

Professional Series

Key Features:

- ▶ 100 mm (4 in) high compliance full range transducer
- ▶ 90 dB sensitivity, 1 W (2.83 V), 1 m
- ▶ 40 W continuous program power capacity
- ▶ 80 Hz – 15 kHz frequency range
- ▶ Rugged steel enclosure
- ▶ Available with three transformer options, or without transformer
- ▶ Designed for use only with RG100 grille with large perforation area

JBL P100 Series Flush Mount Loudspeaker Systems were developed in direct response to the needs of the sound system designer/installer. Housing a 100 mm (4 in) high compliance full range transducer in a tuned, ported steel enclosure, P100 Series systems offer consistent, predictable performance for applications where high fidelity is important.

Flat frequency response without external equalization from 100 Hz to 11 kHz (± 3 dB) with grille in place, assures even energy distribution throughout its nominal 100° conical dispersion pattern. The result is outstanding clarity and vocal articulation, both on- and off-axis. The tuned port extends bass to well below 80 Hz, making P100 Series systems ideal for situations requiring superior music fidelity. Using a standard 1/3 octave equalizer can extend P100 frequency response to 80 Hz – 15 kHz ± 3 dB.

Available in four versions, P100 Series systems are available with or without built-in 70 volt matching transformers for distributed systems. The transformer options provide a choice of internally mounted 4, 8, 16 watt power capacities, and provide front mounted rotary switch for tap selection.



Specifications:

| | |
|------------------------------|--|
| SYSTEM: | |
| Frequency Range (-10 dB): | 100 Hz to 11 kHz |
| Power Rating: | 40 watts |
| Sensitivity: | 90 dB |
| Nominal Impedance: | 8 ohms |
| TRANSDUCER: | |
| Nominal Diameter: | 100 mm (4 in) |
| Voice Coil: | 25 mm (1 in) round copper wire |
| Magnetic Assembly Weight: | 0.925 kg (2 lb) |
| BI Factor: | 6.1 N/A |
| Effective Moving Mass: | 4.2 g |
| Flux Density: | 1.1 T (11,000 gauss) |
| GENERAL: | |
| Polarity: | Positive voltage to red (+) terminal gives forward cone motion |
| Enclosure Finish: | Black baked enamel |
| RG100 Grille Finish: | JBL white baked enamel |
| Input Connectors: | Bare wire |
| Dimensions: | 248 mm (9¾ in) diameter |
| Depth (from back of baffle): | 108 mm (4¼ in) |
| TRANSFORMER OPTIONS: | |
| Model No. P100: | 8 ohm, no transformer |
| P104: | HX74 transformer; 4 watts |
| P108: | HX78 transformer; 8 watts |
| P116: | HX716 transformer; 16 watts |
| ACCESSORY OPTIONS: | |
| Model No. RE100: | Rough-in enclosure, 10-inch deep |
| TBI: | Tile Bridge, unfinished metal, for suspended ceilings |
| REQUIRED ACCESSORY: | |
| RG100: | White grille required to maintain performance specifications |

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.

► P100 Series Flush Mount Loudspeaker Systems

P100 Series loudspeaker systems are designed to mount flush to ceilings or walls, making them visually unobtrusive and easy to integrate into any decor. The enclosure is manufactured of cold-rolled steel and finished in electrostatically applied black baked enamel. The RE100 enclosure is available as rough-in box, and the TB1 tile bridge is available for suspended ceilings to facilitate installation.

The RG100 grille is required to maintain performance specifications. The RG100 grille has a larger perforation area and is finished in electronically applied JBL white baked enamel.

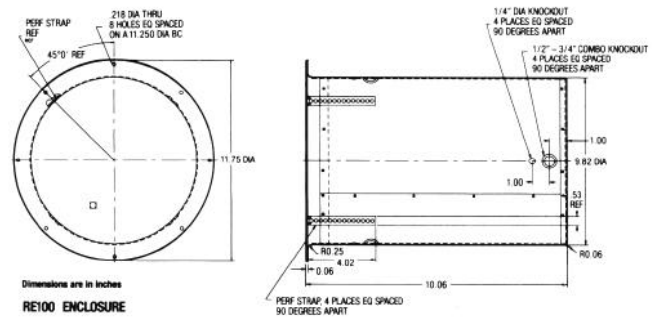
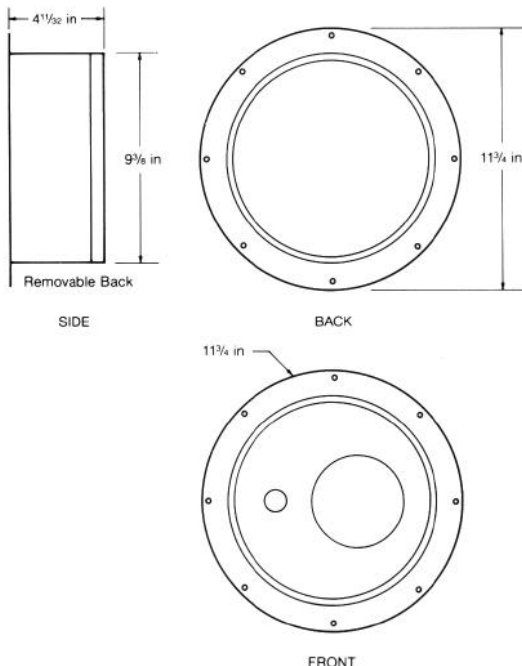
Architects and Engineers Specifications:

The loudspeaker systems shall consist of a single transducer with a nominal diameter of 100 mm (4 in), with a ferrite magnet weighing at least 0.925 kg (2 lb). The voice coil shall be 25 mm (1 in) diameter and shall be made of two layers of round copper wire operating in a magnetic field of not less than 1.1 T (11,000 gauss). The transducer shall have a nominal impedance of 8 ohms and shall be capable of peak power input of 160 watts. Models P104, 108 and P116 shall be supplied with an internally mounted 70 volt line transformer with power values of 4, 8, 16 watts. The transformer shall have an insertion loss not exceeding 0.5 dB from 100 Hz to 15 kHz. Model P100 shall be supplied without transformer.

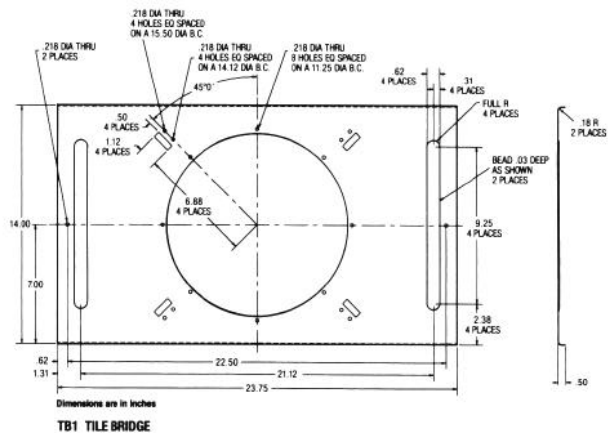
The enclosure shall be made of cold-rolled steel and shall be vented on the front surface. Dimensions shall not exceed 248 mm (9¾ in) in diameter and 108 mm (4¼ in) in depth, and the enclosure shall be filled with 1½ pound per cubic foot density fiberglass. The P100, P104, P108, P116 enclosure shall fit these standard backcans: JBL model RE100, Atlas/Soundolier model 95-8-7 and 96-8-7.

Performance specifications of a typical unit shall be as follows:
 Measured on-axis sensitivity [1 watt (2.83 V) at 1 meter, averaged from 500 Hz to 2.5 kHz] shall be at least 90 dB SPL. Nominal coverage angle with RG100 grille (-6 dB, from 500 Hz to 2.5 kHz) shall be at least 100 degrees. Response uniformity, with unequalized input signal and with RG100 grille shall be ±3 dB from 100 Hz to 11 kHz. Response uniformity with input signal equalized +12 dB at 80 Hz, +2.5 dB at 125 Hz, -4.5 dB at 10 kHz, +4.5 dB at 12.5 kHz and +15 dB at 16 kHz, shall be ±3 dB from 80 Hz to 16 kHz.

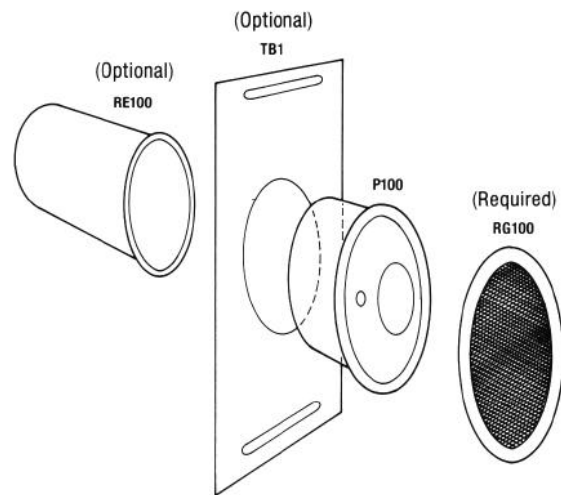
The loudspeaker systems shall be the P100, P104, P108, and P116.



RE100 ENCLOSURE



TB1 TILE BRIDGE



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