

# SpeakerCraft

INSTALLATION/OWNERS MANUAL

## 8.1, 8.2 BAS

### BASS AUGMENTATION SYSTEM *high performance architectural subwoofer*

Congratulations on your purchase of SpeakerCraft BAS in-ceiling sub-woofers. The 8.1 and 8.2BAS have been designed with several unique features to help ensure that your installation will result in bottom line deep bass response. Both speakers have front adjustable switches for changing the speakers phase and crossover points. SpeakerCraft has a wide variety of accessories to compliment your BAS speaker installation, one of the accessories we highly recommend is Sound Enclosure 1410, it will drastically improve the response of your BAS speaker installation. Contact your dealer or SpeakerCraft direct for more details.

### SPEAKER PLACEMENT

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

**Placement in ceiling:** Before mounting your BAS speakers you should consider what affects the room (and the location of the speaker in that room) will have upon the amount of bass augmentation you would like to achieve. You may want to consider the location of the satellites as well since the same principles will apply to the bass from those speaker.

The music we hear as bass is made up of frequencies that have long to very long wavelengths (6ft. to 50ft.). Therefore when a speaker is placed into a room, its position in the room will affect the amount of bass perceived by the listener. In other words placing the speaker in some areas of a room will result in more bass than in other areas of the same room. The more surfaces (walls, ceilings, floors) a speaker is placed next too, the more bass you will hear. An in-wall/in-ceiling speaker mounted in the center of a wall (or ceiling) will gain 3 dB of bass if it is moved up the wall (across the ceiling) to where it is adjacent to the ceiling (wall). You can then gain 3dB additional bass by moving the speaker to the corner, where the intersection of three surfaces occurs.

The result is that a speaker placed in a corner will have up to 6dB more apparent bass than the same speaker mounted in the center of a wall or ceiling.

### MOUNTING SURFACE PREPARATION

#### NEW CONSTRUCTION - UNFINISHED CEILINGS

SpeakerCraft's InstaLLock™ new construction bracket stock #90681 (available from your dealer) may be installed prior to drywall installation across studs or joists (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 Ceilings".

#### FINISHED CEILINGS

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 on 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 ceiling 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/joists 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.
3. Mark the hole. A punch out template for setting the hole is provided in the box. Position the template in the desired position and pencil an outline on the wall or ceiling.
4. Cutting the hole. Caution: This is the most important part of the entire installation. If you are not certain that no 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, cutting

at a 45 degree angle towards the inside of the hole. (See Diagram 1)

Cutting the small hole at this angle will make drywall repair much easier, using the piece cut out. 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.

5. Add insulation. If the area in the Ceiling or wall is not already insulated, add an adequate amount insulation material to loosely cover the back of the speaker or 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.

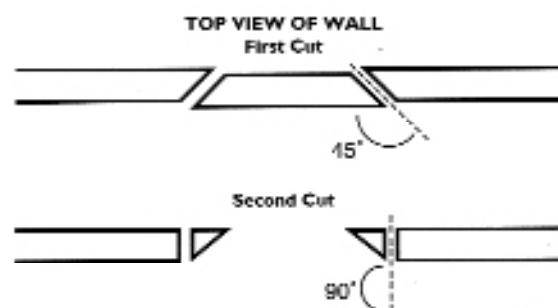


Diagram 1

## SPEAKER INSTALLATION

The unique integral 4 foot mounting system incorporated into your BAS Series 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 ceiling or 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 surface. Tighten the 4 screws on the front of the baffle only enough to make the flange become snug against the ceiling or wall. As you tighten the screws, the feet will automatically flip into an outward position thereby clamping the drywall between the feet and the flange. Caution: Over tightening may warp the baffle, crack the wall, cause the flange to distort, and make the grill difficult to install. (See Diagram 3)
5. Push the grille firmly into the slot in the speaker baffle.

## SPEAKER ADJUSTMENTS

Due to the fact that bass wave lengths are long and that the conditions in which BAS speakers are installed are not consistent, sometimes it may be required to reverse the Phase by adjusting the Phase switch on the front of the speaker baffle. This step of the installation is best accomplished by two people. The process is simple and easy to do. After the speakers have been installed, select a track of music which is a bassy. Leave the Phase switch in the position in which your speakers were shipped. Arrange yourself in a position so that the switch can be flipped. Have a person in the location of the room which will be your primary listening area listen to the music for a reasonable amount of time. Then flip the Phase switch to the other position while the track is still playing. The rest is up to you which ever position you preferred the music is the correct position for you. If you didn't notice a change at all then either position is correct.

### ADJUSTING THE CROSSOVER POINT ON YOUR SPEAKERS:

The low pass crossover switch allows you to adjust the upper point of the sub-woofers frequency response. For example, with the crossover point set at 801 Hz, the sub-woofer begins rolling off above this frequency. By using the two switches you should be able to come really close to matching BAS speakers to your main satellite speakers. If you are using 5" or 6" SpeakerCraft speakers you may want to set the low pass crossover at 120 Hz. If you are using 8" SpeakerCraft speakers you may find the 801 Hz setting sounds a little better. By using the adjustable crossover and phase circuitry you will be able to create a smooth sounding speaker system that will be tailored to work great in your particular environment. (See Diagram 2)

## PAINTING THE SPEAKERS

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 listed above. If it is necessary to paint the speakers while they are still in the wall, the paint masks provided in the carton must be installed in place of the grille while the flange is being painted with the wall. The

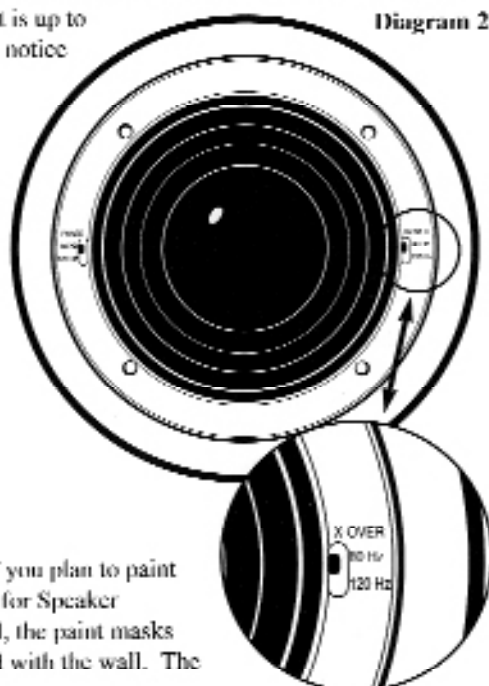
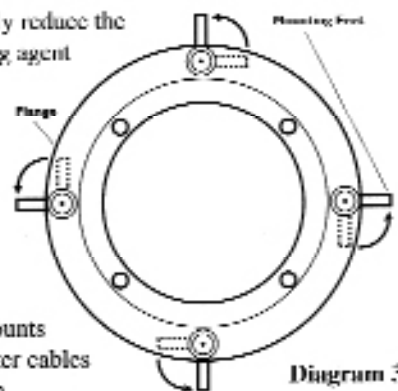


Diagram 2

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. 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.

### SPECIAL FIRE WALL INSTALLATION

If you plan to mount your speakers in a fire rated wall or ceiling, you should purchase a SpeakerCraft In-wall Fire wall Enclosure, style # SF1410. This metal enclosure designed to be used exclusively with SpeakerCraft speakers mounts easily between studs and contains an externally mounted push terminal to accept and secure the speaker cables in the wall, and a pair of internally mounted wires for easy hookup to your MIT Series speaker system.



### 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. However, this warranty will automatically terminate if the original retail purchaser sells or otherwise transfers the product to any other party.

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 products 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 shall terminate 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 THESE SPEAKERS AND OTHER SPEAKERCRAFT PRODUCTS EASY, ECONOMICAL, AND PROFESSIONAL. CONTACT YOUR AUTHORIZED SPEAKERCRAFT DEALER FOR MORE INFORMATION.

## SPEAKER SPECIFICATIONS

	<b>8.2BAS</b>	<b>8.1BAS</b>
Diameter x Depth	11 15/16" x 3 3/4"	11 15/16" x 3 3/4"
Cut Out Diameter	10 1/4"	10 1/4"
System Description	In-ceiling downward firing passive sub-woofer	In-ceiling downward firing passive sub-woofer
Driver Description	8"DVC woofer, IMG cone, butyl rubber surround, Kapton Voice coil	8"DVC woofer, Mica-filled polypropylene cone, butyl rubber surround
Impedance (nominal)	8 Ohms	8 Ohms
Sensitivity (1Watt/ 1Meter)	90dB	89dB
Frequency Response	30Hz to 120Hz or 30Hz to 80Hz	33Hz to 120Hz or 33Hz to 80Hz
Recommended Amplifier Power	5-100 Watts (undistorted)	5-100 Watts (undistorted)

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

SHOULD YOU HAVE ANY PROBLEMS OR QUESTIONS REGARDING THIS, OR ANY OTHER SPEAKERCRAFT PRODUCT, PLEASE CALL OUR TOLL FREE SERVICE HOTLINE @ 1-800-448-0976. WE ARE AVAILABLE TO ASSIST YOU EVERY WEEK DAY, EXCEPT HOLIDAYS, BETWEEN THE HOURS OF 8:00AM AND 4:00PM (Pacific Time).