

4842

VERY LOW
FREQUENCY
SYSTEM



FEATURES:

Concert-proven componentry and design configuration

Rugged fiberglass-reinforced construction for touring sound reinforcement applications

Frame-to-frame driver spacing results in improved coupling at upper frequencies

Elevation matches JBL 4845 and 4870 family

16 certified aircraft-type hanging points

The JBL 4842 is a vented dual direct radiator very low frequency (VLF) loudspeaker system designed for a wide variety of sound reinforcement and playback system applications.

Unlike many products intended for VLF service, the 4842 provides uniform power response to 30 Hz. Cabinetry is void-free birch plywood, coated with virtually indestructible fiberglass reinforced plastic, and fitted with five four-way handles and 16 steel-reinforced aircraft style pan fitting hanging points.

The vented enclosure, tuned to 27 Hz mounts two JBL 2245H loudspeakers. The alignment has been carefully executed to assure that the drivers operate within mechanical displacement limits for the entire bandpass. Large ducting assures freedom from vent

compression and turbulence at all operating power levels.

The 2245H loudspeakers feature unusually large linear displacement capability, exceptional power handling, rigid cone assemblies of great strength and JBL's unique Symmetrical Field Geometry (SFG) magnetic structure. The result is an extension of low frequency power response and very low distortion.

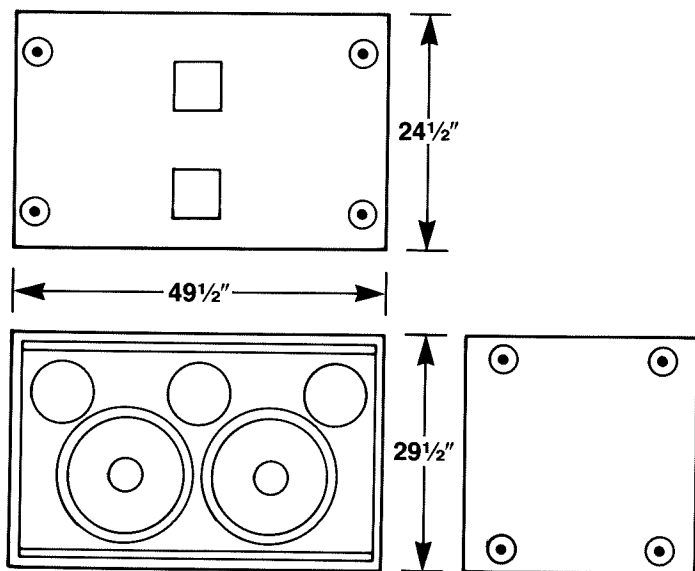
The 4842 is energized through one EP-8 input connector. Two connectors are installed (one male, one female) to enable loop-through wiring for systems using 4870s. An accessory dolly, model 4870DL, is available to facilitate handling and cartage. The 4870DL also fits the 4845 and 4870 systems:

ARCHITECTURAL SPECIFICATIONS:

The dual-driver low frequency loudspeaker system shall be of the vented direct radiator type, and shall meet the following unit performance criteria: Acoustic power output: 25 watts above 28 Hz. Power response; plus/minus 3 dB, 28 Hz to 125 Hz. Power Capacity: 600 watts sine wave above 30 Hz. The loudspeaker system shall incorporate two drivers, each with a peak linear displacement of 9.5mm, and a cabinet tuning frequency of 27 Hz with a total duct surface area of not less than 150 square inches.

The cabinet shall be constructed of void-free birch plywood, stiffened internally and coated with fiberglass reinforced plastic. All exposed corners shall be rounded for damage resistance. Aircraft-type hanging fixture attachment points shall be installed through the cabinet to internal steel reinforcement plates. Sixteen hanging points shall be provided. Each hanging point shall have a load rating of 2000 lbs. at 90 degrees to the fitting.

The VLF loudspeaker system shall be the JBL Concert Series Model 4842.



SPECIFICATIONS:

| | | | |
|---|-----------|-----------|----------|
| Components: 2-JBL 2245H low frequency transducers | | | |
| SYSTEM SPECIFICATIONS: | | | |
| System Type: Dual-driver direct radiating low frequency loudspeaker system | | | |
| Frequency Range (-10 dB): 20 Hz to 500 Hz | | | |
| Frequency Response (± 3 dB): 25 Hz to 250 Hz | | | |
| Nominal Impedance: 4 ohms | | | |
| Connectors: ITT Cannon EP-8 type, one each male and female | | | |
| Dimensions: 126 cm (49 1/2 in) H 75 cm (29 1/2 in) W 62 cm (24 1/2 in) D | | | |
| Weight: 129 kg (285 lbs) | | | |
| Finish: Dark gray impregnated fiberglass-reinforced plastic, black nylon protective grill | | | |
| Quantity of Units: | One | Two | Four |
| Pressure Sensitivity (1 w, 1 m half-space): | 98 dB | 101 dB | 103 dB |
| Nominal Efficiency (half-space reference): | 4.2% | 8.4% | 16.8% |
| Power Capacity (continuous pgm.) ¹ : | 1200 w | 2400 w | 4800 w |
| Power Output ² : | 25 w | 100 w | 400 w |
| Power Response (± 3 dB): | 28-125 Hz | 25-100 Hz | 22-80 Hz |
| Maximum SPL at 1 m (half-space ref.) ² : | 126 dB | 132 dB | 138 dB |

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.

² Usable acoustic power output at a given frequency in direct radiating systems is a function of piston surface area and linear axial displacement. Because music is periodic, acoustic power output is conservatively calculated as the product of reference efficiency and sine wave maximum input power. Peak values will be considerably higher, but subject to driver mechanical displacement limits at the lowest frequencies. Unlike products of manufacturers that rate maximum SPL on the basis of noise signals that result in ambiguous or dimensionless specifications, full acoustic power and maximum SPL are available at all frequencies within the stated power response envelope.

JBL continually engages in research related to product improvement. New materials, production methods, and design refinements are introduced into existing products without notice as a routine expression of that philosophy. For this reason, any current JBL product may differ in some respect from its published description but will always equal or exceed the original design specifications unless otherwise stated.