

# Professional Series

## Model 2410

### Compression Driver

30 watts continuous program  
44 mm (1 3/4 in) edgewound aluminum ribbon voice coil  
44 mm (1 3/4 in) aluminum alloy diaphragm  
25 mm (1 in) horn throat diameter  
Silver plated pole piece



Model 2410 is a professional quality high frequency compression driver which provides clear, crisp, natural reproduction of speech and music. It is ideally suited to high-quality sound reinforcement installations. Its high efficiency and power capacity permit great dynamic range, and its peak-free response means that greater system gain can be attained without acoustic feedback. The 2410 incorporates an aluminum diaphragm, pneumatically drawn to shape avoiding localized stresses or work hardening, a concentric exponential phasing plug, 44 mm (1 3/4 in)

edgewound aluminum ribbon voice coil, highly efficient magnetic assembly, and non-resonant cast aluminum back plate. Traditional JBL standards of precision, involving tolerances so close as to be considered impractical by industry standards, result in unparalleled performance. Calibrated impedance and response curves are run to make sure that every unit released meets JBL's performance criteria, and that all 2410's are accurately matched in performance characteristics.



## 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 billets 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 0.05 mm (0.002-in) aluminum alloy pneumatically drawn to shape to prevent stresses. The voice coil shall be edgewound aluminum ribbon of not less than 44 mm (1 3/4 in) in diameter, operating in a magnetic field of not less than 1.6 tesla (16,000 gauss).

Performance specifications of typical production unit shall be as follows:

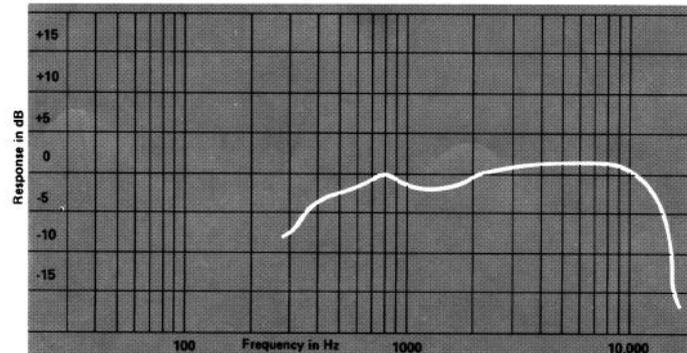
Measured sensitivity at 1 mW on a terminated tube basis (tube of 25 mm (1 in) diameter, 0.91 m (3.0 ft.) long) shall be at least 117 dB. As an indication of electromechanical conversion efficiency, the BI factor shall be at least 8.7 T•m. Usable frequency response shall be from 500 Hz to 15 kHz. Frequency response, measured on a terminated tube shall be flat within  $\pm 3$  dB from 500 Hz to 4 kHz. From 4 kHz to 15 kHz response shall rise at the rate of 3 dB/octave, and shall be flat within  $\pm 1$  dB. When used on a 2350 horn, response shall be  $\pm 3$  dB from 500 Hz - 15 kHz through this area. Nominal impedance shall be 16 ohms and power capacity shall be at least 30 watts normal speech or music program material.

The compression driver shall be JBL Model 2410. 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 $\Omega$  |          |
| Power Capacity <sup>1</sup>        | 30 watts continuous program                          |          |
| Sensitivity <sup>2</sup>           | 117 dB   |          |
| Frequency Range                    | 500 Hz to 15 kHz                                     |          |
| Recommended Crossover <sup>3</sup> | 800 Hz or higher                                     |          |
| Diaphragm                          | 0.05 mm (0.002 in) aluminum alloy                    |          |
| Voice Coil Diameter                | 44 mm  | 1 3/4 in |
| Voice Coil Material                | Edgewound aluminum ribbon                            |          |
| Flux Density                       | 1.6 T (16,000 gauss)                                 |          |
| BI Factor                          | 8.7 T•m  |          |
| Dimensions                         | 114 mm (4 1/2 in) diameter<br>98 mm (3 7/8 in) depth |          |
| Net Weight                         | 3.7 kg   | 8 1/4 lb |
| Shipping Weight                    | 4.0 kg   | 8 7/8 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 to 2500 Hz.
3. A 2410 can be used to 500 Hz; however, power capacity will be reduced to 10 watts continuous program in the region between 500 Hz and 800 Hz.



Frequency response contour of Model 2410 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