

# Professional Series

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## Model 2461

### Compression Driver

50 watts continuous program

44-mm (1 $\frac{3}{4}$ -in) edgewound aluminum voice coil

44-mm (1 $\frac{3}{4}$ -in) phenolic-impregnated linen diaphragm

25-mm (1-in) horn throat diameter

Silver plated pole piece



Model 2461 is an exceptionally rugged professional quality compression driver. Despite its small size, it has high power handling capacity and extremely high sensitivity, making it ideal for sound reinforcement systems where space is at a premium but sound quality cannot be compromised. The 2461 incorporates a phenolic-impregnated linen diaphragm, a concentric exponential phasing plug, 44-mm

(1 $\frac{3}{4}$ -in) edgewound aluminum ribbon voice coil, highly efficient magnetic assembly, and nonresonant cast aluminum back plate. These are machined and assembled to meet traditional JBL standards of precision; after assembly, the frequency response of each driver is tested for conformity to rigid performance criteria.

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## Architectural Specifications

The compression driver shall consist of an Alnico V magnet encased in a cast iron return circuit. All magnetic assembly parts shall be machined from cast or extruded billet stock. No stamped or non-metallic parts shall be used. The phasing plug shall be assembled of machined concentric exponential horns to eliminate phase cancellations, and it shall further be coupled to a tapered throat, the mouth of which shall be 25 mm (1 in) in diameter. The back cover shall be cast aluminum with reinforcing ribs to prevent ringing resonances which cause peaks in response. The diaphragm shall be phenolic impregnated linen for greater resistance to fatigue. The voice coil shall be edgewound aluminum ribbon of not less than 44 mm (1¾ in) in diameter, operating in a magnetic field of not less than 1.6 T (16,000 gauss).

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

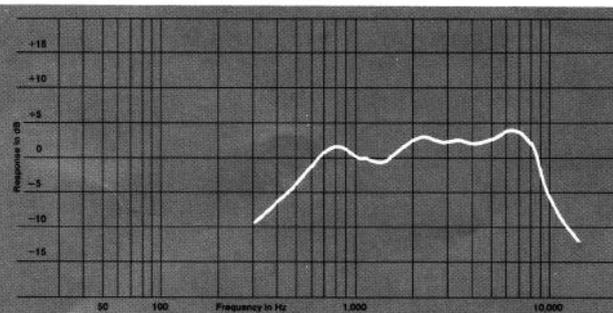
Measured sensitivity at 1 mW on a terminated tube basis (tube of 25-mm [1-in] diameter, 914 mm [3.0 ft] long) shall be at least 117 dB. As an indication of electromechanical conversion efficiency, the BI factor shall be at least 8.7 T•m. Frequency response, measured on a terminated tube, shall be flat within  $\pm 3$  dB from 500 Hz to 4.5 kHz. From 4 kHz to 10 kHz, response shall roll off at the rate of 3 dB/octave, and shall be flat within  $\pm 1$  dB through this region. On a 2350 horn, response shall be  $\pm 5$  dB from 500 Hz to 10 kHz. Nominal impedance shall be 16 ohms, and power capacity shall be at least 50 watts continuous program.

The compression driver shall be JBL Model 2461. 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.

### Specifications

Horn Throat Diameter	25 mm	1 in
Nominal Impedance	16 ohms	
Power Capacity	50 watts continuous program <sup>1</sup>	
Sensitivity <sup>2</sup>	117 dB	
Frequency Range	500 Hz to 12 kHz	
Recommended Crossover	500 Hz or higher	
Diaphragm	0.10-mm (0.004-in) phenolic	
Voice Coil Diameter	44 mm	1¾ in
Voice Coil Material	Edgewound aluminum ribbon	
Flux Density	1.6 T (16,000 gauss)	
BI Factor	8.7 T•m	
Dimensions		
Diameter	114 mm	4½ in
Depth	98 mm	3¾ in
Net Weight	3.7 kg	8½ lb
Shipping Weight	4.0 kg	8¾ lb

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. As specified by recognized standards organizations, sensitivity is measured with the driver coupled to a terminated tube. The JBL rating represents the SPL in a 25-mm (1-in) diameter tube with a 1 mW input signal (0.126 volts into 16 ohms) warbled from 500 Hz to 2.5 kHz.



Frequency response contour of Model 2461 coupled to a JBL Model 2350 horn. Measured on-axis response of a typical production driver on this horn, including all peaks and dips, does not deviate more than 2 dB from the above curve.

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Professional Division

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