

Professional Series Model 2110 8" Extended Range Transducer

2" edgewound ribbon voice coil
20 watts continuous program
40-12,000 Hz response
High efficiency
Precision construction

Professional audio consultants and engineers are invited to compare the JBL 2110 with other loudspeakers, both on the basis of acoustical measurements and extended listening tests.



JBL Model 2110 is a professional quality 8-inch transducer ideally suited for distributed-speaker ceiling installations, portable "effects" speakers, columnar arrays and general purpose monitoring. Its large-diameter edgewound voice coil and highly efficient magnetic assembly are largely responsible for the unit's high conversion efficiency and 20 watt continuous program power rating. As a result, Model 2110 generates surprisingly high sound pressure levels without audible distortion.

At a distance of 30 feet, a single JBL 2110 can produce a sound pressure level greater than 90 dB.

Like all JBL transducers, Model 2110 is noted for its clean, crisp response and incisive reproduction of transients. Built to traditional JBL standards of precision, it will continue to deliver exceptional performance year after year, without special care or attention.



Model 2110—8" Extended Range Transducer

Architectural Specifications

The transducer shall have a nominal diameter of 8 inches, overall depth not greater than 3-1/8 inches, and weigh at least 4 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 approximately two inches in diameter and shall be made of edgewound aluminum ribbon operating in a magnetic field of not less than 9,000 Gauss with at least 90,000 Maxwells total flux. High frequencies shall be reproduced by a dural dome attached directly to the voice coil former.

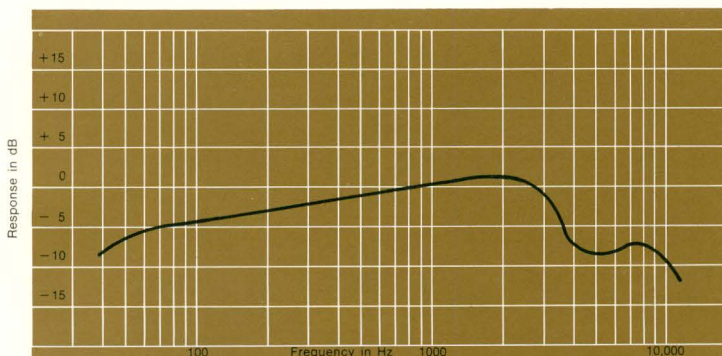
Performance specifications of a typical production unit shall be as follows:

Measured sensitivity (SPL at 30 feet with one milliwatt input, warbled 500–2500 Hz) shall be at least 48 dB on-axis and 45 dB 45° off axis. As an indication of electromechanical conversion efficiency, the BI factor shall be at least 9×10^6 dynes per abampere. Usable frequency response shall extend from 40 to at least 12,000 Hz. On-axis response, measured at a distance of six feet or more under free-field conditions, shall approximate a straight line rising with frequency at a rate of 1.5 dB per octave. Response shall not deviate more than 3 dB from this characteristic from 45 to 3,000 Hz. Above 3,000 Hz response shall gradually roll off, but at 10,000 Hz shall be not more than 10 dB down from the 500–2500 Hz reference level. Nominal impedance shall be 8 ohms and power capacity shall be at least 20 watts normal speech or music program material.

The transducer shall be JBL Model 2110. 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	8 inches
Nominal impedance	8 ohms
Power capacity (properly loaded)	20 watts cont. program
Sensitivity	87.5 dB, SPL 10 feet, 1 Watt 48 dB, SPL 30 feet, 1mW
Frequency range	40 – 12,000 Hz
Voice coil diameter	2 inches
Voice coil material	Edgewound aluminum ribbon
Flux density	9,000 Gauss
Total flux	90,000 Maxwells
BI factor	9.1×10^6 dynes per abampere
Magnetic assembly	3.5 lbs.
Baffle hole dia.	7-1/8 inches (rear mtg.)
Depth	3-1/8 inches
Net weight	4.0 lbs.



Frequency response contour of Model 2110. Measured response of a typical production unit, including all peaks and dips, does not deviate more than 3 dB from the above curve.

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