

Atlantic
TECHNOLOGY

Instruction
Manual

*Model 162 PBM High
Performance Subwoofer*



Figure 1:
*Amplifier panel
 and controls
 for 162 PBM
 Subwoofer*

IEC AC power socket with
 external fuse holder

Switchable 120/240 voltage

Phase switch

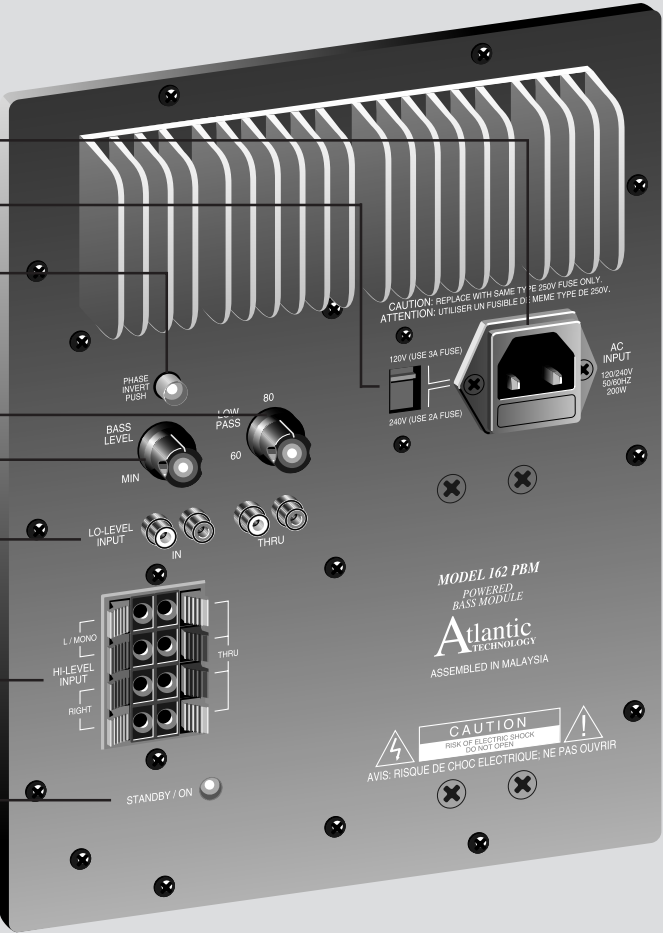
Continuous low pass filter

Woofer output level control

RCA line level inputs
 and outputs

High level (speaker) inputs
 and outputs

Auto-standby with dual-
 color LED power indicator



CAUTION: To reduce the risk of electric shock, do not remove the cover (or back). No user serviceable parts inside. Refer to qualified personnel.

WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

The lightning flash with arrowhead, 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 electrical shock to persons.

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

Features

- **Power output rated at 75 watts**
Coupled with our highly efficient driver, this subwoofer is capable of surprising performance.
- **Working frequency range from 20Hz to 150Hz**
- **Continuously adjustable low-pass filter from 60Hz to 125Hz**
The slope of the low-pass filter is -24 dB/octave. This allows for flexible integration with most any brand or type of speaker on the market.
- **Line level inputs and outputs with RCA connectors**
The model 162 PBM features stereo inputs and outputs for convenient hookup, and to provide easy “daisy-chaining” to another subwoofer, if desired.
- **High-level (Speaker Level) inputs and outputs with spring-type connectors**
These provide convenient hookup to a sound source that does not have line-level outputs for a subwoofer.
- **Phase-invert switch (+/-180 degrees)**
Allows matching with systems whose output are phase inverted, and to compensate for unusual room acoustics.
- **Woofer output level control**
Matches a wide range of source levels.
- **Auto-standby function with dual-color power indicator**
The 10 minute turn-off delay features a green/yellow LED for power on and standby status indication.
- **IEC AC power socket, with detachable power cord**
You can easily replace this cord with one of another length, plug style, etc.
- **120/240V AC input externally switchable, with external fuse holder**
You can use it virtually anywhere and not worry about the wrong voltage.
- **Design and construction meets all UL/CSA and European safety requirements**
The model 162 PBM meets all safety codes for no-worry custom installations.

Atlantic Technology

Model 162 PBM High Performance Subwoofer

Introduction

Congratulations on choosing an Atlantic Technology Powered Subwoofer. Our subwoofers feature proprietary amplifiers and special high excursion woofers. The sealed acoustic suspension cabinet configuration provides extended, tight, deep bass in a compact, room-friendly design.

Connection

Atlantic Technology Powered Subwoofers are simple to hook up, offering several connection methods for maximum flexibility. Study the system diagrams starting on page 5. Once you have found the example which most closely matches your system, hook up your subwoofer(s) as shown in that diagram.

Low-Level Connection

For best performance, we suggest using the low-level (RCA style jacks) subwoofer line out or preamp outputs if your receiver/amplifier has them. Simply connect your subwoofer with high quality shielded cables as shown in the diagrams.

High-Level Connection

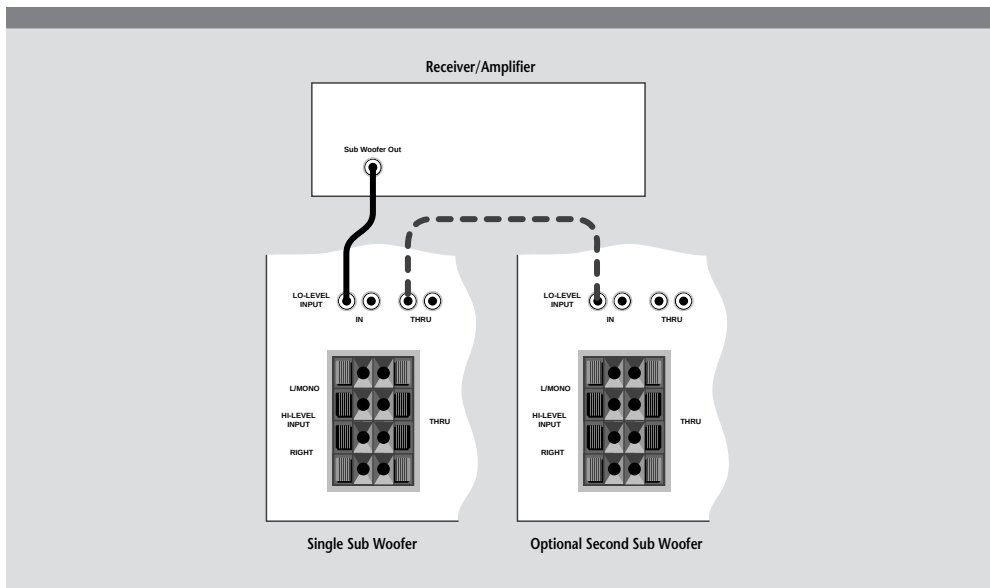
Alternately, you may use the high-level (speaker) inputs. Make sure to match the type and gauge speaker wire used to connect your main speakers. Be certain that no stray wire strands are touching across the two terminals as this might damage your amplifier when you turn it on.

We recommend that you connect your subwoofer using high quality wire of 16 gauge or larger for lengths up to 25 feet. There are many manufacturers who specialize in speaker wire and interconnects suitable for your new system. We recommend that you consult your local audio/video specialist for more specific information.

Warning: To prevent risk of electrical shock or damage to your equipment, always unplug all component AC cords before proceeding with speaker and component connections.

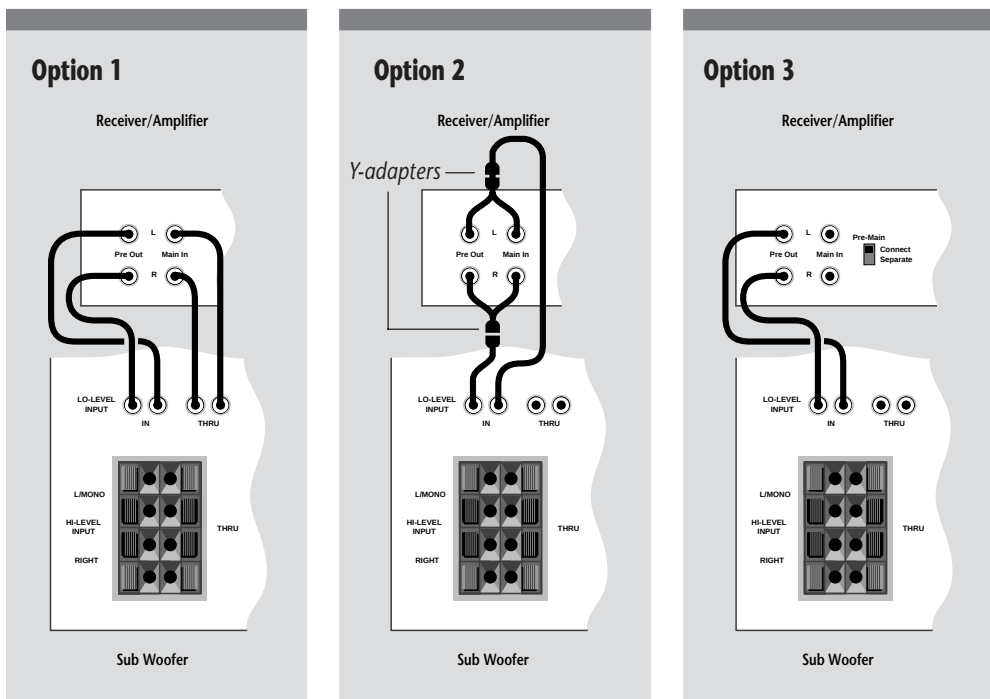
Example 1: Subwoofer Line Out/Low Level In

This is the most commonly used system connection for systems with Dolby Pro Logic receivers.



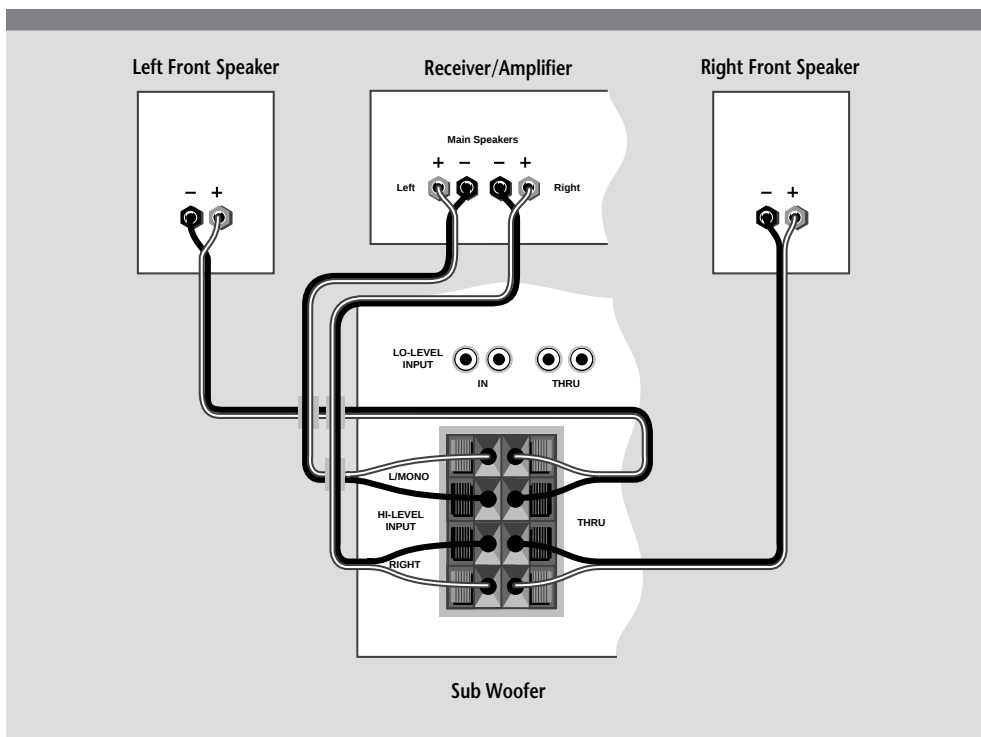
Example 2: Preamp Line Out/Low Level In

This arrangement is for owners of stereo receivers/amplifiers with Preamp outputs. If your receiver/amplifier uses jumper links between the Pre-out and Main In, then you must remove them and use option 1 or 2. If your receiver/amplifier uses a switch instead of connectors, then use option 3.



Example 3: Speaker Out/ High Level In

This is the most common method for connecting a subwoofer to a system without a dedicated subwoofer line out or Preamp outputs.

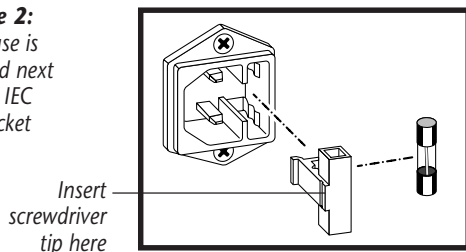


It is important to observe polarity while making speaker connections: red (+) terminals on the amplifier to red (+) on the speaker, black (-) on the amplifier to black (-) on the speaker. Look carefully at the wires you are using and note that one of the wires in each pair is marked by either a different color, printing, ridges, or a thread intertwined with the wire strands. By convention, the marked wire is connected to the red (+) terminal.

Voltage Selection

The Atlantic Technology subwoofers operate with either 120 or 240 volts AC 50-60 Hz. Please make sure that the **voltage selector switch** shows the correct voltage for your area before plugging the unit in. The voltage can be easily changed by moving the switch to the correct voltage in your area and installing the proper fuse and power cord. To change the fuse, remove the power cord, insert a screwdriver tip into the notch in the side of the fuseholder, and pry the fuse out. Replace with the correct value fuse as marked next to the fuseholder, and push back into place.

Figure 2:
The fuse is
located next
to the IEC
AC socket



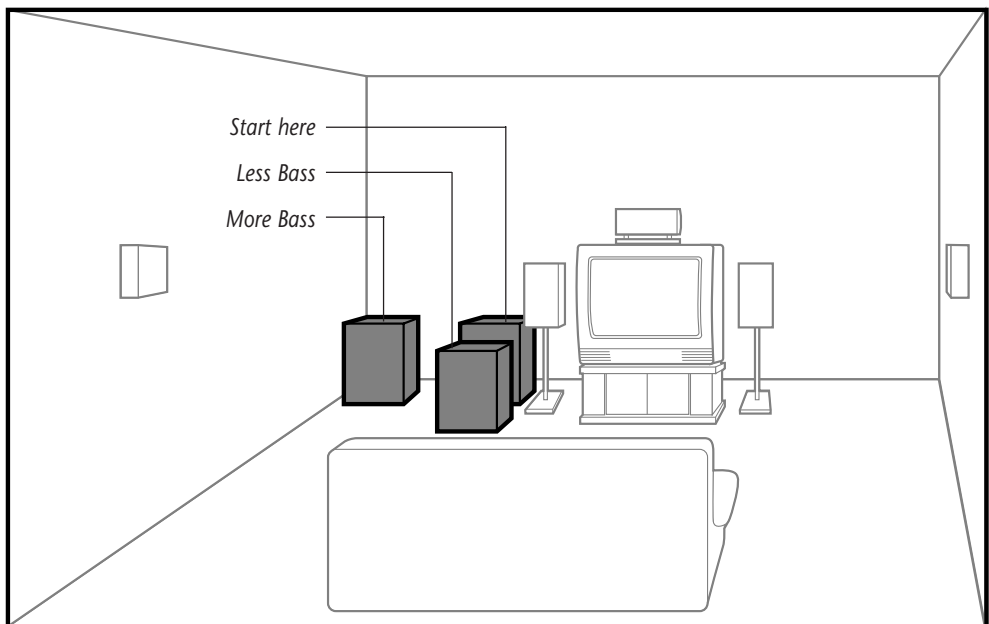
Power Connection

Connect the power cord to an AC outlet only after making all other connections to the subwoofer. This will avoid any chance of accidentally activating the subwoofer while wiring. The AC cord should be plugged into its own wall outlet or into a quality power strip. Avoid using the outlets that are provided on the rear panel of other components. The subwoofer may require more current than these outlets can provide and performance may suffer. Once the subwoofer is hooked up and the power cord is plugged into an AC outlet, **leave it plugged in**. Automatic on/off circuitry will activate the subwoofer in the presence of an audio signal. After 8-10 minutes with no signal detected, the amplifier will go into standby mode. There is no need to unplug the subwoofer or use a switched outlet.

Placement and Adjustment

This subwoofer's compact size allows easy placement for optimum performance. As a general rule, corner placement gives the loudest bass output, but may tend to emphasize one particular frequency. Moving the subwoofer away from the wall results in flatter frequency response, but will reduce the output somewhat. Experiment with several different positions to find the best one for your room.

Figure 3:
Typical arrangement for a single subwoofer in a home theater.



Note: Do not place the unit near a heater or forced air outlet, as this may impair the ability of the internal amplifier to dissipate heat. It may also harm the finish.

When you're setting things up for the first time, you will need to adjust the bass level control to keep the bass volume the same for various subwoofer positions. The only way that you can make sure that you're not being impressed by more bass, instead of smoother bass, is to keep the volume the same for all subwoofer positions.

Begin with the low pass control set to 80, adjusting a little at a time to give the smoothest transition between the subwoofer and the main speakers as, for example, a bass guitar or cello is played up and down the scale. Try both positions of the phase invert switch, as unusual room acoustics may be present at the crossover frequency. Again, some experimentation will be needed to find the best setting.

Once the controls have been adjusted so that the sound is balanced between the subwoofer and the main speakers, you can leave them alone. Minor differences in the source material can be compensated for with the volume and tone controls on your audio or audio/video electronic components.

Fine Tuning

Atlantic Technology subwoofers integrate easily with virtually all other brands of loudspeaker. The adjustable low pass filter and versatile hookup options make it a snap. With proper placement in your room, this subwoofer will supply a solid foundation to any audio or A/V system.

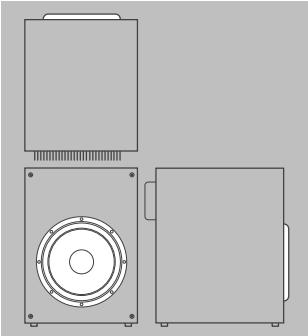
For best results, we suggest that you "tweak" the controls and cabinet position slightly over a period of time (1-2 weeks), as you become accustomed to the sound, and have the opportunity to hear a variety of music and/or movies. Remember that a small adjustment may have a large overall effect.

Subwoofer Troubleshooting Guide

Once your subwoofer has been set up, you should have many years of maintenance-free enjoyment from your system. However, if you should encounter a problem, refer to the following guide to help you find the solution. If a problem persists, you should contact your local authorized Atlantic Technology dealer.

<i>Problem</i>	<i>Possible Cause</i>	<i>Possible Solution</i>
No bass output	AC power cord unplugged or plugged into a non-working outlet.	Plug into a working outlet.
	Input cables not securely connected or defective.	Check all connections, then try another input cable.
Audible buzz or hum	Input cable not securely connected or defective.	Check all connections, then try another input cable.
	Single HI LEVEL input connected to the RIGHT channel.	Connect to the LEFT input channel.
	Ground loop through antenna or cable TV system input.	Test by disconnecting antenna and/or cable system input leads. If hum goes away, install isolation balun(s) at that point.
More than one source audible	More than one source is playing.	All the subwoofer's inputs are active at all times. Turn off unwanted source.
Weak bass	Subwoofer too far from the wall.	Move the subwoofer closer to a wall or corner.
	OUTPUT LEVEL CONTROL set too low.	Turn control up somewhat.
Weak bass: vague stereo image	Input source connected to HI LEVEL inputs is wired out of phase.	Check speaker wire connections and reconnect in proper phase.

Specifications



Bass Driver	8" high efficiency treated cone	
Output Power	75W	
Frequency Response (LPF at max.)	30Hz — 270Hz, ± 6 dB	
Low Pass Filter (continuously variable)	60Hz — 125Hz, 24dB/octave	
Inputs		
High Level (speaker)	Left and right high level speaker	
Low Level (line)	Left and right low level RCA	
Throughputs		
High Level (speaker)	Left and right high level speaker, unity gain	
Low Level (line)	Left and right low level RCA, unity gain	
Input Level	continuously variable input gain control	
Input Impedance		
High Level (speaker)	1.2k Ω	
Low Level (line)	10k Ω	
Dimensions (W X H X D)	10 x 14.4 x 12.4in	255 x 365 x 315mm
Weight	22.75lbs	10.34kg
Power Consumption (standby mode)	18W	
Power Requirements	110/240VAC	50/60Hz 200W max.

For Future Reference

Record your speaker serial number and date of purchase here:

Model Number	Serial Number	Date of Purchase
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The serial number is found on the back of the speaker near the connecting terminals.

Specifications are those in effect at the time of printing. Atlantic Technology reserves the right to change specifications or designs at any time without notice. Dolby Stereo and Dolby Pro Logic are trademarks of Dolby Laboratories Licensing Corporation.



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