HS-615 HANGING SPEAKER

Owners Manual

Introduction

Congratulations on your purchase of an RBH Sound residential/commercial 70 Volt compatible hanging 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, installation procedures and specifications for the HS-615 residential/commercial 70 Volt compatible hanging speaker. It is recommended you thoroughly read through the material contained in this manual before connecting your speaker. This will ensure that you have an understanding of how to install the speaker for optimum performance.

Break-in Period

Allow 10-15 hours of listening time to adequately break-in the speaker. As the speaker breaks-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, clean with a damp soft cloth.

Features

The RBH Sound HS-615 hanging speaker incorporates a poly-resin enclosure to reinforce bass frequencies allowing a more controlled bass response, and utilizes an acoustic suspension design while offering operation in either 8 Ohm or 70 Volt modes.

A powerful magnet gives the bass/midrange driver high power handing capability. This ensures accurate dynamic reproduction. The tweeter features liquid cooling to also allow greater power handling.

Steep acoustic slope crossovers are used to integrate drivers. The use of steep crossover slopes allows high power handling, minimizes driver interaction anomalies, and maximizes the clarity with which each driver is able to produce its respective frequency band. Sophisticated computer modeling techniques are used extensively in the RBH speaker design process.

A switch connected to the swivel tweeter allows the sound of your speaker to be customized for each environment. This switch is located next to the woofer on the front baffle of the speaker and has three positions: +3dB, 0, and -3dB (see illustration on page 3). The +3 position increases output, and,

Features (continued)

the -3 position decreases the output of the tweeter relative to the woofer. The 0 position is the factory setting and generally provides the most natural response from the speaker.

The use of a 70 Volt transformer allows several HS-615 speakers to be used together by running a speaker wire from one speaker to the next in a parallel connection when using a 70 Volt amplifier (as shown in the wiring diagram below).

WARNING: Refer to the wiring diagrams and voltage selector sections to properly install a 70 Volt system.

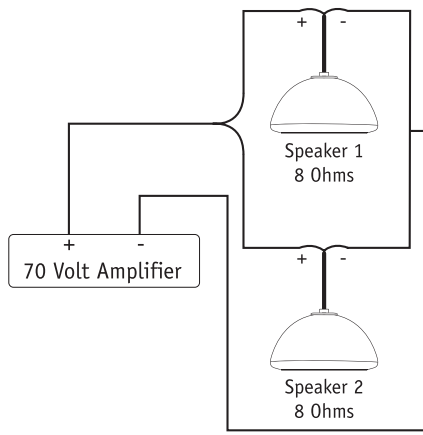
Wiring Diagrams

CAUTION: If your amplifier isn't capable of handling the impedance of all connected speakers, this may result in overloading the amplifier and may cause possible damage to the amplifier. Check your amplifier's documentation for proper impedance levels.

Parallel Connection

A parallel connection exists when speakers are connected directly to an amplifier (as shown in the illustration below). Each speaker's positive terminal is directly connected to the amplifier's positive terminal, and each negative terminal is directly connected to the amplifier's negative terminal. This type of connection should be made when using a 70 Volt amplifier.

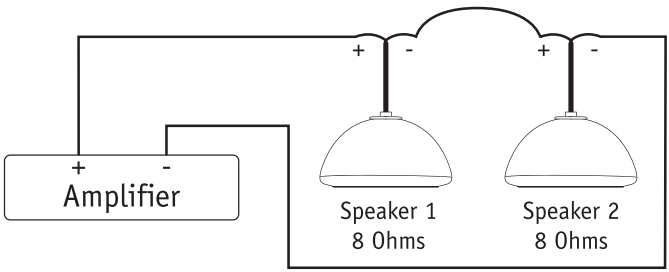
In this example, each speaker is set to 70 Volt operation and is being powered by a 70 Volt amplifier. If the speakers were set to 8 Ohm operation, the total impedance (using Ohm's Law) equals (8 x 8) ÷ (8 + 8) or 4 Ohms, which may be too low for some amplifiers. Make sure to properly select 70 Volt or 8 Ohm operation before connecting the speakers to the amplifier.



Wiring Diagrams (continued)

Series Connection

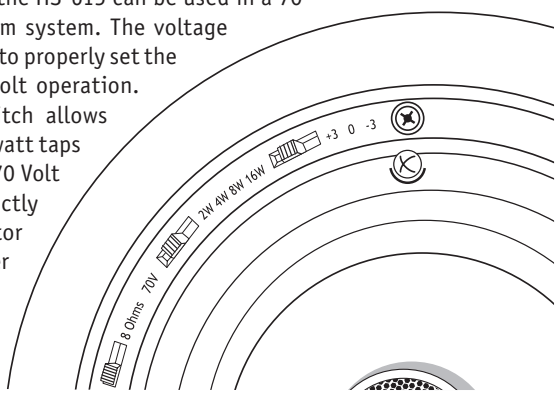
A series connection exists when two or more speakers are connected together by one wire. Typically, the negative connection of one speaker is connected to the positive connection of the next speaker as shown in the illustration below. This type of connection is reserved for certain 8 Ohm systems **ONLY**, and **NOT FOR 70 VOLT OPERATION**. Series connections should only be done with identical speakers to avoid inconsistencies in sound quality.



In this example, each speaker has a impedance of 8 Ohms. In a series connection as shown here, the total impedance equals 8+8 or 16 Ohms. The total impedance of a series connection is the sum of each speaker's impedance.

Voltage Selector

As previously mentioned, the HS-615 can be used in a 70 Volt system or in an 8 Ohm system. The voltage selector switch allows you to properly set the speaker to 8 Ohm or 70 Volt operation. The wattage selector switch allows the choice of 2, 4, 8 or 16 watt taps for 70 Volt operation. For 70 Volt operation, be sure to correctly set the wattage selector switch so that the number of speakers multiplied by the wattage setting does not exceed the power output of the amplifier.



Safety Compliance

CE LOGO: These products are in compliance with the EMC Directive 89/336/EEC and Article 10 (1) of the directive. In compliance with Technical Regulations EN55013-1 and EN50082-1.

Specifications

8 Ohm Operation	
Speaker Type:	2-way Hanging Speaker (20-foot Hanging Cable Included)
Frequency Response:	100Hz–20kHz ±3dB
Sensitivity:	87dB (2.83V @ 1 Meter)
Recommended/Power Rating:	2–50 Watts / 70 Volts
Woofer:	(1) 6½" (165mm) Polygraphite Cone
Tweeter:	(1) 1" (25mm) Swivel Silk Dome
Crossover Frequency:	3,000 Hz
Filter Slope:	12dB/octave
Impedance:	8 Ohms
Finished Dimensions:	9½" Dia. x 5" H (241mm Dia. x 127mm H)
Weight:	5 lbs. (2.27 Kg)
70 Volt Operation	
70 Volt Taps:	2, 4, 8, and 16 Watts

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
	Speaker selector on amplifier is not on	Activate proper selector on amplifier
No sound from 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 residential/commercial 70 volt compatible hanging 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 your dealer 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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