

Architectural Series™

BPS-1 IN-CEILING SUBWOOFER INSTALLATION MANUAL



Introduction

Congratulations on your purchase of the Sonance® Architectural Series™ BPS-1 Bandpass Subwoofer System. The BPS-1 system will add deep, powerful bass impact to any audio system that includes Sonance Architectural Series speakers. The BPS-1 cabinet remains completely hidden from view, delivering its bass energy through a Sonance Architectural Series Panel Bracket and Architectural Finish Component that is a discreet complement to the surrounding architectural space.

The complete BPS-1 Bandpass Subwoofer System is comprised of a BPS-1 bandpass subwoofer cabinet, an Adaptor Baffle, a dedicated Sonamp® A150 power amplifier, an Architectural Series Panel Bracket and an Architectural Finish Component, all of which are available separately.

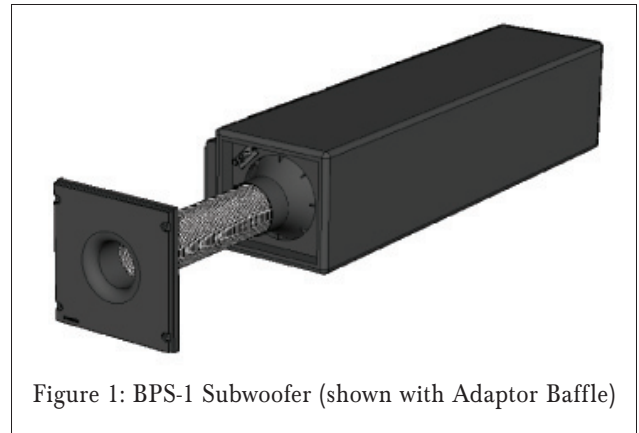


Figure 1: BPS-1 Subwoofer (shown with Adaptor Baffle)

Design and Features

- Delivers powerful, room-filling bass through a small grille that complements the room's architectural design.
- Trimless and truly flush-mount installation — the plane of the subwoofer grille is perfectly aligned with the plane of the ceiling.
- Available Adaptor Baffles allow the BPS-1 to be used with any size round or square Architectural Series Panel Bracket (even 4") to match other Architectural Series speakers in the audio system.
- The 8" woofer driver features a felted paper cone with a rubber surround that should provide years of reliable high-power operation. This allows the BPS-1 to be installed in a location that will have limited or no access.
- The very efficient 4th-order bandpass enclosure produces high output over the subwoofer's entire frequency range.
- Adaptor Baffles are heavily flared to minimize port noise during high-volume passages.
- The BPS-1 can be used with any separately available Architectural Series Finish Component: metal (with or without trim) or cloth (with or without trim).
- Sonamp A150 power amplifier (required, available separately) delivers 150 watts of power and provides flexible connections that integrate the BPS-1 system into any audio system. A built-in limiter prevents overdriving the BPS-1's woofer driver, even when using a single A150 to drive two BPS-1 subwoofer cabinets.
- Front-panel amplifier controls (volume, crossover frequency, phase) let you fine-tune the woofer's performance to match a variety of listening environments and personal preferences.

Box Contents

- (1) BPS-1 Subwoofer Cabinet (with vent tube attached)
- (8) 5/16" x 2" Lag Screws (for attachment to I-joists)
- (8) 5/16" x 3" Lag Screws (for attachment to standard joists)
- (2) Temporary Installation Brackets
- (1) Mounting Hole Drilling Template

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Installing the BPS-1 Cabinet In New Construction

WARNING

DO NOT ATTACH THE BPS-1 TO AN I-JOIST THAT HAS NOT BEEN ADEQUATELY BRACED. DOING SO CAN CAUSE COLLAPSE, RESULTING IN INJURY OR DEATH. CONSULT WITH THE JOB'S GENERAL CONTRACTOR BEFORE ATTACHING THE BPS-1 TO AN I-JOIST.

1. Determine the location for the Architectural Series Panel Bracket/Grille and install it according to its instruction manual.
2. Determine the location for the BPS-1 cabinet.

IMPORTANT: THE CENTER OF PANEL BRACKET'S SPEAKER OPENING SHOULD BE APPROXIMATELY 12" FROM VENT TUBE END OF BPS-1 ENCLOSURE (SEE FIGURE 2). MAINTAINING THE VENT TUBE'S PROPER LENGTH IS INTEGRAL TO THE BPS-1'S ACOUSTIC PERFORMANCE. LENGTHENING OR SHORTENING THE VENT TUBE TO FIT A DIFFERENT DISTANCE WILL ADVERSELY AFFECT THE BPS-1'S PERFORMANCE.

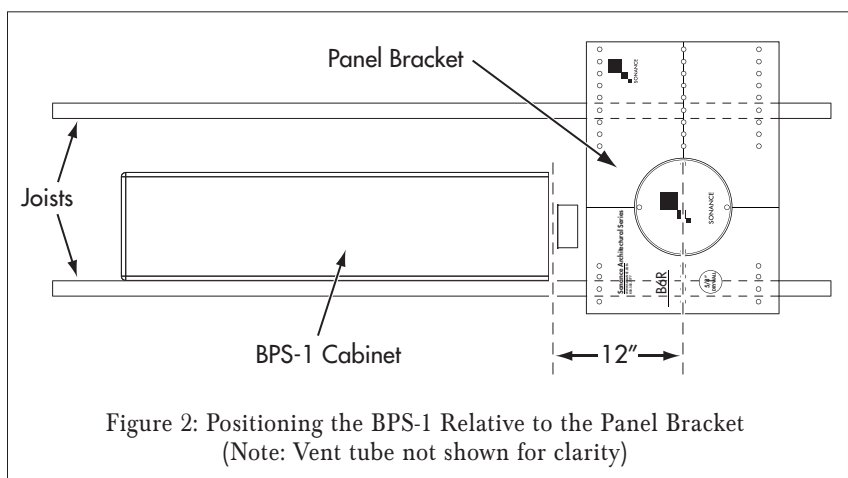


Figure 2: Positioning the BPS-1 Relative to the Panel Bracket
(Note: Vent tube not shown for clarity)

2. Attach the included Mounting Hole Drilling Template to the ceiling joist at the BPS-1 mounting location (see Figure 3). Make sure that the template is placed high enough so the BPS-1 cabinet will not contact the ceiling material after installation. (Contact can cause buzzing during operation.)
3. Drill eight $\frac{5}{16}$ " holes through the joist at the locations indicated on the Drilling Template (see Figure 3).
4. Screw the two Temporary Installation Brackets across the underside of the joist bay at the locations indicated on the Drilling Template (see Figure 4). The Temporary Brackets have two sets of pre-drilled holes: One for 24" center-to-center joist spacing, and another for 16" center-to-center joist spacing.

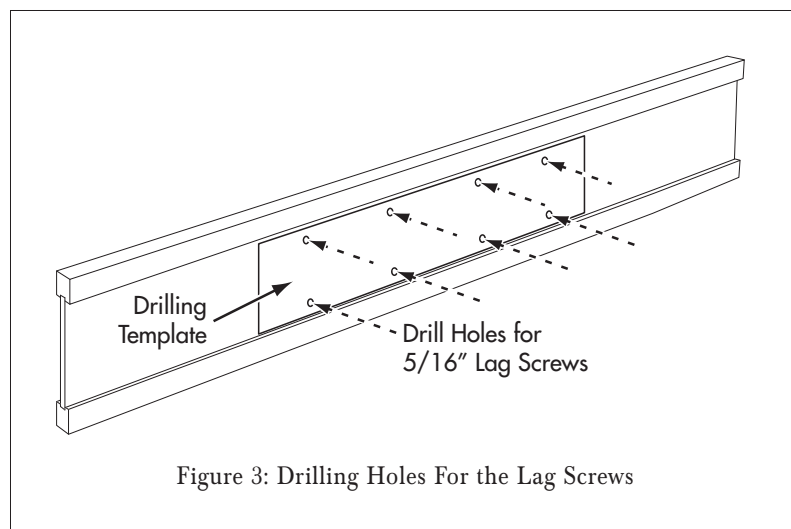


Figure 3: Drilling Holes For the Lag Screws

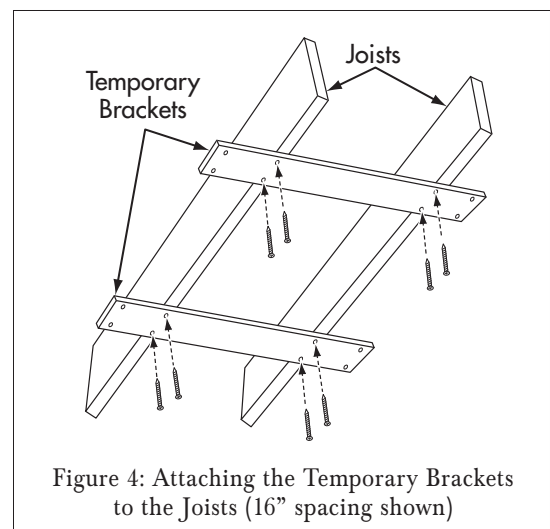


Figure 4: Attaching the Temporary Brackets to the Joists (16" spacing shown)

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NOTE: DO NOT USE NAILS TO ATTACH THE TEMPORARY BRACKETS — THEY WILL BE REMOVED AFTER THE BPS-1 CABINET IS ATTACHED TO THE JOIST.

5. Remove the Drilling Template from the joist.
6. Place the BPS-1 cabinet on the temporary brackets, aligning its mounting holes with the holes drilled through the joist. (Insert shims underneath the cabinet as necessary to bring its mounting holes in alignment with the holes drilled in the joist.)
7. Screw the eight included lag screws through the holes in the joist and into the holes in the side of the BPS-1 cabinet, as shown in *Figure 5*. Use the shorter lag screws for I-joist construction; use the longer lag screws for standard joist construction.
8. After confirming that the BPS-1 cabinet is securely attached to the joist, remove the temporary brackets from the underside of the joists.

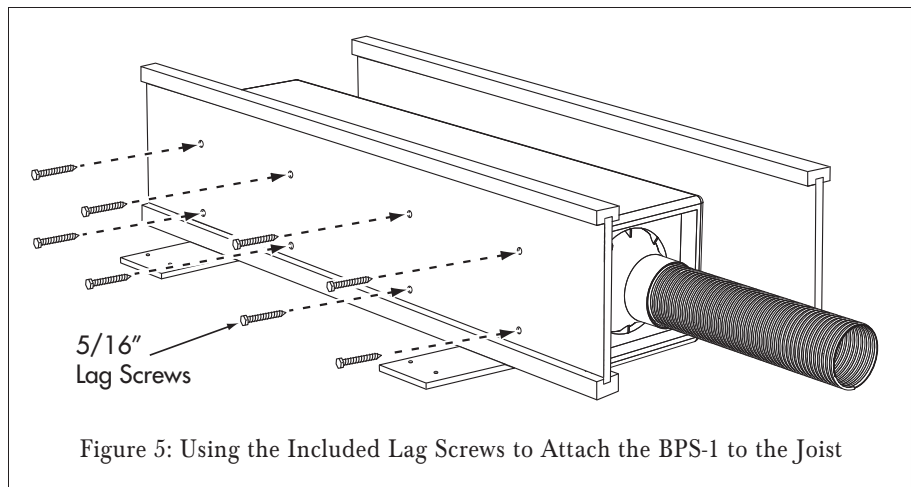


Figure 5: Using the Included Lag Screws to Attach the BPS-1 to the Joist

Selecting the Proper Adaptor Baffle

Sonance has BPS-1 Adaptor Baffles available that mate the BPS-1 to every size round and square Architectural Series panel bracket. The Adaptor Baffles provide proper acoustic performance without creating port noise or buzzing during operation.

Select the Adaptor Baffle that fits the particular size and shape Architectural Series Panel Bracket you installed. BPC8R/S fit 8" Panel Brackets, BPC6R/S fit 6" Panel Brackets, BPS4R/S fit 4" Panel Brackets (see *Figure 6*).

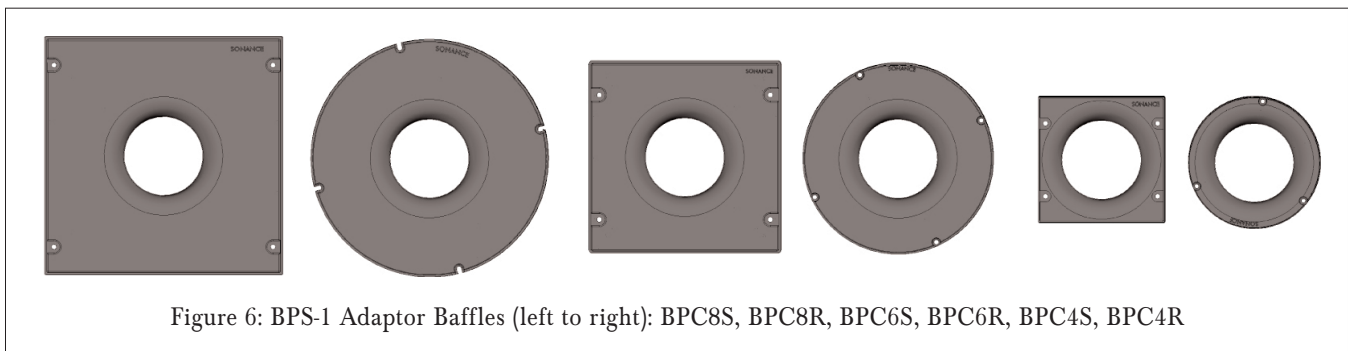


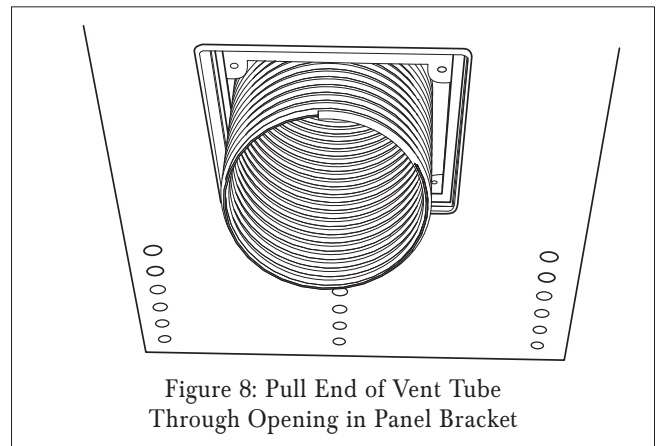
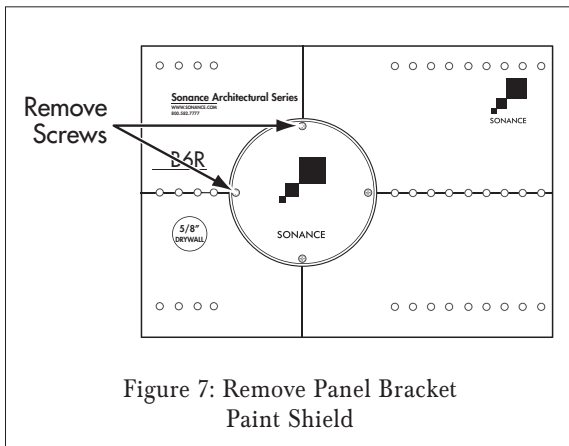
Figure 6: BPS-1 Adaptor Baffles (left to right): BPC8S, BPC8R, BPC6S, BPC6R, BPC4S, BPC4R

The Adaptor Baffles include Allen screws, an Allen wrench and Loctite.

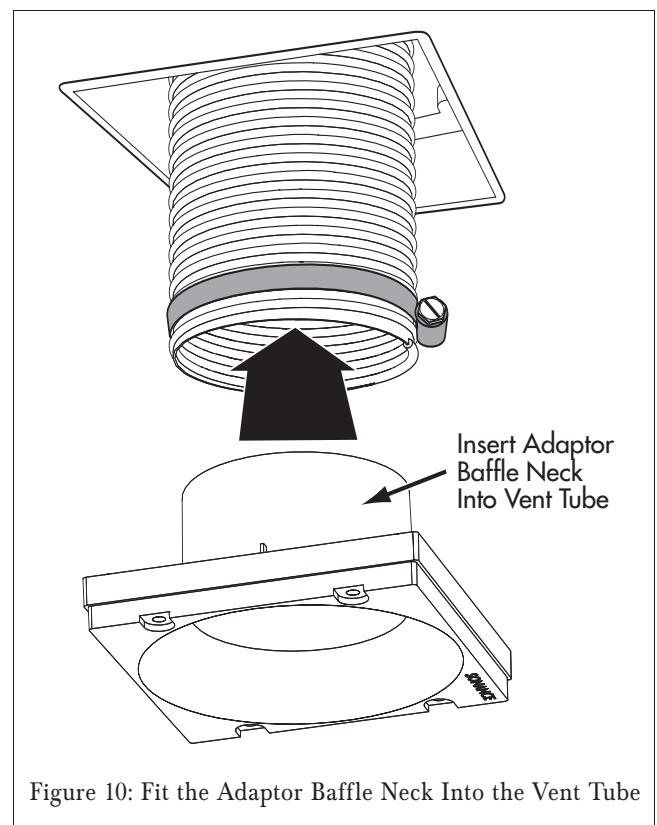
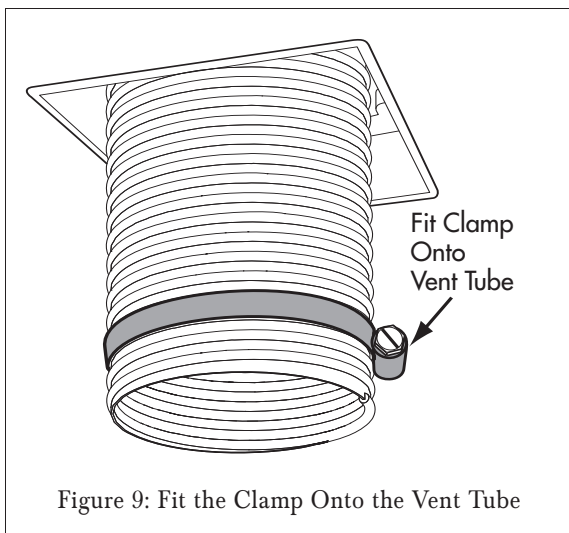


Connecting the Vent Tube and Adaptor Baffle

1. Use a Phillips screwdriver to remove the four screws that attach the paint shield to the Architectural Series Panel Bracket (see *Figure 7*).
2. Feed several inches of the Vent Tube through the Panel Bracket's speaker opening (see *Figure 8*).



3. Fit the Vent Tube Clamp (included with the Adaptor Baffle) loosely around the vent tube (see *Figure 9*).
4. Insert the Adaptor Baffle's neck into the Vent Tube opening (see *Figure 10*).



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5. Make sure the Vent Tube Clamp is positioned around the neck of the Adaptor Baffle and tighten the clamp to secure the Vent Tube around the neck of the Adaptor Baffle.
6. After confirming that the Vent Tube is securely fastened around the neck of the Adaptor Baffle, push the Adaptor Baffle into the Panel Bracket speaker opening.
7. Use the hardware included with the Adaptor Baffle to attach it to the Panel Bracket (see *Figure 11*):
 - a) Apply a drop of Loctite to each hex screw.
 - b) Use the hex wrench included with the Adaptor Baffle to hand-tighten the hex screws and secure the Adaptor Baffle to the Panel Bracket.

NOTE: THE INCLUDED LOCKTITE IS REQUIRED TO PREVENT THE HEX SCREWS FROM COMING LOOSE DURING OPERATION

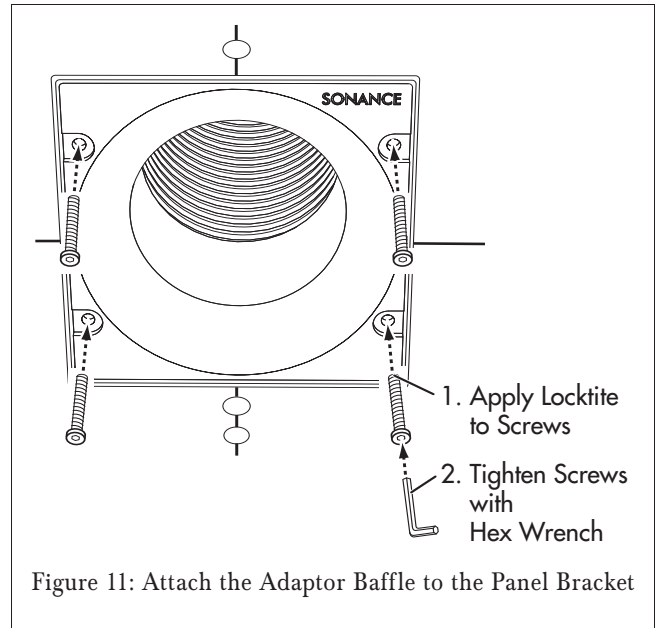


Figure 11: Attach the Adaptor Baffle to the Panel Bracket

VERY IMPORTANT

USE ONLY THE SUPPLIED HAND-HELD HEX WRENCH TO ATTACH THE ADAPTOR BAFFLE.

DO NOT USE AN ELECTRIC SCREWDRIVER OR DRILL.

NEVER OVER-TIGHTEN THE ADAPTOR BAFFLE MOUNTING SCREWS. OVER-TIGHTENING THE SCREWS CAN FRACTURE THE BRACKET ASSEMBLY. THIS TYPE OF DAMAGE IS NOT COVERED BY THE ARCHITECTURAL SERIES PANEL BRACKET WARRANTY.

Speaker Connections

IMPORTANT: THE BPS-1 IS SPECIFICALLY DESIGNED FOR USE WITH THE SONAMP A150 AMPLIFIER, WHICH HAS LIMITER CIRCUITRY THAT PREVENTS THE BPS-1'S WOOFER DRIVER FROM BEING DAMAGED BY AMPLIFIER CLIPPING. USE OF ANY OTHER POWER AMPLIFIER WITH THE BPS-1 COULD RESULT IN DAMAGE TO THE WOOFER AND WILL VOID THE BPS-1'S WARRANTY.

1. Run the speaker wire from the A150 amplifier to the BPS-1 cabinet.

NOTE: REFER TO THE A150 INSTRUCTION MANUAL FOR INFORMATION ABOUT AMPLIFIER CONNECTIONS.

2. Pass the speaker wire through the BPS-1's built-in wire tie, and route the wire's end to the speaker connector panel (see *Figure 12*).

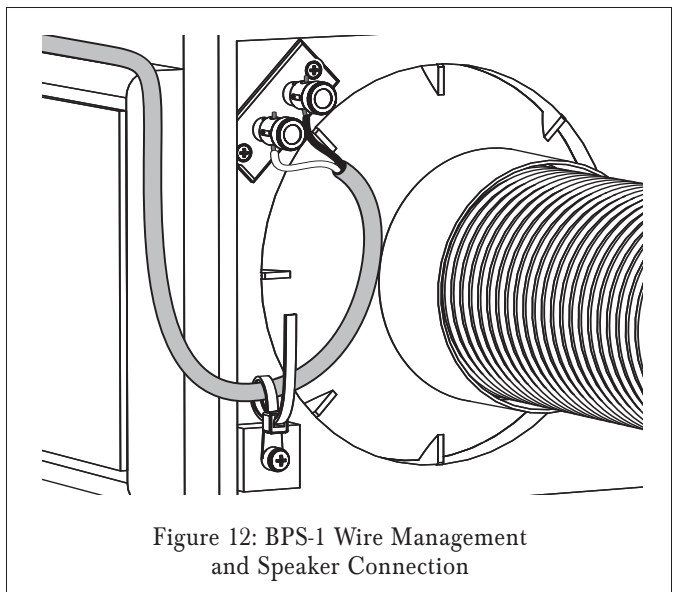


Figure 12: BPS-1 Wire Management and Speaker Connection

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- Strip $\frac{1}{4}$ " – $\frac{1}{2}$ " 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.)
- The speaker's positive connector post is labeled with a red dot; the negative post is labeled with a black dot (see *Figure 13*). Push the top of each connector post down to open the connector and insert the exposed wires into the holes in the posts. Double-check that you connected amplifier "+" to speaker "+" and amplifier "-" to speaker "-".
- Once you have verified that the connections are correct, tighten the wire tie to secure the speaker cable to the BPS-1 cabinet. This will help prevent the speaker from being accidentally disconnected in the future.

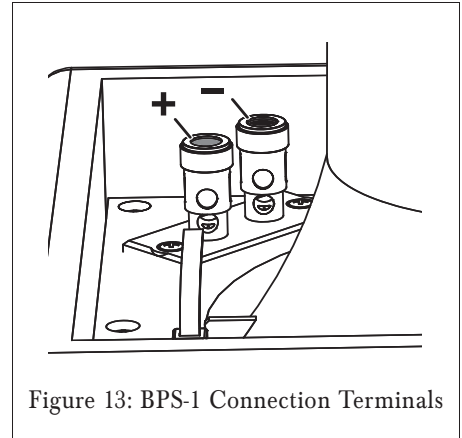


Figure 13: BPS-1 Connection Terminals

Installing the Architectural Finish Component

The Architectural Finish Component is installed after the ceiling is drywalled, finished and painted.

NOTE: FOR PAINTING INFORMATION, REFER TO THE INSTRUCTION MANUAL INCLUDED WITH THE ARCHITECTURAL FINISH COMPONENT.

- The foam-tape covered rim on the back of the Finish Component inserts into the groove around the outer edge of the Adaptor Baffle. See *Figure 14*.
- Insert about half of the Architectural Finish Component rim into the groove on the Adaptor Baffle. Gently fit the remaining half of the rim by working around the Baffle, fitting the rim into the groove as you go.

NOTE: FOR A PROPER INSTALLATION THE FOAM TAPE SHOULD FIT SECURELY AND CONSISTENTLY INTO THE GROOVE IN THE BAFFLE WITHOUT BINDING. IF NECESSARY, LIGHTLY LUBRICATE THE FOAM TAPE WITH WATER TO EASE INSERTION.

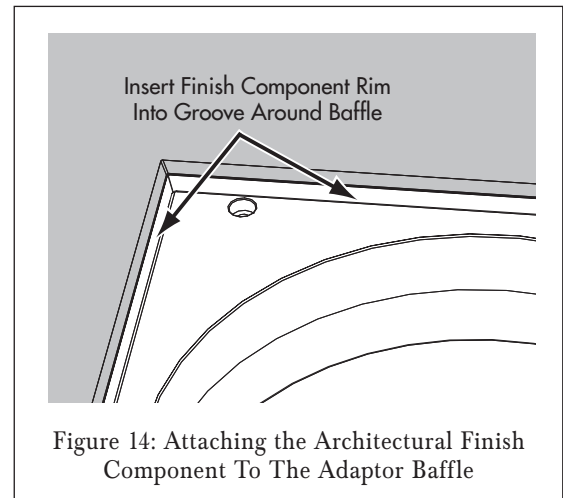


Figure 14: Attaching the Architectural Finish Component To The Adaptor Baffle

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Installing the Woofer Cabinet: Retrofit

The BPS-1 can be retrofit installed into a ceiling that has an attic or adequate crawlspace above it. Due to the variety of possible installation situations, it is not possible to recommend a single retrofit installation procedure. However, in any retrofit situation you should observe the following points to achieve a safe and noise-free installation:

- **Before installing the BPS-1 in any retrofit situation:** Review the section *Installing The BPS-1 Cabinet In New Construction* on pages 2 – 3 to become familiar with the installation procedure for new construction.
- Determine the location for the Architectural Series Panel Bracket and install it first (its location may be influenced by the locations of other AS speakers in the room). Then establish the location for the BPS-1 cabinet relative to the Panel Bracket. The vent end of the BPS-1 cabinet should be located 12" from the center of the Panel Bracket's speaker opening (see *Figure 2*, on page 2).
- When temporarily placing the BPS-1 cabinet in the ceiling bay before attaching it to the joist, take care to support it so that it does not break-through the ceiling material (The BPS-1 cabinet weighs 46 lbs.)
- Use the supplied drilling template to determine the locations of the mounting holes on the joist.
NOTE: MAKE SURE THE HOLES ARE HIGH ENOUGH ON THE JOIST SO THAT THE WOOFER CABINET WILL NOT CONTACT THE CEILING MATERIAL. (CONTACT WITH THE CEILING MATERIAL CAN CAUSE BUZZING DURING OPERATION.) THE ONLY CONTACT SHOULD BE BETWEEN THE CABINET'S GASKETED MOUNTING SURFACE AND THE MOUNTING JOIST.
- Once the BPS-1 cabinet is attached to the joist, complete the installation by following the instructions in the *Selecting The Proper Adaptor Baffle, Connecting The Vent Tube And Adaptor Baffle, Speaker Connections* and *Installing The Architectural Finish Component* sections on pages 3 – 6.

Specifications

Woofer:	8" (203mm) Long-throw felted paper cone with a rubber surround
Frequency Response:	35Hz – 150Hz ±3dB
Dimensions (W x H x D):	9" x 11" x 50½" (229mm x 279mm x 1283mm) Note: Depth includes port tube
Shipping Weight:	46 lbs (20.9kg) each

Architectural Series Speaker Limited Lifetime Warranty Coverage (U.S.A. Only)

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

Defective products must be shipped, together with proof of purchase, prepaid insured to the Authorized Sonance Dealer from whom they were purchased, or to the Sonance factory at the address listed on this 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 Authorized Sonance Dealer it is determined that the unit was defective in materials or workmanship at any time during this warranty period, Sonance or the Authorized Sonance 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, Sonance, 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, Sonance assumes no responsibility or liability for such modification. All replaced parts and product become the property of Sonance. 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 Sonance. 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 Sonance be liable for any incidental or consequential damages arising out of the use or inability to use the product, even if Sonance or an Authorized Sonance 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.

EXCLUSIONS AND LIMITATIONS

The warranty set forth above is in lieu of all other warranties, express or implied, of merchantability, fitness for a particular purpose, or otherwise. The warranty is limited to Sonance products registered herein and specifically excludes any damage to loudspeakers and other allied or associated equipment which may result for any reason from use with this product. Sonance shall, in no event, be liable for incidental or consequential damages arising from any breach of this warranty or otherwise. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.



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