



110B

LOUDSPEAKER

KEY FEATURES

- » Hemispherical coverage pattern
- » Accurate, full-range voice announcements
- » Light weight enables many varied mounting possibilities
- » Fully assembled and ready to mount
- » Hanging or surface mount
- » Standard white (paintable) and custom colors available
- » Available with onboard amplification (Model 110B Power2)

Specifications: Model 110B Loudspeaker

System Type	6-1/2" (165 mm) full range
Impedance (nominal) ¹	4 ohms
Sensitivity dB @ 2.83 V/1 m	96 dB
Sensitivity dB @ 1 W/1 m ²	93 dB
Frequency Response (-3 dB) ³	220 Hz - 18 kHz
Frequency Response (-10 dB) ³	100 Hz - 20 kHz
Max. Continuous Peak Power ⁴	70 W
Max. Continuous Power RMS ⁵	35 W
Max. Power SPL @ 1 m ⁶	108.5 dB
Coverage Angle (±6 dB @ 2 kHz)	165°
Coverage Angle (±6 dB @ 10 kHz)	155°
Coverage Angle (Avg. 500 Hz - 10 kHz)	170°
Transformer	Optional 30 W
Transducer - Full Range	6-1/2" (165 mm) treated pulp fiber
Voice Coil	1" (25.4 mm)
Enclosure & Reflector Material	Structural foam polystyrene with rust-resistant hardware
Inputs	Hard-wire leads
Colors	White (paintable); custom colors available
Height	11-7/8" (302 mm)
Diameter	Sphere: 10" (254 mm) Reflector: 14-7/8" (378 mm)
Weight	8 lbs. (3.6 kg)
Shipping Weight	11 lbs. (5 kg)
Packaging	One per box
Optional Accessories	30-Watt Line Matching Transformer (TX30), Hanging Kit (HK), 24" Hanging Kit Extension (HKEXT), Mounting Bracket (MBS), Beam Clip (BC), Drop Ceiling Bracket (DCB), Small Screen (SS), Small Screen with Weather Filter (SWFS), Dust Filter (110SF)
Regulatory - CE	Approved
RoHS	Approved

¹ Impedance listed per IEC 60268-5 with a minimum less than 80% the nominal impedance

² 1 W 1 m sensitivity determined using nominal impedance

³ Frequency response measured in half or full space as dictated by speaker mounting configuration

⁴ Max. continuous peak power is 3 dB above max. continuous power

⁵ Continuous power rating, EIA-426-B test

⁶ Max. output based on max. continuous power

DESCRIPTION

The Model 110B was designed to provide clear voice announcements, seamless background music and even, omnidirectional coverage. It is a compact, unobtrusive speaker that is just 10" in diameter and offers fast distributed system installation. Broad dispersion of all frequencies is achieved with a 6-1/2" full-range driver and proprietary dispersion technologies. The 110B offers a hemispherical coverage pattern and can evenly cover a large area with fewer speakers. It comes fully assembled and ready to mount using our hanging kit or mounting bracket.

Onboard amplification is offered with Model 110B Power2, making a separate amplifier unnecessary in applications where only a single wide-dispersion speaker is required for coverage.

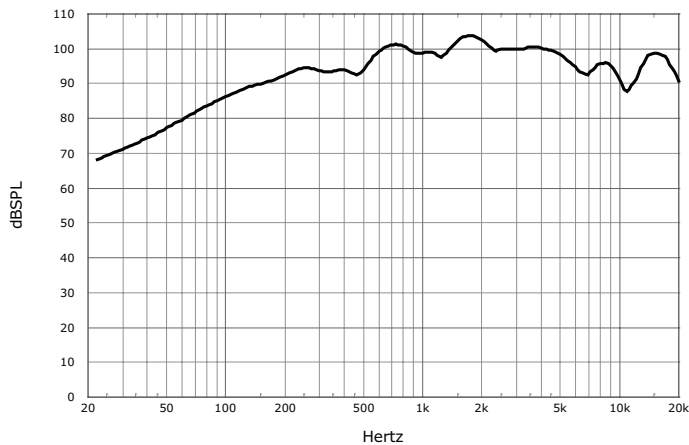
www.soundsphere.com

110B

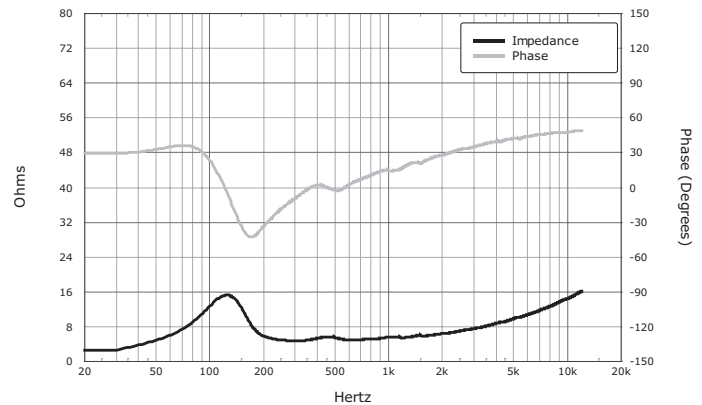
Compact Omnidirectional Loudspeaker for Seamless Background Music and Clear Voice Announcements

GRAPHS AND PLOTS

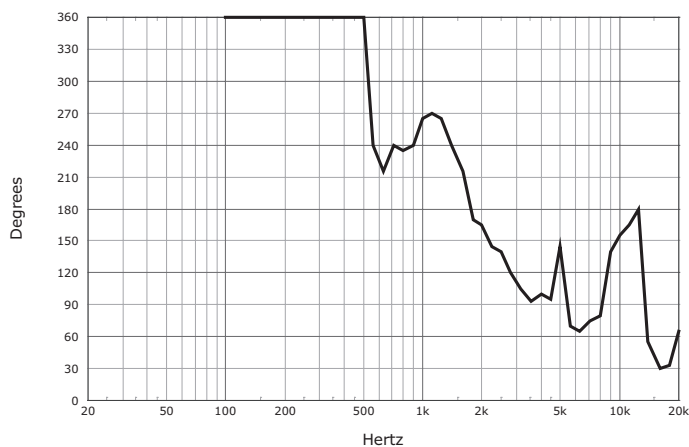
Hemispherical Frequency Response



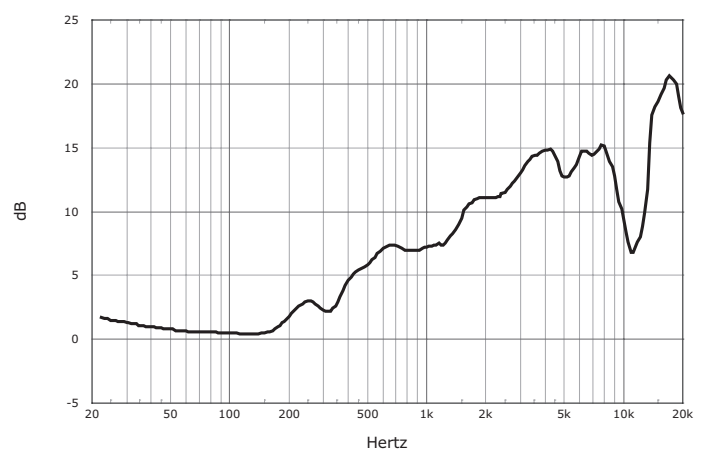
Impedance/Phase



Vertical Beamwidth (± 6 dB)



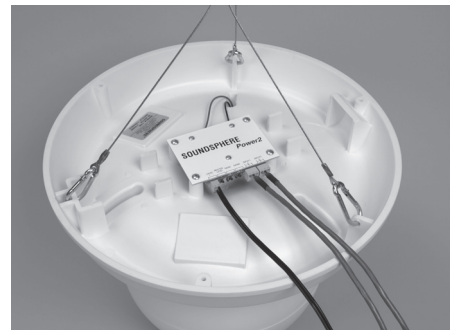
Directivity Index (DI)



MODEL 110B POWER2 WITH ONBOARD AMPLIFICATION

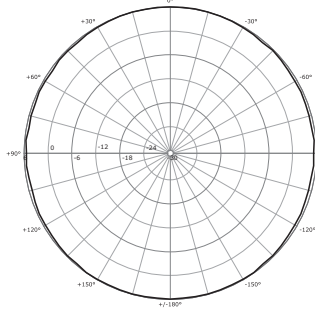
The Power2 adds onboard amplification to the compact Model 110B broad coverage speaker, making a separate amplifier unnecessary. Designed specifically for applications where only a single wide-dispersion speaker is required for coverage, the Power2 provides an easier and less expensive installation in such areas as small warehouses, open-ceiling classrooms or lecture halls with video projectors; board rooms; and small retail stores.

The amplifier has been designed to mount to the rear of the reflector. Two electronically balanced inputs with level controls are provided. The Power2 amplifier also includes a master output level control.

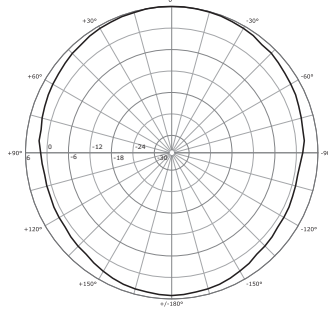


POLAR PLOTS (±6 dB)

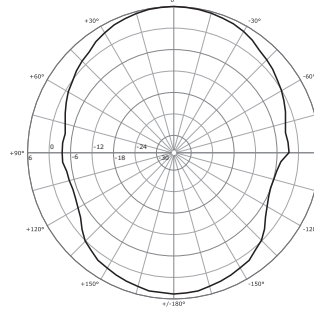
125 Hz



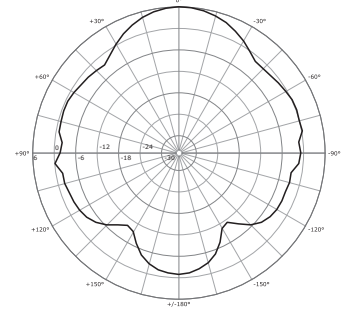
250 Hz



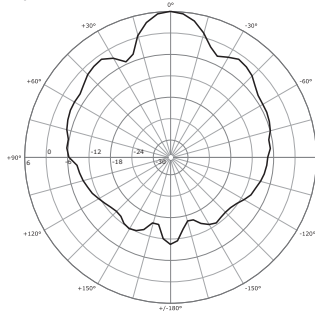
500 Hz



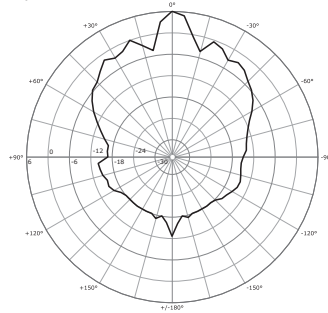
1,000 Hz



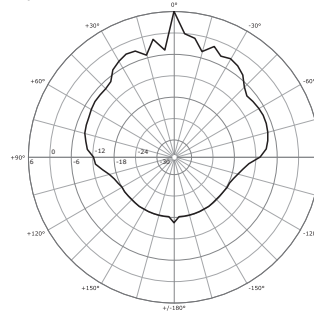
2,000 Hz



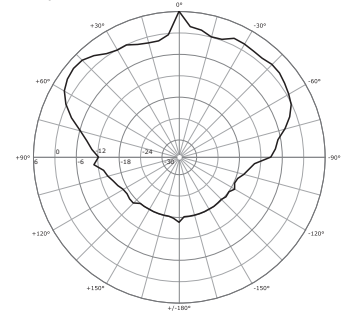
4,000 Hz



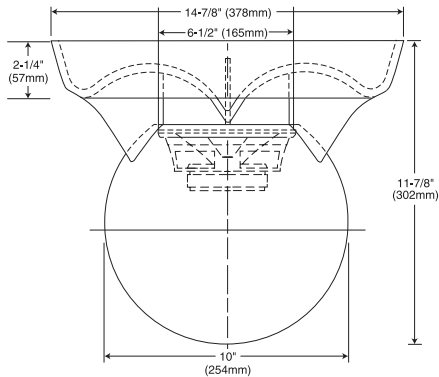
8,000 Hz



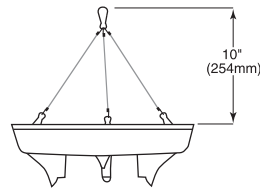
10,000 Hz



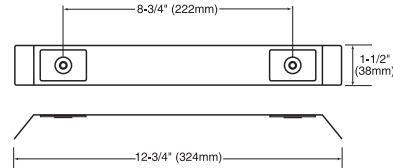
MECHANICAL DRAWINGS



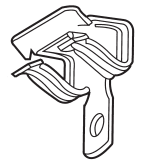
ACCESSORIES



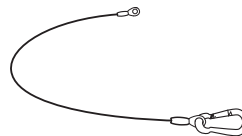
Hanging Kit (HK)



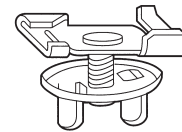
Mounting Bracket (MBS)
For mounting speaker on a flat surface.



Beam Clip (BC)
Locates a 1/4\"/>



Hanging Kit Extension (HKEXT)
24\"/>



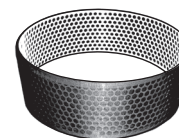
Drop Ceiling Bracket (DCB)
Two twist clips and MBS are supplied. Clips twist onto t-bar stringers, and mounting bracket attaches with wing nuts.

Line Matching Transformer (TX30)

The Model TX30 is a 30-Watt line matching transformer for the Model 110B with taps for 25-, 50-, 70- and 100-Volt constant voltage systems. The TX30 is designed for factory or field mounting in the 110B reflector. Connection to system wiring is via 10\"/>



Small Screen (SS)
Protects speaker driver from foreign objects.



Small Screen with Weather Filter (SWFS)
Protection from foreign objects, plus a water protection barrier.

110B

Compact Omnidirectional Loudspeaker for Seamless Background Music and Clear Voice Announcements

APPLICATIONS

Providing full-range music and voice in a compact, unobtrusive enclosure, the 110B loudspeaker is ideal for applications such as supermarkets, retail stores, factories, warehouses, courtrooms, classrooms/other educational facilities, stadium/arena concourses, gift shops, rest rooms, airports/transportation centers, office building reception areas, restaurants, casinos, shopping center common areas/food courts and anywhere background music and articulate voice announcements are required.

PATENTED SOUNDSPHERE TECHNOLOGIES

Soundsphere and MSE Audio Group constantly develop new technologies that enhance audio product performance. Soundsphere innovations are protected by multiple patents that explicitly cover Soundsphere's dispersion and enclosure technologies. MSE Audio Group actively defends its patents in order to protect Soundsphere resellers and end users.

TECHNICAL DATA AND SPECIFICATION TOOLS

Technical Data

Soundsphere strives to provide complete and effective technical information and data to dealers, engineers and designers. All data are available from Soundsphere or at www.soundsphere.com.

Technical data and downloads include:

EASE™ Data — 3-D polar plots

EASE™ Address — 2-D modeling for distributed systems

Technical Data Sheets — Technical information and architectural specs for system engineers

Distributed System Quick Planning Guide — Online configuration tool and step-by-step guide are available to assist in the design of effective public area distributed sound systems using Soundsphere omnidirectional loudspeakers

Independent Data Acquisition and Verification

All data for Soundsphere loudspeakers is independently collected from and verified by an industry-recognized independent testing facility. All data is collected and analysed according to ASTM, ISO and AES standards using EASERA, TEF and MLSSA. Full balloon data including both phase and magnitude is compiled into a variety of formats including EASE 4.x, GLL and CLF.

ARCHITECTURAL SPECIFICATIONS

The loudspeaker driver shall consist of one 6.5-inch (165 mm) full-range driver made of treated pulp fiber.

Performance specifications of a typical production unit shall be as follows: Useable frequency response shall extend from 100 Hz to 20 kHz (-10 dB). The vertical polar coverage shall be 170° ±6 dB. Measured sensitivity (1 Watt/1 meter) shall be at least 93 dB. The speaker shall have a rated impedance of 4 ohms. The speaker shall be available for 25-, 50-, 70- and 100-Volt modes and shall include 7 power tap selection leads for use with electrical wire nuts or crimp caps. Rated power capacity shall be at least 35 Watts continuous RMS and conform to EIA-426-B testing. Calculated maximum continuous output at 1 meter shall be 108.5 dB.

The complete loudspeaker shall be no more than 11.875 inches (302 mm) in height. The driver shall be mounted in a spherical enclosure made of structural foam polystyrene that is no more than 10 inches (254 mm) in

diameter. The reflector shall be no more than 14.875 inches (378 mm) in diameter. The complete loudspeaker shall weigh no more than 8 lbs. (3.6 kg). Hardware shall be rust and corrosion resistant.

Optional accessories shall include: a 30-Watt Line Matching Transformer (TX30) with taps for 25-, 50-, 70- and 100-Volt constant voltage systems; a Mounting Bracket (MBS) to mount flat against a ceiling surface; a three-element Hanging Kit (HK) for single-point suspension; a 24" Hanging Kit Extension (HKEXT); a Beam Clip (BC) for mounting to a beam flange; a Drop Ceiling Bracket (DCB); a Small Screen (SS) to protect the speaker from foreign objects; a Small Screen with Weather Filter (SWFS) that additionally offers a water protection barrier; and a Dust Filter (110SF). An optional 30-Watt onboard amplifier (Power2) makes a separate amplifier unnecessary in applications where only a single wide-dispersion speaker is required for coverage.

The system shall be the **Soundsphere® Model 110B** for wide-range, wide-coverage sound dispersion.

WARRANTY

Soundsphere® loudspeakers are warranted against failure or malfunction due to defects in materials or workmanship for a period of five years from date of original purchase. Speaker electronics are warranted for three years. Defective units will be repaired or replaced at our option if delivered prepaid to our factory. Repaired or replaced units will be returned at our expense. Warranty does not cover appearance or damage caused by abuse, misuse, neglect, accident, or exceeding maximum rated power. Warranty does not cover labor costs involved in removing and/or reinstalling the defective unit, nor any liability due to accidents caused by improper installation. Warranty is extended to original purchaser and is not transferable.



All specifications are subject to change without notice.

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