covered with a vinyl coated perforated steel grill.

The 2-way full range loudspeaker shall be the EAW model LS832.

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