

Professional Series Model 2202 12" Low Frequency Loudspeaker

100 Watts continuous program

4" edgewound copper ribbon voice coil

60 – 4000 Hz response

47 dB sensitivity



The 2202 is a highly efficient, low frequency loudspeaker. Compared to other loudspeakers having similar sensitivity, its frequency response is unusually linear, varying only ± 2 dB from 120 Hz to 3 kHz. The 2202's performance characteristics make it well suited for use as a small stage monitor loudspeaker, as a midrange driver in wide range sound reinforcement systems or as a low frequency driver in installations where mounting space is restricted.

A tough, double roll compliance is featured which increases power handling capacity and reliability. This unique cone termination is completely passive so that during sustained high power inputs, sound quality remains virtually unchanged. The cone, voice coil and spider are assembled with a heat resistant, aircraft-grade epoxy—specially formulated for JBL—resulting in an exceptionally strong bond and greater structural integrity than is possible with other commonly used adhesives.

The 2202 has a low-loss magnetic structure that weighs 13 pounds, consisting of a large Alnico V magnet and top plate, pole piece and magnetic return casting made from a high-conductivity iron alloy. Each component is precisely machined to concentrate a maximum amount of magnetic energy in the voice coil gap.

The combination of this powerful magnetic structure, a rugged cone assembly and 4-inch diameter edgewound copper ribbon voice coil enable the 2202 to achieve its 100-Watt continuous program power capacity, exceptional sensitivity and smooth acoustic output.

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Model 2202—12" Low Frequency Loudspeaker

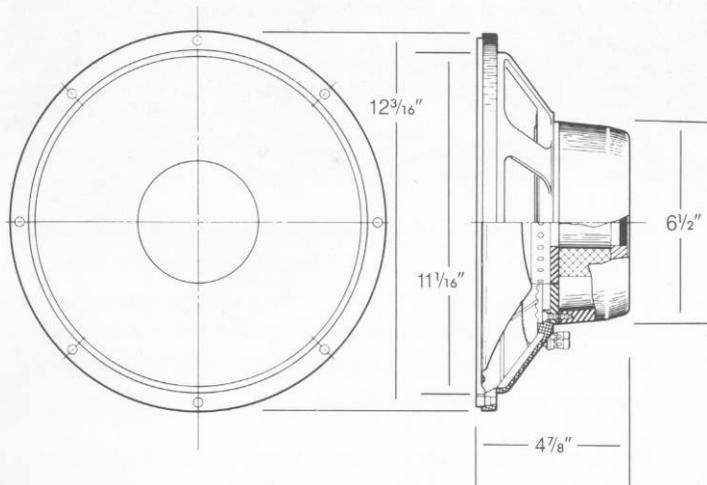
Architectural Specifications

The transducer shall have a nominal diameter of 12 inches, overall depth not greater than $4\frac{7}{8}$ inches and weigh at least 15 pounds. The frame shall be cast aluminum. An Alnico V magnet shall be contained within a cast iron magnetic return circuit for maximum efficiency and suppression of stray fields. The voice coil shall have a nominal diameter of 4 inches, be made of edgewound copper ribbon wire and operate in a magnetic field of not less than 12,000 gauss.

Measured sensitivity (SPL at 30 feet with a 1-mW input, warbled 500 to 3000 Hz) shall be at least 47 dB on-axis and 45 dB 45 degrees off-axis. As an indication of electromechanical conversion efficiency, the BI factor shall be at least 2.2×10^7 dynes per abampere. On-axis frequency response measured at a distance of six feet or more in a free-field environment shall extend from 120 to 3000 Hz ± 2 dB and usable frequency response shall extend from 60 to 4000 Hz. Nominal impedance shall be 8 ohms.

The loudspeaker shall be capable of withstanding a power input of 100 Watts continuous program or a 50-Watt RMS signal which is warbled at all frequencies within one-half octave above and below the frequency at which minimum impedance occurs and sustain this performance for a minimum of one hour without damage.

The transducer shall be JBL Model 2202.

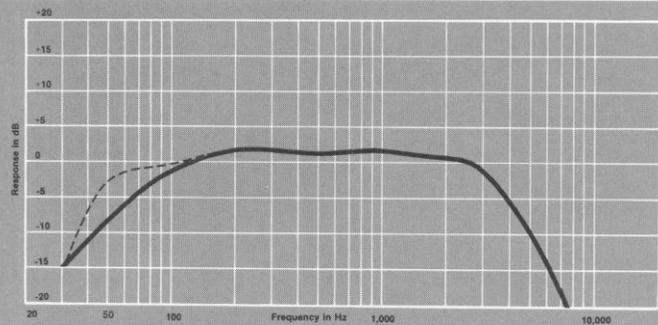


Specifications

Nominal Diameter	12 inches	30 cm
Nominal Impedance	8 ohms	
Power Capacity ¹	100 Watts continuous program	
Sensitivity ²	47 dB	
Frequency Range	60 to 4000 Hz	
Highest Recommended Crossover Frequency	1200 Hz	
Nominal Free Air Resonance	50 Hz	
Voice Coil Diameter	4 inches	10.2 cm
Voice Coil Material	Edgewound copper ribbon	
Magnetic Assembly Weight	13 lbs	5.9 kg
Flux Density	12,000 gauss	
BI Factor	2.2×10^7 dynes/abampere	
Recommended Enclosure Volume	4-6 cu. ft.	113-170 liters
Baffle Cutout Diameter		
Front or Rear Mounting	11 $\frac{1}{16}$ "	28.1 cm
Depth	$4\frac{7}{8}$ "	12.4 cm
Net Weight	15 lbs	6.8 kg
Shipping Weight	16 $\frac{1}{4}$ lbs	7.4 kg

¹Continuous program power is defined as 3 dB greater than continuous sine wave power (RMS). It is a conservative expression of the transducer's ability to handle normal speech and music program material.

²The sensitivity rating of JBL low frequency loudspeakers is based on a signal warbled from 100 to 500 Hz, rather than the conventional 1-kHz single frequency test signal, since they are normally used below 800 Hz. Usable sensitivity of the 2202 may, therefore, be substantially greater than that of loudspeakers with higher published ratings.



Frequency response of Model 2202 in a closed box having an internal volume of six cubic feet (170 liters). A typical production unit, including all peaks and dips, does not deviate more than 2 dB from the above curve. In this enclosure, a port area of 48 sq. inches (312 sq. cm.) will extend bass response as indicated by the dashed line.

PPB2202/77 Printed in U.S.A.

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Professional Division

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