

# Professional Series Model 2120 10" Extended Range Transducer

60 watts continuous program  
3" edgewound aluminum ribbon voice coil  
60 - 8000 Hz response  
49 dB sensitivity



JBL Model 2120 is a high-power professional quality 10-inch transducer capable of generating extremely high sound pressure levels while at the same time providing clear, natural reproduction of speech or music. Its shallow cone and unique frame design allow the loudspeaker to be installed in minimum space, or multiple units to be mounted very close together, as in custom line arrays. The 2120 is ideally suited for use in arrays, or in distributed speaker ceiling installations. Its precision machine magnetic assembly, three-inch edgewound aluminum ribbon voice

coil, and long-throw cone suspension make it possible for the 2120 to deliver cleaner sound at higher levels than any other 10" loudspeaker available.

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# Model 2120—10" Extended Range Transducer

## Architectural Specifications

The transducer shall have a nominal diameter of 10 inches, overall depth not greater than 4 3/8 inches, and weigh at least 8 1/4 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 3 inches in diameter and shall be made of edgewound aluminum ribbon operating in a magnetic field of not less than 10,200 gauss. High frequencies shall be reproduced by a dural dome attached directly to the voice coil former. The cone surround shall be a pleated cloth material with stabilized viscous damping for proper termination of the cone and resistance to fatigue.

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

Measured sensitivity (SPL at 30 feet with 1-mW input, swept 500—2500 Hz) shall be at least 49 dB on-axis and 47 dB 45° off-axis. As an indication of electromechanical conversion efficiency, the BI factor shall be at least  $1.4 \times 10^7$  dynes per abampere. Usable frequency response shall extend from 50 Hz to at least 8000 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 2 dB per octave. Response shall not deviate more than 3 dB from this characteristic from 50 Hz to 3000 Hz. Above 3000 Hz the response shall gradually roll off, but at 7000 Hz shall be no more than 10 dB down from the 500 Hz reference level.

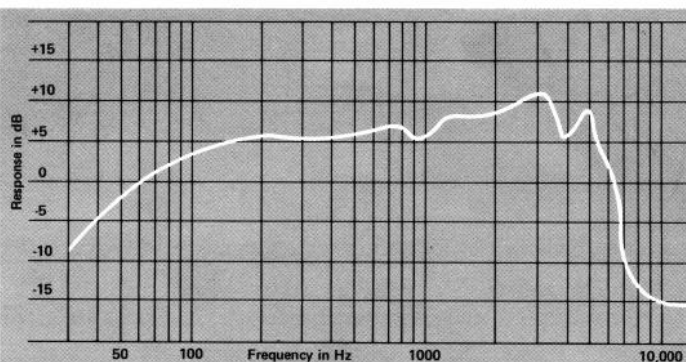
Nominal impedance shall be 8 ohms and power capacity shall be at least 60 watts normal speech or music program material.

The transducer shall be JBL Model 2120. 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	10 inches	25 cm
Nominal Impedance	8 ohms	
Power Capacity <sup>1</sup>	60 watts continuous program	
Sensitivity <sup>2</sup>	1 mW, 30 ft. (9.1 m)	49 dB SPL
	1 W, 1 m (3.3 ft.)	98 dB SPL
Frequency Range	50 Hz to 8 kHz	
Nominal Free Air Resonance	65 Hz	
Voice Coil Diameter	3 inches	7.6 cm
Voice Coil Material	Edgewound aluminum ribbon	
Magnetic Assembly Weight	6½ lbs	3.0 kg
Flux Density	10,200 gauss	
BI Factor	$1.4 \times 10^7$ dynes/abampere	
Recommended Enclosure Volume	3 - 4 cu. ft.	85 - 113 liters
Baffle Cutout Diameter		
Front Mount	9"	22.9 cm
Rear Mount	8 3/4"	22.2 cm
Depth	4 3/8"	11.1 cm
Net Weight	8¼ lbs	3.7 kg
Shipping Weight	9¼ lbs	4.2 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. Sensitivity measured with an input swept from 500 to 2500 Hz.



Frequency response contour of the 2120 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 (a port) will further extend bass response.

JBL Professional Products are not intended for household use.