

STEALTH

LR224S

INVISIBLE SPEAKER

8" 2-WAY STEREO INVISIBLE LOUDSPEAKER
IN-WALL OR IN-CEILING



LINEAR  RADIANCE
INVISIBLE SPEAKERS | SUBWOOFERS

The Stealth Acoustics model LR224S is a dual-channel, two-way, full-range loudspeaker system that becomes completely invisible after installation. The loudspeaker has a rigid frame that attaches directly to standard structural framing. The paintable active diaphragm face is bonded to the frame of the speaker panel, creating an active area surrounded by a stable mounting area. Installation instructions are shown on a paper overlay that is to be removed before installation. The overlay can also be used as a cutting template for retrofitting the speakers into existing wallboard.

The LR224S may be installed in either the wall or ceiling and on-site finishing options include latex paint, light wallpaper, fabrics and selected texture coats. There is no need for nonstandard wallboard finishing materials. Advanced finishing methods such as veneer treatments may be supported using special techniques.

The Stealth Acoustics LR224S incorporates an acoustically coupled high quality, high-power 8" cone woofer and two direct coupled 30 mm neo-magnet high-frequency drivers. Advanced internal materials allow for smooth frequency extension to 20 kHz. When the LR224S is installed in standard insulated 2" x 4" framing and allowed to function in a full 8 foot stud bay, frequency response below 45 Hz can be achieved. The LR224S contains independent crossover sections and protection circuits (high-frequency and low-frequency sections) for each channel that automatically reset upon reduction of excessive amplifier power.

For proper registration, each speaker must be installed so that the surface of the perimeter edge is flush with the adjoining wallboard. When correctly in place, the surface of the speaker face panel extends above the height of the wallboard by $\frac{1}{16}$ " (1.6 mm). This is done to allow space for

Recommended Applications:

Ideal for locations where space is limited such as hallways, closets, and bathrooms
Multi-Room Audio Systems
Foreground Music
Background Music

Recommended Installations:

Flush mounted in walls or ceilings constructed of wood or steel framing with $\frac{1}{2}$ " (13 mm) or thicker gypsum wallboard.

Min. Cavity Depth Required:

$3\frac{1}{4}$ " (83 mm) or $2\frac{13}{16}$ " (71 mm) with back box removed.

Performance:

120W RMS
60W min. recommended power
45Hz to 20kHz (see Figure 1)

Protection:

Four independent self-resetting circuits (low and high-frequency each channel)

On-Site Finish Options:

Finish options include latex paint, flat finish, orange peel texture, light plaster, light wallpaper, light fabric, wood veneer, and other selected approved finishes.

the tape and joint compound needed to blend the panel into the wall. Shims are included to allow for mounting in wallboard thicker than $\frac{1}{2}$ " (13 mm).

Stealth Acoustics' invisibility offers a powerful advantage over traditional loudspeakers because they can be placed wherever they sound best, free of visual concerns that may conflict with architectural features. Accompanying the full range panels, Stealth Acoustics offers the LR24W and the LR30W – completely invisible companion subwoofers for extended low frequency response.

The LR224S also has a 70-100 volt constant voltage transformer available as a factory installed option.

All Stealth Acoustics speakers are covered by a 20-year manufacturer's warranty.

Architectural & Engineering Specifications

The loudspeaker shall be a dual-channel, two-way, full-range device, producing frequencies from 45Hz to 20kHz. The total radiating surface shall be 228 sq. in (1,470 sq. cm) and high frequency dispersion shall be a nominal 170 degrees in both horizontal and vertical planes. The loudspeaker system shall have a sensitivity of 83 dB, 1 watt / 1 meter, with a capacity of 120 watts RMS according to EIA standard RS-426-A. The loudspeaker shall have four independent self-resetting protection devices, one each for the high-frequency driver and the low-frequency driver on each channel.

The loudspeaker shall fit into walls or ceilings with standard wood or steel stud construction and a minimum cavity depth of 3¼" (83 mm) or 2⅜" (72 mm) with back box removed. The loudspeaker shall mount directly to the structural framing and have the capability of seamlessly adjoining ½" (13 mm) or thicker gypsum wallboard. The minimum distance between framing members shall be 13¾" (349 mm) or 9¾" (238 mm) with back box removed. Face panel finishing methods shall be consistent with normal gypsum wallboard finishing techniques and may include latex paint, light wallpaper, light fabric, wood veneer and other selected approved finishes as specified.

The loudspeaker shall be the Stealth Acoustics Model LR224S and shall carry a 20-year manufacturer's warranty.

Product Specifications

Frequency Response:

45Hz to 20kHz (see Figure 1)

Power Capacity:

120 watts RMS

60 watts minimum recommended power

Protection:

Four independent self-resetting devices
(low- and high-frequency each channel)

Sensitivity:

83 dB (1 watt / 1 meter)

Driver Components:

High frequency: Two 1⅝" (30 mm) neodymium drivers

Low-frequency: 1½" (38 mm) dual voice coil

8" (203 mm) stereo woofer,

20 oz. (567 gr) ceramic magnet

System Impedance:

8Ω nominal

Polar Dispersion:

170 degrees vertical and horizontal

Dimensions:

Width: 15⅞" (403 mm)

Height: 23⅞" (606 mm)

Mounting Depth: 3¼" (83 mm)

2⅜" (72 mm) with back box removed

Product Weight:

14.5 lbs. (6.5 kg)

Shipping Weight:

18 lbs. (8.1 kg) shipped each

Included Accessories:

Mounting shims

Mounting screws

Optional Accessories:

SA2400-MKII Stealth Acoustics High Current

2-Channel Amplifier with DSP

PS-24

PlaceSaver™

MBX-24

UL Listed Metal Back Box

MBA-24

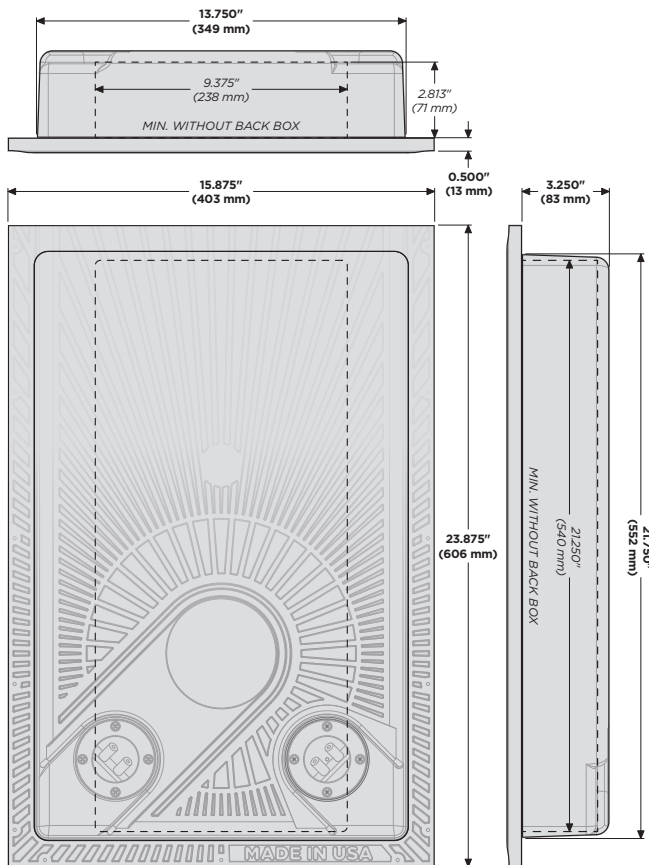
UL Listed Metal Back Box - Adjustable

MBC-24

Concrete Back Box

SK-1

Shim Kit



Standard Installation

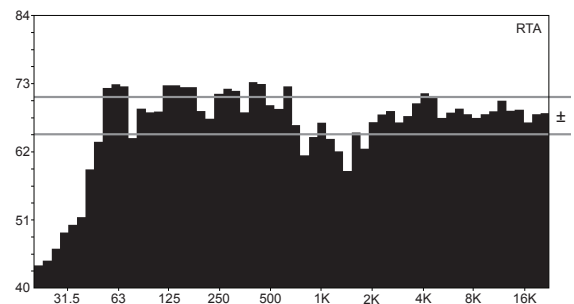


Figure 1: On-axis frequency response in standard stud wall with four coats of latex paint applied to the speaker face panel.