

BOSE

502® B and 502® BP Acoustimass® Module Enclosures

General Description

The Bose® 502® B or 502® BP Acoustimass® enclosure is a modular component for one of several Bose sound systems. Each system is designed for high quality reinforcement of voice and music. This practical bass component works with the Panaray® system digital controller for active equalization of the system. The 502 BP enclosure is preferred in applications requiring a rugged, portable enclosure. The 502 B enclosure is intended for use in installed applications. Acoustic properties of the 502 B and 502 BP Acoustimass enclosures are identical.

The Panaray system digital controller assures smooth, accurate spectral response across each 502B/502BP loudspeaker's entire operating range. Sharp band-limiting filters reduce power waste, stage noise, high-frequency instability, and interference.

The 502 BP enclosure features shock-resistant edge and corner protectors for added durability. Slots located along the pads provide interlock stability for stacking. The 502 BP enclosure is finished in black scratch-resistant vinyl, which can be painted.

The Panaray system digital controller is a single, rack-sized device. It can provide crossover functions, active electronic equalization, and dual channel signal processing for the 502 B or 502 BP enclosure in combination with all Bose professional loudspeakers.

The 502 B and 502 BP Acoustimass enclosures provide a flexible, building-block approach to adding low-frequency reinforcement in a variety of sound systems. These systems can meet sound reinforcement requirements for many applications. Detailed installation and system design guidelines for the 502 B enclosure are provided in the *Bose® Panaray Professional Sound System*

Acoustimass® Module Enclosure Technical Information

Frequency range

55Hz to 150Hz

Active Equalization (from 402® C or 802® C Series II systems controller)

Required

Nominal Impedance

8Ω

Maximum acoustic output

115dB-SPL average, 122dB-SPL peak

Recommended amplifier power

450 to 1200 watts continuous into 8Ω

Sensitivity

90dB-SPL, 1W, 1m, 55Hz to 150Hz

Enclosure construction

Resin-impregnated particle board wrapped in scratch-resistant vinyl paintable

Fusing

AGC (Buss) or 3AG (Littlefuse), 7-ampere

Mounting points

(8) mm threaded insets, 20 mm depth (502 B only)

Connectors

502 B (International): Two 3-pin XLR (parallel wired)

502 B (US): Two parallel-wired 4-conductor barrier strips

502 BP: Two 3-pin XLR with 1 x ¼" phono jack (parallel wired)

Color

502 B : Professional Gray or Arctic White

502 BP: Black

Dimensions

502 B: 31"H x 14"W x 15½"D
(78.7 x 35.6 x 39.4 cm)

502 BP: 32"H x 14½"W x 16"D
(81 x 37 x 41 cm)

Weight

502 B: 85 lb (38.6 kg)

502 BP: 90 lb (41 kg)

Component Description

Each Acoustimass enclosure uses a single high-power-handling, high-reliability 12" (30 cm) woofer. This low-frequency transducer features a high-temperature 4" (10.2 cm) voice coil, cast aluminum basket, and a highly reliable rubber surround.

Both 502 and 502BP enclosures provide clear, deep bass reinforcement from a small enclosure, as a result of patented Bose Acoustimass® technology. The low crossover frequency makes the enclosure a non-localizable sound source, allowing it to be placed unobtrusively apart from the rest of the sound system.

The 502 B enclosure is fitted with 10x safety-rated attachment points (top and bottom) for mounting in a variety of orientations. Two-point suspension is easy to accomplish using the Bose CSB-5B suspension bracket. The 502 B enclosure is available in both Professional Gray and Arctic White scratch-resistant vinyl, which can be painted to match any décor.

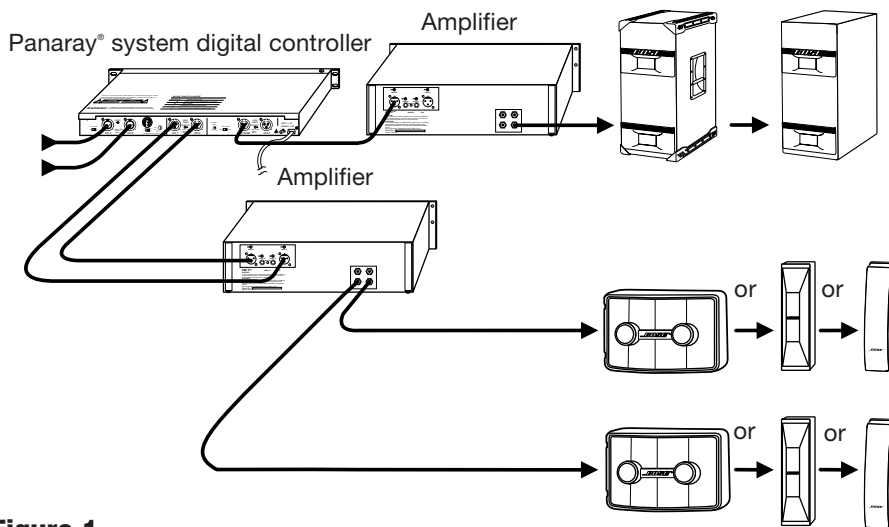


Figure 1

System Configurations

Owner's Guide. For 502 BP installation and system design guidelines, refer to the *502 BP Portable Acoustimass® Enclosure Owner's Guide*.

Figure 1 shows several possible system configurations including use of the 502 B/502 BP with either 802°-III, 402°, or 502° A loudspeakers.

Warranty Information

The Bose 502 B and 502 BP Acoustimass modules are covered by a 5-year transferable limited warranty. The Panaray system digital controller systems controller is covered by a 1-year transferable limited warranty.

Engineers' and Architects' Specifications

The low-frequency device shall be a dual-ported highly compact enclosure with matched active equalization as follows:

The transducer complement shall consist of one (1) high-power-handling driver of 30 cm diameter, mounted inside an enclosure that features acoustic filtering to minimize distortion. Its operating frequency range shall be below 150Hz, making the enclosure difficult to localize, which adds a high degree of location placement flexibility. The input connectors, on the rear of each enclosure, shall be either 3-pin XLR (parallel wired), parallel-wired 4-conductor barrier strips, or 3-pin XLR with 1 x 1/4" phono jack.

The enclosure's maximum acoustic output shall be 115dB-SPL from 55Hz to 150Hz, with measurements referenced to a full-bandwidth pink-noise input at 1 meter at the enclosure's rated power. Its power handling capacity shall be 450 watts continuous referenced to IEC noise for 100 hours.

The enclosure shall be made of high strength, high-density resin-impregnated particle board, wrapped in vinyl. Outer dimensions of the 502 B enclosure shall be 31"H x 14"W x 15 1/2"D (78.7 x 35.6 x 39.4 cm); its weight shall be 85 lb (38.6 kg). Outer dimensions of the 502 BP enclosure shall be 32"H x 14 1/2"W x 16"D (81 x 37 x 41 cm); its weight shall be 90 lb (41 kg).

The bass enclosure shall be the Bose 502 B or 502 BP Acoustimass enclosure.

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The Mountain, Framingham, MA
01701-9168 USA
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www.bose.com
JN94898 PN177921 Rev.03 PC010247