

INSTRUCTION MANUAL

SONAMP® A150 SUBWOOFER AMPLIFIER



Introduction

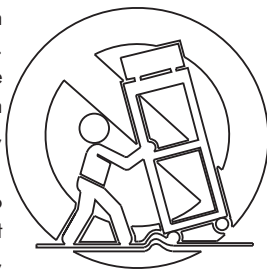
Thank you for purchasing the Sonance Sonamp® A150 subwoofer amplifier. This amplifier is specifically designed to be used with the Sonance Architectural Series™ BPS-1 Subwoofer, and when properly installed, the system will give you many years of entertainment pleasure. To get the most out of your new amplifier, please read this manual thoroughly before you begin installation.

To achieve the best performance, Sonance recommends that this amplifier be installed by a Sonance Authorized Dealer/Installer.

Important Safety Instructions

Basic safety precautions should always be followed when using your A150 amplifier, to reduce risk of fire, electric shock, and injury to persons:

1. **Read** and understand all instructions.
2. **Retain** these instructions for future reference.
3. **Follow** all warnings and instructions in this manual and marked on the product.
4. Any service or repair required must be performed by qualified factory-authorized personnel.
5. Do not use the amplifier in a high-humidity environment or near water — for example in a wet basement, or near a wet bar or swimming pool.
6. Always provide adequate ventilation for the amplifier. Allow a minimum of one (1) inch above and three (3) inches behind the amplifier. Do not block the cooling vents on the amplifier case.
7. The amplifier should be situated away from heat sources such as heat registers, radiators, stoves, or other appliances that produce heat.
8. The amplifier should only be connected to a power supply of the type marked on its back panel. The power supply cord should be routed to avoid damage from contact with sharp objects or being stepped on.
9. Unplug the amplifier during thunderstorms or when it will be unused for extended periods of time.
10. Exercise care to avoid spilling liquids on or in the amplifier.
11. Do not place the amplifier on an unstable table, stand, or cart. Improper placement of the amplifier may cause it to fall on an adult or child causing serious injury, as well as damage to the amplifier.
12. Do not expose the amplifier to dripping or splashing. Do not place objects filled with liquids, such as vases, on the amplifier.



13. **Cleaning:** To clean the amplifier, wipe it with a soft cloth. Do not use solvents, as they may damage the amplifier.
14. **Non-Use Periods:** Unplug the amplifier's power cord from the electrical outlet when the woofer will be unused for a long period of time.
15. **Damage Requiring Service:** The amplifier should be serviced by qualified service personnel when:
 - A. The power cord or plug has been damaged
 - B. Objects have fallen, or liquids have been spilled into the amplifier
 - C. The amplifier has been exposed to rain.
 - D. The amplifier does not appear to be operating properly or exhibits a marked change in performance.
 - E. The amplifier has been dropped or appears to have been damaged.
16. **Servicing:** The user should not attempt to service the amplifier beyond that described in these instructions. All other servicing should be referred to qualified service personnel.
17. **Storms:** To prevent damage to components, unplug all electronic equipment during thunderstorms.



WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. THE APPLIANCE SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING. NO OBJECTS FILLED WITH LIQUIDS SHALL BE PLACED ON THE APPLIANCE.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO AUTHORIZED SERVICE PERSONNEL.

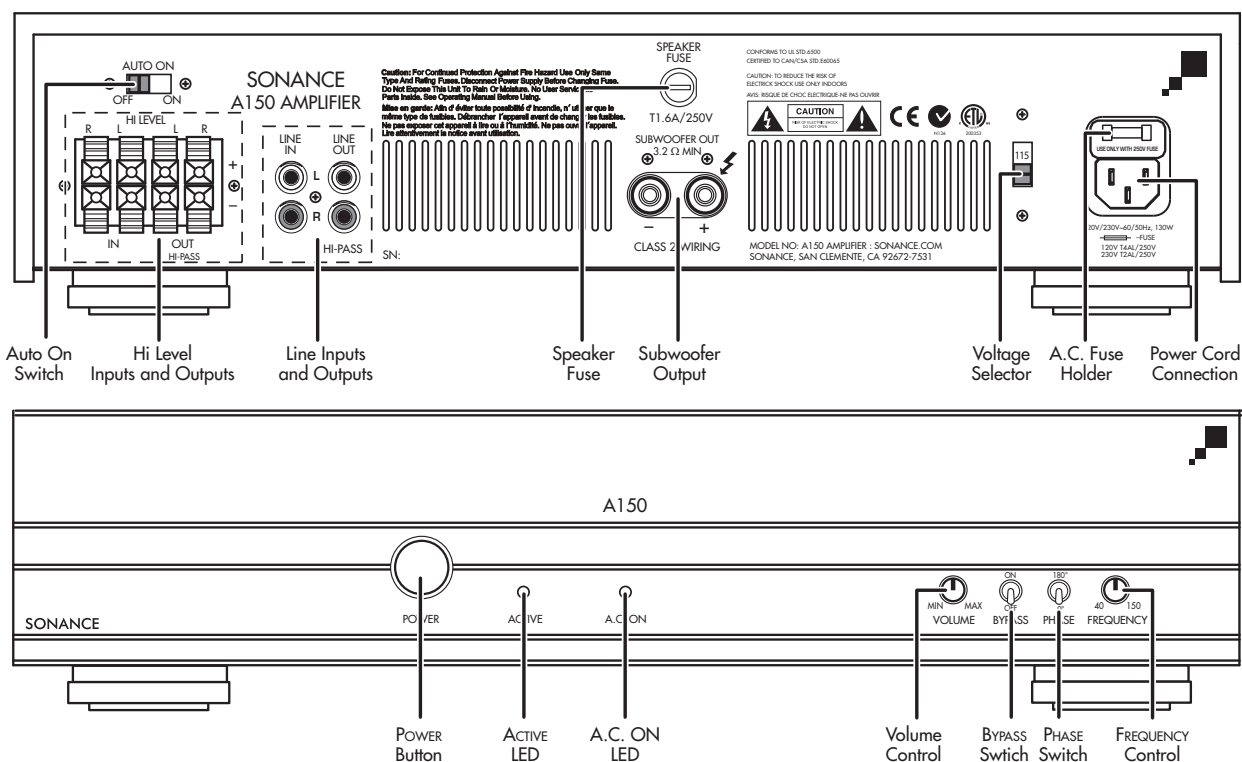


The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

SONAMP® A150 SUBWOOFER AMPLIFIER



A150 SUBWOOFER AMPLIFIER FRONT AND REAR PANELS

Box Contents

Your Sonance A150 Amplifier box should contain the following items:

- (1) Sonance A150 Amplifier
- (1) 2A Speaker Fuse
- (1) IEC Power Cord (120V version only)

Rear Panel Features

Power Cord Connection

The A150 features a removable IEC power connector. (A power cord is included only with the 120V version of the amplifier.) Plug the female end of the power cord into the Power Cord Connector on the amplifier rear panel and plug the male end into a grounded wall socket. Do NOT plug the amplifier's power cord into a convenience outlet on any other audio or video component.

IMPORTANT: DO NOT PLUG THE POWER CORD INTO THE WALL OUTLET UNTIL ALL SYSTEM CONNECTIONS HAVE BEEN MADE AND VERIFIED.

NOTE: IF YOU NEED TO USE AN EXTENSION CORD, USE ONLY A HEAVY-DUTY (14-GAUGE OR LARGER) EXTENSION CORD TO AVOID STARVING THE AMPLIFIER OF ALL THE CURRENT NECESSARY FOR FULL-POWER OPERATION.

A.C. Fuse Holder

120V versions of the A150 amplifier is shipped with a 4 amp AC fuse installed. 230V versions have a 2 amp AC fuse installed.

To replace the fuse, unplug the power cord from the Power Cord Connector and use a screwdriver to remove the fuse holder.

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE, REPLACE THE FUSE WITH ONLY THE SAME TYPE AND RATING.

Line Inputs and Outputs

The A150 amplifier has LINE INPUTS and hi-pass filtered LINE OUTPUTS. Use these connections if your receiver or preamp has a line-level subwoofer output. If the subwoofer output is mono you can connect it to either the A150's Left or Right LINE INPUT.

If your system has a separate preamp and power amplifier you can use the A150's LINE INPUT and LINE OUTPUT jacks to connect the amplifier between the preamp and power amp.

NOTE: THE LINE OUTPUT SIGNAL IS HI-PASS FILTERED AT 150Hz, 6dB/OCTAVE.

IMPORTANT: IF YOU ARE USING THE A150'S HI LEVEL INPUTS (SEE PAGE 3), DO NOT MAKE ANY CONNECTIONS TO THE LINE LEVEL INPUTS.



Hi LEVEL Inputs and Outputs

CAUTION: Do NOT CONNECT THE A150's HI LEVEL INPUTS TO AN AMPLIFIER WITH A BRIDGED OUTPUT. BEFORE USING THE HI LEVEL INPUTS, CHECK THE OTHER AMPLIFIER'S DOCUMENTATION.

If your system's electronics do not have preamp outputs or subwoofer outputs you can connect its left and right speaker outputs to the A150's HI LEVEL Inputs. Then connect the A150's HI LEVEL Outputs to your left and right speakers. Always make sure to connect the A150's "+" terminals to the electronics' and speakers' "+" terminals, and its "-" terminals to the electronics' and speakers' "-" terminals.

NOTE: THE HI LEVEL OUTPUT SIGNAL IS HI-PASS FILTERED AT 200Hz, 6dB/OCTAVE.

IMPORTANT: IF YOU ARE USING THE A150's LINE LEVEL INPUTS (SEE PAGE 2), DO NOT MAKE ANY CONNECTIONS TO THE HI LEVEL INPUTS.

Auto ON Switch

When this switch is in the **ON** position the A150 will automatically turn ON when it senses a signal on either of its inputs. The amplifier will remain on for approximately 5 minutes after the signal has ceased. If you want to manually turn the amplifier ON and OFF, set the AUTO ON switch to the **OFF** position. This allows the amplifier to be switched ON and OFF by the front-panel POWER button.

Subwoofer Output

The A150 amplifier features a binding post speaker connector that can accept bare wire and wire terminated in pins or single banana connectors.

NOTE: IF USING SINGLE BANANA CONNECTORS, BE SURE THE TERMINALS ARE CLOSED (ROTATED FULLY CLOCKWISE) BEFORE INSERTING THE CONNECTOR.

If you use bare wire, make sure you strip only enough wire (1/2") to fit into the hole in the terminal. Before inserting the wire, twist all strands tightly to prevent strays that could cause a short circuit between the "+" and "-" terminals. To make a secure connection, insert the wire in the direction of terminal rotation (clockwise) to force the wire around the terminal post.

IMPORTANT: AS SHIPPED FROM THE FACTORY, THE A150 CAN DRIVE A SINGLE SONANCE BPS-1 SUBWOOFER. TO CONNECT TWO BPS-1 SUBWOOFERS, SEE *SPEAKER FUSE*, BELOW.

Speaker Fuse

As shipped from the factory, the A150 is fitted with a 1.6A speaker fuse that allows it to drive a single BPS-1 Subwoofer. To connect two BPS-1 Subwoofers, you must replace this fuse with the supplied 2.0A fuse:

1. Disconnect the power cord from the A150's Power Cord Connection.

2. Using a flat-blade screwdriver, remove the SPEAKER FUSE holder cap from the amplifier.
3. Replace the 1.6A fuse in the SPEAKER FUSE holder cap with the supplied 2.0A fuse and replace the cap in the SPEAKER FUSE holder.
4. Connect the two BPS-1 Subwoofers in parallel to the A150's SUBWOOFER OUTPUT.

Front Panel Features

POWER Button

When the rear-panel AUTO ON switch is in the **OFF** position, the POWER button turns the A150 ON and OFF. If the AUTO ON switch is in the **ON** position the POWER button will have no effect.

ACTIVE LED

The ACTIVE LED illuminates whenever the A150 is operating.

POWER LED

The POWER LED indicates that the A150 is connected to an active power outlet.

BYPASS Switch

The BYPASS switch bypasses the A150's internal crossover network (FREQUENCY control) and the A150's VOLUME control.

If you have connected the A150 to a surround receiver or processor with a built-in subwoofer crossover, set the BYPASS switch to the **ON** position. All of the system's subwoofer crossover and volume functions will be handled by the surround processor's internal subwoofer crossover. Refer to your surround processor's documentation for information about adjusting the subwoofer's volume.

If you have connected the A150 to a preamplifier's Line Outputs, or connected it using the HI-LEVEL INPUTS, set the BYPASS switch to the **OFF** position. The A150's FREQUENCY and VOLUME controls will function (see below).

FREQUENCY Control

The FREQUENCY control adjusts the amplifier's internal crossover between 40Hz and 150Hz. The crossover's slope is 12dB/octave. The higher you set the FREQUENCY control the higher in frequency the BPS-1 Subwoofer will operate.

Use the FREQUENCY control to achieve a smooth transition of bass frequencies between the BPS-1 Subwoofer and your main speakers. Generally, the FREQUENCY control should be set at a lower value if your main speakers have larger woofers, and should be set at a higher value if your main speakers have smaller woofers.

When setting the FREQUENCY control by ear, listen for the smoothness of the bass. If the bass seems too strong at certain frequencies (especially if your main speakers have larger woofers), try lowering the FREQUENCY control setting; if the bass seems too weak at certain frequencies (especially if your main speakers have smaller woofers) try raising the FREQUENCY control setting.



Ideally, the FREQUENCY control should be set to the frequency where your main speakers' low-frequency response roll-off is -3dB. However, this is usually impossible to determine without sophisticated test equipment since each listening room has a different influence on your main speakers' bass performance.

NOTE: THE FREQUENCY CONTROL DOES NOT FUNCTION WHEN THE BYPASS BUTTON IS IN THE *ON* POSITION.

PHASE Switch

When the A150's PHASE switch is in the 0° position, a positive input voltage will cause the BPS-1 Subwoofer's speaker cone to move **out** (towards the room). When the PHASE switch is in the 180° position a positive input voltage will cause the subwoofer cone to move **in** (away from the room).

There is no absolute correct setting for the PHASE switch. Depending on the location of the subwoofer relative to your main speakers and seating location, one of the settings will produce a better match with the main speakers, improving bass impact and in some cases, improving overall bass level as well.

To determine the correct setting of the PHASE switch, listen to music with significant impactful bass content with the switch in each position (it may be helpful to sit in the normal listening position while someone else changes the PHASE switch between 0° and 180°). Leave the switch in the position that produces audibly louder bass with more impact.

NOTE: THE PHASE SWITCH WILL FUNCTION NO MATTER WHAT POSITION THE BYPASS SWITCH IS SET IN.

VOLUME Control

The VOLUME control sets the BPS-1 Subwoofer's volume. When setting the A150's VOLUME control by ear, try to find a volume setting where the bass sounds balanced on both music and films. Listen to several different music recordings and film soundtracks that contain strong bass passages and try to find a setting for the VOLUME control that doesn't over-emphasize the bass or make it sound weak.

The most accurate way to set the VOLUME control is with calibrated test noise or test tones and a sound-pressure level (SPL) meter or real-time analyzer. There are several CDs and DVDs that contain subwoofer test signals. If you use an SPL meter, set the A150's VOLUME control so that the BPS-1 Subwoofer plays at the same volume as the system's other speakers.

NOTE: THE VOLUME CONTROL DOES NOT FUNCTION WHEN THE BYPASS SWITCH IS IN THE *ON* POSITION.

Built-In Limiter

The A150 has a built-in limiter that prevents overdriving the BPS-1 Subwoofer. This allows the BPS-1 Subwoofer System to produce optimum bass output while maintaining long-term reliability. The limiter has no user or installer adjustments.

Specifications

A150

Power Output:	90 watts RMS @ 4 ohms
Power Output (Program):	150 watts @ 4 ohms
Frequency Response:	31Hz - 150Hz (variable to 40Hz)
Total Harmonic Distortion:	.05% 20Hz - 300Hz @ 8 ohms
Signal-to-Noise Ratio:	-95dB (w/22kHz A-WTG filter)
Input Sensitivity (Stereo Inputs):	25mV for 90W @ 4 ohms (volume control @ max)
Input Sensitivity (LFE, Mono Input):	600mV for 90W @ 4 ohms (Bypass model)
Input Impedance:	20k ohms
Hi-Level Out Hi-Pass Filter:	-3dB @ 200Hz, 6dB/octave
Line Level Out Hi-Pass Filter:	-3dB @ 150Hz, 6dB/octave
Power consumption:	160 watts maximum (4 ohms, full power); 13 watts idle (no signal)
AC Fuse (120V Version):	4A (T4AL ~250V)
AC Fuse (230V Version):	2A (T2AL ~250V)
Speaker Fuse (One BPS-1):	1.6A (T1.6AL ~250V)
Speaker Fuse (Two BPS-1s):	2.0A (T2AL ~250V)
Heat Output:	98 BTU/HR @ 8 ohms (rock music); 140 BTU/HR @ 4 ohms (rock music)
Dimensions (W x H x D):	16¾" x 4" x 13½" (425mm x 102mm x 343mm)
Dimensions w/Rack Ears (W x H x D):	19" x 4" x 13½" (489mm x 102mm x 343mm)
Rack Space Requirements:	2U
Shipping Weight:	20 lbs (9.1kg) each



Technical Assistance and Service

If you have any questions about the operation or installation of this product, please call our Technical Assistance Department on any business day at (800) 582-0772 or (949) 492-7777; from 7 a.m. to 5 p.m., PST.

If your product should need repair or service, contact your Sonance Authorized Dealer for help, or use the following procedure:

1. Prior to calling note the product's model number, serial number, purchase date, and the name and address of the dealer where you purchased the product.
2. Contact our Technical Assistance Department at the above number(s) and describe the problem the unit is experiencing. If applicable, they will issue a Return Authorization Number.

IMPORTANT: You must have prior authorization to return your amplifier to Sonance!

3. If you're directed to return the unit to Sonance for repair, pack the unit in its original shipping carton. If needed, you can obtain replacement packaging from us for a small charge. It is best if you place the box into an additional outer "overcarton" before shipment to minimize a chance of theft in shipment. Please include a copy of the original bill of sale inside the package.
4. Contact a package delivery service such as United Parcel Service or Federal Express to arrange prepaid (not collect) shipping. Do not use the U.S. Postal Service.

IMPORTANT: Freight collect shipments will be refused.

5. **Write the Return Authorization Number on the outside of the shipping carton.**

6. Ship the packaged unit to:

Quality Assurance Department
Sonance
212 Avenida Fabricante
San Clemente, CA 92672-7531



Limited Five (5) Year Warranty

Sonance warrants to the first end-user purchaser that this Sonance-brand product ("Product"), when purchased from an authorized Sonance Dealer/Distributor, will be free from defective workmanship and materials for the period stated below. Sonance will at its option and expense during the warranty period, either repair the defect or replace the Product with a new or remanufactured Product or a reasonable equivalent.

Exclusions

TO THE EXTENT PERMITTED BY LAW, THE WARRANTY SET FORTH ABOVE IS IN LIEU OF, AND EXCLUSIVE OF, ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IS THE SOLE AND EXCLUSIVE WARRANTY PROVIDED BY SONANCE. ALL OTHER EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, IMPLIED WARRANTY OF FITNESS FOR USE, AND IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE ARE SPECIFICALLY EXCLUDED. No one is authorized to make or modify any warranties on behalf of Sonance.

The warranty stated above is the sole and exclusive remedy and Sonance's performance shall constitute full and final satisfaction of all obligations, liabilities and claims with respect to the Product. IN ANY EVENT, SONANCE SHALL NOT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, ECONOMIC, PROPERTY, BODILY INJURY, OR PERSONAL INJURY DAMAGES ARISING FROM THE PRODUCT, ANY BREACH OF THIS WARRANTY OR OTHERWISE.

This warranty statement gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion of implied warranties or limitations of remedies, so the above exclusions and limitations may not apply. If your state does not allow disclaimer of implied warranties, the duration of such implied warranties is limited to period of Sonance's express warranty.

Your Product Model and Description: Sonamp® A150 Subwoofer Amplifier.

Warranty Period for this Product: Five (5) years from the date on the original sales receipt or invoice or other satisfactory proof of purchase.

Additional Limitations and Exclusions from Warranty Coverage: The warranty described above is non-transferable, applies only to the initial installation of the Product, does not include installation of any repaired or replaced Product, does not include damage to allied or associated equipment which may result for any reason from use with this Product, and does not include labor or parts caused by accident, disaster, negligence, improper installation, misuse (e.g. overdriving the amplifier or speaker, excessive heat or cold or humidity, outdoor installation), or from service or repair which has not been authorized by Sonance.

Obtaining Authorized Service: To qualify for the warranty, you must (1) contact your authorized Sonance Dealer/Installer or call Sonance Customer Service at (800) 582-0772 within the warranty period, (2) obtain a return merchandise number (RMA), and (3) deliver the Product to Sonance shipping prepaid during the warranty period, together with the original sales receipt, invoice or other satisfactory proof of purchase.

SONAMP® A150 SUBWOOFER AMPLIFIER



System Notes:



SONANCE®

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Due to continuous product improvement, all features and specifications are subject to change without notice.
For the latest Sonance product specification information visit our website: www.sonance.com

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FAX: (949) 361-5151 • Technical Support: (800) 582-0772

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