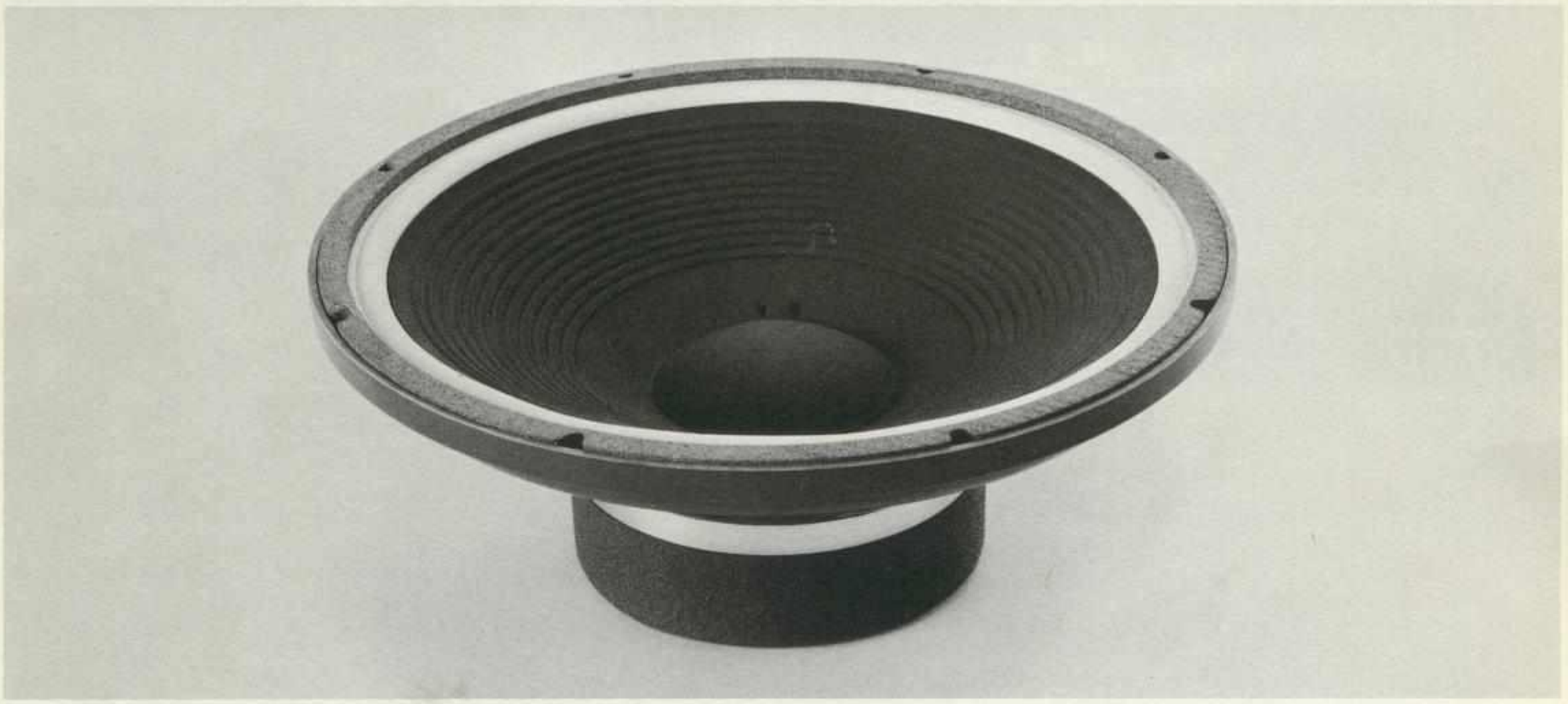
JBL Professional Series
Model 2215
15″ Low Frequency Transducer

Extended Bass Response
150 Watts Continuous Program
Low Distortion
4″ Edgewound Copper Ribbon Voice Coil
For Critical Monitoring Applications

Professional audio consultants and engineers are invited to compare the JBL 2215 with other loudspeakers, both on the basis of acoustical measurements and extended listening tests.



Model 2215 is a professional quality low frequency transducer capable of handling high power with negligible distortion. Overall sensitivity is controlled to give linear response lower in frequency than any other 15-inch loudspeaker. The 2215 was designed for critical monitoring applications where linear bass response with lowest possible distortion is required rather than high mid-range efficiency. Optimum performance is realized in an enclosure having 6–9 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 transducer, unmatched in the extreme bass region.

JBL

Model 2215 Low Frequency Transducer

Architectural Specifications

The low frequency transducer shall have a nominal diameter of 15 inches, overall depth not greater than 5-7/8 inches, and weigh at least 22 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 with at least 450,000 Maxwells total flux.

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.

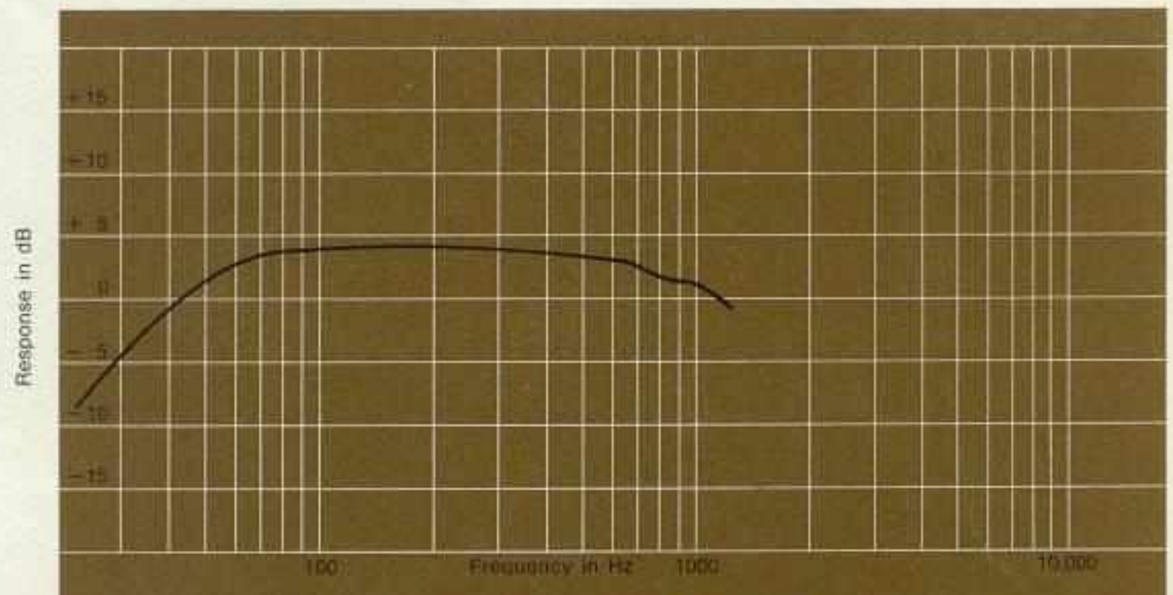
As an indication of electromechanical conversion efficiency, the BI factor shall be at least 2.2×10^7 dynes/abampere. Usable frequency response shall extend from 20–1500 Hz. On-axis response, measured at a distance of six feet or more in a free field environment, shall be ±3 dB from 35 Hz to 1.2 kHz. Nominal impedance shall be 16 ohms. Power capacity shall be a minimum of 150 watts normal program material.

The transducer 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
Nominal impedance	16 ohms
Power capacity	150 watts continuous program
Sensitivity*	44 dB
Frequency range	20 – 1,500 Hz
Cone resonance	20 Hz
Voice coil diameter	4 inches
Voice coil material	Edgewound copper ribbon
Flux density	11,000 Gauss
Total flux	450,000 Maxwells
BI factor	2.2×10^7 dynes/abampere
Magnetic assembly	19.5 pounds
Depth	5-7/8 inches
Baffle hole	14-1/4 front mounting
	13-1/2 rear mounting
Net weight	22.5 lbs

*NOTE: Because this transducer is normally used below 800 Hz, JBL has measured its sensitivity using a signal warbled from 100–500 Hz rather than the more common 1,000 Hz single frequency. Usable 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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James B. Lansing Sound, Inc. 3249 Casitas Ave., Los Angeles, Calif. 90039