



QM-615

SLIM LINE IN-CEILING
QUICK MOUNT 2-WAY SPEAKER

Installation & Operation Manual

Introduction

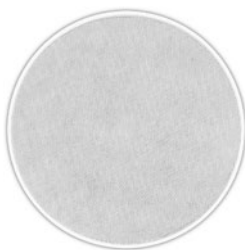
Congratulations on your purchase of an RBH Sound QM-615 slim line in-ceiling 2-way speaker! Your speaker is the result of many years of research and development dedicated to producing high quality products for home audio and audio/video systems.

This manual contains features, setup recommendations and specifications for the RBH Sound QM-615 slim line in-ceiling 2-way speaker. 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 install your speaker for optimum performance; allowing for years of listening enjoyment.

QM-615 In-ceiling 2-way Speaker



Front View



Front with Grille On



Back 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



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.

RoHS

Any RoHS compliant component is tested for the presence of Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent chromium (Hex-Cr), Polybrominated biphenyls (PBB), and Polybrominated diphenyl ethers (PBDE). For Cadmium and Hexavalent chromium, there must be less than 0.01% of the substance by weight at raw homogeneous materials level. For Lead, PBB, and PBDE, there must be no more than 0.1% of the material, when calculated by weight at raw homogeneous materials. Any RoHS compliant component must have 100 ppm or less of mercury and the mercury must not have been intentionally added to the component.

Features

The QM-615 is the budget-minded answer for both residential and commercial in-ceiling speaker applications. The QM-615 employs a 6½-inch polygraphite woofer cone and a 1-inch swivel fabric dome tweeter for great sound. The QM-615 speaker is manufactured with high quality components and engineered to accurately reproduce music. Mounting flush to a wall or ceiling, architectural speakers are ideal for many applications where traditional speakers may be impractical or impossible. The QM-615 is especially well suited for distributing sound throughout the entire home and can be used to enhance surround sound systems. When properly installed, the QM-615 will provide you with years of entertainment pleasure.

The QM-615 speaker is packaged with an L-shaped quick installation and removal tool, grille adhesive, the hole cutout and paint mask templates. No other tools except wire strippers are required to install the QM-615 speaker once the hole has been cut in the ceiling or wall.

Painting the Speakers

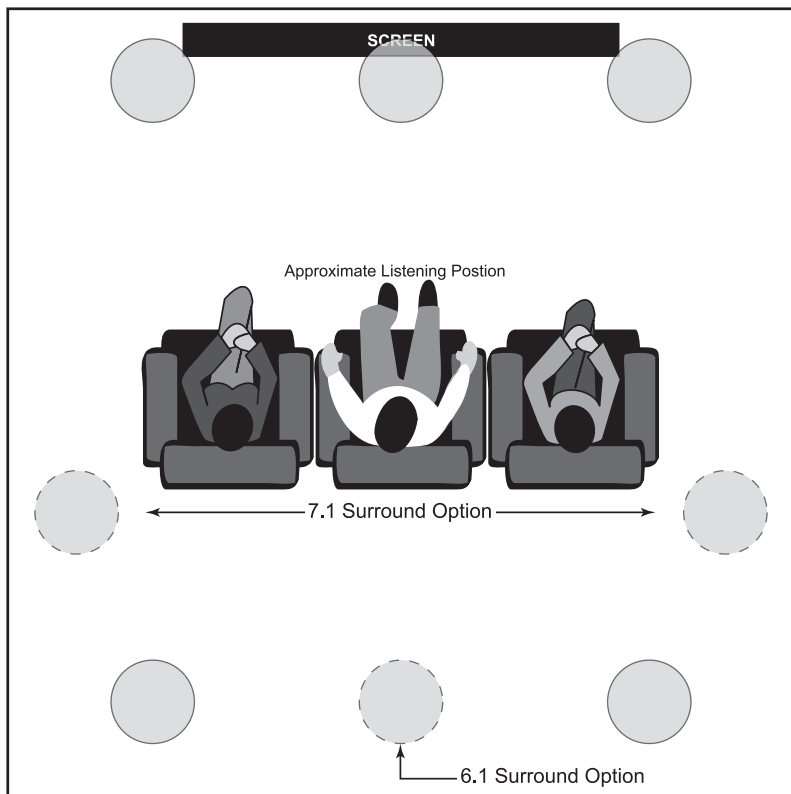
A paint shield is included with your QM-615 speaker. This shield can be used to protect the speaker when painting the speaker rim (frame). If you plan to paint your speaker, we recommend that it be done prior to installation. If you decide to paint your speaker sometime in the future, it is best to remove it by following the simple instructions on page 5. When painting the speaker, the paint shields provided in the packaging must be installed in place of the grille. The grille can also be painted. Painting the speaker grille should be done with a paint sprayer set to fine. Remove the grille from the speaker, peel off the grille fabric on the back of the grille and set aside. Place the grille on a flat surface. **Do not use a brush or roller on the speaker grille as it will clog the holes.** This will greatly reduce the sound quality of the speakers. Do not paint the grille while attached to the speaker. Be sure to remove the paint shield from the speaker and replace the grille fabric to the back of the grille before reinstalling the grille and using the speakers.

Speaker Placement

With nearly endless placement options, careful consideration for placement of the QM-615 in-ceiling speaker needs to be considered, as installation requires cutting a hole in your wall or ceiling! When using the QM-615 in home theater applications follow the guidelines illustrated below.

Swivel Tweeter Placement

The QM-615 has a swivel tweeter allowing sound to be directed toward or away from the listening area depending on the application. A tweeter aimed toward your listening position improves imaging and detail. When using the QM-615 as front/main home theater speakers or as stereo speakers in a distributed audio system, aim the tweeter toward the main listening position. For rear/surround speakers installed in walls or ceilings, aim the tweeter toward the nearest reflecting surface (an adjacent wall or ceiling) for a more diffuse sound field (for more direct sound, aim the tweeter at your listening position).



Installation

CAUTION: Be certain there are no electrical wires, water pipes, heating ducts or any other obstructions in the planned area of installation before starting to drill or cut into the ceiling or wall. If there is an electrical outlet nearby, turn off the circuit breaker to avoid possible injury.

1. These speakers are designed to be mounted between the framing members. Use a stud finder to locate the positions of joists and rafters. Make sure you have a 2-inch clearance from the outside of the cutout hole from joists and rafters.
2. Drill a 1/4-inch hole in the center of the area you plan to mount the speaker. Cut or bend a piece of wire (a coat hanger works well) to a 90-degree angle. Insert the wire into the pilot hole and fish around to make sure there are not obstructions which will interfere with the installation.

NOTE: If you must choose another location the pilot hole can be easily patched.

3. Once a suitable location is found, use masking tape to temporarily place the supplied cutout template on the ceiling or wall, centered over the pilot hole. Draw a circle around the inside edge of the template.
4. Carefully cut the hole with the appropriate cutting tool to remove the material inside the circle inscribed by the template.
5. Confirm the speaker easily fits into the hole, without any gaps.
6. The speaker terminals will accommodate any speaker wire up to 14-gauge. Select an appropriate wire gauge from the following chart:

18 gauge for up to 50-feet

16 gauge for up to 100-feet

14 gauge for up to 200-feet

Pull the speaker wire out of the hole and connect the speaker. Split the two conductors of the speaker wire apart about 3-inches so they form a "Y". Using wire strippers, remove about 1/2-inch of insulation from each of the two conductors of the wire to expose the bare metal and twist each of the conductors into a single unfrayed strand.

NOTE: When connecting a speaker it is very important to retain the correct polarity (improper polarity will cause reduced bass performance and unnatural imaging effects). To do this, be sure the wire attached to the positive terminal on the speaker (marked [+] or colored red) connects to the positive terminal on the amplifier. Similarly, the negative terminal (marked [-] or colored black) must connect to the negative terminal on the amplifier.

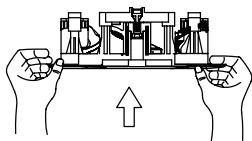
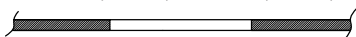
7. Place the speaker into the hole you previously cutout. Using the circular small end of the L-shaped quick installation tool or screwdriver simply push upward the four mounting tabs. The mounting tabs will then rotate very quickly 180-degrees clockwise to fasten the speaker to the ceiling or wall.

Installation (continued)

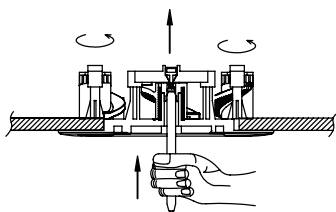
- Using the supplied grille adhesive, apply an ample amount of adhesive around the grille. Gently push the grille onto the speaker securing the grille to the speaker.
- To remove the speaker, insert the L-shaped tool's hex-end into the tab hole to engage cam mechanism, turn counterclockwise until cam locks in open position. Repeat for remaining cams then remove speaker.

Installing Speaker

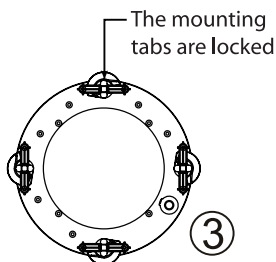
The allowed thickness of the ceiling:
.4-inch (10mm) to 1-inch (25mm)



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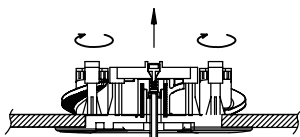


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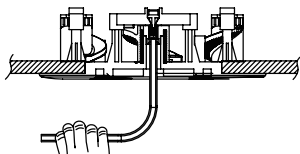


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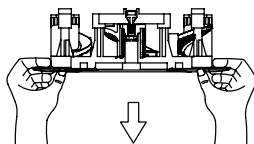
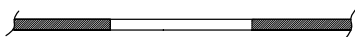
Removing Speaker



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Specifications

Model:	QM-615
Series:	Architectural Series
System Type:	Slim Line In-ceiling 2-way Speaker
Frequency Response:	55Hz-20kHz \pm 3dB
Sensitivity:	88dB (2.83V/1 meter)
Recommended Power:	2-80 Watts
Woofers(s):	(1) 6½" (165mm) Polypropylene Cone
Tweeter(s):	(1) 1" (25mm) Swivel Fabric Dome
Crossover Frequencies:	3,000 Hz
Crossover Slope:	12dB/Octave
Impedance:	8 Ohm
Cabinet/Color:	White Frame (paintable)
Grille:	White Powder Coated Steel (paintable)
Cutout Dimensions:	8.375" (213mm) Dia.
Finished Dimensions:	9.375" (238mm) W 3" (76mm) D
Weight:	2.55 lbs. (1.16 Kg)
Warranty:	25 Years (Warranted from date of purchase to be free from defects and workmanship.)

Troubleshooting

Situation	Probable Cause	Solution
No sound from speakers.	Speaker wire not connected. Speaker selector on amplifier is not on.	Make sure wire is properly connected at both the speaker and the amplifier observing proper polarity. Activate proper speaker selector on amplifier.
No sound from one speaker.	Balance control on receiver or preamp is not centered. Speaker wire not completely connected.	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 QM-615 in-ceiling 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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382 Marshall Way, Layton, Utah • USA • 84041
Toll Free: (800) 543-2205 • Fax: (801) 543-3300
www.rbhsound.com