rbh®

SI-744

IN-WALL SURROUND SPEAKER

Owner's Manual

Introduction

Congratulations on your purchase of the RBH Sound SI-744 In-wall Surround speaker! Your speaker is the result of many years of research and development dedicated to producing high quality products for home audio and audio/video systems.

This manual contains features, setup recommendations and specifications for RBH Sound SI-744 In-wall Surround speaker. It is recommended you thoroughly read through the material contained in this manual before installing or connecting your speaker. This will ensure you have a good understanding of how to setup your speaker for optimum performance and allow for years of listening enjoyment.

The SI-744 employs four proprietary 4-inch high performance metal cone woofers with neodymium magnets and two 1-inch silk dome tweeters for excellent performance and crystal clear sonic accuracy. True to RBH Sound tradition, the SI-744 is timbre-matched to the rest of the Signature Series in-wall and freestanding speakers.

The SI-744's design places two of the woofers and one tweeter on a 45-degree angle towards the screen, while the other two woofers and tweeter point on a 45-degree angle towards the rear of the theater. This 90-degree angle opposing design, combined with the SI-744's dual- or single-channel wiring capability, presents a unique surround sound solution. When integrated into the rear sides of a home theater system and wired in dual-channel mode, the SI-744's front-firing drivers can play side surround channel audio and the rear-firing drivers can play rear surround channel audio. This configuration provides all four surround channels in a 7.1-channel surround sound system from one pair of SI-744s. When wired in single-channel mode, the SI-744 presents its listeners with a bi-polar dispersed sound field for increased surround coverage.

As with other RBH Sound Signature Series In-wall models, the SI-744 features its own tuned enclosure to provide an optimized environment for the speaker and prevent unwanted cabinet resonance. The enclosure also boasts an integrated metal drywall cut-out ring and is designed to be installed into a standard stud-framed wall prior to drywall during new construction or renovation. The SI-744's baffle fits snugly into the area left over after the drywall is finished and is flush to the wall when complete.

Break In Period

Allow several hours of listening time to adequately break-in the speakers. As the speakers break-in, the driver suspension will loosen. The result of break-in will be an increase in low frequency response, improved definition, and increased clarity and detail.

Speaker Placement

In order to obtain the best possible sound from your speaker system, it is important to determine where the speakers will sound best in your listening room. Room reflections from the floor, ceiling and side walls influence the balance, imaging and overall sonic quality at the listening position. Experiment with speaker placement to determine which location offers the best overall sound.

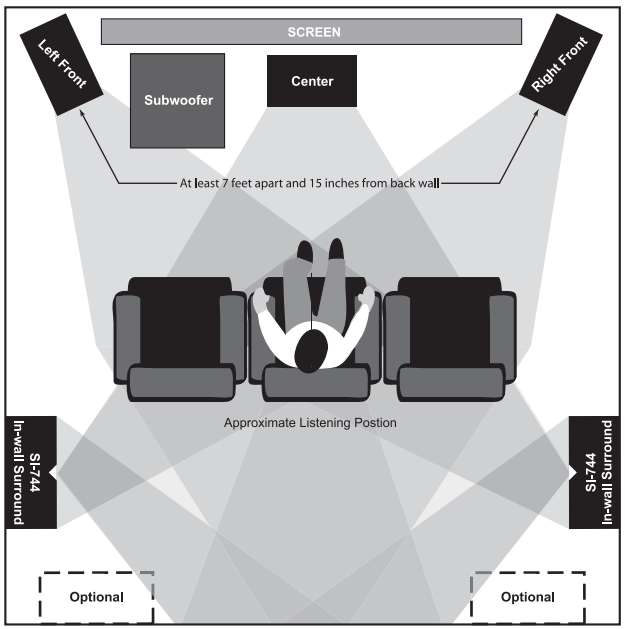
Speaker Placement (continued)

Front Main Speakers
As a starting point, place your left and right speakers at least 7-feet apart from each other. The distance from the listening position to each speaker should be close to the distance that separates the two main speakers.

Center Channel Speaker
The Center Channel Speaker should be placed between both left and right main speakers. Often this positioning dictates placing the speaker either directly above or below a television monitor. Since some RBH Signature Series speakers are available with video shielding, the center speaker may be placed in close proximity to a CRT-type television without cause for concern.

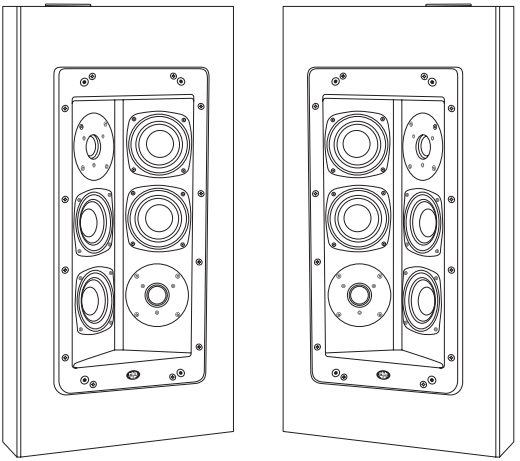
Surround Speakers
The SI-744 is a dedicated surround speaker. This speaker should ideally be placed slightly behind the listening position on the side walls, regardless of whether it is being used in single or dual mode. Optimally, there will also be a back wall for the sound to reflect off of to come back to the listening position. An optional set of SI-744's can be used on the back wall as shown in the diagram below. When using two pair, it is recommended that both pair be used in the single-channel mode.

Subwoofer
Placement of the subwoofer will largely determine quality, quantity, and extension of the bass frequencies within your listening room. Bass frequencies are reinforced by close room boundaries. Placing the subwoofer in a corner will make the subwoofer sound louder and boost the very lowest frequencies. Placing the subwoofer away from walls will provide the least reinforcement, making the bass sound subjectively thinner than if the woofer were close to a wall. Good results can usually be obtained by placing a subwoofer along a wall 1-3 feet from a corner. Experiment with subwoofer placement and the sub-amplifier controls to achieve the proper bass balance.



Speaker Placement (continued)

It is important for the SI-744 speaker to be positioned correctly, if not placed properly there will be a great reduction in imaging, sound staging and overall performance of the speaker. Refer to this illustration for position of the right and left speakers. The top tweeter should aim towards the front of the theater.

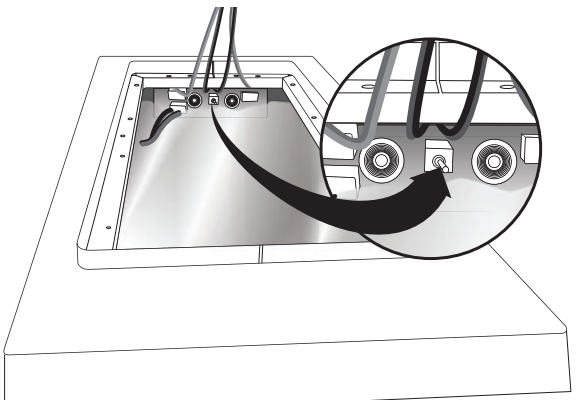


Left Speaker Right Speaker

Pre-wiring the Speaker

1. Unpack the speaker cabinet from the shipping box.
2. Run the speaker wires from the terminal cup to an amplifier/receiver. Choose either the default dual channel setup in Wiring Diagram 1 (page 4) or the optional full-speaker setup shown in Wiring Diagram 2 (page 5).

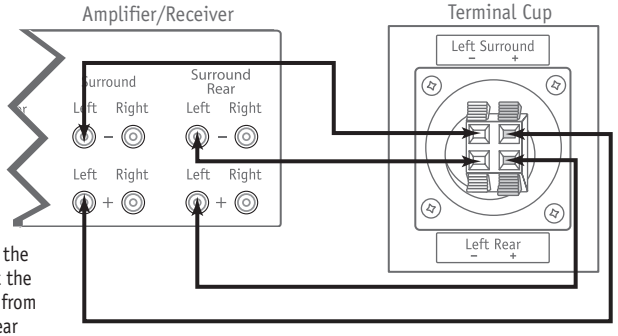
   NOTE: The single-channel operation as shown in Wiring Diagram 2 (page 5), the crossover switch must be toggled to the left.

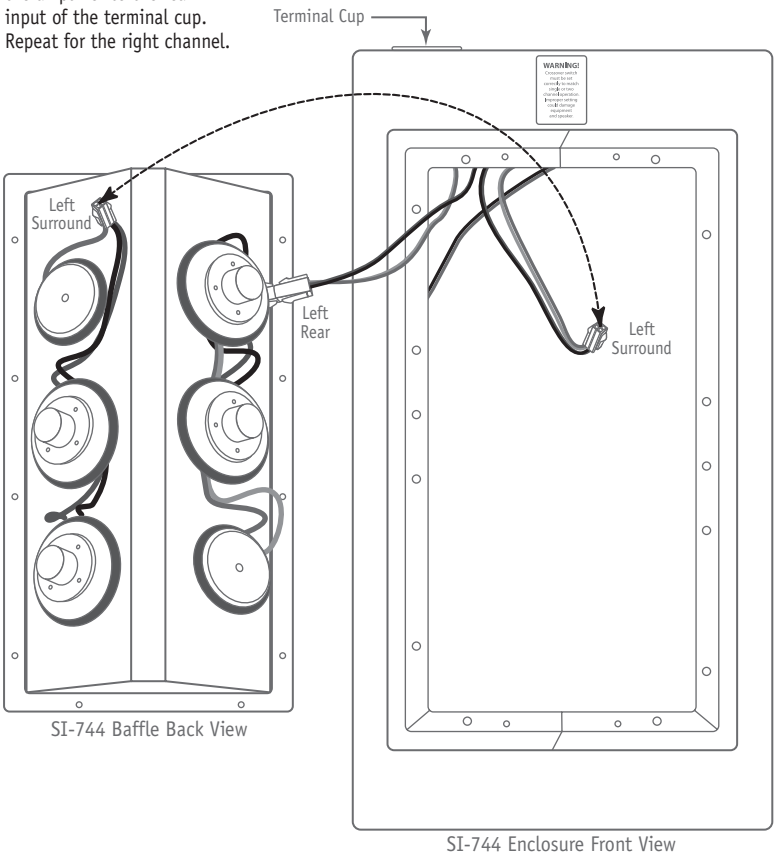


Untape and flip the switch for setup as a single-channel speaker for use in a 5.1 Home Theater (see Wiring Diagram 2 on page 5).

Pre-wiring the Speaker (continued)

NOTE: Follow this diagram for dual mode operation. This example uses the left channel. Connect the left surround channel output from the amplifier to the left surround input of the terminal cup. Connect the surround back output from the amplifier to the rear input of the terminal cup. Repeat for the right channel.

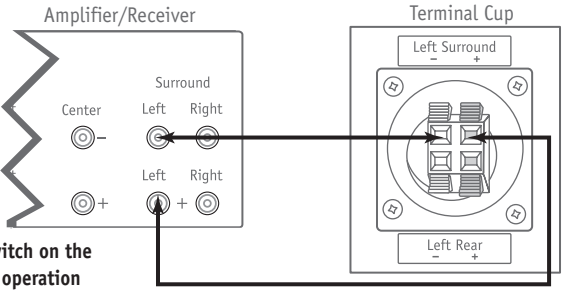


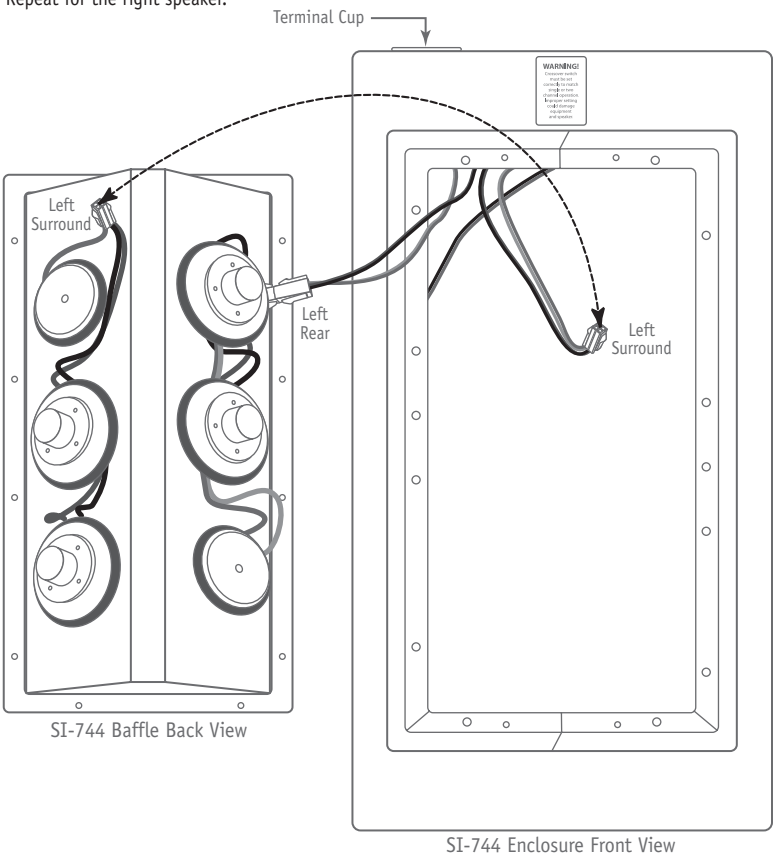


Wiring Diagram 1. Dual-channel operation.

Pre-wiring the Speaker (continued)

NOTE: Follow this diagram for single mode operation, the example uses the left channel. Connect the left surround channel output from the amplifier to either set on inputs at the terminal cup. **Be sure to untape and flip the switch on the crossover to single mode operation (see illustration on page 3).** Repeat for the right speaker.





SI-744 Baffle Back View

SI-744 Enclosure Front View

Wiring Diagram 2. Single-channel operation (bi-polar).

Installing the Speaker

1. Determine where each speaker cabinet will need to be installed.

2. If the cabinet is installed in a vertical position, the terminal cup will need to be on the top (see figure 1).

3. Position and brace the speaker cabinet in-between two studs by using a couple of screws to hold the speaker in place (see figure 2).

   NOTE: The front of the cabinet should be flush with the front of the studs.

4. Using the included wood screws, secure both sides of the speaker as shown in figure 3. Use a minimum of three screws per side to secure the cabinet.

   OPTIONAL: Use construction adhesive between the speaker cabinet and studs to secure the speaker in place.

6. Connect speaker wire to the terminal plate.

7. If the cardboard debris shield was removed during the process of installing the speaker wire, replace it (see figure 4).

8. With the speaker wire ran and the cabinet secured between the studs the drywall can now be installed.

   IMPORTANT: To avoid vibrations between the drywall and the speaker cabinet use construction adhesive and adhere the drywall to the speaker cabinet and studs for stability.

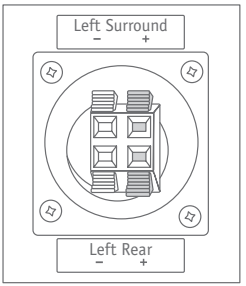


Figure 1

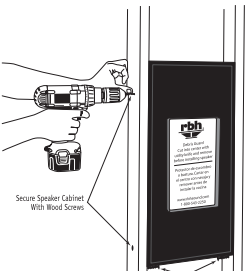


Figure 2


Figure 3

Figure 4

Specifications

Model:	SI-744
System Type:	In-wall Surround Speaker
Frequency Response:	70Hz-20kHz ±3dB
Sensitivity:	88/91dB (2.83V @ 1 Meter)
Recommended Power:	75-150 Watts
Woofers:	Four 4" (102mm) Aluminum Cone
Tweeters:	Two 1" (25mm) Silk Dome
Crossover Frequencies:	2,700Hz
Crossover Slope:	12dB/Octave
Impedance:	4 Ohms Combined, 8 Ohms per Channel
Cabinet Material:	Medium Density Fiberboard (MDF)
Cabinet Finish:	Black
Baffle and Grille:	Baffle Black; Grille Black or White. Enclosure sold separately.
Cutout Dimensions:	Baffle: 9-5/8" W x 20-1/4" H (245mm W x 514mm H)
Finished Dimensions:	14" W x 27-1/2" H x 3-1/2" D (356mm W x 699mm H x 89mm D)
Weight:	40 lbs. (18.14 Kg)

Troubleshooting

Situation:	Probable Cause:	Solution:
No sound from speakers	Speaker wire not connected	Make sure wire is connected at both the speaker and the amplifier observing proper polarity
No sound from one speaker	Speaker selector on amplifier is not on	Activate proper selector on amplifier
	Balance control on receiver or pre-amp is not centered	Place balance control in the center
	Speaker wire not securely connected	Check all connections at amplifier and speakers
Very little bass and/or imaging	Speakers are wired out of phase	Check entire system for proper polarity and make adjustments as necessary

Warranty

Your RBH Sound SI-744 in-wall surround speaker is covered by a limited warranty against defects in materials and workmanship for a period of 5 (five) years from the original date of purchase. This warranty is provided by the authorized RBH Sound dealer where the speaker was purchased. Warranty repair will be performed only when your purchase receipt is presented as proof of ownership and date of purchase. Defective parts will be repaired or replaced without charge by your dealer's store or the location designated by RBH Sound authorized to service RBH Sound products. Charges for unauthorized service and transportation cost are not reimbursable under this warranty. This warranty becomes void if the product has been damaged by alteration, misuse or neglect. RBH Sound assumes no liability for property damage or any other incidental or consequential damage whatsoever which may result from the failure of this product. Any and all warranties of merchantability and fitness implied by law are limited to the duration of this express warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

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