JBL Professional Series
Model 2205
15″ Low Frequency Transducer

150 Watts continuous program
4″ edgewound copper ribbon voice coil
30 - 2000 Hz response
47 dB sensitivity

Model 2205 is a professional quality low frequency transducer capable of handling great amounts of power with ease. Sensitivity through the midrange is carefully controlled to provide highest possible efficiency without sacrificing bass performance. Because of this design approach, loading of the 2205 is not critical. It performs well in infinite baffles, ported enclosures, or as a horn driver. It is offered in 8, 16 and 32 ohm impedances for maximum versatility in multiple-transducer arrays.

The JBL 2205 incorporates an integrally-stiffened cone, 4-inch edgewound copper ribbon voice coil, and individually machined magnetic pole pieces and pot casting. Precise assembly tolerances allow long cone travel while maintaining minimal spacing (less than 0.014 inch) between coil and pole pieces. Heat is transferred to the magnetic assembly and rapidly dissipated. Thus, the transducer can handle sustained signals at high power levels without danger of mechanical damage or overheating.

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Model 2205 Low Frequency Transducer

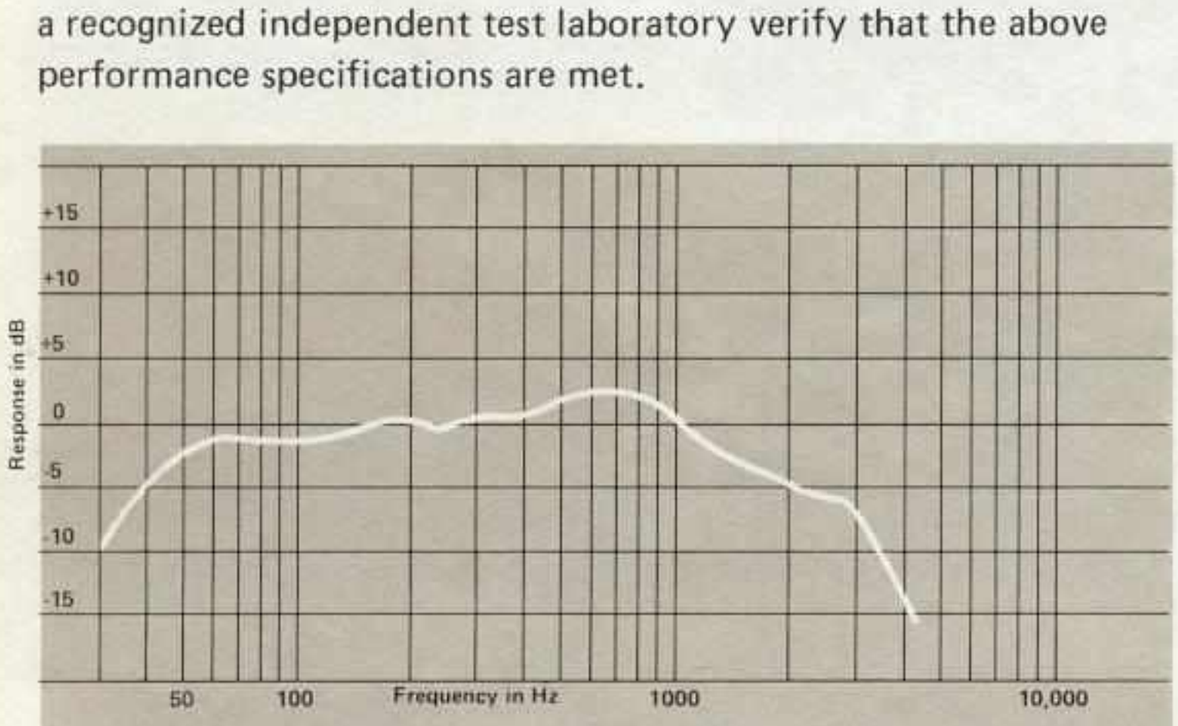
Architectural Specifications

The low frequency transducer shall have a nominal diameter of 15 inches, overall depth not greater than 5¾ inches, and weigh at least 16½ pounds. The frame shall be of cast aluminum to resist deformation and the magnetic assembly shall use Alnico V encased in a heavy cast iron return circuit for maximum efficiency and suppression of stray fields. The voice coil shall be four inches in diameter and shall be made of edgewound copper ribbon operating in a magnetic field of not less than 11,500 gauss.

Performance specifications of a typical production unit shall be as follows:

Measured sensitivity (SPL at 30 feet with one mW input, warbled 100–500 Hz) shall be at least 47 dB on-axis and 45 dB 45° off-axis. As an indication of electromechanical conversion efficiency, the BI factor shall be at least 2.15×10^7 dynes/abampere. Usable frequency response shall extend from 30–2000 Hz. On-axis response, measured at a distance of six feet or more under free field conditions, shall be ± 3 dB from 45 to 1500 Hz. Acoustic loading shall further extend the low frequency response. Nominal impedance shall be 8, 16 or 32 ohms. Rated power capacity shall be at least 150 watts normal program material.

The transducer shall be JBL Model 2205. Other loudspeakers will be considered for equivalency provided that submitted data from a recognized independent test laboratory verify that the above performance specifications are met.



Frequency response contour of the 2205 in a closed box of six cubic feet internal volume. Measured response of a typical production unit, including all peaks and dips, does not deviate more than 2 dB from the above curve. Additional acoustic loading (passive radiator or port) will further extend bass response.

Specifications

Nominal Diameter	15 inches	38 cm
Nominal Impedance		
2205A	8 ohms	
2205B	16 ohms	
2205C	32 ohms	
Power Capacity[1]	150 Watts continuous program	
Sensitivity[2]	47 dB	
Frequency Range	30 Hz to 2 kHz	
Highest Recommended Crossover Frequency	800 Hz	
Nominal Free Air Resonance	32 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	11,500 gauss	
BI Factor	2.15×10^7 dynes/abampere	
Recommended Enclosure Volume	6 - 8 cu. ft.	170 - 227 liters
Baffle Cutout Diameter		
Front Mount	13 31/32"	35.5 cm
Rear Mount	13½"	34.3 cm
Depth	5 3/4"	14.6 cm
Net Weight	16½ lbs	7.5 kg
Shipping Weight	19 lbs	8.6 kg

1. Continuous 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.

2. The 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 2205 may, therefore, be substantially greater than that of loudspeakers with higher published ratings.

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JBL Professional Division

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