



CTx Series Compact Speakers Owner's Manual

Introduction

Congratulations on your purchase of RBH CTx 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 CTx 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.

CTx Series Loudspeakers

CTx Series loudspeakers shown here with partial grilles for a peek at the aluminum cone woofers and silk dome tweeters. Both the MM-4x and C-4x are available in white and black



Break-in Period

Allow 10-15 hours of listening time to adequately break-in the RBH CTx Series speakers. 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 grilles, use a vacuum with a brush attachment.

Features

At the heart of the RBH CTx Series speakers are proprietary aluminum cone midrange woofers. Aluminum combines stiffness, low mass and self damping properties in a manner which allows virtually uncolored presentation of program material.

A powerful magnet, extended voice coil and bumped back plate give the high excursion capability. This ensures accurate dynamic reproduction. Each CTx Series speaker features

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.

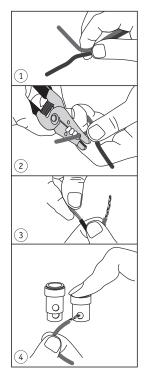
Cabinets are constructed of fiber-reinforced polymer matrix composite. The rounded interiors prevent the "standing wave" effect resulting in clean, uncolored sound. The speakers virtually disappear leaving only a deep, wide sound stage with pinpoint imaging. The MM-4x and C-4x has metal keyhole mounts for direct wall mounting as well as female 1/4-inch 20 TPI threads in back and bottom (MM-4x only) for optional bracket mounting.

Attaching Speaker Wires

The CTx Series uses spring-loaded speaker wire terminals to firmly hold either a pin connector or bare speaker wire. To obtain a better connection, it is important to slightly tug on the wires after they have been secured in the terminals. This will cause the small teeth inside the connectors to 'bite' into the wire. It is recommended that you use wire which is color-coded or marked on one side. If the distance is less than 50 feet long from the amplifier or receiver to the speaker, use 16-gauge or larger wire; if the distance is more than 50 feet long, use 14-gauge wire.

WARNING: Avoid routing the speaker wire near other electrical wires, and avoid nailing or stapling the speaker wire.

- Separate the last 4 inches of the speaker wire conductors at each end of the wire.
- 2. Use a wire stripper to remove about ¼-inch of insulation from the end of each conductor.
- Twist the ends of each conductor to secure loose strands.
- Connect the positive wire to the red terminal on the back of the speaker by pressing down on the red positive (+) terminal's tab, inserting the end of the positive conductor, and releasing the tab.
- Repeat this procedure to connect the negative conductor to the black negative (-) terminal.



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 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. The MM-4x speakers should be placed on stands which places the tweeters close to ear height.

Center Channel Speaker

The C-4x 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.

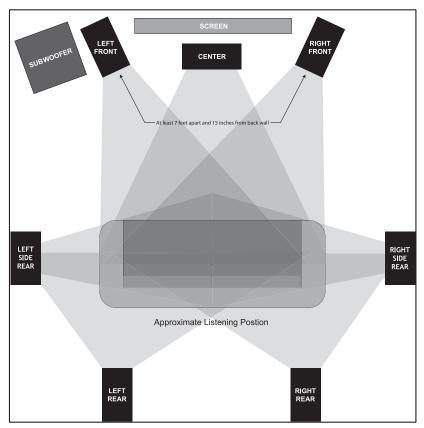
Surround Speakers

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.

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 than if the woofer were close to a wall. 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.

Room Setup Suggestions (continued)



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 or Dolby TrueHD and DTS Master HD which is 7.1 format. Please consult your audio/video professional to determine which system is best for you and how many speakers you will require.

Specifications

Model	C-4x	MM-4x
Speaker Type:	Center/LCR (Left, Center or Right)	Bookshelf
Frequency Response:	100Hz-20kHz ±3dB	100Hz-20kHz ±3dB
Sensitivity	88db (2.38V @ 1M)	85db (2.38V @ 1M)
Recommended Power:	10-100 Watts	20-100 Watts
Woofer:	(2) 4" (102mm) Aluminum Cone	(1) 4" (102mm) Aluminum Cone
Tweeter:	(1) 1" (25mm) Silk Dome	(1) 1" (25mm) Silk Dome
Crossover Frequency:	3,000 Hz	3,000 Hz
Crossover Slope:	12dB/Octave	12dB/Octave
Impedance:	6 Ohms	8 Ohms
Finish/Color:	Black or White Satin	Black or White Satin
Grille Color:	Black or White Fabric	Black or White Fabric
Dimensions:	Width: 14" (356mm) Height: 5" (127mm) Depth: 4-1/2" (114mm)	Width: 5-1/4" (133mm) Height: 7-1/2" (191mm) Depth: 4-3/4" (121mm)
Weight:	6.5 lbs. (2.95 Kg)	3.1 lbs. (1.41 Kg)

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 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 CTx Series speakers are covered by a limited warranty against defects in materials and workmanship for a period of 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.

* The CTx Series speakers are not intended for outdoor use. If used outdoors it is at owner's discretion and this warranty is void.

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