

INSTRUCTION MANUAL

SONANCE CINEMA®

SUB 10 - 250 RETRO



Introduction

Thank you for purchasing a Sonance Cinema® Series SUB 10-250 RETRO. When properly installed, this subwoofer will deliver film soundtracks and music with outstanding clarity and realism. This manual covers the Sonance Cinema SUB 10-250 RETRO model.

Box Contents SUB 10-250 RETRO

SUB 10-250 RETRO box contains the following:

- (1) SUB 10-250 RETRO subwoofer
- (1) Grille
- (1) Cutout Template

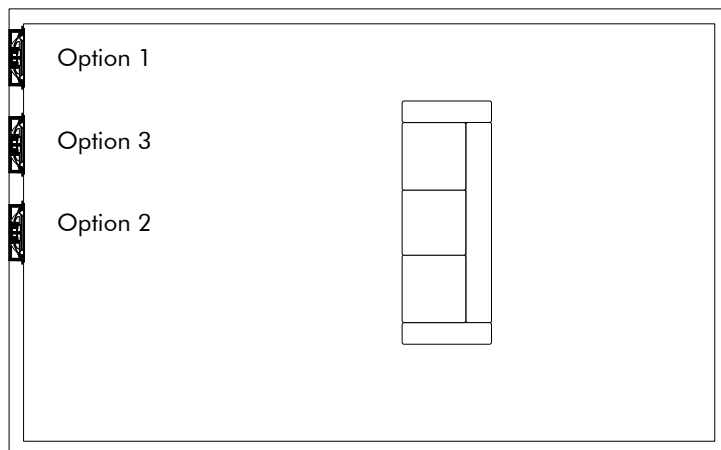
Subwoofer Placement

Subwoofer placement is a very complicated subject. The ultimate performance of a subwoofer is very room and placement dependent.

With in-room subwoofers, the location can be varied for best performance. With an in-wall subwoofer the location is permanent and must be decided during construction. With this in mind the placement suggestions in this manual have the highest probability for success in most rooms.

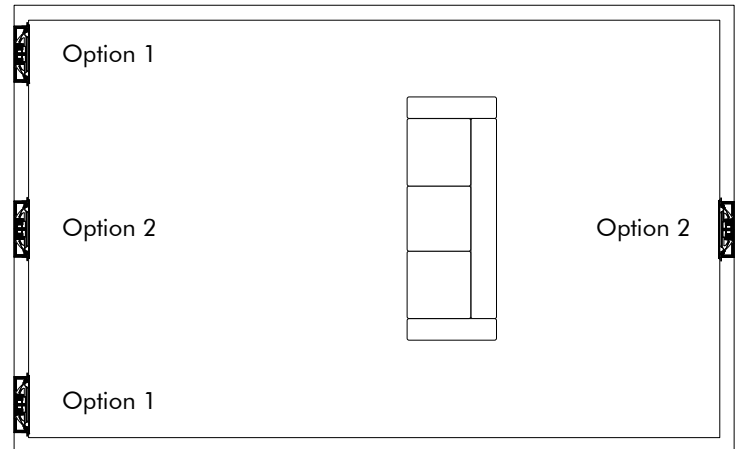
One Woofer Placement

In installations with one woofer the best location will be in the right or left front corner of the room. The second option would be on the front wall in the center of the room. The third option would be between the corner and the center at the 1/4 position.



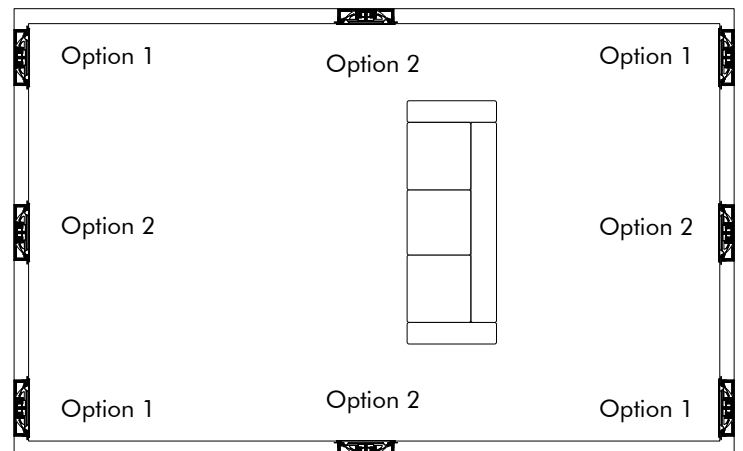
Two Woofer Placement

In installations with two woofers the best locations will be in the left and right front corners of the room. The second option would be in the center of the front and rear walls.



Four Woofer Placement

In installations with four woofers the best locations for the four woofers will be in each of the four corners of the room. The second option would be to put one woofer on each wall in the center.



SONANCE CINEMA® SUB SUB 10 - 250 RETRO

Wire Gauge and Quality

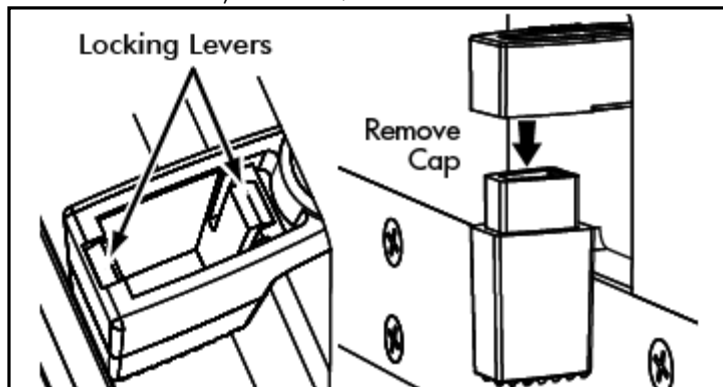
The total wire resistance should be less than 10% of the speaker impedance. The Cinema SUB 10-250 RETRO is 8 ohms so the total wire resistance should be no more than 0.8 ohms.

In simple terms, the extra resistance from the wire will have a very negative effect on the sound quality of the subwoofer. The sound can be less dynamic and definition of bass frequencies can be reduced. Amplifier power is also wasted in the wire, reducing the maximum output level of the system.

Wire resistance in Ohms vs. length of cable run						
Distance in Feet	50'	100'	150'	200'	250'	300'
20 gauge	1.04	2.07	3.11	4.14	5.18	6.22
18 gauge	.65	1.30	1.96	2.61	3.26	3.91
16 gauge	.41	.82	1.22	1.63	2.04	2.45
14 gauge	.26	.52	.77	1.03	1.29	1.55
12 gauge	.16	.32	.49	.65	.81	.97
10 gauge	.10	.20	.31	.41	.51	.61

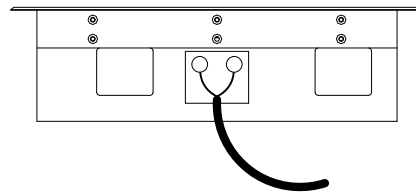
Before Installation

1. Determine the location for the speaker (see *Subwoofer Placement*, on page 1).
2. Perform an obstruction survey to be certain that there are no studs, conduit or pipes that will interfere with the speaker.
3. Position the included cutout template where the speaker is to be located and pencil an outline on the wall. The cutout for the Cinema SUB10-250 RETRO is 12 3/4" x 12 3/4" (324mm x 324mm).
4. Cut the mounting hole using a keyhole or drywall saw, and run the speaker wire from the mounting hole to the amplifier location.
5. When wall material thicker than 1" (25mm) is used the caps on the RotoLock® feet should be removed with a small screwdriver for additional clearance, see below.

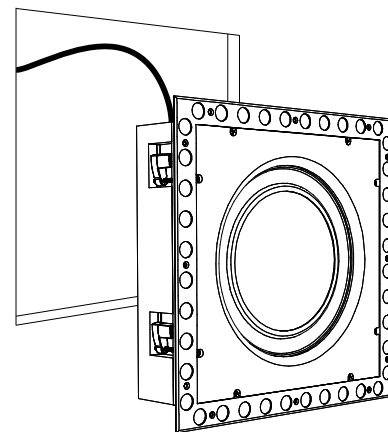


Installation

1. Strip 1/4" – 1/2" (6mm – 12mm) of insulation from each lead of the speaker wire. Twist the strands or tin the exposed wire with solder to ensure that there are no stray strands. (Stray strands that touch each other can cause a short-circuit that can damage the amplifier.)
2. The woofer's connector posts are spring-loaded. Push the top of each connector post down to open the connector and insert the exposed wires into the holes in the posts. The woofer's positive post is labeled with a red dot; the negative post is labeled with a black dot. Double-check that you connected amplifier "+" to woofer "+" and amplifier "-" to woofer "-".



3. Make sure all the RotoLock® clamps are fully retracted into their recesses in the speaker box. Insert the speaker into the hole in the wall.



4. Using the supplied hex bit, tighten the screws on the front of the speaker baffle. The RotoLock clamps will automatically rotate into position and begin clamping the speaker. When you notice resistance on the screws the speaker has been clamped successfully.

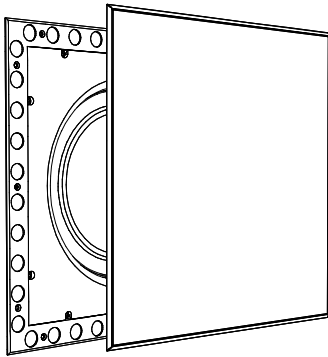
IMPORTANT: ALWAYS USE LOW-TORQUE SETTINGS WHEN TIGHTENING ROTOLOCK CLAMPS. NEVER OVER-TIGHTEN.

NOTE: ADJUSTING THE TENSION OF THE ROTOLOCK CLAMPS SO THAT THE SPEAKER FRAME IS FLAT WILL HELP ENSURE THAT THE GRILLE CONTACTS THE WALL ALL THE WAY AROUND THE SPEAKER FOR A PROPER FIT.

SONANCE CINEMA® SUB SUB10-250 RETRO

Installing the Grille

Install the Grille onto the frame. The powerful Neodymium magnets will attract the grille very quickly. Care should be taken to get the grille aligned correctly before placing it close to the subwoofer.



Painting the Grille

Please refer to the accompanying Painting Instructions sheet for painting instructions.

Specifications

Woofer:	10" (254mm) laminated carbon fiber cone with a rubber surround
Frequency Response:	34Hz - 250Hz ±3dB
Impedance:	8 ohms nominal
Sensitivity:	90dB (2.83V/1) meter
Grille:	Perforated steel
Amp Requirement:	Requires Cinema SUB10-250 RETRO amplifier, sold separately
Dimensions (WxHxD):	15" x 15" x 3 7/8" (381mm x 381mm x 98mm)
Cutout Dim. (WxHxD):	12 3/4" x 12 3/4" (324mm x 324mm)
Shipping Weight	13 lbs (6kg) each

Setup and Calibration

Typical Home Theatre

Audio Input Connection

In a typical modern home theatre system the signal to the subwoofer will be from the (LFE) output on your surround receiver or processor. Connect the (LFE) output to the input marked (LFE) on the subwoofer amplifier.

Subwoofer Driver Phase

Before connecting the wires from the subwoofer driver to the amplifier, you should make certain that the subwoofer driver is connected in the proper phase. To do this take a small battery rated at around 1.5 volts; AA, C and D batteries are all this voltage. Hold the positive wire from the subwoofer driver on the batteries positive terminal and momentarily touch the negative wire on the negative terminal. As you touch the negative wire on the negative terminal observe the subwoofer driver, it should move out (into the room) every time you touch the terminal.

If the woofer moves in, this indicates the woofer is not connected correctly. You can either remove the subwoofer from the wall and correct the connection or just reverse the connections on the back of the amplifier to return the subwoofer system to the correct phase.

If your home theater contains more than one subwoofer repeat the above process for each subwoofer driver. In a multiple subwoofer installation this step is critical to achieve maximum performance.

Power Connection

Once the output from your surround receiver or processor and the speaker wires from your subwoofer driver are connected to the amplifier, you can connect the power cord.

Front Panel Switch Settings

In a typical home theater system set bypass switch to **ON** and set the phase switch to the **0 DEG** setting.

With the bypass switch in the **ON** position, the volume and crossover frequency controls do not function.

Calibration

Now you are ready to calibrate your system. Many modern surround receivers and processors contain an automatic calibration and equalization system. If yours does contain one, follow the manufacturer's instructions on how to complete this process. The highest performance will be achieved if you complete this calibration process. This automatic process not only sets the correct level for the subwoofer but it also performs equalization to provide the best bass performance possible in your room.

If your surround receiver or processor does not contain an automatic calibration routine, you will need to do this manually. Once again, follow the instructions provided with your surround receiver or processor. A simple SPL (sound pressure level) meter will be needed to calibrate your system correctly. The use of an SPL meter is strongly recommended.

LIMITED LIFETIME WARRANTY

Sonance warrants to the first end-user purchaser that this Sonance-brand product ("Product"), when purchased from an authorized Sonance Dealer/Distributor, will be free from defective workmanship and materials for the life of the Product, except for the grille, which is warranted for five (5) years. Sonance will at its option and expense either repair the defect or replace the Product with a new or remanufactured Product or a reasonable equivalent.

EXCLUSIONS

TO THE EXTENT PERMITTED BY LAW, THE WARRANTY SET FORTH ABOVE IS IN LIEU OF, AND EXCLUSIVE OF, ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IS THE SOLE AND EXCLUSIVE WARRANTY PROVIDED BY SONANCE. ALL OTHER EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, IMPLIED WARRANTY OF FITNESS FOR USE, AND IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE ARE SPECIFICALLY EXCLUDED. No one is authorized to make or modify any warranties on behalf of Sonance.

The warranty stated above is the sole and exclusive remedy and Sonance's performance shall constitute full and final satisfaction of all obligations, liabilities and claims with respect to the Product. IN ANY EVENT, SONANCE SHALL NOT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, ECONOMIC, PROPERTY, BODILY INJURY, OR PERSONAL INJURY DAMAGES ARISING FROM THE PRODUCT, ANY BREACH OF THIS WARRANTY OR OTHERWISE.

This warranty statement gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion of implied warranties or limitations of remedies, so the above exclusions and limitations may not apply. If your state does not allow disclaimer of implied warranties, the duration of such implied warranties is limited to period of Sonance's express warranty.

Your Product Model and Description: Sonance Cinema Series SUB 10-250 RETRO Subwoofer

Additional Limitations and Exclusions from Warranty Coverage: The warranty described above is non-transferable, applies only to the initial installation of the Product, does not include installation of any repaired or replaced Product, does not include damage to allied or associated equipment which may result for any reason from use with this Product, and does not include labor or parts caused by accident, disaster, negligence, improper installation, misuse (e.g. overdriving the amplifier or speaker, excessive heat or cold or humidity), or from service or repair which has not been authorized by Sonance.

Obtaining Authorized Service: To qualify for the warranty, you must contact your authorized Sonance Dealer/Installer or call Sonance Customer Service at (800) 582-0772 within the warranty period, must obtain a return merchandise number (RMA), and must deliver the Product to Sonance shipping prepaid during the warranty period, together with the original sales receipt, or invoice or other satisfactory proof of purchase.



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Due to continuous product improvement, all features and specifications are subject to change without notice.
For the latest Sonance product specification information visit our website: www.sonance.com

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