



# SI-663

IN-WALL LCR SPEAKER  
Owner's Manual

# Introduction

Congratulations on your purchase of a RBH Sound SI-663 or SI-663/R In-wall LCR 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 the RBH Sound SI-663 and SI-663/R In-wall LCR speakers. It is recommended you thoroughly read through the material contained in this manual before 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.

For installations where a center channel is intentionally removed from a surround system to allow for design requirements or otherwise cannot be used, the SI-663 or SI-663/R is the perfect high-performance solution. A pair of these in-wall speakers can eliminate the need for a dedicated center channel when wired for dual channel operation. For situations where a third SI-663 or SI-663/R can be used as a dedicated center channel, the trio can be wired in standard configuration, allowing each to discretely provide left, center or right channels for a seamless front sound stage.

## 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.

### 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. The SI-663 or SI-663/R has the unique ability to perform double-duty as both a center-channel speaker and as a main front left or right speaker for a surround sound system.

### Center Channel Speaker

If two SI-663 or SI-663/Rs are in dual-channel mode, the lower tweeter and woofer on each side will function as the center channel, this allows the top two woofers and tweeter on each speaker to be the front left or right channel. For situations where a dedicated center channel can be installed, three SI-663 or SI-663/Rs can be used for the front left, center and right channels for an outstanding in-wall home theater system. See the wiring diagrams if you have questions.

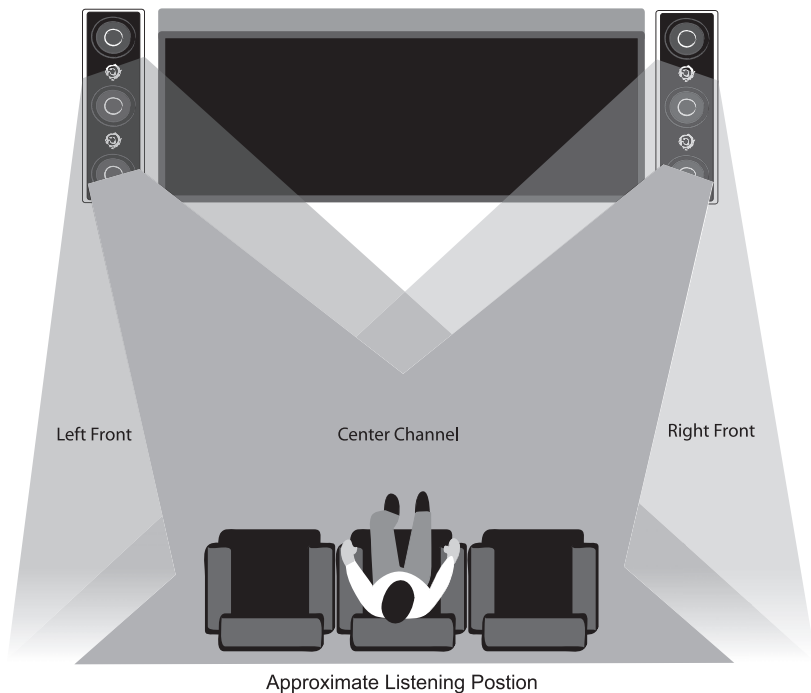
### Surround Speakers

The surrounds may be placed either above, behind or to the sides of the listening position. The listening position should be centered between the surround speakers. For best performance you may want to experiment with angling the surround speakers either towards or away from the listening position.

## Speaker Placement (continued)

### 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.

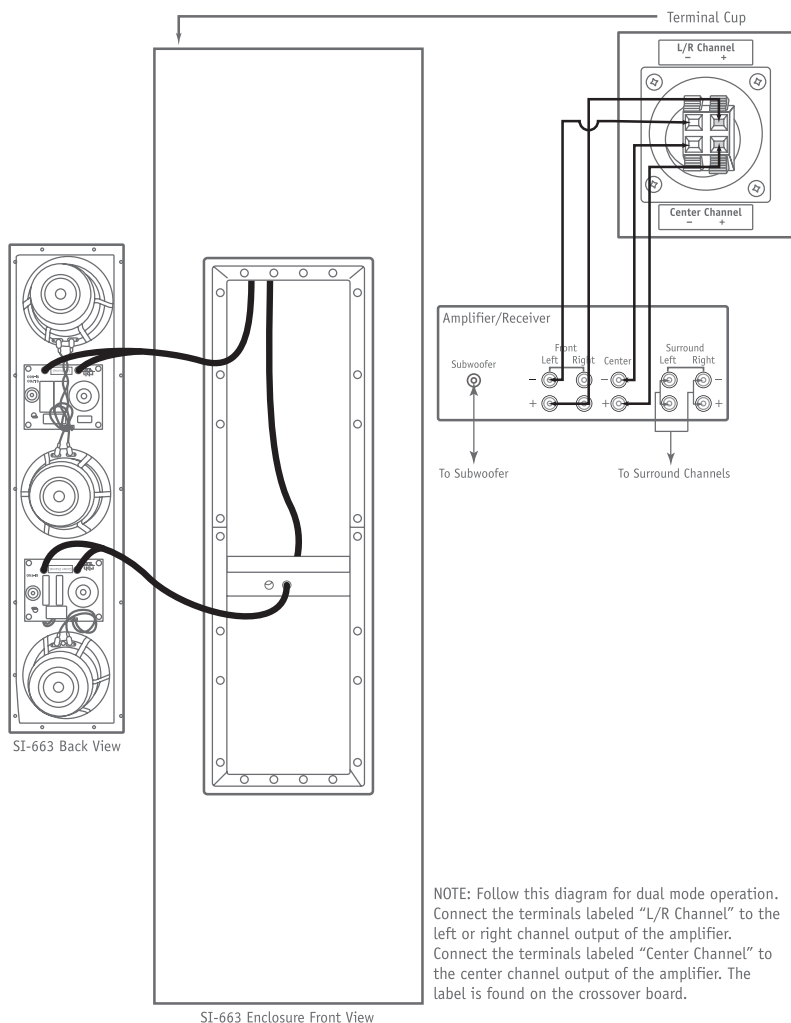


## Break In Period

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.

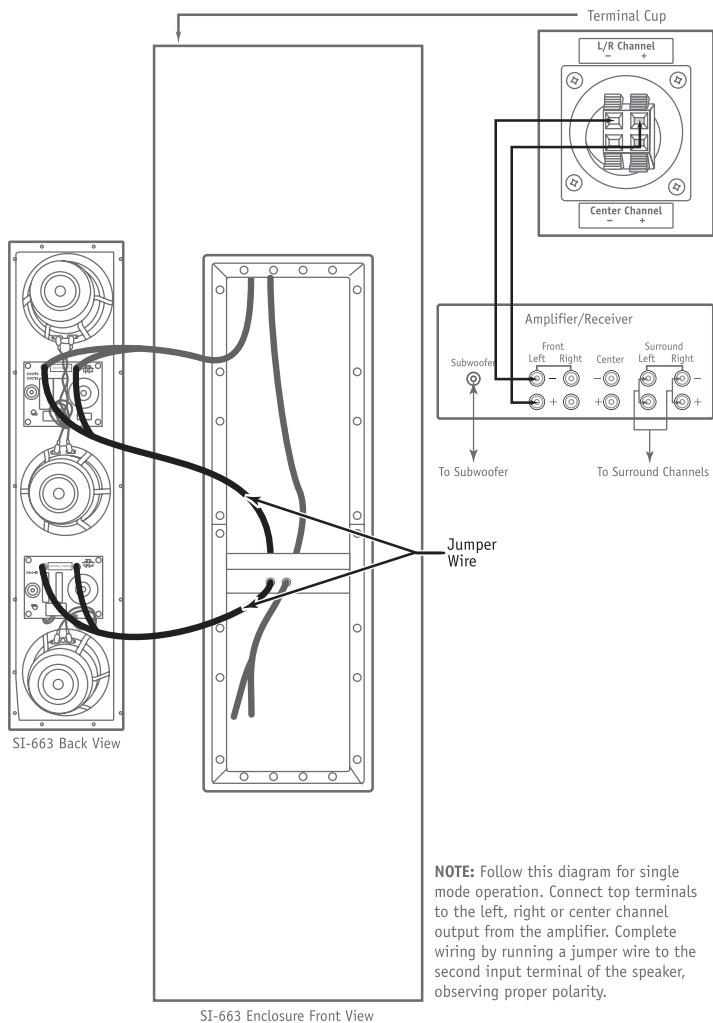
# Pre-wiring the Speaker

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 mode setup in wiring diagram 1 or the optional single mode setup shown in wiring diagram 2.



Wiring Diagram 1. Dual mode option using speaker as both front channel and center channel

# Pre-wiring the Speaker (continued)



Wiring Diagram 2. Single mode option using speaker as a L/C/R.

# 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.

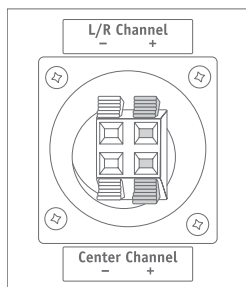


Figure 1

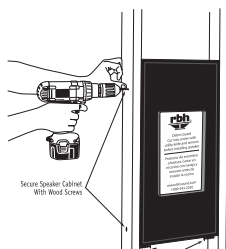


Figure 2



Figure 3

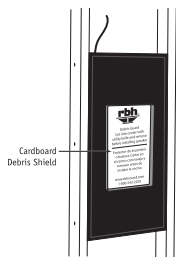


Figure 4

# Specifications

Model:	SI-663	SI-663/R
<b>System Type:</b>	In-wall/LCR Dual 2-way Speaker	In-wall/LCR Dual 2-way Speaker
<b>Frequency Response:</b>	50Hz-20kHz $\pm$ 3dB	50Hz-20kHz $\pm$ 3dB
<b>Sensitivity:</b>	90dB Main, 88dB Center and 92dB Combined (2.83V @ 1 Meter)	90dB Main, 88dB Center and 92dB Combined (2.83V @ 1 Meter)
<b>Recommended Power:</b>	75-200 Watts Main, 75-150 Watts Center and 75-400 Watts Combined	75-225 Watts Main, 75-175 Watts Center and 75-450 Watts Combined
<b>Woofers:</b>	Three 6½" (165mm) Aluminum Cone	Three 6½" (165mm) Reference Aluminum Cone
<b>Tweeters:</b>	Two 1" (25mm) Silk Dome	Two 1" (25mm) Reference Silk Dome
<b>Crossover Frequencies:</b>	3,000Hz	3,000Hz
<b>Crossover Slope:</b>	12dB/Octave	12dB/Octave
<b>Impedance:</b>	6 Ohms Main, 6 Ohms Center and 4 Ohms Combined	6 Ohms Main, 6 Ohms Center and 4 Ohms Combined
<b>Cabinet Material:</b>	Medium Density Fiberboard (MDF)	Medium Density Fiberboard (MDF)
<b>Cabinet Finish:</b>	Black	Black
<b>Baffle and Grille:</b>	Baffle Black; Grille Black or White. Enclosure sold separately.	Baffle Black; Grille Black or White. Enclosure sold separately.
<b>Baffle Dimensions:</b>	Baffle: 8" W x 32" H (203mm W x 812mm H)	Baffle: 8" W x 32" H (203mm W x 812mm H)
<b>Finished Dimensions:</b>	14" W x 56" H x 3-1/2" D (356mm W x 1422mm H x 89mm D)	14" W x 56" H x 3-1/2" D (356mm W x 1422mm H x 89mm D)
<b>Weight:</b>	59 lbs. (26.76 Kg)	61 lbs. (27.67 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 Balance control on receiver or pre-amp is not centered Speaker wire not securely connected	Activate proper selector on amplifier Place balance control in the center 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-663 or SI-663/R 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.

***Redefining The Way You Experience Sound.™***



382 Marshall Way, Layton, Utah • USA • 84041  
Toll Free: (800) 543-2205 • Fax: (801) 543-3300  
[www.rbhsound.com](http://www.rbhsound.com)