

# OWNER'S MANUAL

## AIM7 MT In-Wall Speaker System

Congratulations on your purchase of SpeakerCraft "Mirror Image Technology" In-Wall Speakers. Your speakers are equipped with pivoting woofers and tweeters, which allow you to direct the sound toward or away from a listening area, and "Mirror Image Technology" in which the tweeters are mounted in an asymmetrical offset position to their baffles. This design minimizes diffraction and reflection effects for better stereo imaging than speakers with conventional center positioned tweeters. SpeakerCraft has a wide variety of accessories to compliment your Mirror Image Technology In-Wall Speakers. Contact your dealer or SpeakerCraft direct for more details.

### SPEAKER PLACEMENT

Best results are achieved when the left, right channel speakers are all the same distance away from the listener. The front left and right speakers should be placed so that they form an equilateral triangle, with the listener at one point and each speaker at the other two. (Figure 1) Ideal sound will be achieved when the tweeters are placed at ear level or slightly higher. If the speakers are positioned far away from the primary listening area, adjust the pivoting tweeters so they are pointed toward the primary listening area. NOTE: To avoid possible damage to the pivoting tweeters, read the section entitled "SPEAKER ADJUSTMENTS" in this manual prior to performing the tweeter adjustment.

### INSTALLATION CONSIDERATIONS

Before installing your speakers into the wall, you should consider the placement carefully, taking into account the location of electrical, plumbing and other fixtures. Contact your dealer for assistance if you are not sure of the best location in your particular room environment.

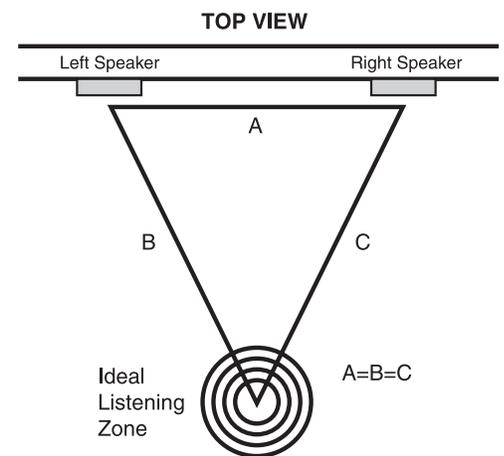


Figure 1

## MOUNTING SURFACE PREPARATION

### New Construction – Unfinished Walls

A New Construction Bracket (available from your dealer), may be installed prior to drywall application across studs (up to 24" on-center) where a speaker will be located. Insulation material should be in place prior to installing drywall. After the hole is cut and the drywall is installed, the speakers are then easily installed following the instructions for mounting in "Finished Walls" below.

### Finished Walls

Prior to the actual installation of the speakers, it will be necessary to run cables to the speaker locations. See your dealer for more information about cable installation. After the cable has been properly installed, you are ready to mount the speakers. Following the simple steps listed below will result in a professional looking installation:

1. Determine the best area to mount your speakers. This area of the wall should be free of obstructions such as electrical conduit, HVAC ducts, or water lines. This can best be determined by noting the placement of fixtures and gaining access to an attic or crawl space for further analysis of the location of such obstacles.
2. Find the studs nearest the desired speaker mounting location. We highly recommend using a good stud-finder tool for this procedure. If you are lining up the speakers to some other object or molding in the room, make sure you consider the size of the baffle flange which extends beyond the mounting hole on all four sides.
3. Mark the hole. A template for setting the hole is provided in the box (along with two paint mask inserts for use when painting). Position the template in the desired position and pencil an outline on the wall.
4. Cutting the hole. **CAUTION:** This is the most important part of the entire installation. If you are not certain whether any obstructions 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° angle towards the inside of the hole (Figure 2). 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 aren't any obstructions in your desired mounting location, start cutting the finished hole at a 90° angle to the wall surface.
5. Add insulation. If the area in the wall is not already insulated, add an adequate amount of insulation material to fill the wall cavity. If the insulation material used is faced with foil or paper, position the foil or paper away from the speaker.

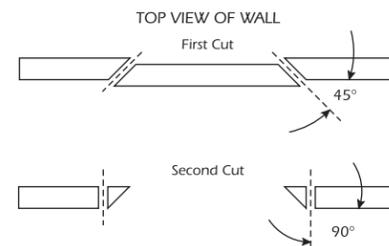


Figure 2

## SPEAKER INSTALLATION

The unique integral six foot mounting system incorporated into each AIM7 MT speaker allows for a quick installation by following these easy steps:

1. Remove the grille. 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 grille to force the grille 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 wall. Position the speaker into the hole. **NOTE:** The flange of the speaker is designed to flex and conform to any small imperfections in the wall's surface. Tighten the six screws on the front of the baffle only enough to make the flange become snug against the wall. As you tighten the screws, the feet will automatically flip into an outward position (Figure 3), thereby clamping the drywall between the feet and the flange. **CAUTION:** Over tightening may warp the baffle, crack the ceiling, cause flange to distort, and make the grille difficult to install.



Figure 3

## SPEAKER ADJUSTMENTS

### Pivoting Inner Baffle Adjustment

Your AIM7 MT Series speakers come from the factory with the inner baffles facing straight. This will result in the overall smoothest response. However, depending on your particular primary area, room acoustics, or personal preference, you may find the sound more pleasing by pointing the inner baffle in a particular direction. If additional sound is desired in the primary listening area, pivot the inner baffle towards that area; and if less sound is required, pivot the inner baffle away. Using both hands, push the ridged triangle areas located at each corner of the baffle to point it in the desired direction. (Figure 4).

### Pivoting Tweeter Adjustment

Your AIM7 MT Series speakers come from the factory with the tweeter facing straight out from the baffle. This will result in the overall smoothest response. However, depending on your particular primary area, room acoustics, or personal preference, you may find the sound more pleasing by pointing the tweeters in a particular direction. If additional treble is desired in the primary listening area, point the tweeter towards that area; and if less treble is required, point the tweeter away. Push gently at the edge of the tweeter to point it in the desired direction. (Figure 5) **CAUTION:** Avoid touching tweeter dome as damage WILL occur on metal dome tweeters (AIM7 MT 3,4 only).

For home theater use, we recommend the following tips:

- If the speakers are being used as main front channels, the AIM7 MT should be angled towards the listener.
- If the speakers are being used for rear surround channels, you may wish to pivot the AIM7 MT away from the listener to achieve a more diffused sound.

### Treble Adjustment (AIM7 MT 2,3,4):

The switch labeled TREBLE allows for 6dB of tweeter adjustment. Your speakers were shipped with the Treble switch in the "+" position, providing +3dB of treble. If you want less treble, slide the switch to the "-" position and the tweeter will play -3dB of treble. (Figure 6)

Remember that altering the impedance affects the number of speakers able to be driven by an amplifier. If multiple pairs of speakers are to be driven by one amplifier, SpeakerCraft suggests using the lowest output position (switch set to the "-" position) until it is determined that the amplifier will operate properly with the speakers switched to a higher output mode. If you want to safely operate multiple pairs of speakers, consider purchasing SpeakerCraft S4 or S8 Speaker Selectors.

4. Push the grille firmly into the slot in the speaker baffle.

## PAINTING THE SPEAKERS (OPTIONAL)

If you plan to paint your speakers, we recommend that it be done prior to installation. If you plan to paint your speakers sometime in the future, it is best to remove them by simply reversing the steps for "SPEAKER INSTALLATION" on page 2. If it is necessary to paint the speakers while they are still in the ceiling, the paint masks provided in the carton must be installed in place of the grille while the flange is being painted with the ceiling. The grilles 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. SpeakerCraft recommends only light spray painting using 5 parts thinning agent to 1 part paint. Do not paint the grilles while they are attached to the speaker. If it is necessary to paint the under grille material, follow the same procedure used to paint the grilles.

## AcoustaCell 8 SYSTEM

The AcoustaCell 8 System (P/N ASM87800), sold separately, is an option for retrofit installations. AcoustaCell dampens the wall cavity and improves AIM7 MT speaker performance. Installation can be easily done at the time you are ready to mount the AIM7 MT speakers. Please see the manual included with AcoustaCell 8 for installation instructions.



Figure 4

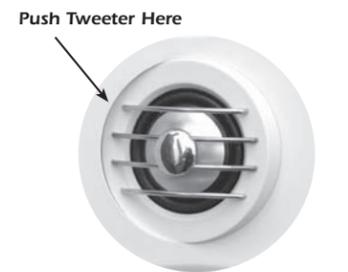


Figure 5



Figure 6

## SPEAKER SPECIFICATIONS

	AIM7 MT Four	AIM7 MT Three	AIM7 MT Two	AIM7 MT One
Speaker Type:	2-Way Pivoting In-Wall	2-Way Pivoting In-Wall	2-Way Pivoting In-Wall	2-Way Pivoting In-Wall
High Frequency Driver:	Independently pivoting 1" Aluminum Magnesium Dome Tweeter	Independently pivoting 1" Aluminum Dome Tweeter	Independently pivoting 1" Treated Silk Dome Tweeter	Independently pivoting 1" Treated Silk Dome Tweeter
Low Frequency Driver:	7" Aluminum /Magnesium Cone Woofer	7" Aluminum Cone Woofer	7" Resin Reinforced Fiberglass Cone Woofer	7" Polypropylene Cone Woofer
Impedance:	8/6 ohms depending on switch settings	8/6 ohms depending on switch settings	8 ohms	8 ohms
Sensitivity:	92dB 1W/1m	91dB 1W/1m	90dB 1W/1m	92dB 1W/1m
Frequency Adjustments:	Front mounted separate bass and treble switches that allow the bass and treble to be set at one of two positions: -3dB, +3dB.	Front mounted separate bass and treble switches that allow the bass and treble to be set at one of two positions: -3dB, +3dB.	Front mounted treble switch allows the treble to be set at one of two positions: -3dB, +3dB.	None
Frequency Response:	37Hz - 20kHz $\pm$ 3dB	40Hz - 20kHz $\pm$ 3dB	40Hz - 20kHz $\pm$ 3dB	40Hz - 20kHz $\pm$ 3dB
Power Recommendations:	5 - 150 watts (undistorted)	5 - 125 watts (undistorted)	5 - 125 watts (undistorted)	5 - 100 watts (undistorted)
Cut Out (H x W):	12 $\frac{3}{4}$ " x 8 $\frac{1}{8}$ "	12 $\frac{3}{4}$ " x 8 $\frac{1}{8}$ "	12 $\frac{3}{4}$ " x 8 $\frac{1}{8}$ "	12 $\frac{3}{4}$ " x 8 $\frac{1}{8}$ "
Dimensions (H x W x D):	14 $\frac{1}{2}$ "x 9 $\frac{7}{8}$ "x 4" (overall at full pivot)	14 $\frac{1}{2}$ " x 9 $\frac{7}{8}$ " x 4" (overall at full pivot)	14 $\frac{1}{2}$ " x 9 $\frac{7}{8}$ " x 4" (overall at full pivot)	14 $\frac{1}{2}$ " x 9 $\frac{7}{8}$ " x 4" (overall at full pivot)

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 of 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.



SpeakerCraft offers a variety of accessories to make your installation of this and other SpeakerCraft products easy, economical, and professional. Contact your authorized SpeakerCraft Dealer for more information.

For technical inquires, please call 1-800-448-0976 or e-mail us at [techsupport@speakercraft.com](mailto:techsupport@speakercraft.com). We are available to assist you every weekday, except holidays, between the hours of 7:00 a.m. and 5:00 p.m. PST.