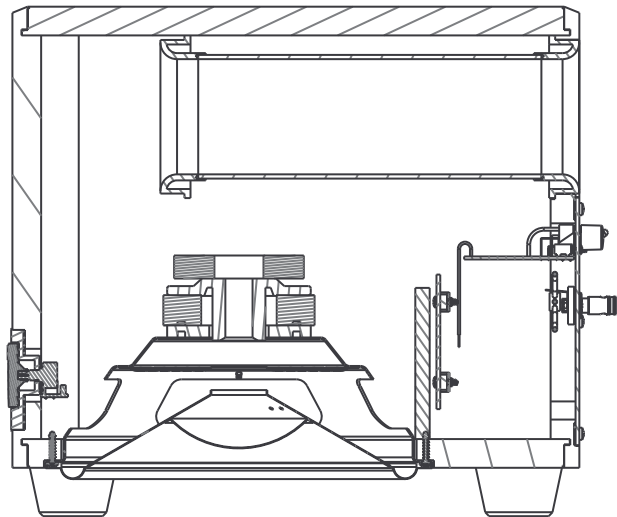
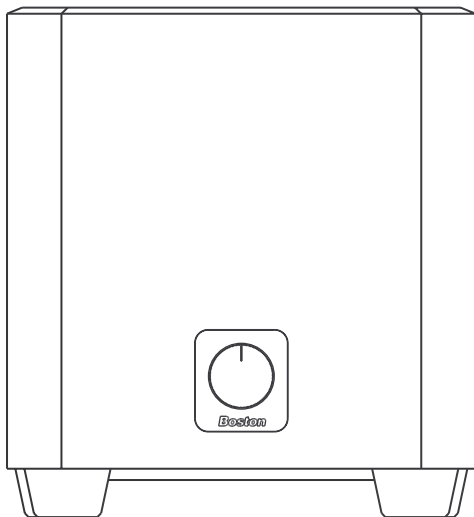


# **Boston** *PV900* *PV700*

**Powered Subwoofers**



**Boston**  
*Boston Acoustics*

# Important Safety Instructions



This symbol found on the apparatus indicates hazards arising from dangerous voltages.



This symbol found on the apparatus indicates the user should read all safety statements found in the user manual.



This symbol found on the apparatus indicates double insulation.



**WARNING!** To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
14. Maintain a minimum distance of 50 mm around the front, rear and sides of the apparatus for sufficient ventilation. The ventilation should not be impeded by covering the ventilation openings or placing on or around the apparatus items such as newspapers, table-cloths, curtains, etc.
15. No naked flame sources, such as lighted candles, should be placed on the apparatus.
16. The apparatus shall not be exposed to dripping or splashing. No objects filled with liquids, such as vases, shall be placed on the apparatus.
17. The apparatus is suitable for use in tropical and/or moderate climates.

# Specifications\*

	<b>PV900</b>	<b>PV700</b>
<b>Frequency Response (<math>\pm 3</math>dB)</b>	26–150Hz	29–150Hz
<b>Subwoofer Amplifier Power</b>	FTC Rated Power: 300 watts @ 50 Hz into 4 ohms at less than 1% THD+N	FTC Rated Power: 200 watts @ 50 Hz into 4 ohms at less than 1% THD+N
<b>Subwoofer Crossover</b>	50–150Hz 24dB/octave low-pass	50–150Hz 24dB/octave low-pass
<b>LFE Input</b>	Yes	Yes
<b>Crossover Bypass</b>	Yes	Yes
<b>Bass Unit</b>	12" (305mm) DCD down-firing	12" (305mm) DCD down-firing
<b>Enclosure Type</b>	Rear-ported	Rear-ported
<b>Dimensions (HxWxD) (with feet and rear connectors)</b>	15 <sup>5</sup> / <sub>8</sub> x 14 <sup>1</sup> / <sub>2</sub> x 17 <sup>1</sup> / <sub>2</sub> " (397 x 369 x 445mm)	14 <sup>1</sup> / <sub>4</sub> x 13 <sup>1</sup> / <sub>2</sub> x 16 <sup>3</sup> / <sub>4</sub> " (362 x 343 x 426mm)
<b>Weight</b>	32 lbs (14.4kg)	28 lbs (12.6kg)
<b>Finish</b>	Black ash vinyl veneer	Black ash vinyl veneer

\*In keeping with our policy of continual product improvements, specifications are subject to change without notice. Please visit our web page, [www.bostonacoustics.com](http://www.bostonacoustics.com), for the latest specifications on these two products.

## Description

Boston's PV700 and PV900 subwoofers deliver the dynamic bass foundation that is essential for lifelike reproduction of movie soundtracks and music in the home. These attractive powered subwoofers will complement any stereo or home theater surround sound system with their impressive bass output and compact size.

Both subwoofers utilize our rugged DCD™ (Deep Channel Design) bass unit designed in Boston's state-of-the-art engineering facility in Peabody, Massachusetts. Every one is tested as it comes off the line to be within  $\pm 1$ dB of the lab reference unit, an incredibly tight tolerance. The amplifiers have built-in variable crossovers that allow them to easily achieve a seamless blend with the main speakers, while a 24dB/octave low-pass filter prevents the subwoofers from being easily localized by ear, increasing placement flexibility. A crossover bypass function is provided for use with home theater electronics that perform their own bass management.

Because of their high-powered amplifiers and computer-optimized tunings, the PV700 and PV900 are capable of impressive deep bass and high output from remarkably compact enclosures. In addition, they feature BassTrac®, a proprietary Boston-designed circuit that tracks the input signal to the subwoofer and prevents its amplifier from being driven into audible distortion. The benefit: The bass stays clean and strong at any listening level.

Auto on-off amplifier switching and easily accessible controls make the PV700 and PV900 subwoofers as convenient to use as they are exciting to listen to.

## Connections

**NOTE:** Power is always supplied to the subwoofer electronics unless it is unplugged or switched to the *off* position using the power toggle switch located in the lower left corner of the rear panel. The auto-on circuitry only activates or deactivates the power amplifier. Make sure your subwoofer and receiver are unplugged when making the connection.

**Line level:** Use one of the “*line level in*” jacks with most systems. These inputs accept the line-level signal from your receiver’s subwoofer output. When using the “*use crossover control*” input, the subwoofer’s circuitry filters out the high frequencies and sends the remaining low frequencies to the subwoofer power amplifier.

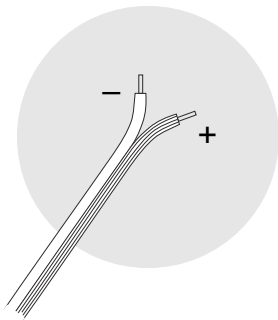
**Speaker level:** Use these high-level terminals with receivers that do not have subwoofer output. The speaker inputs accept both left and right channel speaker signals from your receiver. **NOTE:** Certain receivers use speaker grounding circuits that may be incompatible with external powered audio products, such as powered subwoofers. When speaker wire is used instead of line level cables, this incompatibility can sometimes result in an audible hum when the receiver is turned off or switched to a different speaker channel. See page 8 for more information.

## How to Connect Using the Speaker Terminals

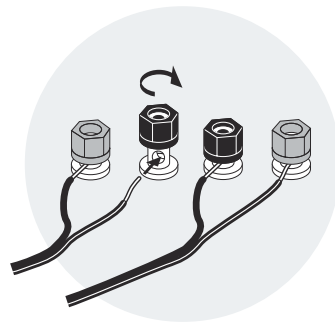
We recommend 18-gauge wire or thicker for runs up to 15 feet (4.5m), and 16-gauge wire or thicker for longer runs. Separate the first few inches of the wire conductors. Strip off 1/2-inch (12mm) of insulation from the ends of each speaker wire to expose the two conductors and tightly twist the wire strands.

**WARNING:** To prevent electrical shock hazard, always switch off the amplifier or receiver when making connections to the speaker.

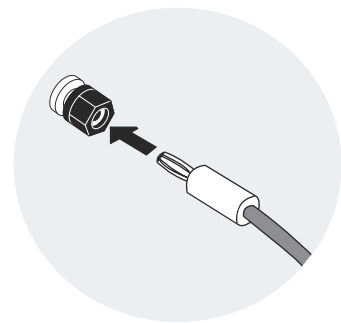
When making all connections, be sure to connect the + (red) on the speaker to the + (red) on the amplifier, and the - (black) on the speaker to the - (black) on the amplifier.



**IMPORTANT:** Typically, one side of the wire is smooth. Connect this side to the - (black) connection. The other side has a rib or stripe. Connect this to the + (red) connection.



**Using the five-way binding posts:** The binding posts permit easy connection to banana plugs, spade lugs, and bare wire. Insert the wire in the hole (as shown on left) or a 3/8-inch spade lug over the post and tighten. For banana plugs, remove the red and black caps from the end-holes and insert either dual or single banana plugs (as shown on right).



## Using This Manual – PV700 versus PV900

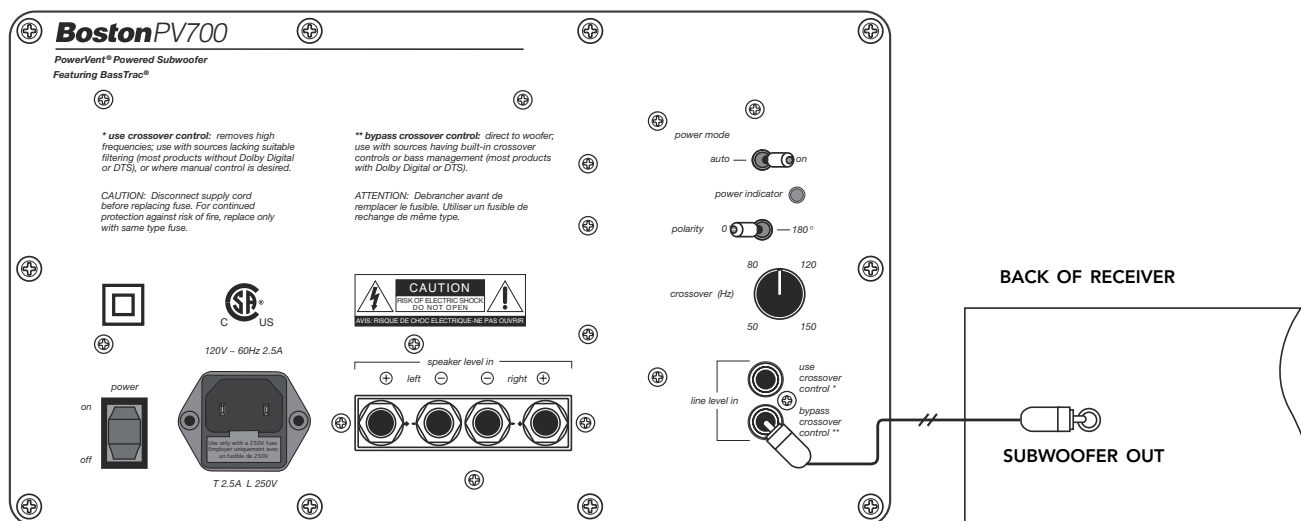
**NOTE:** The rear amplifier panels of the PV700 and the PV900 are virtually the same. Although the instructional images on the following pages depict the PV700’s rear panel, the PV900 connects, functions and operates in exactly the same manner.

# Connecting the Subwoofer to Digital Home Theater Systems

Digital 5.1, 6.1 and 7.1 home theater electronics dedicate one channel (the “.1”) to reproduce the special low-frequency (LFE) information (such as explosions and thunder) contained in digitally-encoded soundtracks.

Select “subwoofer-yes” from your receiver’s set-up menu. Hooked up this way, the receiver’s amplifier is relieved of having to reproduce the difficult low bass signals that can drive the receiver into audible distortion.

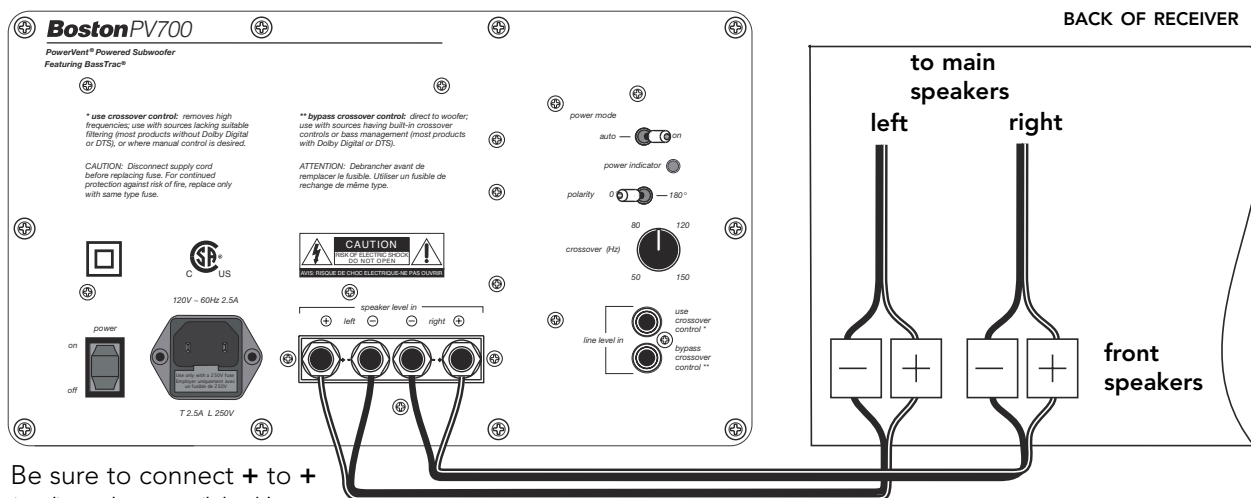
Use an RCA cable (not included), as shown, to connect your digital receiver’s subwoofer output to the subwoofer. Connect the other end to the PV700 or PV900 jack labeled “bypass crossover control” underneath “line level in”.



If you do not wish to run RCA cables to your subwoofer, you may use speaker wire to connect the subwoofer in parallel with your main speakers (see diagram below). The subwoofer does not present any additional load to your receiver.

Select “subwoofer-no” from your receiver’s set-up menu. This sends the LFE signal to the main left and right speakers, and thus, to the subwoofer. Consult your receiver’s owner’s manual for more details.

When using the speaker wire hookup, the subwoofer’s built-in crossover is engaged. As a starting point, set the crossover control on the subwoofer about 10Hz higher than the lower limit of your main speakers’ bass response (for Boston Acoustics front speakers, refer to the included “Optimal Crossover Settings...” sheet). Fine-tune the crossover setting by ear for the smoothest blend with your main speakers. The best setting of the crossover control will depend on speaker placement and personal preference.

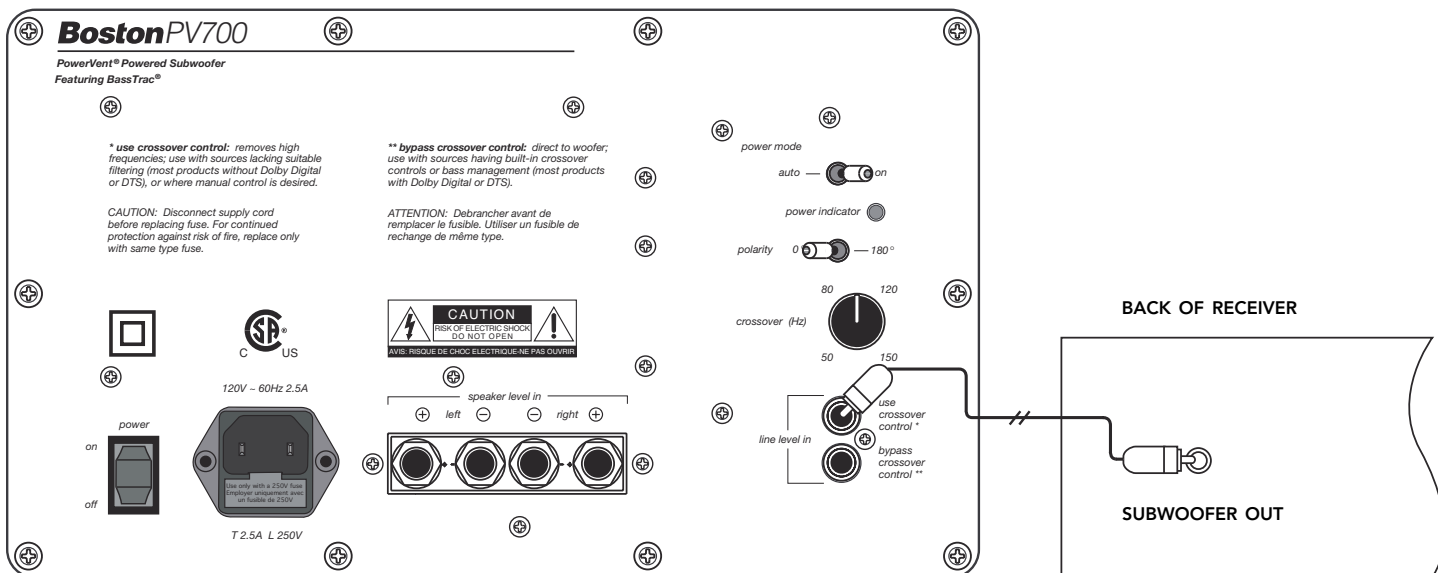


Be sure to connect + to + (red) and - to - (black).

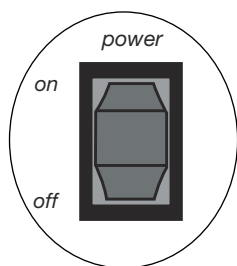
# Connecting the Subwoofer to Stereo or Dolby® Pro Logic® Systems

For stereo or Dolby Pro Logic systems, the easiest method is to use the same speaker wire connections as shown on page 5.

You may also use the "sub out" connection from your receiver to the input on the subwoofer marked *use crossover control*. When using speaker wire or the *use crossover control* input, the subwoofer's built-in crossover is engaged. As a starting point, set the crossover control on the subwoofer about 10Hz higher than the lower limit of your main speakers' bass response (for Boston Acoustics front speakers, refer to the included "Optimal Crossover Settings..." sheet). Fine-tune the crossover setting by ear for the smoothest blend with your main speakers. The best setting of the crossover control will depend on speaker placement and personal preference.



## Controls



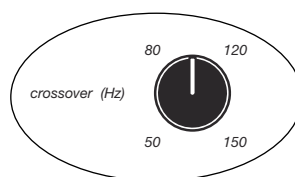
### Main power switch

Completely turns all power to the amplifier either *on* or *off* and over-rides the *power mode* switch. This switch must be turned *on* before setting the *power mode* switch (see next page).



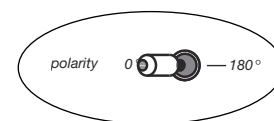
### Volume (on front panel)

Adjusts the sound level of the subwoofer. A typical setting is around 11:00 o'clock, as shown.



### Crossover (Hz)

Adjusts the frequency of the low-pass filter for the subwoofer. This control is inactive when using the "bypass crossover control" input jack.

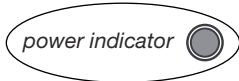


### Polarity (0° or 180°)

Selects regular (0°) or inverted (180°) polarity for the subwoofer. Set this switch to provide the fullest, most dynamic bass. The effect of phase will be most audible on low-frequency percussion instruments or music with a continuously repeating bass line.

## Controls (con't)

**Power indicator:** This two-color power status light will be red when the Power Mode Switch is set to *auto* (without any audio signal present) and green when set to *on* mode.

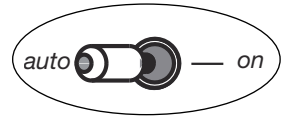


It will not light up at all until the Main Power switch is set to the *on* position.

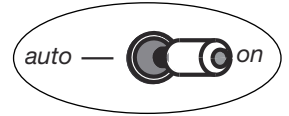
### Power mode switch

NOTE: The Main Power Switch needs to be in the *on* position before this switch is active.

**Auto:** When set to this position, the subwoofer's auto-on circuitry turns the amplifier on when an audio signal is presented (turning the *power indicator* light green), and turns it off in approximately 15 minutes if no signal is detected (turning the *power indicator* red).



**On:** When set to this position, the subwoofer's auto-on circuitry is bypassed and the amplifier will remain on whether an audio signal is present or not (the *power indicator* light stays green).

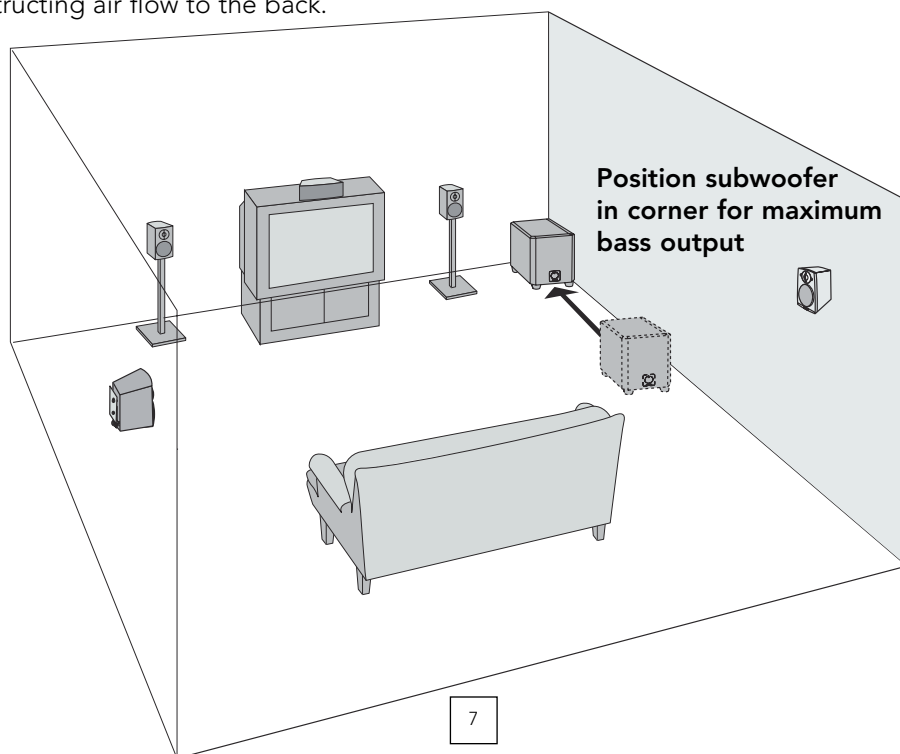


## Placement

Place the subwoofer next to a wall or in a corner near your main speakers. Typically, the sound is best when the subwoofer is within 15 feet (4.5m) of the main speakers. However, the sharp 24dB/octave crossover roll-off permits placement farther from the main speakers if necessary. Since the ear is unable to localize the low frequencies of the subwoofer, the bass still appears to come from the main speakers. In most cases, the subwoofer may be placed anywhere in the listening room.

The level of bass output from the subwoofer will vary at different positions in a room. When placed near walls, its loudness is emphasized. Corner placement provides the most bass output, while placement near only one wall will provide somewhat less bass. Placement completely away from walls may produce too little bass. Regardless of how you place the subwoofer, you can adjust the subwoofer's level with its volume control. If you move the subwoofer, recheck the setting of the polarity switch. Use the setting that yields the louder and more dynamic sound.

**IMPORTANT:** Do not place the subwoofer where there is a chance of contact between the rear panel and drapes or furniture. Avoid obstructing air flow to the back.

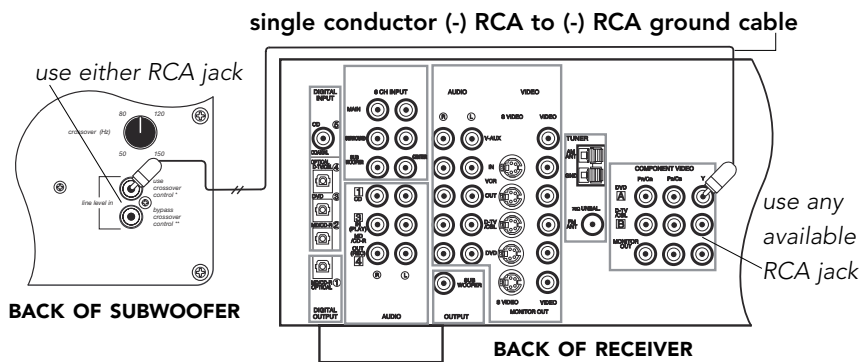


# If Speaker Wire Connections Cause the Subwoofer to Hum

Certain receivers use speaker grounding circuits that may be incompatible with external powered audio products, such as powered subwoofers. When speaker wire is used instead of line level cables, this incompatibility can result in an audible hum when the receiver is turned off or switched to a different speaker channel.

If this should happen with your Boston Acoustics subwoofer, you will need to make a ground cable and connect it to *either* RCA line input on the subwoofer and any *unused* RCA line input or output on your receiver (see diagram). The proper ground cable for this application should consist of two male RCA plugs that have their *negative* outside terminals (or "sleeve") connected to each other by any length of single conductor copper cable. The inside positive (or "pin") terminals should not be wired in either plug.

If you do not wish to make your own grounding cable, please contact the Boston Acoustics Customer Service Department directly (see below) and we will promptly ship one to you of suitable length at no charge.



## If Service Seems Necessary

First, contact the dealer from whom you purchased the PV700 or PV900. If that is not possible, write to:

Customer Service  
Boston Acoustics, Inc.  
300 Jubilee Drive  
Peabody, MA 01960 U.S.A.

Or visit our web site at:  
[www.bostonacoustics.com](http://www.bostonacoustics.com)

Or email us at:  
[custserv@bostona.com](mailto:custserv@bostona.com)

We will promptly advise you of what action to take. If it is necessary to return your unit to the factory, please ship it prepaid. After it has been repaired, we will return it freight prepaid in the U.S. and Canada.

## Limited Warranty

For one year from the date of purchase, Boston Acoustics will repair for the original owner any defect in materials or workmanship that occurs in normal use of the subwoofer, without charge for parts and labor.

Your responsibilities are to use the system according to the instructions supplied, to provide safe and secure transportation to an authorized Boston Acoustics service representative, and to present proof of purchase in the form of your sales slip when requesting service.

Excluded from this warranty is damage that results from abuse, misuse, improper installation, accidents, shipping, or repairs/modifications by anyone other than an authorized Boston Acoustics service representative. This warranty is limited to the Boston Acoustics product and does not cover damage to any associated equipment. This warranty does not cover the cost of removal or reinstallation.

*This warranty is void if the serial number has been removed or defaced. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.*

**Boston**  
Boston Acoustics

300 Jubilee Drive  
Peabody, MA 01960 U.S.A.  
978.538.5000  
[www.bostonacoustics.com](http://www.bostonacoustics.com)

8

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## Optimal Crossover Settings of PowerVent® Series Subwoofers for use with Boston Acoustics Front Speakers

As a starting point, set the crossover control on the subwoofer about 10Hz higher than the lower limit of your main speakers' bass response. Fine-tune the crossover setting by ear for the smoothest blend with your main speakers. Experiment with the volume control and polarity switch. Remember, the best setting of the crossover control will depend on speaker placement and personal preference. If you have an older Boston Acoustics main speaker that does not appear on this list, please refer to the Tech Support section on the Boston Acoustics web page ([www.bostonacoustics.com](http://www.bostonacoustics.com)).

Boston Speaker	Bass Response Lower Limit
<b>Micro Speakers</b>	
Micro100x	64Hz
Micro90xII	120Hz
Micro80xII	120Hz
<b>VR Reference Speakers</b>	
VR950	46Hz
VR940	51Hz
<b>VR-M Reference Speakers</b>	
VR-M50	59Hz
VR-M60	51Hz
VR-M80	42Hz
VR-M90	37Hz
<b>Compact Speakers</b>	
CR55	80Hz
CR65	65Hz
CR75	52Hz
CR85	48Hz
CR95	40Hz
<b>Designer In-wall/ceiling Speakers</b>	
VRi593	42Hz
VRi580, VRi585	45Hz
VRi560, VRi565	52Hz
VRi553	69Hz
DSi480, DSi485	45Hz
DSi460	52Hz
DSi465	54Hz
DSi455	58Hz
DSi450	65Hz
DSi250, DSi255, DSi455T2	75Hz
<b>Outdoor Speakers</b>	
Voyager2	80Hz
Voyager3	70Hz
VoyagerPro	70Hz
Grand Voyager	59Hz



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City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

E-mail \_\_\_\_\_ Phone \_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_

Age Group: Under 20 \_\_\_ 20 to 29 \_\_\_ 30 to 39 \_\_\_ 40 to 49 \_\_\_ 50 to 59 \_\_\_ 60 to 69 \_\_\_ 70 to 79 \_\_\_ 80 and over \_\_\_

Marital Status: Single \_\_\_ Married \_\_\_ Gender: Male \_\_\_ Female \_\_\_

Education: High School \_\_\_ Some College \_\_\_ Associate/Jr. College Degree \_\_\_ 4-Year College Degree \_\_\_ Graduate School \_\_\_

What type of Boston Acoustics product did you purchase? Home Stereo/Theater \_\_\_ Car \_\_\_ In-Wall/In-Ceiling \_\_\_ Multimedia/PC \_\_\_

Date of Purchase \_\_\_\_/\_\_\_\_/\_\_\_\_ Model Name \_\_\_\_\_ Serial # \_\_\_\_\_

(Located on a silver label on the outside of packaging.)

Store Name \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

How did you hear about this product? Boston Acoustics advertisement \_\_\_ Store salesperson \_\_\_ Store advertisement \_\_\_ Magazine review \_\_\_  
Store display \_\_\_ Online review \_\_\_ Trade show \_\_\_ PC manufacturer \_\_\_ Friend/family \_\_\_  
Other \_\_\_\_\_

What other brand(s) and model(s) did you consider when making this purchase?

Brand(s) \_\_\_\_\_

Model(s) \_\_\_\_\_

**Thank you for completing this form. If you have any technical questions or are interested in other Boston Acoustics products, visit us on the Web at [www.bostonacoustics.com](http://www.bostonacoustics.com), or call (978) 538-5000.**

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