

JBL

2485J Compression Driver

Professional Series

Key Features:

- ▶ 120 watts continuous program above 300 Hz
- ▶ 100 mm (4 in) edgewound aluminum ribbon voice coil
- ▶ 100 mm (4 in) phenolic diaphragm
- ▶ 49 mm (2 in) horn throat diameter



Model 2485J is an extremely high-power professional-quality compression driver. It has a 100 mm (4 in) voice coil and a magnetic structure weighing 10.5 kg (23 lb). It can take the most explosive transients in stride and reproduce them at thunderous levels. Model 2485J is built to typical JBL standards of precision.

Diaphragms of phenolic impregnated linen are virtually indestructible. After manufacture, each driver is tested for conformity to rigid performance standards.

The driver features a waterproof rear cover for the mounting of a line matching transformer in outdoor applications. A waterproof gland nut allows cable connections to be made while maintaining moisture isolation integrity.

Model 2485J is unequalled by any other driver in both power capacity and efficiency. It can be used as the high frequency section of two-way systems for high-power reinforcing applications, or by itself with a 300 Hz high-pass filter for voice paging or reinforcing systems of high quality and power.

Specifications:

Throat Diameter:	49 mm (2 in)
Nominal Impedance:	16 ohms
Minimum Impedance:	12 ohms @ 5 kHz
DC Resistance:	8.5 ohms \pm 10% @ 25°C
Power Capacity ¹ :	120 W continuous program above 300 Hz
Sensitivity:	111 dB SPL, 1 W @ 1 m on-axis on horn ² 118 dB SPL, 1 mW on plane-wave tube ³
Nominal Efficiency:	30% (500 Hz to 2.5 kHz)
Frequency Range:	300 Hz to 6 kHz
Recommended Crossover:	300 Hz or higher, 12 dB/octave minimum
Diaphragm:	.23 mm (0.009 in) phenolic impregnated linen
Voice Coil Diameter:	100 mm (4 in)
Voice Coil Material:	Edgewound aluminum ribbon
Flux Density:	1.9 T (19,000 gauss)
Bl Factor:	19 N/A
Positive voltage to black terminal gives diaphragm motion toward the phasing plug	
Dimensions:	235 mm (9 1/4 in) diameter 330 mm (13 in) depth
Mounting:	Four 1/4 20 threaded holes, 90° apart on 101.6 mm (4 in) diameter
Weight:	13.8 kg (30 1/2 lb)
Shipping Weight:	14.5 kg (32 lb)

¹Continuous program is defined as 3 dB greater than continuous pink noise and is a conservative expression of the transducer's ability to handle normal speech and music program material. Continuous pink noise power ratings are tested with pink noise input having a 6 dB crest factor, with a high-pass filter set at the specified lower limiting frequency for two hours duration.

²Sensitivity measured with 1 W input at 1 m distance on axis from the mouth of a horn with a Q of 6.3 averaged in the 2 kHz octave band.

³As specified by recognized standards organizations, sensitivity is measured with the driver coupled to a terminated tube. The JBL sensitivity rating represents the SPL in a 25 mm (1 in) terminated tube, using a 1 mW input signal (0.126 V into 16 ohms) swept from 500 Hz to 2.5 kHz. The sensitivity rating with a 1 W input would be 30 dB greater.

JBL continually engages in research related to product improvement. New materials, production methods, and design refinements are introduced into existing products without notice as a routine expression of that philosophy. For this reason, any current JBL product may differ in some respect from its published description, but will always equal or exceed the original design specifications unless otherwise stated.

▶ 2485J Compression Driver

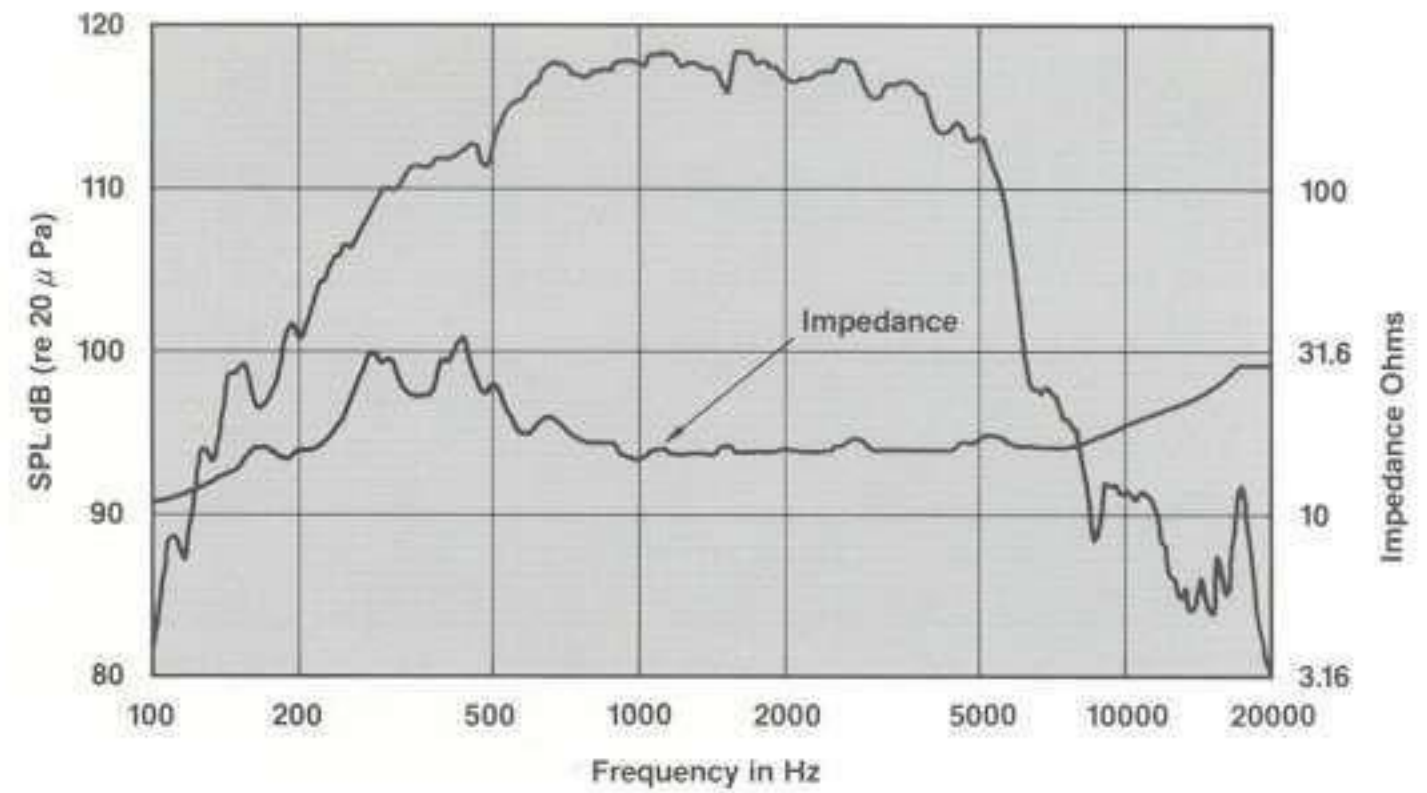
Architectural Specifications:

The compression driver shall consist of a ferrite magnetic structure with all magnetic assembly parts machined from cast or extruded billet stock. The phasing plug shall be assembled of concentric horns to minimize phase cancellations, and it shall be coupled to a tapered throat. The diaphragm shall be phenolic-impregnated linen for high durability. The voice coil shall be edgewound aluminum ribbon of not less than 100 mm (4 in) in diameter, operating in a magnetic field of not less than 1.9 tesla (19,000 gauss). The driver shall be fitted with a waterproof rear cover suitable for the internal mounting of a line matching transformer, and waterproof gland nut for cable connections.

Performance specifications of a typical production unit shall be as follows: Measured sensitivity with a 1 mW input on a 25 mm (1 in) terminated tube, averaged from 500 Hz to 2.5 kHz, shall be at least 118 dB SPL. Measured sensitivity with a 1 W input at 1 m distance on axis from the mouth of a horn with a Q of 6.3 averaged in the 2 kHz octave band shall be at least 111 dB SPL. As an indication of electromechanical conversion efficiency, the BI factor shall be at least 19 newtons per ampere. Frequency response, measured on a terminated tube, shall be flat within ± 5 dB from 300 Hz to 5.5 kHz. Nominal impedance shall be 16 ohms and power capacity shall be at least 120 watts normal speech or music program material.

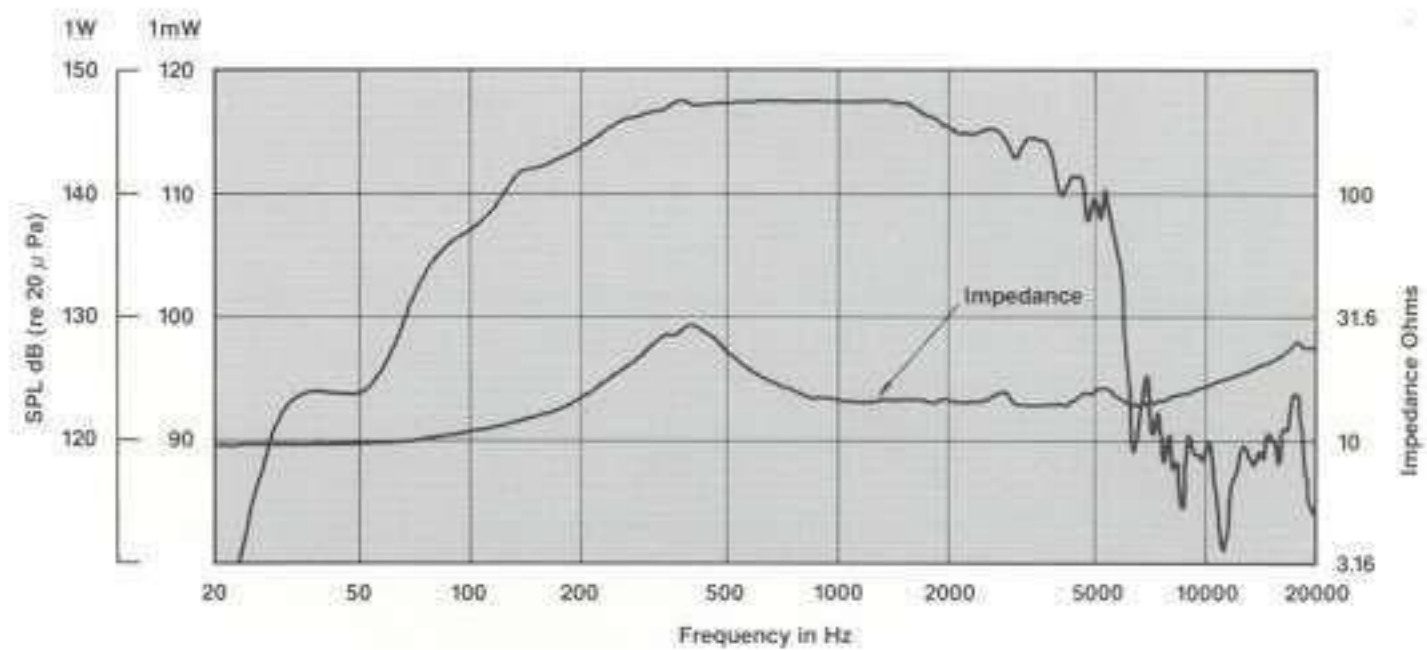
The compression driver shall be the Model 2485J. Other drivers will be considered for equivalency provided that submitted data from a recognized independent test laboratory verify that the above performance specifications are met.

Response on JBL 2366 Constant Coverage Bi-Radial® Horn.



Frequency response of the 2485J coupled to a JBL 2366 Constant Coverage Bi-Radial® Horn, measured on-axis at a distance of 1 meter with a 1-watt (4.0 V RMS) input in a reflection-free environment, with impedance vs. frequency curve. A horn with a pure exponential flare, such as typical radial horn designs, will exhibit greater high frequency output on-axis at the expense of lost angular coverage.

Response on Plane-Wave Terminated Tube.



Frequency response and impedance modulus of Model 2485J coupled to a 49 mm (2 in) diameter terminated plane-wave tube, with sensitivity referenced to a 25 mm (1 in) tube. This is the power response of the transducer, and is the frequency response that will be obtained on a true full-range constant directivity horn design, such as JBL's 2360 series of Constant Coverage Bi-Radial® Horns.



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