

# Professional Series

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## Model 2215

### 15" Low Frequency Loudspeaker



Model 2215 is a professional quality low frequency loudspeaker capable of handling high power with negligible distortion. Overall sensitivity is controlled to give linear response over the full bandwidth of the device. The 2215 was designed for critical monitoring applications where linear bass response with lowest possible distortion is required rather than high midrange efficiency. Optimum performance is realized in an enclosure having 6-8 cubic feet internal volume.

The JBL 2215 incorporates a long-travel critically damped cone assembly, 4-inch edgewound copper ribbon voice coil, and highly efficient magnetic circuit with individually machined pole pieces and pot casting. Unlike other long-throw woofers, the relatively light voice coil operates in an unusually deep magnetic gap, resulting in near perfect linearity and superb transient response. The sophisticated design of Model 2215, plus JBL's precise tolerances and unique assembly techniques, result in a true state-of-the-art low frequency loudspeaker.

**JBL**

# Model 2215 Low Frequency Loudspeaker

## Architectural Specifications

low frequency loudspeaker shall have a nominal diameter of 15 inches, overall depth not greater than 5 7/8 inches, and weigh at least 23 1/2 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 11,000 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 within 43-45 dB on-axis and 42-44 dB off-axis.

As an indication of electromechanical conversion efficiency, the BI factor shall be at least  $2.2 \times 10^7$  dynes/abampere.

Useable frequency response shall extend from 35 to 1200 Hz. On-axis response, measured at a distance of six feet or more in a free field environment, shall be  $\pm 3$  dB from 40 to 800 Hz. Nominal impedance shall be 8 or 16 ohms. Power capacity shall be a minimum of 150 Watts normal program material.

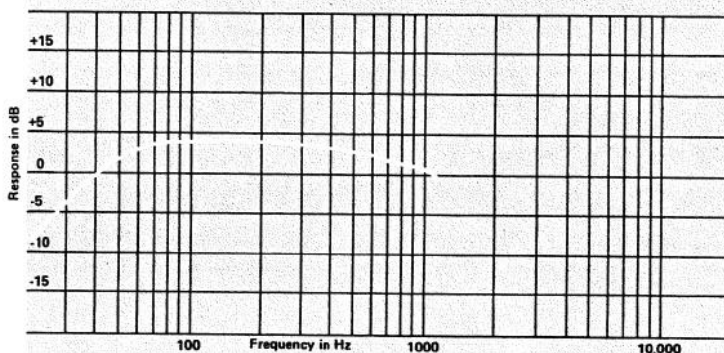
The loudspeaker shall be JBL Model 2215. Other loudspeakers will be considered for equivalency provided that submitted data from a recognized independent test laboratory verify that the above performance specifications are met.

## Specifications

Nominal Diameter	15 inches	38 cm
Nominal Impedance		
2215A	8 ohms	
2215B	16 ohms	
Power Capacity <sup>1</sup>	150 Watts continuous program	
Sensitivity <sup>2</sup>	45 dB	
Frequency Range	35 to 1200 Hz	
Highest Recommended Crossover Frequency	800 Hz	
Nominal Free Air Resonance	20 Hz	
Voice Coil Diameter	4 inches	10.2 cm
Voice Coil Material	Edgewound copper ribbon	
Magnetic Assembly Weight	20 1/4 lbs	9.2 kg
Flux Density	11,000 gauss	
BI Factor	$2.2 \times 10^7$ dynes/abampere	
Recommended Enclosure Volume	6-8 cu. ft.	170-227 liters
Baffle Cutout Diameter		
Front Mount	13 3/32"	35.5 cm
Rear Mount	13 1/2"	34.3 cm
Depth	5 7/8"	14.9 cm
Net Weight	23 1/2 lbs	10.7 kg
Shipping Weight	26 1/4 lbs	11.9 kg

<sup>1</sup>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.

<sup>2</sup>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. Useable sensitivity of the 2215 may, therefore, be substantially greater than that of loudspeakers with higher published ratings.



Frequency response contour of Model 2215 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.

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Professional Division

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