

# Professional Series

## Model 2480

### Compression Driver

4" phenolic diaphragm  
4" edgewound copper ribbon voice coil  
High efficiency  
Smooth response  
120 watts—continuous program

*Professional audio consultants and engineers are invited to compare the JBL 2480 with other loudspeakers, both on the basis of acoustical measurements and extended listening tests.*



Model 2480 is the highest power professional quality compression driver in the industry. It has a four inch voice coil and a magnetic structure weighing more than 25 pounds. It can take the most explosive transients in stride and reproduce them at thunderous levels. Model 2480 is built to typical JBL standards of precision.

Diaphragms of phenolic impregnated linen are virtually indestructable. After manufacture, each driver is tested for frequency response and a peak or dip means it is rejected.

Model 2480 is also tested for power handling at 300 Hz single frequency for one hour at 60 watts RMS. This test, of course, is a much more difficult task for the driver than its rating of 120 watts continuous program.

Model 2480 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.



# Model 2480 – Compression Driver

## 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 material. No stamped or ceramic parts shall be used. The phasing plug shall be assembled of machined concentric exponential horns to eliminate phase cancellations, and it shall be further coupled to a tapered throat, the mouth of which shall be 2 inches 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 high durability. The voice coil shall be edgewound copper ribbon of not less than four inches in diameter, operating in a magnetic field of not less than 20,500 Gauss.

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

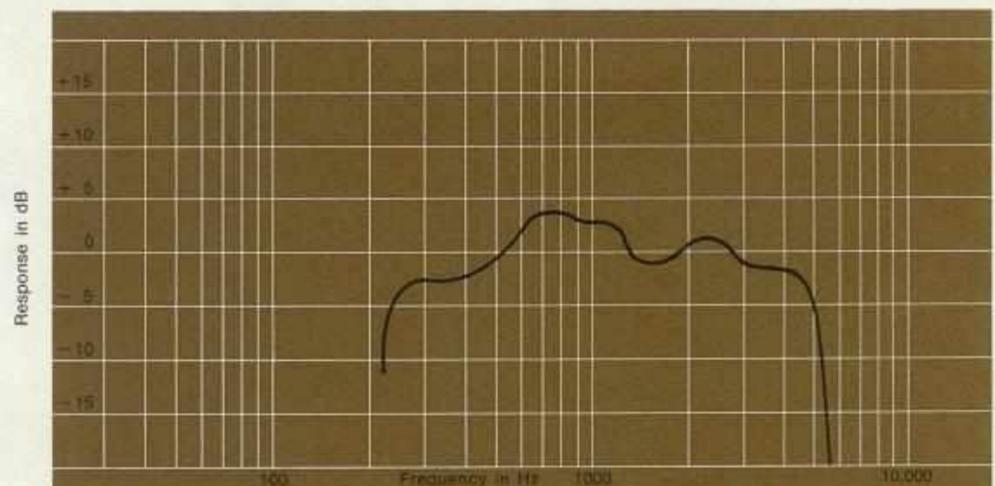
Measured sensitivity at 1 mw on a terminated tube (tube of one inch in diameter, 3.0 feet long) shall be at least 118 dB. As an indication of electromechanical conversion efficiency, the BI factor shall be at least  $2.5 \times 10^7$  dynes/abampere. Frequency response, measured on a terminated tube shall be flat within  $\pm 5$  dB from 500 to 6 kHz. On a 2350 horn, response shall be  $\pm 3$  dB from 300 Hz to 5 kHz. Each driver shall be production tested to withstand a 300 Hz signal for one hour at a power level of 60 watts RMS. Nominal impedance shall be 16 ohms.

The compression driver shall be JBL Model 2480. Other drivers will be considered for equivalency provided submitted data from a recognized independent test laboratory verify that the above performance specifications are met.

## Specifications

Nominal Impedance	16 ohms
Power Capacity	120 watts continuous program
Sensitivity*	118 dB
Frequency Range	300 to 6 kHz
Voice Coil Diameter	4 inches
Voice Coil Material	Edgewound copper ribbon
Flux Density	20,500 Gauss
Diaphragm	Non-fatiguing Phenolic
BI factor	$2.5 \times 10^7$ dynes/abampere
Recommended Crossover	300 Hz
Dimensions	7" diameter x 5¼ deep
Horn Throat Diameter	2 inches
Net Weight	25½ lbs.

\*NOTE: 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 one-inch diameter tube with a one milliwatt input signal (1.26 volts into 16 ohms) warbled from 500 to 2500 Hz.



Frequency response contour of Model 2480 coupled to a 2350 horn. Measured response of a typical production unit, including all peaks and dips, does not deviate more than 2 dB from the above curve.

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