



# SIGNATURE SERIES

## **FREESTANDING SPEAKERS**

Owner's Manual



## Introduction

Congratulations on your purchase of RBH Signature Series speakers! Your speakers are the result of many years of research and development dedicated to producing high quality products for home audio systems.

This manual contains features, setup recommendations and specifications for the RBH Signature Series speakers. We recommend you thoroughly read through the material contained in this manual before connecting your speakers. This will ensure you have a good understanding of how to setup your speakers for optimum performance and allow for years of listening enjoyment.

## Break-in Period

Allow several hours of listening time to adequately break-in the RBH Signature Series loudspeaker systems. 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.

## Care and Cleaning

To maintain speaker appearance, we recommend wiping them down with a clean and damp, soft cloth. To clean dust from the grille cloth, use a vacuum with a brush attachment.

## Features

At the heart of the RBH Signature Series speakers are proprietary aluminum woofers and midrange drivers. The special aluminum cone material combines stiffness, low mass and self damping properties in a manner that allows virtually uncolored presentation of program material. A powerful magnet, extended voice coil and bumped back plate give the bass/midrange drivers high excursion capability. This ensures accurate dynamic reproduction. For high frequencies, a premium quality silk dome tweeter is used. This tweeter uses liquid cooling to allow greater power handling.

Each Signature Series speaker features an extensive crossover network. Steep acoustic slope crossovers are used to integrate drivers. The use of steep crossover slopes allows for higher power handling, minimizes driver interaction anomalies, and maximizes the ability of each driver in their respective band of frequencies. Large 5-way binding posts ensure a good, solid electrical connection to these crossover networks.

The Signature Series speaker cabinets are constructed of  $\frac{3}{4}$ -inch medium density fiberboard because of its inert properties, thereby preventing sound coloration due to cabinet diffraction. The thickness of the front baffles also prevents

## Features (continued)

excess acoustic radiation. Sophisticated computer modeling and measurement techniques are used extensively throughout the RBH Signature Series speaker design process.

### Signature Reference Series

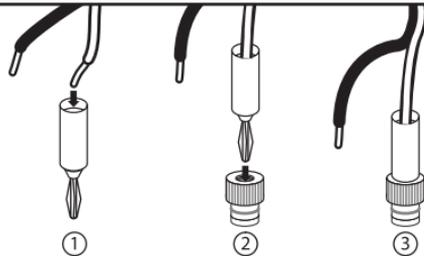
Setting the standard by which all other RBH speakers are measured, the Signature Reference Series offers the luxury of the Signature Series speakers with the extreme performance of reference-grade components. The tweeter has a larger motor structure, increased power handling and improved resolution. The aluminum cone woofers that give the Signature Series its great bass to upper-midrange performance are replaced with an even more advanced aluminum cone woofer featuring a fixed-position phase plug. The addition of this phase plug extends frequency response and increases power handling, resulting in increased sonic clarity. The crossover network components have been modified to manage the higher quality driver components while providing increased audio quality and power handling.

## Attaching Speaker Wires

When using a banana jack to attach speaker wires to the binding post terminals, insert the speaker wire into the banana jack. Next insert the banana jack into the hole provided in the top of the terminal. Be sure the nut is tight before inserting the banana jack. Repeat for the other speaker wire(s) as necessary.

If not using a banana jack, simply loosen the binding nut to allow the hole in the side of the terminal to become exposed. Strip  $\frac{1}{4}$ -inch of the insulation from the end of the speaker wire and insert the exposed wire end into the now exposed hole in the side of the terminal. Tighten the binding nut by turning the nut clockwise until the speaker wire is secured. Repeat for the other speaker wire(s) as necessary.

Using a Banana Clip



Without a Banana Clip



## Room Setup Suggestions

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. As a general guide, use the room layout diagram and following the descriptions when setting up a home theater system. Some speakers shown in the diagram on the next page may not be applicable to your individual system.

### Front Main Speakers

As a starting point, place your left and right front speakers at least 15 inches from the wall and 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. Angling the speakers inward towards the listening position may give a more spacious and realistic sound stage. Main speakers other than the models 641-SE, 1044-SE, 1266-SE and 8300-SE should be placed on stands which places the tweeters close to ear height.

The models 41-SE, 441-SE, 61-SE and 661-SE come with foam port plugs installed in the rear ports. We recommend removing these foam plugs unless the speakers are placed inside a cabinet or similar enclosed area.

The models 641-SE, 1044-SE, 1266-SE and 8300-SE come with stabilizing feet. To install, place each foot so the center hole of the foot is over each pilot hole on the bottom of the cabinet. Use the supplied screws to attach the feet to the bottom of the cabinet. Install either a supplied spike or rubber mount as necessary into the threaded insert on each stabilizing foot.

### 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. The 441-SE, 661-SE or 6100-SE speakers may be placed in either a horizontal (lying down) or vertical (standing) position.

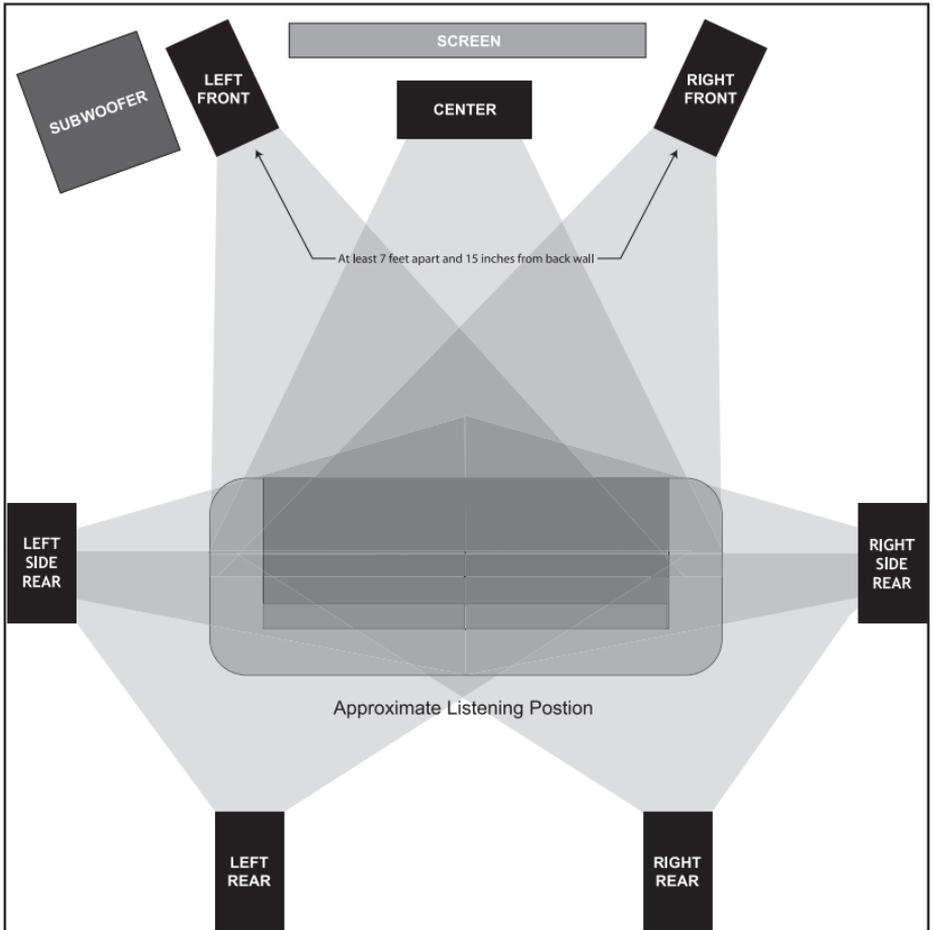
### Rear Surround Speakers

The Surround Speakers 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.

# Room Setup Suggestions (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. 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.



**NOTE:** There are several different surround formats available. Dolby Pro-Logic, Pro-Logic II, Dolby Digital and DTS generally have a 5 speaker plus subwoofer requirement. Dolby Digital EX and DTS ES add a center rear speaker. Dolby TrueHD and DTS Master Audio available only on Blu-ray disc, generally have a 7.1 requirement. Please consult your audio/video professional to determine which system is best for you and how many speakers you will require.

# Specifications

Model	1266-SE	1044-SE	641-SE
<b>Speaker Type</b>	Tower	Tower	Tower
<b>Frequency Response:</b>	27Hz – 20kHz ±3dB	30Hz – 20kHz ±3dB	45Hz – 20kHz ±3dB
<b>Sensitivity:</b>	88dB (2.83V @ 1M)	88dB (2.83V @ 1M)	85dB (2.83V @ 1M)
<b>Recommended Power:</b>	100-300 Watts	100-250 Watts	80-200 Watts
<b>Woofers:</b>	(1) 12" (305mm) Aluminum Cone  (2) 6½" (165mm) Aluminum Cone	(1) 10" (254mm) Aluminum Cone  (2) 4" (101mm) Aluminum Cone	(2) 6½" (165mm) Aluminum Cone  (1) 4" (101mm) Aluminum Cone
<b>Tweeter:</b>	(1) 1" (25mm) Silk Dome	(1) 1" (25mm) Silk Dome	(1) 1" (25mm) Silk Dome
<b>Impedance:</b>	4 Ohms	4 Ohms	4 Ohms
<b>Crossover Frequencies:</b>	100 Hz, 2700 Hz	100 Hz, 3000 Hz	150 Hz, 3000 Hz
<b>Dimensions:</b>	Width: 8¾" (222mm) Height: 48" (1219mm) Depth: 16½" (419mm)	Width: 6¾" (172mm) Height: 42" (1067mm) Depth: 15½" (394mm)	Width: 6¾" (172mm) Height: 39" (991mm) Depth: 10" (254mm)
<b>Grille Color:</b>	Black	Black	Black
<b>Finish:</b>	Only available in 30 different real wood finishes.*	Only available in 30 different real wood finishes.*	Only available in 30 different real wood finishes.*
<b>Weight:</b>	79 lbs. (35.84Kg)	58 lbs. (26.31Kg)	43 lbs. (19.50Kg)

\*Most Signature Series speakers are finished in a black wood grain, while others are only available in the 30 real wood custom veneers and some are available in either option. Refer to the finish listed on each speaker for more details or ask your authorized RBH dealer for more details and wood color options.

## Specifications (continued)

Model	1266-SE/R	441-SE	44-SE
<b>Speaker Type</b>	Tower	Center/LCR	Surround
<b>Frequency Response:</b>	27Hz – 20kHz $\pm$ 3dB	60Hz – 20kHz $\pm$ 3dB	70Hz – 20kHz $\pm$ 3dB
<b>Sensitivity:</b>	88dB (2.83V @ 1M)	89dB (2.83V @ 1M)	88dB (2.83V @ 1M)
<b>Recommended Power:</b>	100-300 Watts	75-150 Watts	75-150 Watts
<b>Woofers:</b>	(1) 12" (305mm) Aluminum Cone  (2) 6½" (165mm) Reference Aluminum Cone	(2) 4" (102mm) Aluminum Cone Mid-range	(2) 4" (102mm) Aluminum Cone Mid-range
<b>Tweeter:</b>	(1) 1" (25mm) Silk Dome	(1) 1" (25mm) Silk Dome	(1) 1" (25mm) Silk Dome
<b>Impedance:</b>	4 Ohms	6 Ohms	4 Ohms
<b>Crossover Frequencies:</b>	100 Hz, 2700 Hz	3000 Hz	3000 Hz
<b>Dimensions:</b>	Width: 8¾" (222mm) Height: 48" (1219mm) Depth: 16½" (419mm)	Width: 6¾" (172mm) Height: 18" (457mm) Depth: 10¼" (260mm)	Width: 12" (305mm) Height: 11½" (292mm) Depth: 6¾" (159mm)
<b>Grille Color:</b>	Black	Black	Black
<b>Finish:</b>	Only available in 30 different real wood finishes.*	Only available in 30 different real wood finishes.*	Only available in 30 different real wood finishes.*
<b>Weight:</b>	79 lbs. (35.84Kg)	18 lbs. (8.17Kg)	14 lbs. (6.35Kg)

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## Specifications (continued)

Model	41-SE	661-SE	66-SE
<b>Speaker Type</b>	Bookshelf	Center/LCR	Surround
<b>Frequency Response:</b>	60Hz – 20kHz $\pm$ 3dB	50Hz – 20kHz $\pm$ 3dB	60Hz – 20kHz $\pm$ 3dB
<b>Sensitivity:</b>	86dB (2.83V @ 1M)	90dB (2.83V @ 1M)	90dB (2.83V @ 1M)
<b>Recommended Power:</b>	50-100 Watts	50-200 Watts	25-200 Watts
<b>Woofers:</b>	(1) 4" (102mm) Aluminum Cone Mid-range	(2) 6½" (165mm) Aluminum Cone Mid-range	(2) 6½" (165mm) Aluminum Cone Mid-range
<b>Tweeter:</b>	(1) 1" (25mm) Silk Dome	(1) 1" (25mm) Silk Dome	(2) 1" (25mm) Silk Dome
<b>Impedance:</b>	8 Ohms	6 Ohms	6 Ohms
<b>Crossover Frequencies:</b>	3000 Hz	2700 Hz	3000 Hz
<b>Dimensions:</b>	Width: 6¾" (172mm) Height: 11½" (292mm) Depth: 10¼" (260mm)	Width: 8¾" (222mm) Height: 22" (559mm) Depth: 11½" (292mm)	Width: 16" (406mm) Height: 14" (356mm) Depth: 8½" (216mm)
<b>Grille Color:</b>	Black	Black	Black
<b>Finish:</b>	Only available in 30 different real wood finishes.*	Only available in 30 different real wood finishes.*	Only available in 30 different real wood finishes.*
<b>Weight:</b>	12 lbs. (5.44Kg)	34 lbs. (15.42Kg)	28½ lbs. (12.93Kg)

\*Most Signature Series speakers are finished in a black wood grain, while others are only available in the 30 real wood custom veneers and some are available in either option. Refer to the finish listed on each speaker for more details or ask your authorized RBH dealer for more details and wood color options.

## Specifications (continued)

Model	61-SE	661-SE/R	66-SE/R
<b>Speaker Type</b>	Bookshelf	Center/LCR	Surround
<b>Frequency Response:</b>	50Hz – 20kHz $\pm$ 3dB	50Hz – 20kHz $\pm$ 3dB	60Hz – 20kHz $\pm$ 3dB
<b>Sensitivity:</b>	87dB (2.83V @ 1M)	90dB (2.83V @ 1M)	90dB (2.83V @ 1M)
<b>Recommended Power:</b>	75-150 Watts	50-200 Watts	25-200 Watts
<b>Woofers:</b>	(1) 6½" (165mm) Aluminum Cone Mid-range	(2) 6½" (165mm) Aluminum Cone Mid-range	(2) 6½" (165mm) Aluminum Cone Mid-range
<b>Tweeter:</b>	(1) 1" (25mm) Silk Dome	(1) 1" (25mm) Reference Silk Dome	(2) 1" (25mm) Reference Silk Dome
<b>Impedance:</b>	8 Ohms	6 Ohms	6 Ohms
<b>Crossover Frequencies:</b>	2700 Hz	2700 Hz	3000 Hz
<b>Dimensions:</b>	Width: 8¾" (222mm) Height: 14½" (1156mm) Depth: 11½" (292mm)	Width: 8¾" (222mm) Height: 22" (559mm) Depth: 11½" (292mm)	Width: 16" (406mm) Height: 14" (356mm) Depth: 8½" (216mm)
<b>Grille Color:</b>	Black	Black	Black
<b>Finish:</b>	Only available in 30 different real wood finishes.*	Only available in 30 different real wood finishes.*	Only available in 30 different real wood finishes.*
<b>Weight:</b>	22 lbs. (9.98Kg)	34 lbs. (15.42Kg)	28½ lbs. (12.93Kg)

\*Most Signature Series speakers are finished in a black wood grain, while others are only available in the 30 real wood custom veneers and some are available in either option. Refer to the finish listed on each speaker for more details or ask your authorized RBH dealer for more details and wood color options.

## Specifications (continued)

Model	61-SE/R	6100-SE	6100-SE/R
<b>Speaker Type:</b>	Bookshelf	Center/LCR	Tower
<b>Frequency Response:</b>	50Hz – 20kHz ±3dB	45Hz – 20kHz ±3dB	45Hz – 20kHz ±3dB
<b>Sensitivity:</b>	87dB (2.83V @ 1M)	92dB (2.83V @ 1M)	92dB (2.83V @ 1M)
<b>Recommended Power:</b>	75-150 Watts	75-750 Watts	100-500 Watts
<b>Woofers:</b>	(1) 6½" (165mm) Reference Aluminum Cone	(4) 6½" (165mm) Aluminum Cone	(4) 6½" (165mm) Reference Aluminum Cone
<b>Tweeters:</b>	(1) 1" (25mm) Reference Silk Dome	(3) 1" (25mm) Silk Dome	(3) 1" (25mm) Reference Silk Dome
<b>Impedance:</b>	8 Ohms	4 Ohms	4 Ohms
<b>Crossover Frequencies:</b>	2700 Hz	2500 Hz	2500 Hz
<b>Dimensions:</b>	Width: 8¾" (222mm) Height: 14½" (1156mm) Depth: 11½" (292mm)	Width: 8¾" (222mm) Height: 48" (1219mm) Depth: 11½" (292mm)	Width: 8¾" (222mm) Height: 48" (1219mm) Depth: 11½" (292mm)
<b>Grille Color:</b>	Black	Black	Black
<b>Finish:</b>	Only available in 30 different real wood finishes.*	Only available in 30 different real wood finishes.*	Only available in 30 different real wood finishes.*
<b>Weight:</b>	22 lbs. (9.98Kg)	85 lbs. (38.56Kg)	85.5 lbs. (38.78Kg)

\*Most Signature Series speakers are finished in a black wood grain, while others are only available in the 30 real wood custom veneers and some are available in either option. Refer to the finish listed on each speaker for more details or ask your authorized RBH dealer for more details and wood color options.

## Specifications (continued)

Model	8300-SE	8300-SE/R	
<b>Speaker Type:</b>	Tower	Tower	
<b>Frequency Response:</b>	22Hz – 20kHz ±3dB	22Hz – 20kHz ±3dB	
<b>Sensitivity:</b>	91dB (2.83V @ 1M)	91dB (2.83V @ 1M)	
<b>Recommended Power:</b>	100-500 Watts	100-500 Watts	
<b>Woofers:</b>	(3) 8" (203mm) Aluminum Cone  (2) 6½" (165mm) Aluminum Cone	(3) 8" (203mm) Aluminum Cone  (2) 6½" (165mm) Reference Aluminum Cone	
<b>Tweeter:</b>	(1) 1" (25mm) Silk Dome	(1) 1" (25mm) Silk Dome	
<b>Impedance:</b>	4 Ohms	4 Ohms	
<b>Crossover Frequencies:</b>	100 Hz, 2700 Hz	100 Hz, 2700 Hz	
<b>Dimensions:</b>	Width: 10⅞" (276mm) Height: 55⅜" (1407mm) Depth: 17" (432mm)	Width: 10⅞" (276mm) Height: 55⅜" (1407mm) Depth: 17" (432mm)	
<b>Finish:</b>	Only available in 30 different real wood finishes.*	Only available in 30 different real hardwood finishes.*	
<b>Weight:</b>	115 lbs. (52.16Kg)	115 lbs. (52.16Kg)	

\*Most Signature Series speakers are finished in a black wood grain, while others are only available in the 30 real wood custom veneers and some are available in either option. Refer to the finish listed on each speaker for more details or ask your authorized RBH dealer for more details and wood color options.

## Troubleshooting

<b>Situation:</b>	<b>Probable Cause:</b>	<b>Solution:</b>
No sound from speakers	Speaker wire not connected	Make sure wire is connected at both the speaker and the amplifier observing proper polarity
	Speaker selector on amplifier is not on	Activate proper selector on amplifier
No sound from one speaker	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 Signature Series speakers are covered by a limited warranty against defects in materials and workmanship for a period of five (5) 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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