AIM™

Aimable In-Ceiling Speakers

OWNER'S MANUAL

SpeakerCraft®

OWNER'S MANUAL

AIM™ FIVE

High Fidelity, Aimable In-Ceiling Speaker System

SPEAKER PLACEMENT

When following the below recommendations please keep in mind that placement is always in the ceiling. AIM speakers can be used as a pair for stereo listening, or in all five channels of a home theater system; front left and right, center, and rear left and right.

SpeakerCraft recommends the use of a qualified custom installation specialist when installing your AIM™ speakers. If you need assistance in locating an installer please contact SpeakerCraft at 1-800-448-0976.

1. DETERMINE YOUR PRIMARY LISTENING AREA

The area where you will most likely be sitting when listening to your speakers is your primary listening area.

2. PLACEMENT OF STEREO PAIR / FRONT CHANNELS FOR HOME THEATER

Consider how far apart the speakers should be. To do this think of your listening area as one tip of a triangle with each leg of the triangle being equal, see speakers FL (front left) and FR (front right) in Figure 1. Place the speakers as close as possible to the two points they represent on the triangle.

If the speakers are to be part of a home theater speaker system, they should be placed as close as possible to the area above the screen. However, in some cases it may be better to place the speakers farther away from the screen in order to maximize speaker separation. An example of a case when this would be desirable is when the television is positioned directly in a corner (See Figure 2).

3. PLACEMENT OF CENTER CHANNEL (HOME THEATER)

Place the center channel speaker in line between the front left and right speaker directly above the screen; see C (center) in (Figure 1.)

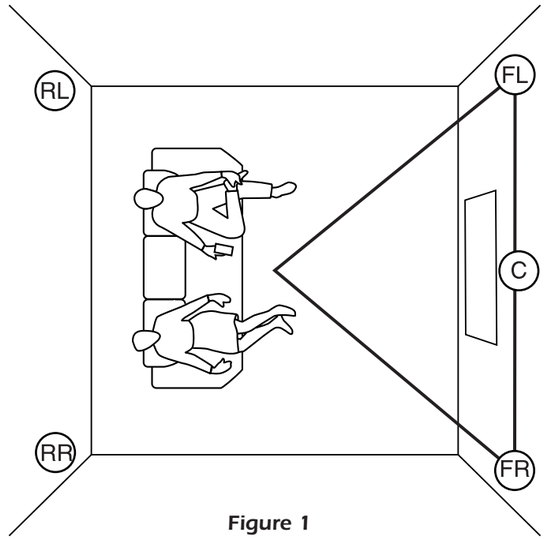


Figure 1

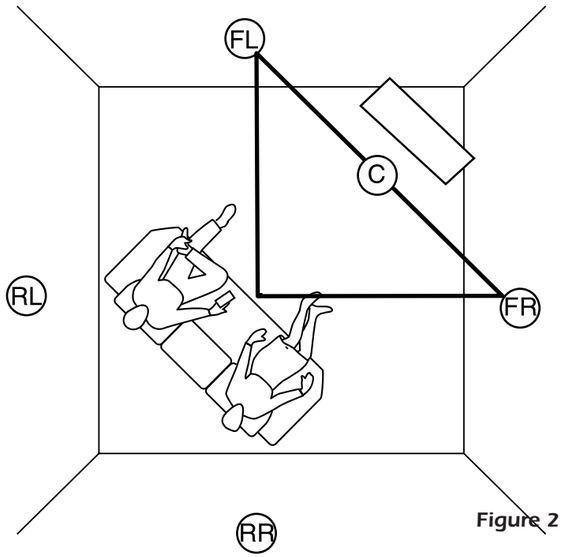


Figure 2

4. PLACEMENT OF REAR CHANNELS (HOME THEATER)

Rear channels should be placed behind the listening area, see RL (rear left) and RR (rear right) in (Figure 1.)

5. CHECK FOR OBSTRUCTIONS

Before confirming the placement of the speakers, you should carefully consider the location of ceiling joists, electrical, plumbing and other fixtures that may get in the way. If you are installing the speakers into an existing ceiling, you can locate obstructions by noting the placement of fixtures and if possible gaining access to an attic or crawl space for further analysis. A good stud-finder, found at any building supply store, will help you determine where the joists are located in the ceiling.

INSTALLATION CONSIDERATIONS

Prior to the actual installation of the speakers, it will be necessary to run cables to the speaker location. See your Authorized SpeakerCraft dealer for more information on cable installation. After the cable has been installed you are ready to mount the speakers.

Preparation for and mounting of the speakers can happen at two different stages. If you are building a new ceiling follow the section titled "Installation Preparation–New Construction". If you are placing the speakers into an existing ceiling follow "Installation Preparation–Finished Walls". There are different considerations for each application. Please carefully follow the recommendations for your application.

INSTALLATION PREPARATION - NEW CONSTRUCTION

When installing the speakers into a newly built ceiling please follow these instructions carefully.

1. DETERMINE PLACEMENT

Determine where in the ceiling the speakers will be placed using the recommendations under "Speaker Placement". Pay careful attention to the section on avoiding obstructions.

2. MOUNT INSTALLOCK BRACKET

For best results mount the SpeakerCraft InstaLLock New Construction Brackets for the AIM Series (Part No. BKT90681) following the instructions included with the bracket.

3. THE LOCATION IS READY FOR DRYWALL

The bracket provides a stable opening around which the drywall installer can cut out an opening, providing a perfect location for installation of the AIM Series speaker.

INSTALLATION PREPARATION - FINISHED CEILING

When the speakers will be installed into a finished ceiling please follow these instructions carefully.

1. DETERMINE PLACEMENT

Determine where in the ceiling the speakers will be placed using the recommendations under "Speaker Placement". Pay careful attention to the section on avoiding obstructions.

2. LOCATE OBSTRUCTIONS

Find the joists nearest the desired speaker mounting location. The use of a good stud-finder tool is highly recommended for this procedure. Make sure that there are no joists or obstructions where you plan to install the speaker. Read "Checking for Obstructions" under the section "Speaker Placement".

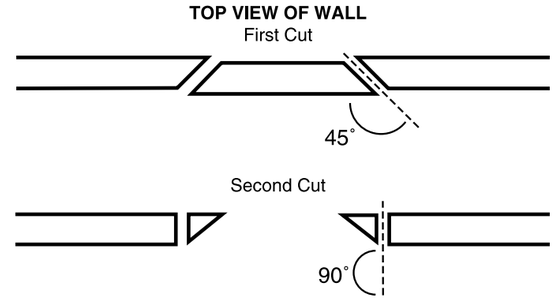
3. TRACE TEMPLATE

Place the cutout template at the location you have decided to place the speaker. Use a few pieces of tape or small tacks to hold the template in place. Trace an outline on the ceiling with a pencil.

4. CUT THE HOLE

Caution: This is the most important part of the entire installation. If you are not certain whether or not an obstruction exist behind the desired mounting area, you should start by cutting a small hole in the center of your penciled mounting hole with a drywall saw. Cut at a 45 degree angle towards the inside of the hole (See Figure 3). Cutting the small hole at this angle will make drywall repair much easier as the piece cut out can be installed neatly back into the hole. Once you have determined there are no obstructions in your desired mounting location, start cutting the finished hole at a 90-degree angle to the wall surface.

Figure 3



SPEAKER INSTALLATION

The unique integral four foot mounting system incorporated into each speaker allows for quick installation following these easy steps.

1. If the grill is on the speaker, remove it. It may be necessary to push one or two of the mounting screws, and its attached foot, towards the baffle and against the inside surface of the grill to force the grill out of its retaining groove.

2. Attach the speaker cable (observing the proper polarity with your amplifier, + to + and - to -). Make sure the left channel of the amplifier is connected to the left speaker, and the right channel is connected to the right speaker.

3. Make sure the mounting feet are turned inward to clear the opening, and insert the speaker into the ceiling. Position the speaker into the hole. Note: The flange of the speaker is designed to flex and conform to any small imperfections in the ceiling surface. Tighten the 4 screws on the front of the baffle only enough to make the flange become snug against the ceiling. As you tighten the screws, the feet will automatically flip into an outward position (See Figure 4) clamping the drywall between the feet and the flange. Caution: Over tightening may warp the baffle, crack the ceiling, cause the flange to distort, and make the grill difficult to install.

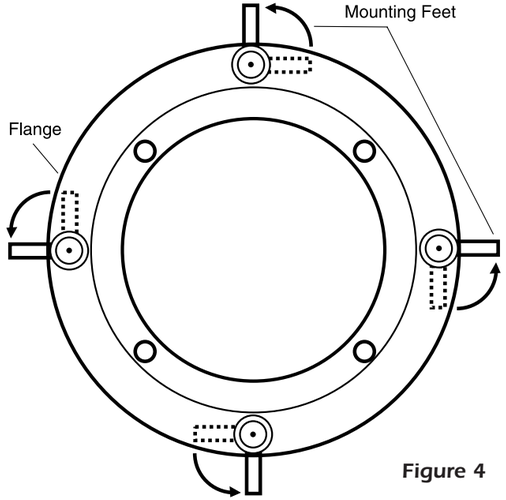


Figure 4

PAINTING THE SPEAKERS

If you plan to paint your speakers, we recommend that it be done prior to installation. If you decide to paint your speakers sometime in the future, it is best to remove them by simply reversing the steps for Speaker Installation listed above. When painting the speakers the paint masks provided in the carton must be installed in place of the grill. The grills can also be painted. However, great care should be taken not to clog the holes as this will greatly reduce the sound quality of the speakers. Before painting the grills, remove the under grill material. Place this material back in place once the grill has been painted. SpeakerCraft recommends only light spray painting using 5 parts thinning agent to 1 part paint. Do not paint grills while they are attached to the speaker. If it is necessary to paint the under grill material, follow the same procedure used to paint the grills.

SPEAKER ADJUSTMENT

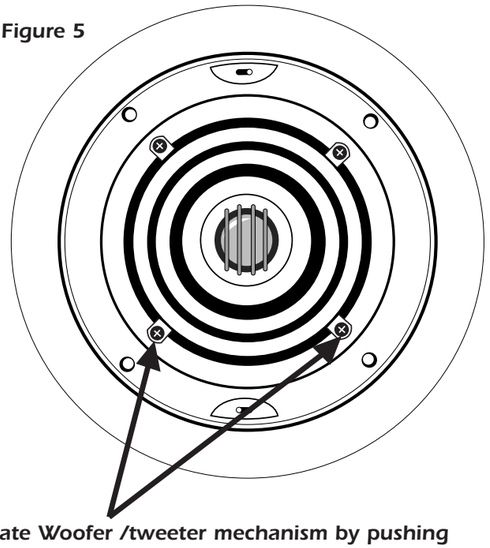
ADJUSTING THE AIM MECHANISM

The woofer can be pivoted to best direct the sound towards the listener. The woofer easily rotates and pivots to almost any position desired. Simply apply pressure with fingertips to the outer surface of the WavePlane™ and move the speaker to the desired position (See Figure 5).

ADJUSTING THE PIVOTING TWEETER

Once the woofer is positioned further refinement can be made be pointing the tweeter towards the listener. Push gently at the edge of the tweeter to point the tweeter in the desired direction. (See Figure 6).

Figure 5



Rotate Woofer /tweeter mechanism by pushing on the WavePlane mounting tabs.

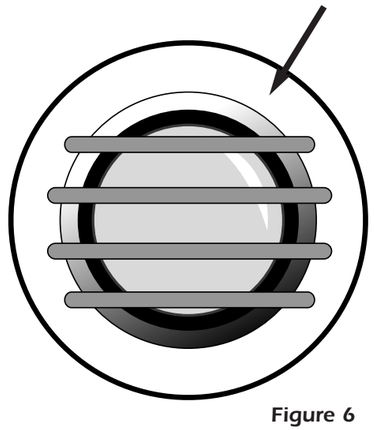


Figure 6

ADJUSTING THE FREQUENCY RESPONSE

The output of the woofer and tweeter can be adjusted to suit any environment. In general, we recommend leaving all of the adjustments at the flat (0db.) setting. To determine which settings will be appropriate for your speakers you may need to experiment until the desired sound is achieved. Use the Chart below to determine the result of the setting you select.

SELECTING A SETTING

To select a setting simply use a finger to move the switches mounted on the front of the speaker to the desired setting (See Figure 7).

FREQUENCY SETTINGS

When selected the settings will have the following result:

-3db. : Reduces the loudness of the selected frequency (bass & treble).

0db. : The selected frequency (bass & treble) remains at neutral level.

+3db.: Increases the loudness of the selected frequency (bass & treble).

When adjusting the bass frequency the impedance will be effected as indicated below. Be sure to stay within the impedance guidelines of the amplifier you will be using to power your system.

-3db. : The impedance is 8ohm
0 db. : The impedance is 6ohm
+3db: The impedance is 4ohm

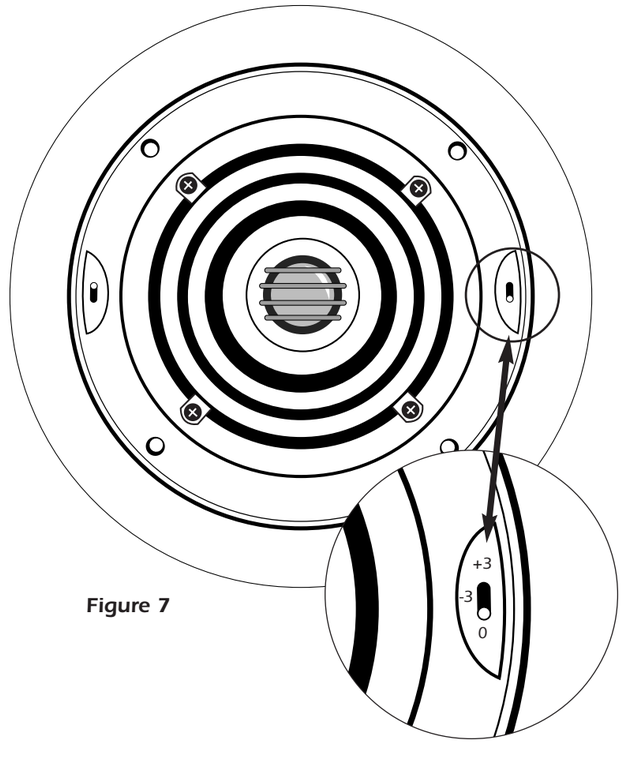


Figure 7

SPEAKER SPECIFICATIONS

	AIM™ FIVE
Speaker Type:	Fully Pivoting In-Ceiling
High Frequency Driver:	Independently pivoting 1" aluminum dome mounted onto SpeakerCraft's WavePlane.
Low Frequency Driver:	Independently pivoting and rotating 6 1/2" with aluminum cone with Butyl rubber surround, mounted in a assembly that allows the woofer to be pointed as desired.
Impedance:	8/6/4 depending on tap settings
Sensitivity:	88db
Frequency Adjustments:	Front mounted separate bass and treble switches that allow the bass and treble to be set at one of three positions, -3db, flat, +3db.
Frequency Response:	33Hz - 20kHz
Power Handling:	5-125 watts
Dimensions: Diameter:	11 15/16" Depth: 5 1/2"

In our attempt to constantly improve our products, features and specifications are subject to change without notice.

LIMITED LIFETIME WARRANTY

SpeakerCraft Inc. warrants to the original retail purchaser *only* that this SpeakerCraft product will be free from defects in materials and workmanship, provided the speaker was purchased from a SpeakerCraft Authorized Dealer.

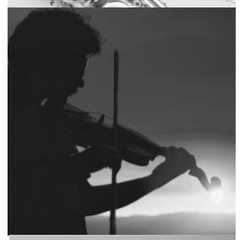
Defective products must be shipped, together with proof of purchase, prepaid insured to the SpeakerCraft Authorized Dealer from whom they were purchased, or to the SpeakerCraft factory at the address listed on this installation instruction manual. Freight collect shipments will be refused. It is preferable to ship this product in the original shipping container to lessen the chance of transit damage. In any case, the risk or loss or damage in transit is to be borne by the purchaser. If upon examination at the Factory or SpeakerCraft Authorized Dealer it is determined that the unit was defective in materials or workmanship at any time during this warranty period, SpeakerCraft or the SpeakerCraft Authorized Dealer will, at its option, repair or replace this product at no additional charge, except as set forth below. If this model is no longer available and can not be repaired effectively, SpeakerCraft, at its sole option may replace the unit with a current model of equal or greater value. In some cases where a new model is substituted, a modification to the mounting surface may be required. If mounting surface modification is required, SpeakerCraft assumes no responsibility or liability for such modification. All replaced parts and product become the property of SpeakerCraft Inc. Products replaced or repaired under this warranty will be returned to the original retail purchaser, within a reasonable time, freight prepaid.

This warranty does not include service or parts to repair damage caused by accident, disaster, misuse, abuse, negligence, inadequate packing or shipping procedures, commercial use, voltage inputs in excess of the rated maximum of the unit, or service, repair or modification of the product which has not been authorized or approved by SpeakerCraft. This warranty also excludes normal cosmetic deterioration caused by environmental conditions. This warranty will be void if the Serial number on the product has been removed, tampered with or defaced.

This warranty is in lieu of all other expressed warranties. If the product is defective in materials or workmanship as warranted above, the purchaser's sole remedy shall be repair or replacement as provided above. In no event will SpeakerCraft be liable for any incidental or consequential damages arising out of the use or inability to use the product, even if SpeakerCraft Inc. or a SpeakerCraft Inc. Authorized Dealer has been advised of the possibility of such damages, or for any claim by any other party. Some states do not allow the exclusion or limitation of consequential damages, so the above limitation and exclusion may not apply.
All implied warranties on the product are limited to the duration of this expressed warranty. Some states do not allow limitation on the length of an implied Warranty. If the original retail purchaser resides in such a state, this limitation does not apply.

SHOULD YOU HAVE ANY QUESTIONS REGARDING THIS, OR ANY OTHER SPEAKERCRAFT PRODUCT, PLEASE CALL OUR TOLL FREE SERVICE HOTLINE AT 1-800-448-0976. WE ARE AVAILABLE TO ASSIST YOU EVERY WEEK DAY, EXCEPT HOLIDAYS, BETWEEN THE HOURS OF 7:00AM AND 5:00PM (Pacific Time).

SpeakerCraft Inc. 1650 Seventh Street, Riverside, CA 92507 ▪ (800) 448-0976 ▪ FAX (909) 787-8747



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