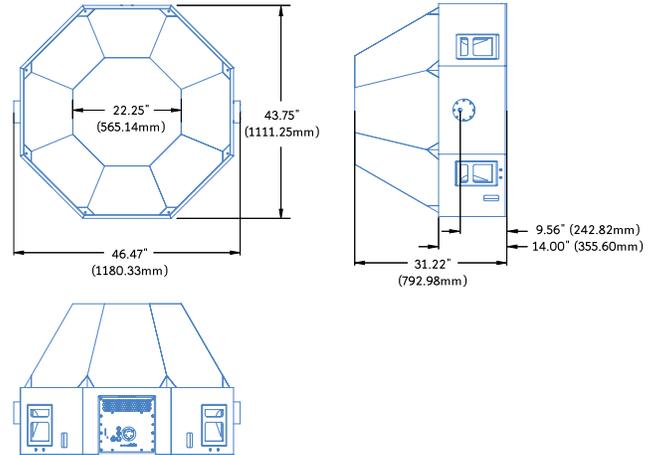




SB-2 : Parabolic Wide-Range Sound Beam



| | |
|-------------------------|----------------------------------------------------------|
| Dimensions | 46.5" W x 43.75" H x 31.22" D (1023mm x 962.5mm x 793mm) |
| Weight | 300 lbs (137 kg)/Shipping: 450 lbs. (206 kg) |
| Enclosure | Fiberglass and multi-ply hardwood birch |
| Finish | Black textured |
| Protective Grill | Powder-coated hex stamped steel |
| Rigging | Arrayable mounting yoke |

The SB-2 is a biamplified sound reinforcement loudspeaker housed in an octagonal enclosure with a parabolic dish front face. Capable of high sound pressure levels with precisely defined, narrow coverage, the SB-2 offers a unique solution for large-scale distributed paging and music systems.

While distributed ceiling speakers are often employed in an attempt to overcome reverberation and improve intelligibility, large venues pose problems of scale that conventional ceiling speakers cannot effectively address. In applications where the

ceiling height is 40 feet or more, a conventional distributed system lacks both the power to overcome air losses and the directionality to avoid combing and excessive reverberation.

The SB-2 provides a unique and effective solution to these problems. Featuring a tight 20-degree coverage pattern with high output capability, the SB-2 offers the ability to cover individual zones with highly intelligible, full-range sound while avoiding overlapping. A hybrid, two-way system, the SB-2 uses a waveguide to achieve directionality at high frequencies and a parabolic array of cone drivers

at mid-to-low frequencies. The result is tightly controlled coverage from 500 Hz to 16 kHz, with low-frequency response extending down to 130 Hz.

The SB-2 comprises twenty-eight 4-inch cone drivers, a 2-inch throat (4-inch diaphragm) compression driver, an integral complementary MOSFET power amplifier with 1240 Watt burst capability, and optimized signal processing circuitry. It features options for L6-20, IEC 309 or VEAM all-in-one connectors, and compatibility with RMS™ (Meyer Sound's Remote Monitoring System).

FEATURES & BENEFITS

- Integrated control electronics and amplifiers
- TruPower™ Limiting (TPL) (driver Protection)
- Intelligent AC™ System (Automatic Voltage Selection)
- Compatible with RMS™ (Remote Monitoring System)

- Long-throw
- Very High-Q
- Ultra-low distortion
- Tightly defined coverage
- Minimized overlap
- Maximum intelligibility
- Minimum reverberation

APPLICATIONS

- Large airports, sports arenas and malls
- Paging and distributed music
- Distributed coverage of large areas

SB-2 SPECIFICATIONS

| | | |
|-------------------------------|-------------------------------------------------|-----------------------------------------------------------------------------------------------|
| ACOUSTICAL¹ | | |
| (EACH LOUDSPEAKER) | Operating Frequency Range² | 130 Hz to 18 kHz ±4 dB from 150 Hz to 13 kHz -6 dB at 130 Hz and 18 kHz |
| | Phase Response | ±35° from 400 Hz to 11 kHz |
| | Maximum SPL | 143 dB @ 1 meter |
| | Dynamic Range | >110 dB |
| COVERAGE | | |
| | (-6 dB points) | 20° symmetrical 1 kHz to 16 kHz 40° symmetrical 500 Hz 90° symmetrical 250 Hz |
| CROSSOVER | | |
| | | 1.5 kHz |
| TRANSDUCERS | | |
| | Low Frequency | (28) 4" diameter cone drivers |
| | High Frequency | 2" throat (4" diaphragm) MS-2010A compression driver |
| AUDIO INPUT | | |
| | Type | 10 kΩ impedance, electronically balanced |
| | Connector | XLR (A-3) male and female |
| | Nominal Input Level | +4 dBu |
| AMPLIFIERS | | |
| | Type | Complementary power MOSFET output stages (audio class AB/H) |
| | Burst Capability³ | 1240 watts (620 watts/channel) |
| AC POWER | | |
| | THD, IM, TIM | < 0.02 % |
| | Connector | 250 V NEMA L6-20P (twistlock) inlet, IEC 309 male inlet or VEAM ⁴ |
| | Automatic Voltage Selection | 95-125 VAC and 208-235 VAC; 50/60 Hz ⁵ |
| | Operational Voltage Range | Turn on: 85 VAC; Turn off: 134 VAC; 50/60 Hz Turn on: 165 VAC; Turn off: 264 VAC; 50/60 Hz |
| | Max. Continuous RMS Current (>10 sec) | @ 115 V: 8 A @ 230 V: 4 A @ 100 V: 10 A |
| | Burst RMS Current (<1 sec) | @ 115 V: 15 A @ 230 V: 8 A @ 100 V: 18 A |
| | Max Peak Current During Burst | @ 115 V: 22 Apk @ 230 V: 11 Apk @ 100 V: 25 Apk |
| | Soft Current Turn-on | Inrush current <12 A @ 115 V |

NOTES:

1. Measured at 4 meters on axis, free field conditions, with pink noise input in third-octave bands.
2. Response depends on loading conditions and room acoustics.
3. Nominal 8Ω resistive load, pink noise, 100V peak.
4. Other connectors available. For European installations, an IEC 309 connector (16A) can be installed.
5. The unit is rated at 88-125V and 182-235V, 50/60 Hz, to satisfy EC standards for -10% to +6% AC line voltage.



SB-2 - 04.108.014.01A

MEYER SOUND LABORATORIES, INC.
2832 San Pablo Avenue
Berkeley, CA 94702

T: +1 510 486.1166
F: +1 510 486.8356

techsupport@meyersound.com
www.meyersound.com

Copyright © 2002
Meyer Sound Laboratories, Inc.
All rights reserved

ARCHITECT SPECIFICATIONS

The loudspeaker shall be a self powered, high Q, vocal range system. The transducers shall consist of twenty-eight 4-inch diameter cone drivers and a 4-inch diaphragm compression driver on a 20° x 20° symmetrical horn.

The loudspeaker system shall incorporate internal processing electronics and a two-channel amplifier. Processing functions shall include equalization, phase correction and signal division for the high and low frequency sections. The crossover point shall be 1.5 kHz. Each amplifier channel shall be class AB/bridged with complementary MOSFET output stages. Burst capability shall be 620 watts each (1240 watts total) with nominal 8Ω resistive load. Distortion (THD, IM, TIM) shall not exceed 0.02%. Protection circuits shall include TruPower™ Limiting.

Performance specifications for a typical production unit shall be as follows, measured at 1/3 octave resolution in fixed ISO bands: Operating frequency range shall be 150 Hz to 18 kHz (-6 dB

points). Phase response shall be ±35° from 400 Hz to 11 kHz. Maximum SPL shall be 143 dB at 1m. Beamwidth shall be 20° ±5° from 1000 Hz to 16 kHz.

The audio input shall be electronically balanced with a 10kΩ impedance and accept a +4dBu (1.23Vrms) signal. Connector shall be XLR (A-3) type. RF filtering shall be provided, and CMRR shall be greater than 80 dB from 50Hz - 1 kHz.

The internal power supply shall perform automatic voltage selection, EMI filtering, soft current turn-on and surge suppression. Powering requirements shall be nominal 100V, 110V or 230V AC line current at 50 Hz or 60 Hz frequency. Operating ranges shall be 95V to 125V (100V or 120V nominal), and 208V to 235V (230V nominal). Maximum peak current draw during burst shall be 22A at 115V, 11A at 230V and 25A at 100V. Current inrush during soft turn-on shall not exceed 12A at 115V. AC power connector shall be a locking connector.

The loudspeaker system shall provide facilities for installing Meyer Sound's optional RMS™ remote monitoring and control system.

All loudspeaker components shall be mounted in a parabolic dish enclosure constructed of fiberglass and multi-ply hardwood birch with a hard, waterproof and damage resistant black textured finish. The front protective grille shall be perforated steel. Dimensions shall be 46.5" wide x 43.75" high x 31.22" deep (1023mm x 962.5mm x 793mm). Weight shall be 300 lbs (137 kg).

The loudspeaker shall be the Meyer Sound Model SB-2.