ATON Technology in reach.™

Storm Series

In-Wall Speakers

A60W/A61W/A62W/A82W/A82SW

ATON STORM SERIES

www.atonhome.com

1. Introduction

ATON Thank you for choosing ATON Storm Series Outdoor speakers. All models were voiced in our sound labs by musicians with years of critical listening experience and crafted for your listening enjoyment. To see the complete line of ATON products, visit us online at ***www.atonhome.com***.

Storm Series All in-wall models feature 1" pivoting wave guide tweeters, excellent off-axis response, high power handling, custom driver materials, and network components that provide the best price/performance ratio in the industry.

Storm Series In-Wall Speakers are available in several configurations - for stereo or Home Theater listening, install two-way models like the A60W, A61W, A62W or A82W. For the bass enthusiast, install a pair of A82W 8" speakers for deep, rich, thumping bass at any volume level! Use A82SW In-Wall Passive Subwoofers for Low-Frequency Effects in a Home Theater. ATON In-Wall Speakers are rated for safe outdoor use, and can be installed on porches, sunrooms and decks to provide amazing sound outdoors, as well.

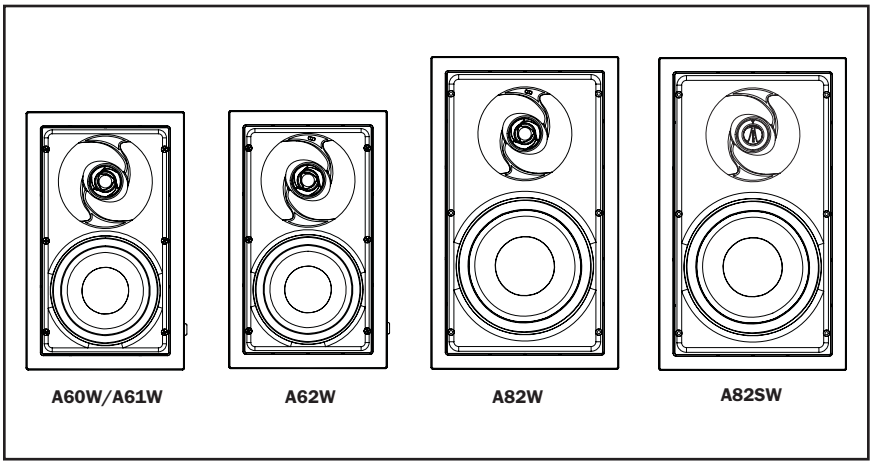

Figure 1.1 - Front View

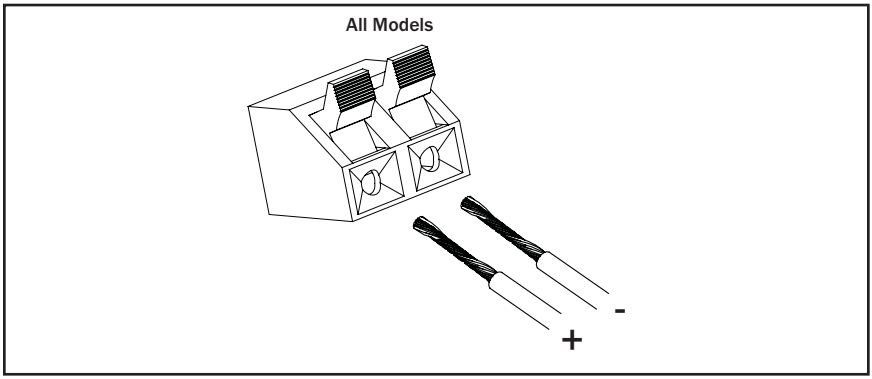

Figure 1.2 - Speaker Terminals

2. System Design/Applications

ATON In-Wall speakers are designed primarily to be installed in wall composed of drywall, but it is possible to install them in other materials. Prior to installation, it is essential to determine the type of application, and, therefore, the placement of the speakers in the wall. There are two typical applications that ATON In-Wall speakers will be used for: **Stereo** and **Home Theater**.

Stereo

In areas that have a defined listening area where two speakers will be mounted more or less equidistant from each other, use a stereo setup with left and right speakers each connected to their own channel of a stereo receiver or amplifier. This application provides the best sound quality, staging, and depth possible in areas with a defined listening position. ***Figure 2.1*** shows an example of a stereo listening area.

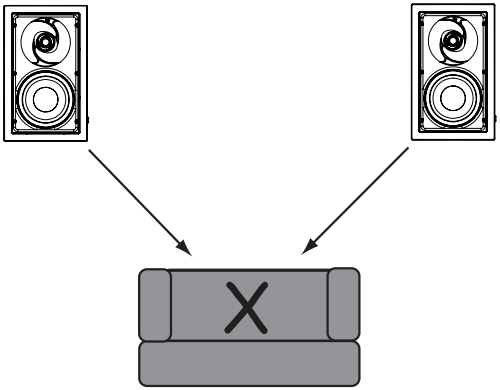

Figure 2.1 - Stereo Application

Home Theater

ATON IN-wall Speakers provide unobtrusive, high-quality Home Theater sound when installed in the correct locations. It is critical to identify the primary listening position before installation! See ***Figure 2.2*** for a system design utilizing in-wall speakers with an active subwoofer and ***Figure 2.3*** for a system design utilizing In-wall speakers and passive in-wall subwoofers (A82SW).

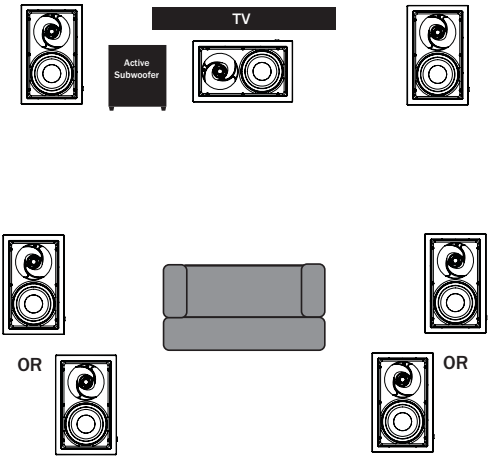

Figure 2.2 - 5.1 Home Theater Application w/ Active Subwoofer

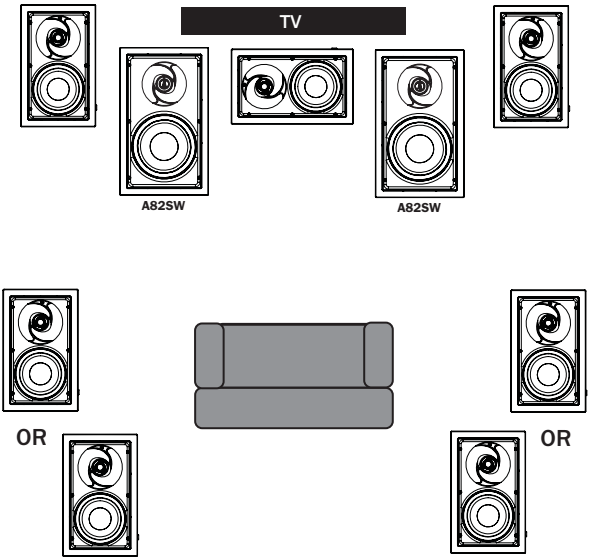

Figure 2.3 - 5.1 Home Theater Application w/ Passive Subwoofers (A82SW)

3. Installation

The Installation process is divided into three distinct processes: **Wiring**, **Mounting** and **Setting Switches**. After carefully considering the intended application (Defining a Listening Area, Mono/Stereo, Home Theater, etc.), specific mounting locations can be decided upon. Once the specific locations are determined, installation can commence.

Wiring

Before actually running any wire or cable, take the time to look around each room or area of the house and plan your wire paths for maximum efficiency. Look for routes through uncluttered parts of the stud wall or ceiling that allow you to group all low-voltage (video, speaker wires, Cat-5, telephone, etc.) wires wherever possible. It is a good practice to label both ends of all cables and to protect wires by tying a plastic bag over the ends.

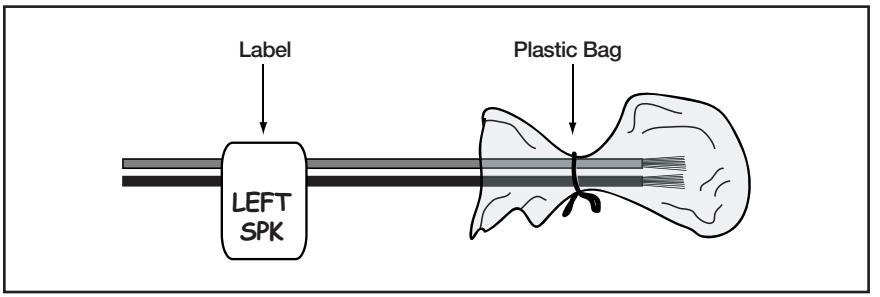

Figure 3.1 - Wiring Label & Plastic Bag

Wiring Methodology

There are three common scenarios for connecting speakers to an audio system. ***Figures 3.2*** to ***3.4*** show stereo pairs, ***Figure 3.5*** shows a Home Theater wiring scheme, and ***Figure 3.6*** shows passive subwoofer wiring. Figure 3-7 depicts the wiring method when using an A82SW Passive Subwoofer and two stereo speakers (Sub/Sat configuration).

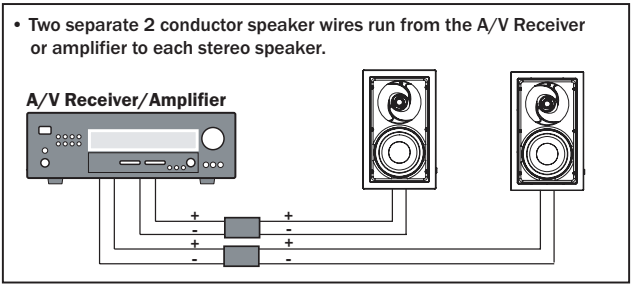

Figure 3.2 - Wiring: Amplifier to Speakers-2 Conductor Direct

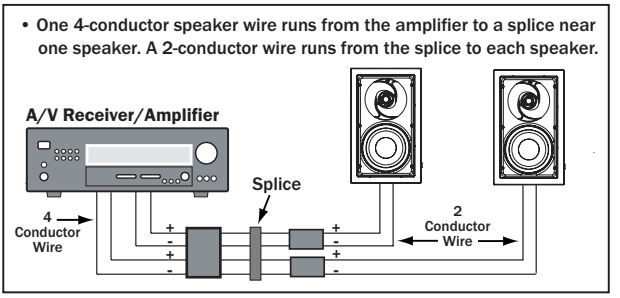

Figure 3.3 - Wiring: Amplifier to Speakers-4 Conuctor to 2 Conductor

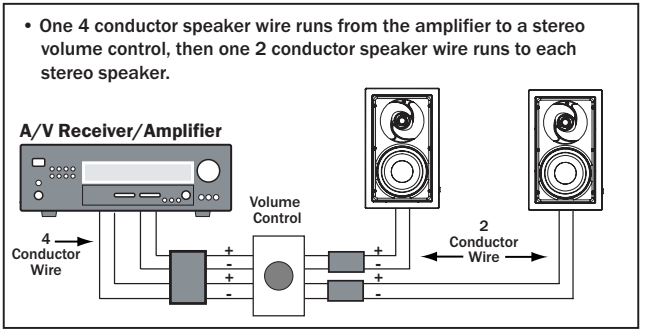

Figure 3.4 - Wiring: Amplifier to Speakers w/ Volume Control

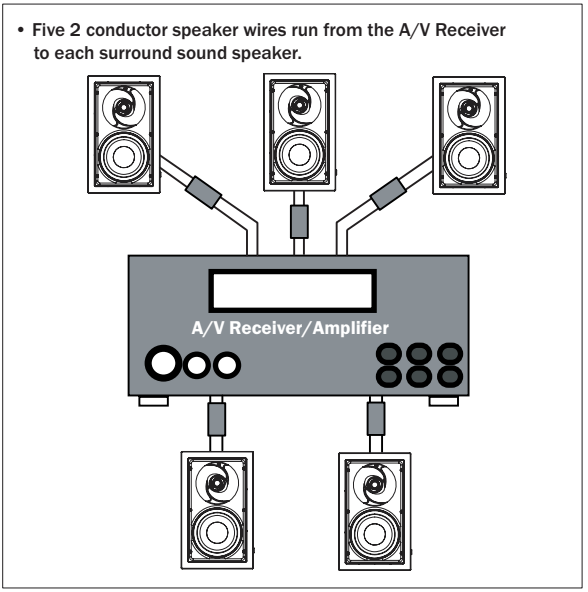

Figure 3.5 - Wiring: Amplifier to Speakers-Home Theater

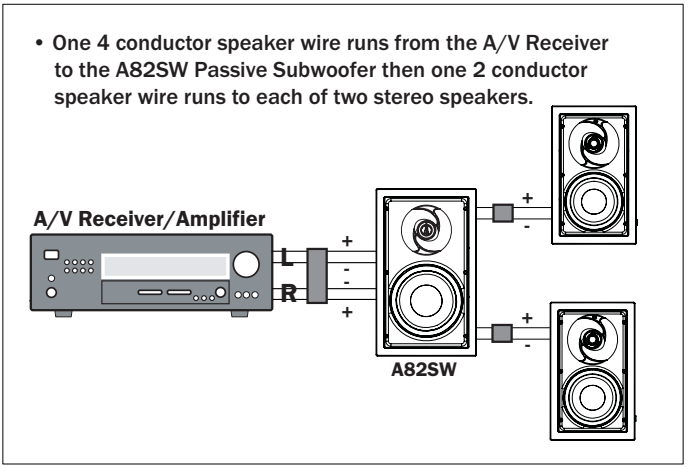

Figure 3.6 - Wiring: Amplifier to Speaker-Passive Subwoofer

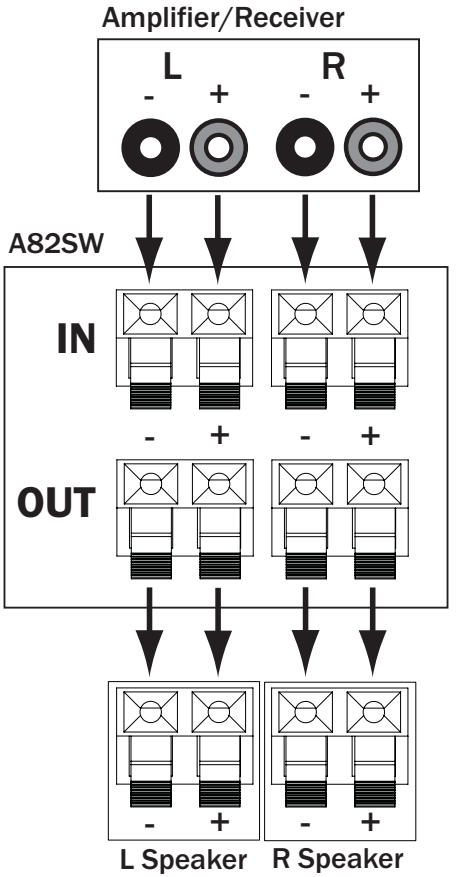

Figure 3.7 - Wiring: Amplifier to Subwoofer to Speakers-A82SW

Note 1: Low voltage wiring must be run in accordance with the National Electrical Code as well as any other applicable provisions of the local building codes in your area. In some cases (such as commercial installations), running the wire in conduit may be required. If you have any questions concerning the wiring of speakers in your home, contact your local building and inspection department.

Note 2: It is recommended that you use quality CL-2 or CL-3 rated stranded speaker wire when installing ATON speakers. Solid-core "Romex" type wire is not acceptable! Use at least 16AWG speaker wire for runs up to 100 feet, and at least 14 AWG speaker wire for runs up to 200 feet. If you must cross high-voltage lines, always do so at a 90 degree angle to avoid audible hum through the speakers!.

Note 3: When pre-wiring for In-wall speakers, it is essential to make direct wire runs from the head-end to each speaker. Do not run speaker wires in series or parallel, and do not "daisy-chain" speakers to common wiring.

Pre-Wiring

The audio/speaker cable runs should be routed from the head-end location (where the amplifier or A/V Receiver is located) to the speaker rough-in brackets (if used). At the speaker locations, securely fasten the speaker wire to the speaker rough-in bracket. If not using speaker rough-in brackets, staple speaker wire runs in a loose zigzag between the studs where the speaker is to be mounted to make it easier to find the cable after the drywall is installed. Zig-zagging the cable also allows flexibility in the placement of the speaker.

Note: Do not run speaker wires closer than 12" from high voltage wires.

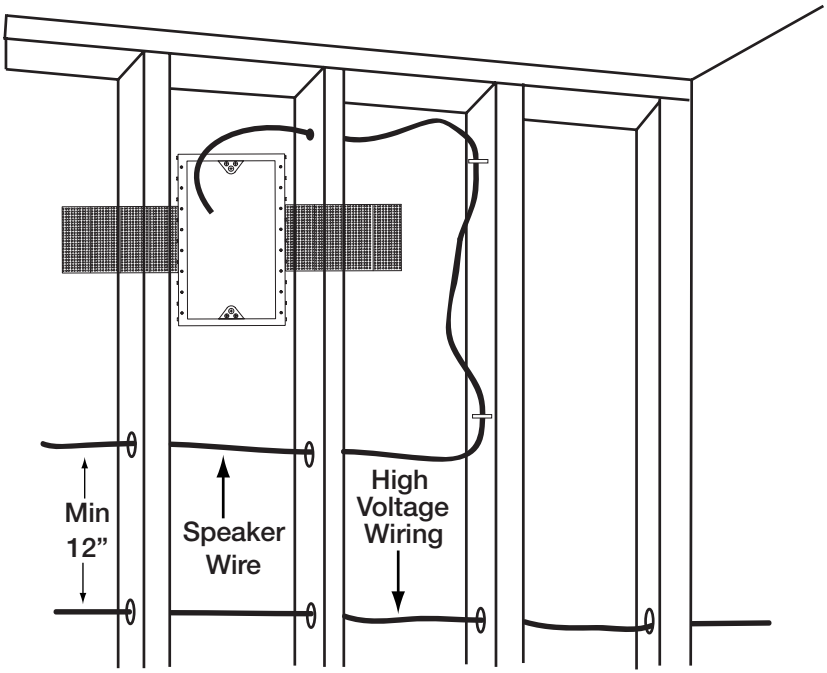

Figure 3.8 - Pre-Wiring

Mounting

Two situations that can exist when mounting In-wall speakers:

- **Pre-Construction -** Installations that occur in new homes being built and in remodel situations where walls and/or ceilings will be exposed.
- **Retro-Fit -** Installation that involve existing homes with walls and ceilings finished.

While the end result of either type of installation is similar, the process is quite different.

Pre-Construction

In a pre-construction installation, walls and ceilings are open with no drywall installed. This is desirable and allows the installer much greater access than in retro-fit applications. ATON model BK6W Rough-In Brackets are specifically designed to work with models A60W, A61W and A62W while model BK8W Rough-In Brackets are designed to work with A82W and A82SW speakers. Rough-in Brackets should be used whenever possible to reserve a neat hole in the drywall, ensuring proper placement of speakers and making trim-out and final installation neat and organized.

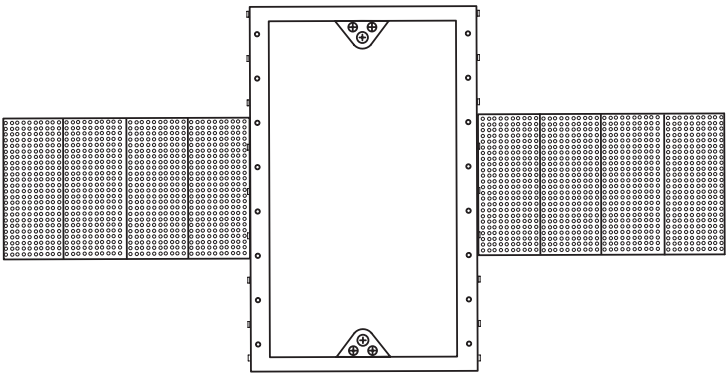

Figure 3.9 - Rough-In Bracket

Mounting Rough-In Brackets

Once the mounting locations are decided upon, assemble the brackets and secure them to the ceiling joists using flat-head screws or heavy-duty staples (see the *ATON Ceiling/In-Wall Rough-In Brackets Manual* for detailed steps).

Retro-Fit

Retro-fit installations are more difficult to complete than pre-construction because walls and ceilings are intact. Typically wires must be fished into position through walls, floors and ceilings. Holes must be cut and speakers mounted directly in the wall with no rough-in brackets.

Note: Before cutting holes in any existing wall or ceiling surface, probe the cavity behind each speaker's installation location for obstructions!

Cutting Speaker Openings in Walls (No Rough-in Brackets)

1. Use a stud finder to locate the studs around the intended speaker location.

   Note: A stud-finding device may not detect pipes, wiring, or other obstructions located behind the drywall.

2. Use the inside portion of the speaker cutout template (included in packaging) to confirm speaker placement.
3. Remove templates and drill or carefully punch a pilot hole in the wall. A bent piece of wire or a coat hanger may be use to probe the stud bay for obstructions. If you experience resistance of any kind–STOP! If any obstructions are detected, patch the pilot hole and try again in another location.

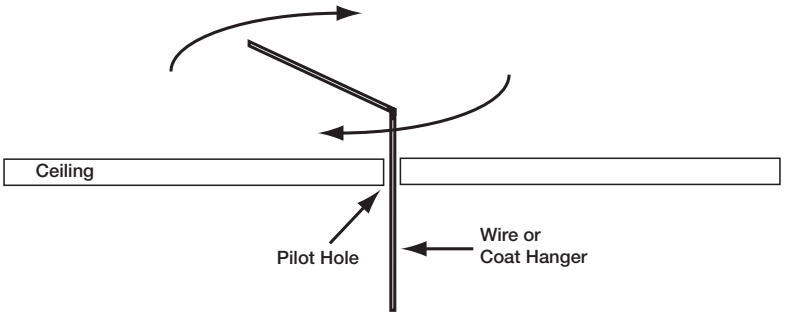

Figure 3.10 -Probe Stud Bay Before Cutting!

4. Once it has been determined that the cavity is free from obstructions, position the cutout template and use a pencil to lightly trace the perimeter of the template.
5. Cut the opening using a keyhole saw, drywall router, or razor knife.

Mounting Speakers in Wall (Pre-Construction or Retro-Fit)

1. Remove speaker grille and place speaker face down.
2. Locate the speaker wire and pull through the wall opening.
3. Connect the speaker wire. **BE SURE TO OBSERVE CORRECT POLARITY!**
4. Insert the speaker into the opening in the wall (or Rough-in Bracket opening) and *carefully* tighten each of the six clamping screws, alternating diagonally between each screw position to ensure proper fit.
5. Aim the pivoting tweeter at the listening area.
7. Set the **Treble** or **XOVER** switch if applicable. See ***Setting Switches*** for details.
8. Replace the speaker grille.

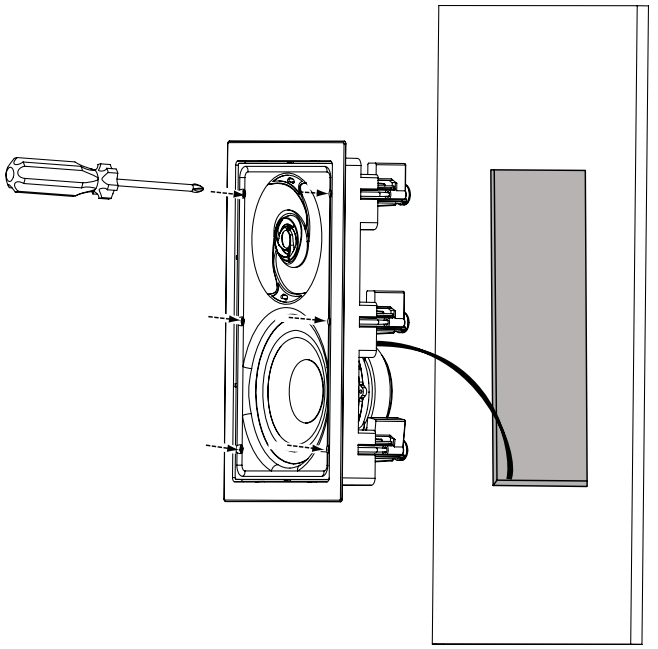

Figure 3.11 -Mounting Speakers In Wall

Setting Switches

A62W/A82W TREBLE Switch

Once the speakers are wired, mounted, and positioned correctly, use the **TREBLE** switch (if applicable) to fine-tune the speakers based on local environmental variables such as hardwood floors, thick draperies, etc. Select the "**+**" position to increase Treble response or select the "**-**" position if no increase is desired.

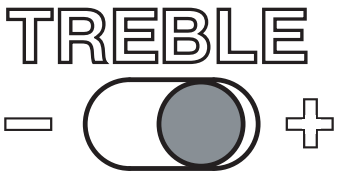

Figure 3.12 -TREBLE Switch

A82SW XOVER SWITCH

The Crossover switch adjusts the upper frequency limit of sound that emanates from the subwoofer. This switch has three positions: 80Hz, 120Hz, and 180Hz. Correctly setting the XOVER level is paramount to a smooth transition between the main speakers and the subwoofer. Setting this switch too low causes a gap to occur in the audio that makes the main speakers seem disconnected from the bass, an audible separation of sound that does not seem natural. Setting the switch too high causes bass to be produced too strongly because of overlapping frequencies between the main speakers and subwwoofer. This causes a "muddy" sound and reduces the overall clarity of the audio.

It is important to experiment with the XOVER switch upon initial setup to obtain the clearest, smoothest sound possible. Try all three settings, and leave the switch in the location it sounds best. See ***Figure 3-13***.

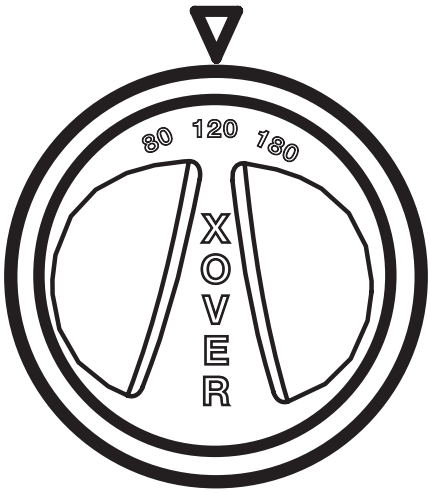

Figure 3.13 -XOVER Switch

4. Specifications

A60W

System Type	2-Way
Woofer	6-1/2" Polypropylene
Tweeter	1" Pivoting Mylar
Crossover	6dB/Octave
Impedance	8 Ohms
Sensitivity	90dB
Frequency Response	45Hz to 20kHz
Power Handling	75 Watts
Cutout Dimensions	7-1/8" x 12-1/4" (181mm x 311mm)
Outer Frame Dimensions	8-5/8" x 13-13/16" (218mm x 351mm)
Mounting Depth	3-5/16" (83mm)
Pre-Construction Bracket	BK6W

A61W

System Type	2-Way
Woofer	6-1/2" Polypropylene
Tweeter	1" Pivoting Silk Dome
Crossover	6dB/Octave
Impedance	8 Ohms
Sensitivity	91dB
Frequency Response	36Hz to 20kHz
Power Handling	100 Watts
Cutout Dimensions	7-1/8" x 12-1/4" (181mm x 311mm)
Outer Frame Dimensions	8-5/8" x 13-13/16" (218mm x 351mm)
Mounting Depth	3-3/4" (94mm)
Pre-Construction Bracket	BK6W

A62W

System Type	2-Way
Woofer	6-1/2" Injection Molded Graphite (IMG)
Tweeter	1" Pivoting Aluminum
Crossover	12dB/Octave
Switches	2 Position Treble
Impedance	8 Ohms
Sensitivity	91dB
Frequency Response	34Hz to 20kHz
Power Handling	115 Watts
Cutout Dimensions	7-1/8" x 12-1/4" (181mm x 311mm)
Outer Frame Dimensions	8-5/8" x 13-13/16" (218mm x 351mm)
Mounting Depth	3-3/4" (94mm)
Pre-Construction Bracket	BK6W

A82W

System Type	2-Way
Woofer	8" Injection Molded graphite (IMG)
Tweeter	1" Pivoting Aluminum
Crossover	12dB/Octave
Switches	2 Position Treble
Impedance	8 Ohms
Sensitivity	92dB
Frequency Response	30Hz to 22kHz
Power Handling	150 Watts
Cutout Dimensions	8-5/8" x 15-3/16" (219mm x 386mm)
Outer Frame Dimensions	10-1/8" x 16-11/16" (257mm x 424mm)
Mounting Depth	4" (101mm)
Pre-Construction Bracket	BK8W

A82SW

System Type	Subwoofer
Woofer	8" Injection Molded graphite (IMG)
Crossover	High Pass to Satellite Switches
Switches	80/120/180 LPF Selection
Impedance	8 Ohms
Sensitivity	93dB
Frequency Response	20Hz to 200Hz
Power Handling	200 Watts
Cutout Dimensions	8-5/8" x 15-3/16" (219mm x 386mm)
Outer Frame Dimensions	10-1/8" x 16-11/16" (257mm x 424mm)
Mounting Depth	4" (101mm)
Pre-Construction Bracket	BK8W

Notes:

Limited Lifetime Warranty

ATON warrants to the purchaser/end user ("you") that all Storm Series Speakers are to be free from defects in materials and workmanship. This warranty is transferable to subsequent owners of the product as long as the original proof of purchase is retained. If you discover a defect in material or workmanship, you can obtain warranty service by contacting ATON at (859)-422-7137 or service@atonhome.com. If ATON determines that the product is in fact defective, ATON shall, at its option, repair or replace the product free of charge to you. This warranty shall not apply (a) to equipment not manufactured by ATON, (b) to equipment which was improperly installed, (c) which was repaired or altered by others than ATON, or its authorized representatives or subject to unauthorized tampering, alteration, or modification, (d) damaged due to misuse, negligence, accident, acts of God (including, but not limited to, excess moisture, insects, lightning, flood, electrical surge, tornado, earthquake, or other catastrophic events beyond ATON's control), or (e) subject to improper operation, maintenance or storage, or unreasonable use. The foregoing warranties do not cover reimbursement for labor, transportation, removal, installation or other expenses which may be incurred in connection with repair or replacement. The foregoing remedies shall be your exclusive remedies for any breach of warranty. Further, the foregoing warranty does not extend to equipment sold, but not manufactured by, ATON ("Third Party Products"). With respect to any Third Party Products, the warranty for such product shall be as provided by the manufacturer of such product, who will also be responsible for warranty service, and ATON will pass through to you any transferable warranty actually extended to ATON by the manufacturer.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESSED AND IMPLIED WARRANTIES. ATON EXPRESSLY DISCLAIMS ALL SUCH OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. Notwithstanding the above, where applicable, if you qualify as a "consumer" under the Magnuson-Moss Warranty Act, then you may be entitled to any implied warranties allowed by law for the Warranty Period. Some states do not allow limitations on how long an implied Limited Warranty lasts, so the above limitation may not apply to you.

ATTENTION: TO OUR VALUED CONSUMERS
Valid proof of purchase is required for all warranty services. Warranty service requests made without proof of date of purchase will be denied. Please keep the original sales receipt for your records and send a copy to request warranty service. This warranty gives you specific legal rights, and you may also have other rights which vary state to state.
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