rbh®

SIGNATURE SV SERIES
SPEAKERS AND SUBWOOFERS
Owner's Manual

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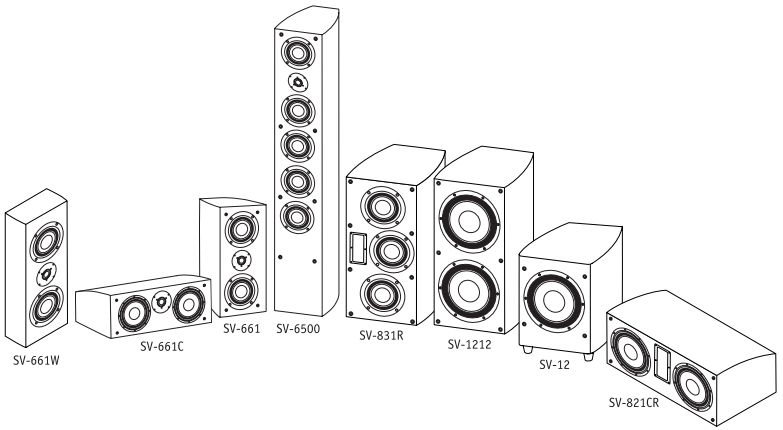
Introduction

Congratulations on your purchase of a Signature SV Series speaker or subwoofer! Your speakers and subwoofers are 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 Signature SV Series freestanding speakers and subwoofers. It is recommended 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.

SV Series Speakers and Subwoofers



Break-in Period

Allow several hours of listening time to adequately break-in your Impression Series speakers. As your speakers break in during the first few hours of listening, the driver suspension will loosen. Following this initial break-in period, there will be an increase in low-frequency response, improved definition, and increased clarity and detail.

Care and Cleaning

To maintain your speaker and/or subwoofer appearance, we recommend carefully wiping it with a clean, damp, and soft cloth. To help clean dust from the grille cloth, we recommend using a vacuum with a brush attachment.

Features

Sophisticated computer modeling and measurement techniques are used extensively throughout the RBH Signature SV Series speaker design process. At the heart of the RBH Signature SV 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.

Signature SV Reference Series

Setting the standard by which all other speakers are measured, the Signature SV Reference Series offers the luxury of the Signature SV Series speakers with enhanced performance due to reference-grade components. The aluminum cone woofers that give the Signature SV Series its great bass and 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 prevents acoustic "beaming." The result is increased power handling and enhanced sonic clarity. An AMT (Air Motion Transducer) co-developed with Aurum Cantus provides improved acoustic resolution and increased power handling. More information about the AMT tweeter can be found on page 12. To accommodate the higher performance driver components, the crossover networks are modified and fine-tuned to optimize the overall performance of the speaker system.

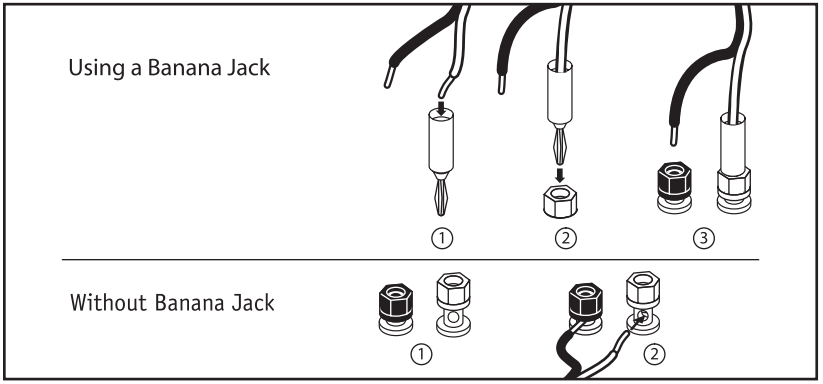
Each Signature SV Series speaker features an extensive crossover network. Steep acoustic slope crossovers are used to integrate drivers. The use of steep crossover slopes allows for higher power handling, minimizes driver interaction anomalies, and maximizes the ability of each driver in their respective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

The Signature SV Series speaker cabinets are constructed of a minimum of ¾-inch medium density fiberboard because of its inert properties, thereby preventing sound coloration due to cabinet diffraction. The double thickness of the front baffles also prevents acoustic radiation.

Attaching Speaker Wires

If using a banana jack, attach the matching positive or negative wire and push directly into the binding post's top hole.

If you're not using a banana jack, simply loosen the binding nut to allow the hole in the side of the terminal to become exposed. Strip ¼-inch to ½-inch of the insulation from the end of the speaker wire and insert the exposed wire end into the 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.



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 the following descriptions when setting up a home theater system. Some speakers shown in the diagram may not always be applicable to your individual system.

For more configurations, see our web page at http://rbhsound.com/surrounds_setups.php

Front Main Speakers
As a starting point, place your left and right tower 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 also be close to the distance that separates the two main speakers. Slightly angling the speakers inward towards the listening position may give a more spacious and realistic sound stage.

Center Channel Speaker
The center channel speaker should be placed in the center between both left and right main speakers. Often this positioning dictates placing the speaker either directly above or below a television monitor. The center channel speaker may be placed in 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. The optimal location for surround speakers is about 5-6 feet high on the walls to the left and right of the listening position.

Subwoofer
To optimize the output from your subwoofer, it is important to determine where it will perform its best in your listening room. Sound reflections from the floor, ceiling and side walls influence the balance, imaging and overall sonic quality at the listening position. Experiment with subwoofer placement to determine which location offers the best overall performance.

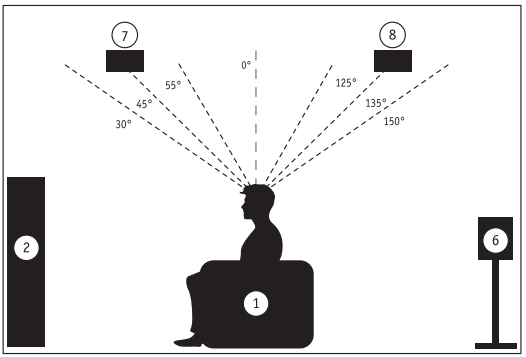
Placement of the subwoofer will largely determine quality, quantity and extension of the bass frequencies within your listening room. Bass frequencies are reinforced by close room boundaries. Placing the subwoofer close to a corner will make the subwoofer sound louder and boost the very lowest frequencies.

Placing the subwoofer away from walls will provide the least reinforcement, making the bass sound subjectively thinner than if the woofer were closer to a wall. Good results can usually be obtained by placing a subwoofer along a wall 1-3 feet from a corner. Experiment with placement of the subwoofer and the sub-amplifier controls to achieve the proper bass balance.

IMPORTANT NOTICE REGARDING BASS MANAGEMENT: It is important the signal being sent to the subwoofer be a non-boosted or "flat" signal. Check the settings on your receiver or processor to make sure any "bass boost", "super bass" or "loudness" is set to Off. In most cases a home theater receiver or processor will determine the crossover frequency through bass management settings. IIn this configuration, connect the subwoofer to the receiver's or processor's LFE (Low Frequency Effect) output. Your subwoofer will now reproduce the bass frequencies as they were originally recorded. Use the subwoofer level control and the individual bass management control within the receiver or processor to adjust the subwoofers' volume if necessary. Once set, the volume controls should not need to be altered as the subwoofers' volume will track with the master volume control of your receiver or processor. Use Line Input only if bypassing your receiver's internal processing to deliver a full-signal to your subwoofer, which is then managed by the subwoofers' frequency and volume control.

STANDARD 7.2.4 SETUP WITH OVERHEAD SPEAKERS

1. Listening/seating position
2. Left and right front speakers
3. Center speaker
4. Subwoofer(s)
5. Left and right surround speakers
6. Left and right rear surround speakers
7. Left and right top front overhead speakers
8. Left and right top rear overhead speakers



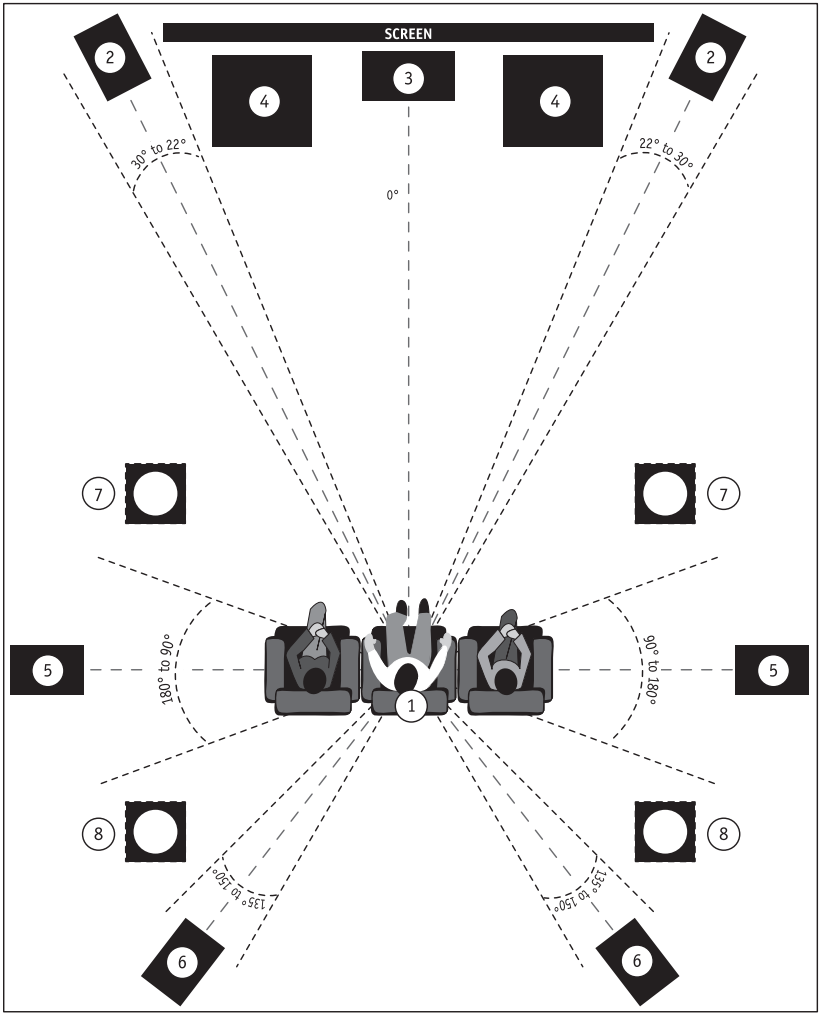
7.2.4

This number represents the number of traditional speakers (front, enter, surround, etc.)

This number represents the number of subwoofers you can connect to your receiver

This number refers to how many overhead or atmospheric speakers used in this setup

Room Setup Suggestions (continued)



Speaker positioning for Dolby 7.2.4 and Dolby Atmos borrowed from Dolby Laboratories, Inc. Dolby Atmos is a registered trademark of Dolby Laboratories Licensing Corporation.

Subwoofer Safety Instructions

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

When using your subwoofer, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury.

1. Read and understand all instructions in this User's Manual before operating the subwoofer and retain this user manual for future reference.
2. Follow all warnings and instructions in this manual and any marked on the back of the Subwoofer.
3. Never touch the woofer or push objects of any kind into the woofer.
4. The subwoofer should be connected to a power supply compatible with the power consumption requirements, see the specifications section of this manual.
5. If mounting the subwoofer on a stand, the wall, or other device only do so as recommended by an authorized technician.
6. Place the subwoofer a safe distance from all heat sources such as radiators, stoves, or heaters.
7. Do not operate the subwoofer near water—for example, near a bathtub, kitchen sink or in a wet basement; or a swimming pool.
8. Power supply cords should be routed so they are not likely to be walked on or pinched by items placed upon or against them.
9. Any service or repair required must be performed by qualified, authorized technician.

Subwoofer Amplifier Controls and Setup

This section describes the functions and/or use for each of the amplifier controls located on the back of the SV-12P, SV-12PR, and SV-1212P. Refer to the diagram of the on page 9.

1. **Voltage Selector Switch:** Before connecting the amplifier to any power source make sure the AC Voltage Selector is set to either 110V or 220V to match the power voltage in your area. **Note:** If switching voltage, also make sure to change the fuse (see #11).

   WARNING! If the voltage setting does not match the AC power supplied, damage to the Subwoofer Amplifier may result.

2. **Volume/Level Control:** The volume/level control should be at the minimum setting (all the way counter-clockwise) before plugging the subwoofer into an AC wall socket. Once plugged in, turn the level control up one quarter of a turn (9 o'clock position) for an initial setting. The level control may be adjusted while playing to match the subwoofer level with the rest of the system.

IMPORTANT! The volume control should be at the minimum setting (all the way counter-clockwise) before plugging the subwoofer into an AC wall socket.

3. **Crossover Frequency Control:** The variable crossover frequency control allows you to set the low-pass crossover point of the subwoofer anywhere from 40-150 Hz. Experiment with setting the crossover frequency control at highest setting initially. Increasing the crossover frequency will allow more mid-bass output from the subwoofer. Decreasing the frequency will allow only deeper bass from the subwoofer. If using LFE In (#7), crossover control will not function.

   NOTE: Read the Important Notice regarding bass management on page 4.

4. **Auto Signal Tracking:** The subwoofer amplifier uses smart signal tracking circuitry. Once the power cord is plugged in and the switch set to auto, the amplifier automatically turns on when an audio signal is detected at the preamplifier or high level inputs and turns off when no signal has been detected for approximately 15 minutes. This switch MUST be set to the "ON" or "AUTO-ON" position for the amplifier to work properly.

5. **Phase Control:** This control changes the phase of the subwoofer. Changing the phase will change the way the subwoofer and main speakers interact with each other at the crossover frequency. Varying the phase position may result in more or less mid bass depending on the phasing between the main speakers and the subwoofer. Generally, the phase is left at the "0" position.

6. **LFE Out:** This RCA terminals is for "daisy chaining" to another subwoofer or amplifier. A full-range signal is sent through this terminal.

7. **LFE In:** This line level input is used to connect to most receivers or processors. This bypasses the sub amplifier's internal low-pass filter. If your receiver or pre-amp has a subwoofer out, this is most likely the input you will need to use.

8. **Line Inputs:** These RCA terminal connections receive the pre-amp line out from an amplifier/receiver. This input uses the amplifier's internal crossover.

9. **Balanced LFE In:** Impedance-balanced XLR female input connection to receive balanced pre-amp output from receiver.

10. **Balanced LFE Out:** Impedance-balanced XLR male output to connect to another XLR LFE input amplifier.

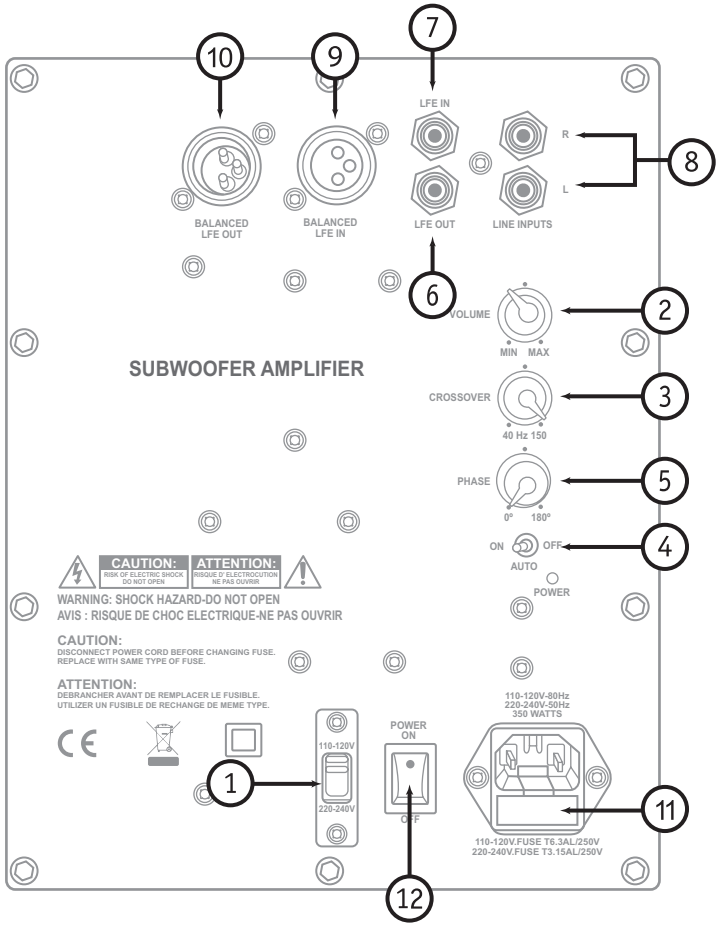
11. **Fuse Access:** This is the power fuse access.

    WARNING! In the event the fuse must be replaced, the replacement fuse must match exactly the original fuse value. If the replacement fuse is not of the same value, damage to the Subwoofer Amplifier may result.

    CAUTION! ***Before replacing the fuse, disconnect the power cord from the power receptacle.***

12. **Power:** Power on and off switch.

Subwoofer Amplifier Controls and Setup (continued)



Signature SV Series Subwoofer Diagram for all subwoofers except the SV-1212PR.

This section describes the functions and/or use for each of the amplifier controls located on the back of the SV-1212PR subwoofer. See the diagram of the back of the subwoofer amplifier on page 11.

1. **Power:** Power on and off switch.
2. **Secondary Speaker Outlet SpeakON connector:** This female Neutrik SpeakOn connector provides amplified output to connect an additional passive subwoofer.
3. **IEC Power Input receptacle:** Connect IEC power cord to power amplifier.

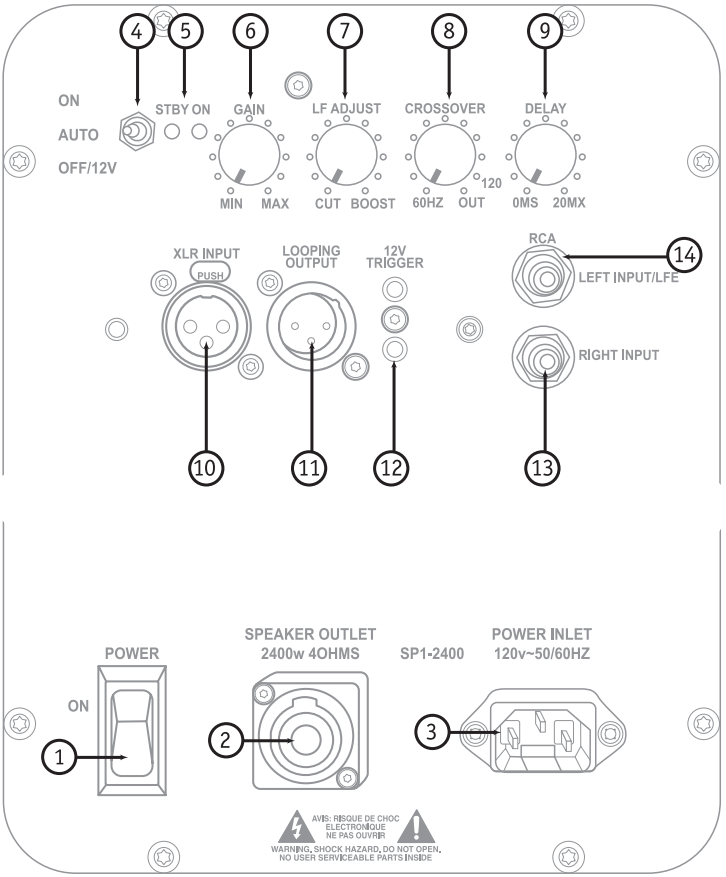
Subwoofer Amplifier Controls and Setup (continued)

4. **Auto Signal Tracking:** The subwoofer amplifier uses smart signal tracking circuitry. Once the power cord is plugged in and the switch set to auto, the amplifier automatically turns on when an audio signal is detected at the preamplifier or high level inputs and turns off when no signal has been detected for approximately 15 minutes. This switch MUST be set to the "ON" or "AUTO-ON" position for the amplifier to work properly unless using the 12V trigger to turn on the amplifier.
5. **Standby/On LED:** These LED lights indicate whether the amplifier is in standby mode or powered on.
6. **Volume/Gain Control:** The volume/level control should be at the minimum setting (all the way counter-clockwise) before plugging the subwoofer into an AC wall socket. Once plugged in, turn the level control up one quarter of a turn (9 o'clock position) for an initial setting. The level control may be adjusted while playing to match the subwoofer level with the rest of the system.

   IMPORTANT! The volume control should be at the minimum setting (all the way counter-clockwise) before plugging the subwoofer into an AC wall socket.
7. **LFE Adjust:** Changes the level of boost or cut that is applied to the input signal centered at 25Hz. 5dB of boost or cut is available.
8. **Crossover Frequency Control:** The variable crossover frequency control allows you to set the low-pass crossover point of the subwoofer anywhere from 60-120 Hz. Experiment with setting the crossover frequency control at highest setting initially. Increasing the crossover frequency will allow more mid-bass output from the subwoofer. Decreasing the frequency will allow only deeper bass from the subwoofer. If using LFE In (#7), crossover control will not function.

   NOTE: Read the Important Notice regarding bass management on page 4.
9. **Delay Control:** To obtain better integration of the subwoofer with the main speakers and help offset the distance between the main speakers, the subwoofer delay control allows up to 20 milliseconds of delay, which effectively changes the phase between the subwoofer and main speakers.
10. **XLR Input:** XLR input from a pre-amplifier's or receiver's XLR output.
11. **XLR Output:** XLR output to supply another amplifier's XLR input.
12. **DSP Program Button:** One of two DSP programs can be selected. With the button pressed in, a low-pass filter at 80Hz will be enabled. When the button is left out, the low-pass filter will be defeated. The amplifier has to be power-cycled for these DSP settings to take effect.
13. **Right RCA Input:** This RCA terminal connection receives the pre-amp line out from an amplifier/receiver. This input uses the amplifier's internal crossover.
14. **Left RCA Input:** This RCA terminal connection receives the pre-amp line out from an amplifier/receiver.

Subwoofer Amplifier Controls and Setup (continued)



Signature SV Series Subwoofer Diagram for the SV-1212PR (2400 Watt Amplifier).

AMT Tweeter

RBH Signature Reference speakers incorporate custom designed AMT (Air Motion Transducer) tweeter technology. The AMT tweeter is a pneumatic transducer that utilizes a flexible low-mass diaphragm with optimal rigidity and self damping characteristics which is folded and suspended in a highly saturated magnetic field. This low mass diaphragm incorporates an aluminum conductor and has vastly larger surface area compared to traditional dome style tweeters. The benefits of this of this type of tweeter design are extended high frequency response, increased sensitivity, lower distortion and higher dynamic range. High frequency response extends beyond 35 kHz adding a sense of air and detail that surpasses other more traditional tweeter designs. The AMT tweeters seamlessly integrate with the metal cone drivers, providing a sense of spaciousness and realism to the sound-stage that is second to none.

Tower Speaker Outrigger Installation

These attractive tower speaker outriggers produce a wider support base for the Signature SV Series tower speaker creating stability and are ideal when placing speakers on a thickly carpeted floor.

Package contents include:
4 each outrigger plates
4 metal spike feet
4 each top cap nuts
4 each threaded adjustment washers
12 each MDF wood screws
4 each floor discs

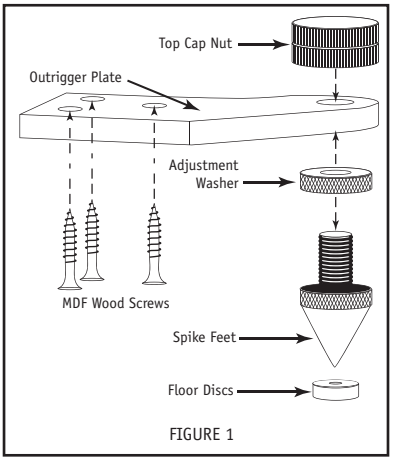


FIGURE 1

Installing the tower outrigger feet:

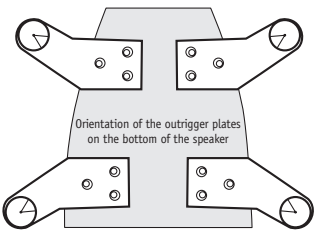
1. Attach the tower speaker outrigger plates to the bottom of the speaker with the screws provided, as shown in figure 2 below. Rotate the outrigger plates so they are angled properly (as shown in figure 2 below) before attaching the spike feet, adjustable washer and top cap nut.

   NOTE: To prevent scratching or damaging of the cabinet, turn the tower upside down onto a soft surface when attaching the tower outrigger feet.

2. Attach the metal spike feet using the top cap nuts and adjustable washer as shown in figure 1.

3. Adjust the level/height using the adjustment washer.

   NOTE: The metal spike feet work best on carpeted surfaces. Optional floor discs have been provided for use on wood or tiled floors.



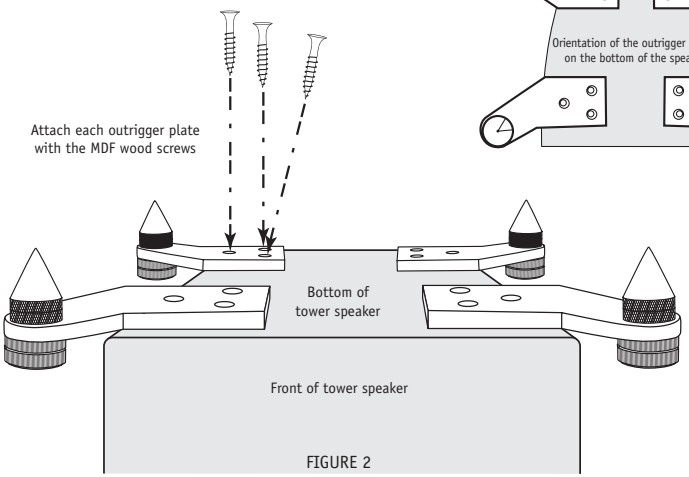
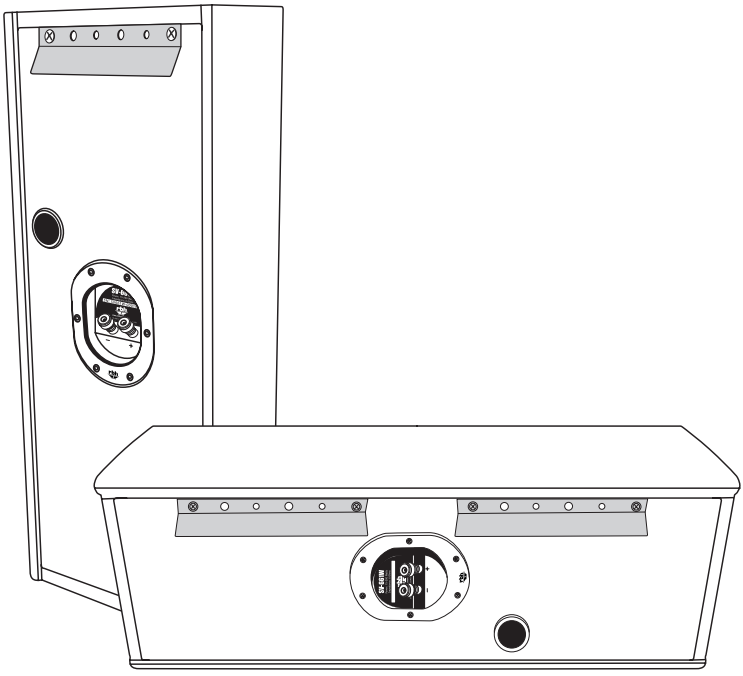


FIGURE 2

On-wall Bracket Installation

The SV-661W comes with an on-wall speaker bracket that can be installed on the back of the speaker horizontally or vertically as shown in the illustration below.



Specifications

Model:	SV-12N	SV-12NR	SV-12P
System Type:	Passive Subwoofer	Passive Subwoofer	Powered Subwoofer
Frequency Response:	27Hz-150Hz (±3dB)	24Hz-100Hz (±3dB)	27Hz-150Hz (±3dB)
Sensitivity:	N/A	N/A	N/A
Recommended/ Rated Power:	200-350 Watts	200-500 Watts	350 Watt Amplifier Included
Woofer(s):	(1) 12" (305mm) Aluminum Subwoofer	(1) 12" (305mm) Reference Aluminum Subwoofer	(1) 12" (305mm) Aluminum Subwoofer
Tweeter(s):	N/A	N/A	N/A
Tweeter Protection:	N/A	N/A	N/A
Crossover Frequency:	40Hz-150Hz (variable)	40Hz-150Hz (variable)	40Hz-150Hz (variable)
Crossover Slope	N/A	N/A	N/A
Impedance:	N/A	N/A	N/A
Cabinet/Color:	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss South American Rosewood	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss South American Rosewood	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss South American Rosewood
Grille:	Black Fabric	Black Fabric	Black Fabric
Dimensions:	15-1/4" (387mm) W 22-5/8" (575mm) H 22-1/8" (562mm) D	15-1/4" (387mm) W 22-5/8" (575mm) H 22-1/8" (562mm) D	5-1/4" (387mm) W 22-5/8" (575mm) H 22-3/4" (578mm) D
Weight:	67 lbs. (30.39 Kg)	71.85 lbs. (32.579 Kg)	69.95 lbs. (31.59 Kg)

Specifications (continued)

Model:	SV-12PR	SV-1212N	SV-1212NR
System Type:	Powered Subwoofer	Passive Subwoofer	Non-powered Subwoofer
Frequency Response:	24Hz-100Hz (±3dB)	25Hz-200Hz (±3dB)	17Hz-180Hz (±3dB)
Sensitivity:	N/A	93dB	92dB
Recommended/ Rated Power:	500 Watt Amplifier Included	200-500 Watts	500-2400 Watts
Woofer(s):	(1) 12" (305mm) Reference Aluminum Subwoofer	(2) 12" (305mm) Aluminum Subwoofers	(2) 12" (305mm) Reference Aluminum Subwoofers
Tweeter(s):	N/A	N/A	N/A
Tweeter Protection:	N/A	N/A	N/A
Crossover Frequency:	40Hz-150Hz (variable)	N/A	N/A
Crossover Slope	N/A	N/A	N/A
Impedance:	N/A	4 Ohms	4 Ohms
Cabinet/Color:	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss South American Rosewood	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss South American Rosewood	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss South American Rosewood
Grille:	Black Fabric	Black Fabric	Black Fabric
Dimensions:	15-1/4" (387mm) W 22-5/8" (575mm) H 22-3/4" (578mm) D	15-3/16" (386mm) W 33" (838mm) H 22-1/4" (565mm) D	15-3/16" (386mm) W 33" (838mm) H 22-1/4" (565mm) D
Weight:	74.5 lbs. (33.79 Kg)	97.3 lbs. (44.14 Kg)	107 lbs. (48.53 Kg)

Specifications (continued)

Model:	SV-1212P	SV-1212PR	SV-61
System Type:	Powered Subwoofer	Powered Subwoofer	Bookshelf Speaker
Frequency Response:	20Hz-200Hz (±3dB)	17Hz-180Hz (±3dB)	55Hz-20kHz (±3dB)
Sensitivity:	N/A	N/A	87dB (2.83V @ 1 Meter)
Recommended/ Rated Power:	500 Watt Amplifier Included	2400 Watt Amplifier Included	75-150 Watts
Woofer(s):	(2) 12" (305mm) Aluminum Subwoofers	(2) 12" (305mm) Reference Aluminum Subwoofers	(1) 6½" (165mm) Aluminum Cone Woofer
Tweeter(s):	N/A	N/A	(1) 1" (25mm) Silk Dome Tweeter
Tweeter Protection:	N/A	N/A	Yes
Crossover Frequency:	40Hz-150Hz (variable)	40Hz-150Hz (variable)	2,700 Hz
Crossover Slope	12dB/Octave	12dB/Octave	12dB/Octave
Impedance:	N/A	N/A	8 Ohms
Cabinet/Color:	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss South American Rosewood	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss South American Rosewood	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss South American Rosewood
Grille:	Black Fabric	Black Fabric	Black Fabric
Dimensions:	15-3/16" (386mm) W 33" (838mm) H 22-7/8" (581mm) D	15-3/16" (386mm) W 33" (838mm) H 22-7/8" (581mm) D	7-3/4" (197mm) W 13-3/4" (349mm) H 11-5/8" (295mm) D
Weight:	100.3 lbs. (45.50 Kg)	110 lbs. (49.90 Kg)	17.6 lbs. (7.98 Kg)

Specifications (continued)

Model:	SV-61R	SV-661	SV-661R
System Type:	Bookshelf Speaker	L/R Speaker (Left / Right Main Speaker)	L/R Speaker (Left / Right Main Speaker)
Frequency Response:	55Hz-40kHz (±3dB)	55Hz-20kHz (±3dB)	50Hz-40kHz (±3dB)
Sensitivity:	87dB (2.83V @ 1 Meter)	90dB (2.83V @ 1 Meter)	90dB (2.83V @ 1 Meter)
Recommended/ Rated Power:	75-200 Watts	75-200 Watts	75-250 Watts
Woofer(s):	(1) 6½" (165mm) Reference Aluminum Cone Woofer	(2) 6½" (165mm) Aluminum Cone Woofers	(2) 6½" (165mm) Reference Aluminum Cone Woofers
Tweeter(s):	(1) AMT Tweeter 2.25" x 1" (60mm x 25mm)	(1) 1" (25mm) Silk Dome Tweeter	(1) AMT Tweeter 2.25" x 1" (60mm x 25mm)
Tweeter Protection:	Yes	Yes	Yes
Crossover Frequency:	2,700 Hz	2,700 Hz	2,700 Hz
Crossover Slope	12dB/Octave	24dB/Octave	24dB/Octave
Impedance:	8 Ohms	6 Ohms	6 Ohms
Cabinet/Color:	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss South American Rosewood	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss South American Rosewood	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss South American Rosewood
Grille:	Black Fabric	Black Fabric	Black Fabric
Dimensions:	7-3/4" (197mm) W 13-3/4" (349mm) H 11-5/8" (295mm) D	7-3/4" (197mm) W 21-1/2" (546mm) H 11-5/8" (295mm) D	7-3/4" (197mm) W 21-1/2" (546mm) H 11-5/8" (295mm) D
Weight:	18.1 lbs. (8.21 Kg)	26.6 lbs. (12.07 Kg)	27.25 lbs. (12.47 Kg)

Specifications (continued)

Model:	SV-661C	SV-661CR	SV-6500
System Type:	Dedicated Center Channel Speaker	Dedicated Center Channel Speaker	Tower Speaker
Frequency Response:	55Hz-20kHz (±3dB)	55Hz-40kHz (±3dB)	35Hz-20kHz (±3dB)
Sensitivity:	90dB (2.83V @ 1 Meter)	90dB (2.83V @ 1 Meter)	88dB (2.83V @ 1 Meter)
Recommended/ Rated Power:	75-200 Watts	75-250 Watts	100-300 Watts
Woofer(s):	(2) 6½" (165mm) Aluminum Cone Woofers	(2) 6½" (165mm) Reference Aluminum Cone Woofers	(5) 6½" (165mm) Aluminum Cone Woofers
Tweeter(s):	(1) 1" (25mm) Silk Dome Tweeter	(1) AMT Tweeter 2.25" x 1" (60mm x 25mm)	(1) 1" (25mm) Silk Dome Tweeter
Tweeter Protection:	Yes	Yes	Yes
Crossover Frequency:	2,700 Hz	2,700 Hz	100 Hz, 2,700 Hz
Crossover Slope	24dB/Octave	24dB/Octave	24dB/Octave
Impedance:	6 Ohms	6 Ohms	4 Ohms
Cabinet/Color:	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss South American Rosewood	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss South American Rosewood	Medium Density Fiberboard (MDF)/ High-gloss Black
Grille:	Black Fabric	Black Fabric	Black Fabric
Dimensions:	21-1/2" (546mm) W 7-5/8" (194mm) H 11-11/16" (297mm) D	21-1/2" (546mm) W 7-5/8" (194mm) H 11-11/16" (297mm) D	8-7/8" (225mm) W 50" (1270mm) H 14-1/8" (359mm) D
Weight:	26.75 lbs. (12.13 Kg)	27.4 lbs. (12.43 Kg)	71.6 lbs. (32.47 Kg)

Specifications (continued)

Model:	SV-6500R	SV-821CR	SV-831R
System Type:	Tower Speaker	Dedicated Center Channel Speaker	Modular Monitor Speaker
Frequency Response:	35Hz-40kHz (±3dB)	55Hz-40kHz (±3dB)	50Hz-35kHz (±3dB)
Sensitivity:	88dB (2.83V @ 1 Meter)	90dB (2.83V @ 1 Meter)	93dB (2.83V @ 1 Meter)
Recommended/ Rated Power:	100-350 Watts	100-300 Watts	100-500 Watts
Woofer(s):	(5) 6½" (165mm) Reference Aluminum Cone Woofers	(2) 8" (203mm) Reference Aluminum Cone Woofers	(3) 8" (203mm) Reference Aluminum Subwoofers
Tweeter(s):	(1) AMT Tweeter 2.25" x 1" (60mm x 25mm)	(1) AMT Tweeter 4.72" x 1" (120mm x 25mm)	(1) AMT Tweeter 4.72" x 1" (120mm x 25mm)
Tweeter Protection:	Yes	Yes	No
Crossover Frequency:	100 Hz, 2,700 Hz	1,500 Hz	2,200 Hz
Crossover Slope	24dB/Octave	24dB/Octave	24dB/Octave
Impedance:	4 Ohms	6 Ohms	4 Ohms
Cabinet/Color:	Medium Density Fiberboard (MDF)/ High-gloss Black	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss South American Rosewood	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss South American Rosewood
Grille:	Black Fabric	Black Fabric	Black Fabric
Dimensions:	8-7/8" (225mm) W 50" (1270mm) H 14-1/8" (359mm) D	27" (686mm) W 10-7/16" (265mm) H 15-1/8" (384mm) D	15-3/16" (386mm) W 28-3/4" (730mm) H 22-3/16" (564mm) D
Weight:	72.7 lbs. (32.98 Kg)	45 lbs. (20.41 kg)	93.8 lbs. (42.55 Kg)

Specifications (continued)

Model:	SV-661W	SV-661WR	
System Type:	On-wall Speaker	On-wall Speaker	
Frequency Response:	55Hz-20kHz (±3dB)	50Hz-40kHz (±3dB)	
Sensitivity:	90dB (2.83V @ 1 Meter)	90dB (2.83V @ 1 Meter)	
Recommended/ Rated Power:	75-200 Watts	100-250 Watts	
Woofer(s):	(2) 6-1/2" (165mm) Aluminum Cone Woofers	(2) 6-1/2" (165mm) Reference Aluminum Cone Woofers	
Tweeter(s):	(1) 1" (25mm) Silk Dome Tweeter	(1) AMT Tweeter 2.25" x 1" (120mm x 25mm)	
Tweeter Protection:	Yes	Yes	
Crossover Frequency:	2,700 Hz	2,700 Hz	
Crossover Slope	24dB/Octave	24dB/Octave	
Impedance:	6 Ohms	6 Ohms	
Cabinet/Color:	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss White	Medium Density Fiberboard (MDF)/ High-gloss Black or High-gloss White	
Grille:	Black or White Fabric	Black or White Fabric	
Dimensions:	9-1/4" (235mm) W 23" (584mm) H 4-5/8" (118mm) D	9-1/4" (235mm) W 23" (584mm) H 4-5/8" (118mm) D	
Weight:	21 lbs. (9.53 Kg)	21 lbs. (9.53 Kg)	

Troubleshooting—Speakers

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.
	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.

Troubleshooting—Subwoofer

Situation:	Probable Cause:	Solution:
No sound from subwoofer.	Amplifier is not connected to constant power outlet.	Make certain the amplifier is plugged into an unswitched AC power outlet.
	Amplifier is not receiving an audio signal from receiver or processor.	Make certain there is an audio signal from receiver or processor.
	Amplifier fuse might be blown.	Replace fuse (if fuse is not readily accessible, consult your authorized RBH Sound dealer).
Performance is less than expected.	Crossover frequency is not adjusted correctly.	Adjust the crossover frequency by turning the crossover frequency control clockwise until the desired sound is obtained.

NOTE: You may also want to check with the manual provided with your receiver or pre amp for the correct subwoofer/EQ settings.

Warranty

Your RBH Sound Signature SV Series speakers are covered by a limited warranty against defects in materials and workmanship for a period of 5 years, with subwoofer amplifiers for a period of 1 year 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 by locations 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.

WARRANTY REGISTRATION

Please fill out and submit the registration form found online at https://rbhsound.com to register your speakers and/or subwoofers.

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