



UREI
ELECTRONIC
PRODUCTS

Features

Fully horn-loaded for maximum efficiency.

Concert-proven JBL componentry and design configuration.

Constant coverage and uniform power response.

40 Hz to 20 kHz usable frequency range.

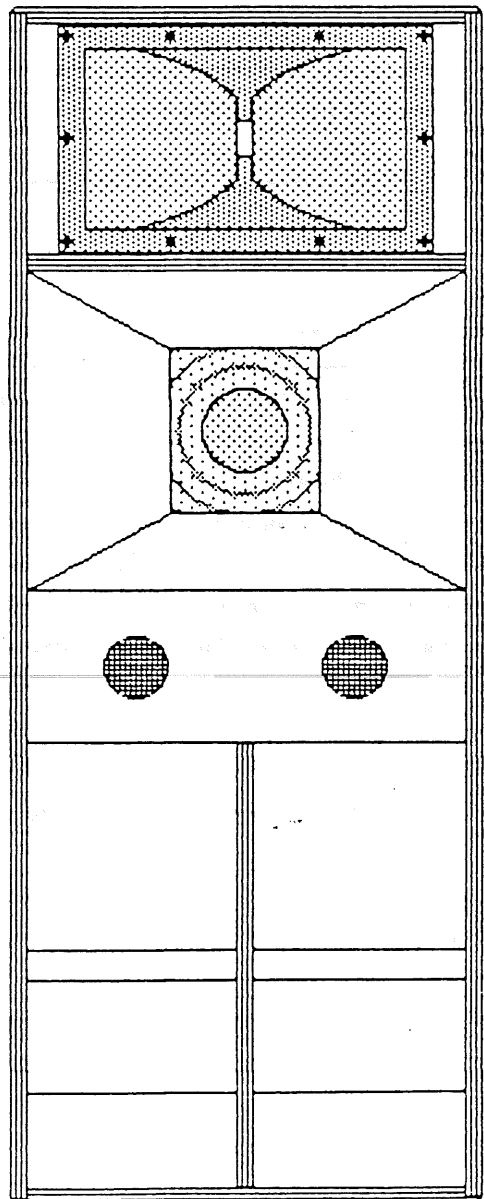
Ruggedized construction for touring sound reinforcement applications.

Equipped with castors and hanging hardware.

JBL Concert Series
4830

Description

The JBL Concert Series 4830 is an all-horn loudspeaker system of high performance and compact proportions. Designed for external triamplification, the 4830 features proven components in a system configured to deliver constant directivity and uniform power response for high-level sound reinforcement applications. Due to the exceptionally high component efficiency, fewer 4830s will be required for a given task than other loudspeaker systems. Systems are crafted from void-free hardwood plywood, and equipped with castors for ease of handling. Six hanging fittings are provided, consisting of flush mounted aircraft cargo control hardware bolted through the cabinet to aluminium reinforcement plates. System components are energized through one EP-8 input connector.



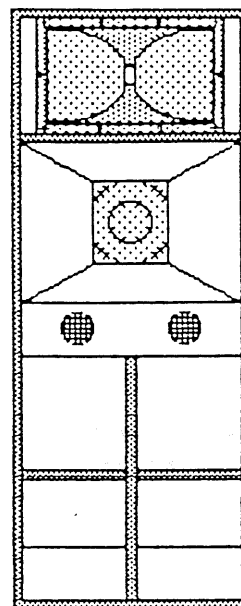
Low Frequencies

A folded front-loading horn driven by a JBL 2240 provides highly efficient and uniform output from below 60 Hz to 250 Hz. Porting further extends useful low frequency output to 40 Hz.

Mid Frequencies

The mid-frequency throat provides moderate loading, while forming an aperture small enough to avoid beaming at upper frequencies. Horn sidewall geometry results in constant directivity-frequency characteristics. Unlike mid-frequency horns that employ coaxially mounted loading devices that create interference at upper frequencies, the 4830 mid-horn provides uniform coverage and smooth on and off axis response over its entire operating frequency range.

The mid-frequency driver incorporates a rigid, low mass cone assembly and magnetic structure of unusually high strength using JBL's unique Symmetrical Field Geometry (SFG) design. These factors enable uniform power response to the recommended cross-over frequency, and greatly reduced second harmonic distortion.



High Frequencies

Transitioning at 1200 Hz., high frequencies are reproduced by the 2445 compression driver and 2385 Bi-Radial™ horn. With a diaphragm of pure-grade titanium, unique distributed-stress compliance assembly and four-inch voice coil, the 2445 delivers response to the highest audible frequencies with reliability and efficiency that is without equal.

JBL's exclusive Bi-Radial™ horn assures uniform response within the nominal coverage angles to beyond 16kHz. The use of a single Bi-Radial™ horn/driver above 1200 Hz minimizes the need for coverage overlapping, and eliminates the lobing and comb filter effects associated with multiple horn systems.

Model 4830

System Type	Fully horn loaded three-way externally triamplified modular concert reinforcement loudspeaker system
Frequency Range (-10 dB)	40 Hz to 20kHz
Frequency Response (± 3 dB)	60 Hz to 16kHz
Axial Pressure Sensitivity	LF: 103 dB SPL/1w/1m MF: 106 dB SPL/1w/1m HF: 114 dB SPL/1w/1m
Power Capacity [1]	LF: 600 watts continuous program MF: 300 watts continuous program above 250 Hz HF: 150 watts continuous program above 1200 Hz
Recommended Crossovers	250 Hz LF-MF (12 dB/octave minimum) 1200 Hz MF-HF (12 dB/octave minimum)
Coverage Angles	60 degrees between -6 dB points, horizontal 40 degrees between -6 dB points, vertical
Nominal Efficiency	LF: 15% MF: 20% HF: 30%
Maximum SPL	138 dB SPL [1m, continuous program]
Nominal Impedance	LF: 4 ohms MF: 8 ohms HF: 16 ohms
Connectors	ITT Cannon EP-8 type, one each male and female
Dimensions	58" (147 cm.) H. 22-1/2" (57 cm.) W. 30-3/4" (78 cm.) D.
Weight	290 lbs. (132 kg.)
Finish	Dark gray impregnated fiberglass-reinforced plastic, black nylon protective grill

[1] Continuous program power is defined as 3 dB greater than continuous sine wave power and is a conservative expression of the transducer's ability to handle typical speech and music program material.

Architect's and Engineer's Specifications

4830

The loudspeaker system shall be of the three-way type, with all component drivers horn loaded. The mid frequency and high frequency driver loudspeakers shall be loaded into constant-coverage type horns, providing 60 degree horizontal and 40 degree vertical coverage. The loudspeaker system shall meet the following criteria: Frequency range: 40 Hz to 20kHz. Pressure sensitivity: 103 dB/1w/1m [LF]; 106 dB/1w/1m [MF]; 114 dB/1w/1m [HF]. Power capacity: 300 watts continuous sine wave above 40Hz [LF]; 150 watts continuous sine wave above 250Hz [MF]; 75 watts continuous sine wave above 1200Hz [HF]. Horizontal coverage: 60 degrees between -6dB points. Vertical coverage: 40 degrees between -6dB points.

The cabinet shall be constructed of void-free, hardwood plywood. All exposed corners shall be rounded for damage resistance. Six aircraft-type hanging fixture attachment points shall be installed flush with the outside cabinet surface, two per side and two on rear. Each hanging point shall be installed through the cabinet to aluminium reinforcement plates, and have a load rating of 2500 lbs. at 90 degrees to the fitting.

The loudspeaker system shall be the JBL Concert Series model 4830.