R B HASSING™

rbh®

A-605/70

In-ceiling 2-way Speaker (8 Ohm 70/100 Volt Ready)

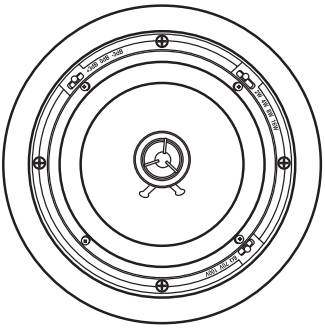
Owner's Manual

Introduction

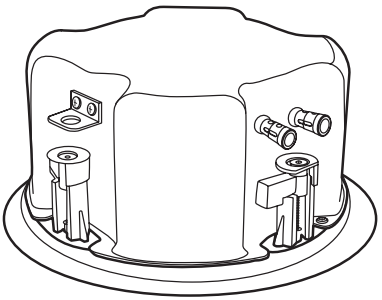
Congratulations on your purchase of RBH Sound A-605/70 In-ceiling 2-way speaker! Your speaker is the result of many years of research and development dedicated to producing high quality products for home audio and audio/video systems.

This manual contains features, setup recommendations and specifications for the RBH Sound A-605/70 In-ceiling 2-way (8 Ohm 70/100 Volt Ready) speaker. 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 install your speakers for optimum performance; allowing for years of listening enjoyment.

A-605/70 In-ceiling 2-way Speaker



FRONT VIEW



SIDE VIEW

Break In Period

Allow several 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, clarity and detail.

Safety Compliance

Complies with the requirements of UL-2043 fire tests for heat and visible smoke and visible smoke release for discrete products and the accessories installed in air handling spaces, NFPA-70 National Electric Code 2002, Article 300-22 (C), and NFPA-90A installation of air conditioning and ventilation systems, Section 2-3.10.1 (a), Exception 3, Listed UL1480 Speakers for Professional/Commercial use.

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.

Features

The A-605/70 is the budget-minded answer for both residential and commercial in-ceiling speaker applications. The A-605/70 employs an 6½-inch polygraphite woofer cone and a ¾-inch soft swivel dome tweeter for great sound on a budget. Other amenities include a UL listed integral rear enclosure and a built-in multi-tap transformer, enabling the A-605/70 to be used with either 8 Ohm or 70/100 Volt audio systems. The A-605/70 provides full-range performance while exceeding building code compliance. The metal enclosure reinforces bass frequencies allowing a deeper and more controlled bass response. A powerful magnet, ensures accurate dynamic reproduction.

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 Sound speaker design process.

A switch connected to the tweeter allows you to custom tailor the sound to your tastes. This switch is located next to the woofer on the front baffle of the speaker and has three positions: +3dB, 0dB, -3dB. The +3dB position increases output of the tweeter, the -3dB position decreases the output of the tweeter relative to the woofer. The 0dB position is the factory setting and generally provides the most natural response from the speaker.

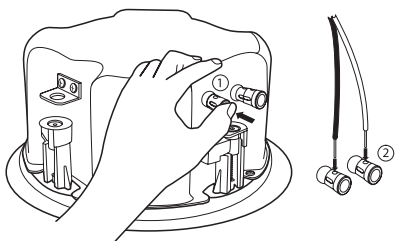
The use of a 70/100 volt transformer allows many speakers to be used together by running a connecting wire from one speaker to the next, without concern for the impedance seen by the amplifier. A 70/100 volt amplifier must be used to accomplish this.

WARNING: Refer to the installation and wiring diagrams sections to properly install a 70 volt system.

Installation

IMPORTANT: This product must be installed in accordance with your local area's building codes and regulations. This may require use of an additional support bracket, depending on the installation. The speaker has been encased in a back can with the terminals on the outside of the back can for easy installation.

1. To install the wire push the end of the binding post in and run the wire into the hole on top of the terminal, then release the terminal to securely attach wire to the speaker.

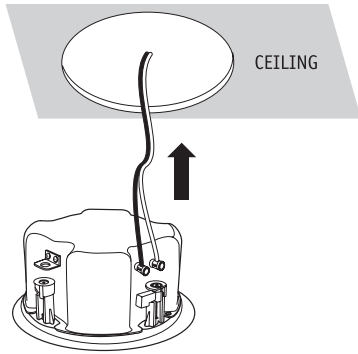


Installation (continued)

NOTE: The binding posts will accept a maximum wire gauge of 14 AWG and a minimum wire gauge of 18 AWG. Please refer to the NEC (National Electrical Code) for further information regarding the permissible wire size.

2. Install speaker into the ceiling.

   NOTE: Carefully tuck the speaker wires up into the ceiling so they do not get pinched.



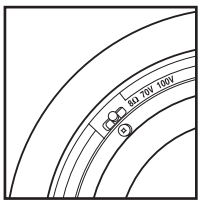
3. Set the three switches located on the face of the speaker to the proper setting according to the installation, see the guidelines below:

   A: The A-605/70 can be used in a 70/100 volt system or as a standard 8 Ohm in-ceiling speaker. To properly set the speaker to a 70/100 volt system or as a standard 8 Ohm operation slide the switch to the proper position on the face of the speaker.

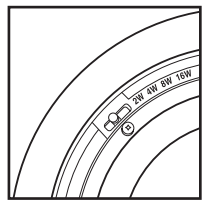
   NOTE: In 70/100 volt operation, be sure to appropriately set the selector according to the power output of the amplifier being used and the number of speakers being installed. In 8 Ohm operation, be sure to set the selector to the 8 Ohm setting.

   B: Slide the switch into the proper position in order to choose from 2, 4, 8 and 16 Watt taps in 70/100 volt operation.

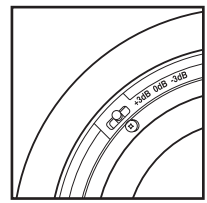
   C: To customize the sound of the tweeter slide the switch located on the front baffle of the speaker to either: +3dB, 0dB, -3dB.



A: Switch for 70/100 Volt or 8 Ohms Operation.



B: Switch for Watt Taps in 70/100 Volt Operation.



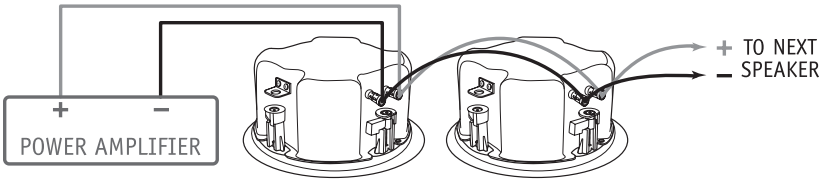
C: Switch for Tweeter Adjustment.

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 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 70/100 Volt amplifier as shown in the diagram below.



NOTE: In this example, each speaker is set to 70/100 Volt operation and is being powered by a 70/100 Volt amplifier. Make sure to properly select 70/100 Volt or 8 Ohm operation before connecting the speakers to the amplifier.

Specifications

Model:	A-605/70
Series:	Architectural
System Type:	In-ceiling 2-way Speaker (8 Ohm or 70/100 Volt Ready)
Frequency Response:	88Hz-20kHz ±3dB
Sensitivity:	88dB (2.83V/1 meter)
Recommended Power:	2-60 Watts
Woofer(s):	(1) 6½" (165mm) Polygraphite Cone
Tweeter(s):	(1) ¾" (19mm) Silk Dome Swivel
Crossover Frequencies:	3,000 Hz
Crossover Slope:	12dB/Octave
Impedance:	8 Ohm or 70/100 Volt
Cabinet/Color:	White Frame (paintable)
Grille:	White Aluminum (paintable)
Cutout Dimensions:	8" (203mm) Dia.
Finished Dimensions:	9-1/8" (232mm) W 4-1/2" (114mm) D
Weight:	4 lbs. (1.81 Kg)
Warranty:	25 Years (Warranted from date of purchase to be free from defects and workmanship.)
70/100 Volt Operation	
70/100 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 properly connected at both the speaker and the amplifier observing proper polarity.
	Speaker selector on amplifier is not on.	Activate proper speaker selector on amplifier.
No sound from one speaker.	Balance control on receiver or preamp is not centered.	Place balance control in the center.
	Speaker wire not completely 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 A-605/70 In-ceiling 2-way speaker is covered by a limited warranty against defects in materials and workmanship for a period of 25 years. 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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