

NOW YOU
SEE THEM.



NOW YOU
DON'T.

SA2B™



A TRULY INVISIBLE, EXTENDED BANDWIDTH, WIDE DISPERSION LOUDSPEAKER SYSTEM

The extraordinary SOUND ADVANCE SA2B is a two-way, full-range planar loudspeaker system designed for application in commercial and residential installations.

Its proprietary structural and engineering features make it possible to invisibly install in almost any standard wood/metal stud wall or ceiling, essentially becoming an integral part of the wall or ceiling surface.

Because of the SA2B's patented Planar Diaphragm Technology™, when properly installed in a wall or ceiling, the loudspeaker system will radiate in a smooth, even coverage hemispherical pattern with more than 140° of dispersion throughout its bandwidth.

The SOUND ADVANCE SA2B employs a flat rigid diaphragm, approximately one-half inch thick, that installs into a standard wall cavity replacing the equivalent surface area of gypsumboard. The flat vellum overlay which is applied to the loudspeaker surface may be finished with water soluble materials such as latex paints, to match any color or decor requirement, using conventional brush-on, roller, or airless spray appli-

cation systems. Additionally the SA2B may be covered using wallpaper, light weight vinyl wall coverings and selected textured coatings*.

[* please contact the factory before applying any textured coating to Sound Advance Systems products]

The SA2B's exclusive installation methods, including the use of matching surface treatments, uniquely allows the speaker to

be made truly invisible. This capability allows the loudspeaker system to be placed wherever optimal acoustics dictate, eliminating any visual concerns.

The SA2B utilizes a mechanically derived crossover centered at 1 kHz with a 12 dB per octave slope for both low-frequency and high-frequency sections. Each loudspeaker contains two independent protection circuits (high-frequency and low-frequency) that automatically reset after an overload condition has been removed.

ARCHITECTS AND ENGINEERS SPECIFICATION:

The aesthetic loudspeaker shall be a two-way, full-range device, producing frequencies from 70Hz to 20 kHz. Total radiating surface shall be 294.0 sq. in. (1896.0 sq. cm.) and high frequency dispersion shall be 140° to at least 20 kHz in both horizontal and vertical planes.

The loudspeaker system shall have a sensitivity of 90 dB, 1W/1M, with a power rating of 60 watts RMS as per EIA standard RS-426-A. The loudspeaker shall have two independent self-resetting custom gel switch protection devices, for the high-frequency driver and the low-frequency driver.

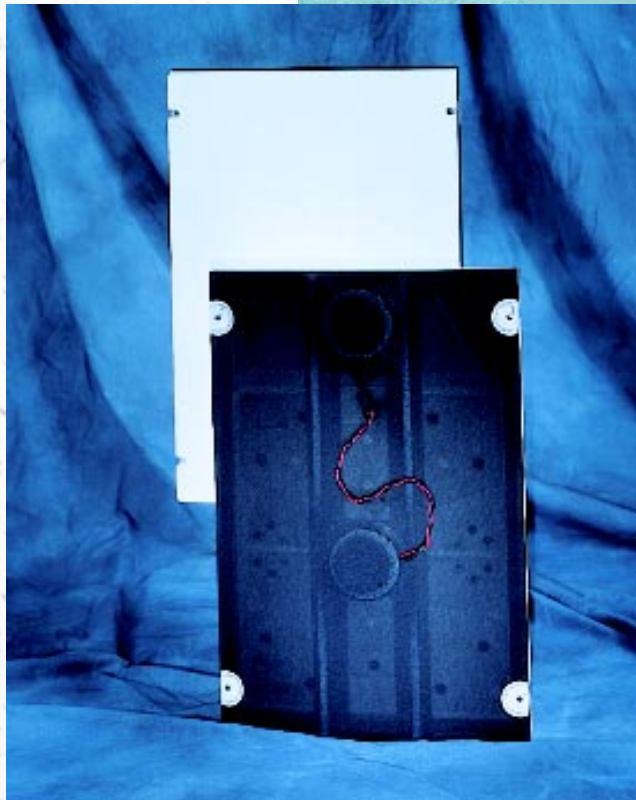
The loudspeaker shall have an exterior frame constructed of extruded aluminum that is 21.0 in. (53.3 cm.) long by 14.0 in. (35.6 cm.) wide and 3.0 in. (7.6 cm.) in total unit depth - not including backbox. The loudspeaker shall fit into standard wall and ceiling construction and occupy an area of approximately 2.0 sq. ft. (0.19 sq. m.).

SOUND ADVANCE offers a range of

backboxes to allow code/installation requirements to be met.

One (1) loudspeaker with normal mounting hardware shall weigh 7.7 lbs. (3.49 kg.).

The loudspeaker shall be the SOUND ADVANCE SYSTEMS SA2B or equivalent.



RECOMMENDED APPLICATIONS:

SOUND ADVANCE products provide outstanding performance and economic advantages when installed in environments with an ambient noise level at or below 75dBA, where the speakers can be placed in a wall or ceiling, at least 6 feet above the floor. When system design requirements indicate speaker to speaker distances of greater than 40.0 ft., please contact the factory for additional technical information on such applications. The recommended applications for the SA2B include:

- Background Music*
- Foreground Music*
- Speech Reinforcement*
- Voice Paging*
- Sound Masking*
- Multi-channel audio/Surround Sound*
- Teleconferencing*
- Multi-Room Systems*

RECOMMENDED INSTALLATIONS:

- Flush Mounted into Walls or Ceilings*

SPECIFICATIONS:

Frequency Response: 70 Hz - 20 kHz* +/-4dB (See Response chart on back cover.)

(*when properly installed in-wall with overlay and backbox)

Power Rating: 60 Watts RMS as per EIA Standard RS-426-A

Pressure Sensitivity: 90 dB, 1W/1M

Magnets: Low and High-Frequency: Ceramic, 0.37 kg. (0.82 lbs.)

System Impedance: 4 ohms nominal, 3.5 ohms minimum

Voice Coil Diameter: High-Frequency and Low-Frequency: 1.02 in. (2.6 cm.)

Polar Dispersion: (See Polar charts on back cover.)

Crossover Frequency: 1 kHz 12 dB/octave Mechanically derived

Dimensions: Height 21.0 in. (53.4 cm.) Width 14.0 in. (35 cm.)
Depth 3.0 in. (7.6 cm.)

Weight 7.7 lbs. (3.49 kg.)

FACTORY PROVIDED FINISH: Primed surface ready to receive vellum overlay (included).

Environmental Specifications: -40°F to 140°F (-40°C to 60°C) 0 to 100% humidity

Termination: 12.0 in. (30.5 cm.) Pigtails (red/black twisted pair 16 AWG)

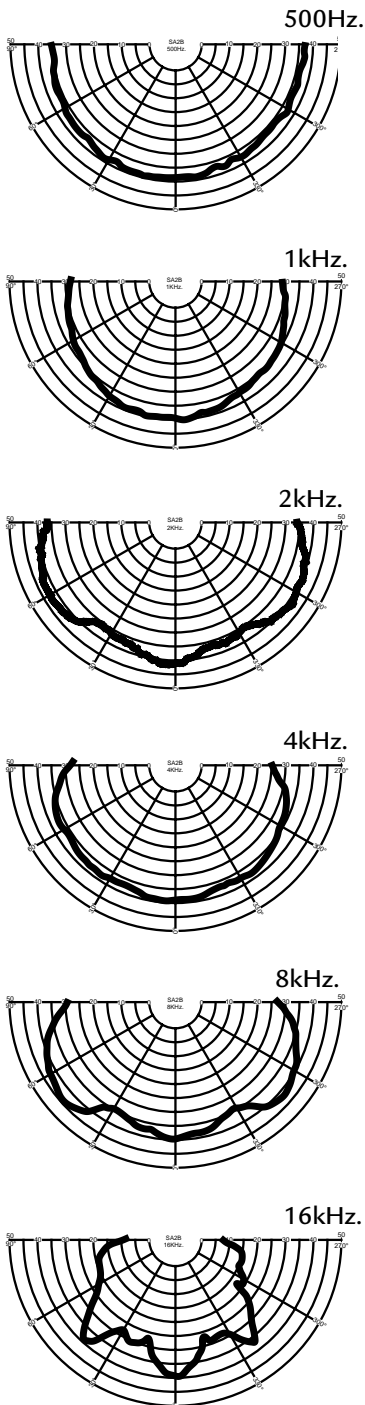
Protection: 2 Independent self-resetting custom gel switches (LF and HF)

Shipping Weight: 28.0 lbs. (12.8 kg.) 2 Pack 52.0 lbs. (23.7 kg.) 4 Pack

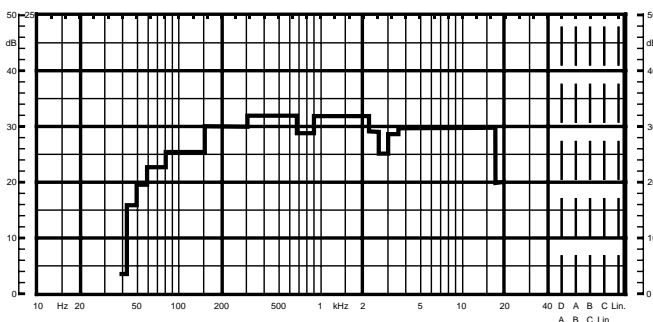
Packaging: Two (2) to a carton (SA2B) and four (4) to a carton (SA2B-4), both shipped complete with finishing supplies and vellum overlays.



SA2B Polar Response



SA2B On-Axis Frequency Response



DATA GATHERING:

All polar data was gathered by Electroacoustic Technologies, Warner Springs, CA., using Bruel & Kjaer instrumentation. The data was measured in a 100 ft. outdoor circular pit using standard ground plane data techniques, and then digitized for plotting and presentation.

A full set of polar data taken at 1/3 octave points is available from SOUND ADVANCE SYSTEMS® upon request. Frequency response measurements were taken with the loudspeaker in-wall and finished. Additional details on measurement hardware and methods can be found in Appendix A of the QL4-Quick Layout™ software manual.

ACCESSORIES:

SOUND ADVANCE offers a range of backboxes to allow code/installation requirements to be met. (Please note that SA2B systems must be installed in a wall cavity no larger than 2 ft. x 2 ft. x 0.5 ft. (0.61m x 0.61 m. x 0.15m). If the cavity is larger than these dimensions the use of one of the two backboxes listed below is required.

PBB-4 Four Inch Backbox

Length 21.25 in. (54.0 cm.), Width 14.25 in. (36.2 cm.), Depth 3.25 in. (8.3 cm.)

Weight 8.4 lbs. (3.81 kg.)

PBB-6 Six Inch Backbox

Length 21.25 in. (54.0 cm.), Width 14.25 in. (36.2 cm.), Depth 5.25 in. (13.3 cm.)

Weight 10.1 lbs. (4.58 kg.)

SA2B-BKT — Mounting Bracket for use with Metal Studs

Please Note: SOUND ADVANCE offers 70.7V or 100V transformers as a factory installed option for the SA2B. Contact the factory for further information.

SOUND ADVANCE SYSTEMS is continually engaged in product improvement research. Therefore, changes may occur to existing products without notice, and current SOUND ADVANCE SYSTEMS products may differ in some respect from the published description, but will always equal or exceed the original design specifications unless otherwise stated.

WARRANTY: SOUND ADVANCE SYSTEMS warrants the SA2B to be free of any defect in material or workmanship for a period of 7 years. Should a properly installed speaker fail, SOUND ADVANCE will replace the device at no charge, including shipping costs and labor for removal and reinstallation.



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