Professional Series Model 2110H 200 mm (8 in) Extended Range Transducer

50 W continuous program
50 mm (2 in) edgewound copper ribbon voice coil
60-10,000 Hz response
96 dB sensitivity, 1 W, 1 m

JBL Model 2110H is a professional quality 200 mm (8 in) 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 50 W continuous program power rating. As a result, Model 2110H generates surprisingly high sound pressure levels without audible distortion.

At a distance of 10 m [33 ft] a single JBL 2110H can produce a sound pressure level greater than 90 dB.

The magnetic assembly incorporates JBL's unique Symmetrical Field Geometry (SFG), a design that further enhances the performance of the 2110H by reducing second harmonic distortion to inconsequential levels.

Like all JBL transducers, Model 2110H 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.

JBL

Model 2110H—200 mm (8in) Extended Range Transducer

Architectural Specifications

The transducer shall have a nominal diameter of 200 mm (8 in), overall depth not greater than 76 mm (3 in), and weigh at least 1.9 kg (4⅛ lb). The frame shall be of cast aluminum to resist deformation and the magnetic assembly shall utilize a ferrite magnet and produce a symmetrical magnetic field at the voice coil gap. In addition, an aluminum ring encircling the pole piece shall act to reduce flux modulation. The voice coil shall be 50 mm (2 in) in diameter and shall be made of edge-wound aluminum ribbon operating in a magnetic field of not less than 0.85 T (8500 gauss). 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 1 m [3.3 ft.] with 1 W input, swept 500-2500 Hz) shall be at least 96 dB on-axis and 93 dB 45° off-axis. As an indication of electromechanical conversion efficiency, the BI factor shall be at least 8.6 T•m. Usable frequency response shall extend from 60 to at least 10,000 Hz. On-axis response, measured at a distance of 1.8 m (6 ft) 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 50 W normal speech or music program material.

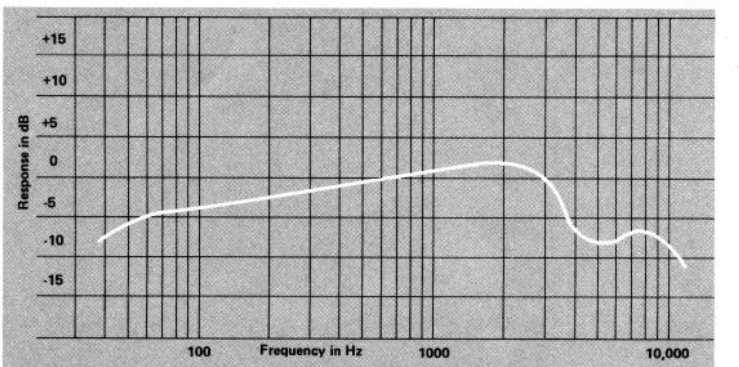
The transducer shall be JBL Model 2110H. Other loudspeakers will be considered for equivalency provided that submitted data from a recognized independent test laboratory verify that the above performance specifications are met.

Specifications

Nominal Diameter	200 mm	8 in
Nominal Impedance	8 Ω	
Power Capacity[1]	50 W continuous program	
Sensitivity[2]	96 dB SPL, 1 W, 1 m (3.3 ft)	
Frequency Range	60 Hz to 10 kHz	
Nominal Free Air Resonance	60 Hz	
Voice Coil Diameter	50 mm	2 in
Voice Coil Material	Edgewound aluminum ribbon	
Magnetic Assembly Weight	1.2 kg	2⅝ lb
Flux Density	0.85 T (8500 gauss)	
BI Factor	8.6 T•m	
Recommended Enclosure Volume	56-84 L	2-3 ft³
Baffle Cutout Diameter Front or Rear Mount	179 mm	7⅛ in
Depth	76 mm	3 in
Net Weight	1.9 kg	4⅛ lb
Shipping Weight	2.3 kg	5 lb

1. Continuous program 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. Sensitivity measured with an input swept from 500 to 2500 Hz.



Frequency response contour of the 2110H in a closed box of 170 L (6 ft³) 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 (a port) will further extend bass response.

Professional Division

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