

Professional Series Model 2150 15" Composite Transducer

Integrated two-way system
Bi-amp capability
Edgewound copper ribbon voice coils
120° dispersion
60 watts continuous program

Professional audio consultants and engineers are invited to compare the JBL 2150 with other loudspeakers, both on the basis of acoustical measurements and extended listening tests.



JBL model 2150 is a complete two-way system made up of a controlled-excursion 15" low frequency transducer and separate high-power high frequency radiator, acoustically integrated and mounted on a single chassis. It is ideally suited for high-level distributed systems for convention centers, auditoria, ballrooms, and other installations requiring natural sound reinforcement with full dynamic range and uniform coverage. Wide dispersion and high power capacity mean that fewer transducers are required to cover a given area.

Traditional JBL engineering and quality standards result in a highly efficient system which can produce a sound pressure level greater than 100 dB at a distance of 30 feet. Peak free response permits greater gain before acoustic feedback. Model 2150 is extremely versatile. It can be front or rear mounted, and will deliver excellent results in enclosures having 4 to 6 cubic feet internal volume. The unit will operate properly when combined with model 3125 frequency dividing network (see separate specification sheet) or when used in bi-amplified installations.



Model 2150—15" Composite Transducer

Architectural Specifications

The transducer shall be of the two way composite type incorporating two linear transducers on a single 15" frame. The frame shall be of cast aluminum to resist deformation. Both magnetic assemblies shall use Alnico V encased in a heavy cast iron return circuit for maximum efficiency and suppression of stray fields. The low frequency 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 11,500 Gauss. The high frequency voice coil shall be 7/8 inches in diameter and shall be made of edgewound copper ribbon operating in a magnetic field of not less than 16,500 Gauss. The high frequency radiator shall be mounted in the same plane as the low frequency radiator. The dividing network shall be separately mounted.

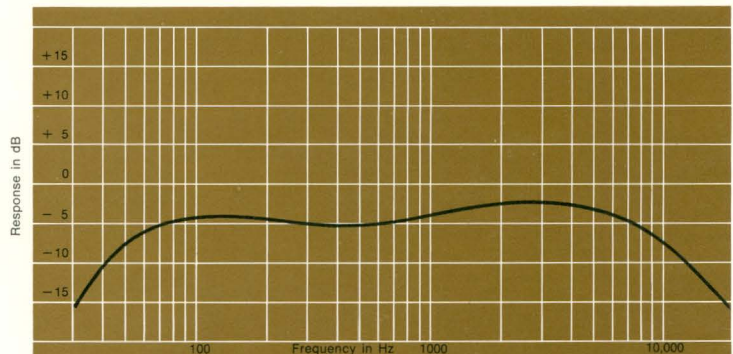
Performance specification of a typical production unit shall be as follows:

Measured sensitivity (SPL at 30 ft. with one mW input, warbled 500–2500 Hz) shall be at least 51 dB on axis. As an indication of electromechanical conversion efficiency, the BI factor shall be at least 5.60×10^6 dynes/abampere for the H.F. section, and at least 2.05×10^7 dynes/abampere for the L.F. section. Useable frequency response shall extend from 30 to at least 18,000 Hz. Response, measured 15° off-axis at a distance of six feet or more under free-field conditions, shall be within ± 2.5 dB from 40 to 12,000 Hz. The distribution pattern of this device shall be a minimum of 120° , which shall be interpreted to mean that sensitivity measured 60° off-axis shall not be reduced more than 10 dB from the on-axis measurement. Nominal impedance shall be eight ohms and power capacity shall exceed 60 watts normal speech or music program material. Crossover frequency shall be 1200 Hz, and the dividing network shall be supplied separately.

The transducer shall be JBL model 2150. 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	8 ohms
Power capacity	60 watts cont. program
Sensitivity	51 dB, 30 feet on axis 500 – 2500 Hz with one mW input
Frequency range	30 – 18,000 Hz
Voice coils	L.F. 4 inches H.F. 7/8 inches
Flux density	L.F. 11,500 Gauss H.F. 16,500 Gauss
BI factor	H.F. 5.60×10^6 dynes/abampere L.F. 2.05×10^7 dynes/abampere
Dispersion	120° Conical
Crossover frequency	1200 Hz with Model 3125 (refer to separate sheet)
Baffle hole dia.	14-1/8 inches (front mtg.) 13-1/2 inches (rear mtg.)
Depth	5-9/16 inches
Net weight	18 lbs. plus network and mounting hardware



Response contour of Model 2150 measured 15 degrees off-axis. Measured response of a typical production unit does not deviate more than 2.5dB from the above curve.

PPB-2150 1/70 Printed in U.S.A.

