

## Acoustic Audio by Goldwood PSW500-12

# Acoustic Audio PSW500-12 Home Theater Powered 12" LFE Subwoofer User Manual

Model: PSW500-12

## INTRODUCTION

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This manual provides detailed instructions for the installation, operation, and maintenance of your Acoustic Audio PSW500-12 Home Theater Powered 12" LFE Subwoofer. Please read this manual thoroughly before using the product to ensure proper setup and optimal performance. Retain this manual for future reference.

## SAFETY INSTRUCTIONS

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Observe the following safety precautions to prevent electric shock, fire, or damage to the unit:

- **Power Source:** Connect the subwoofer only to a standard US 110V grounded wall outlet.
- **Ventilation:** Ensure adequate ventilation around the subwoofer. Do not block any ventilation openings.
- **Water and Moisture:** Do not expose the unit to rain, moisture, or excessive humidity. Do not place objects filled with liquids, such as vases, on the unit.
- **Heat Sources:** Keep the subwoofer away from heat sources such as radiators, heat registers, stoves, or other heat-producing appliances.
- **Cleaning:** Unplug the unit from the wall outlet before cleaning. Use a dry cloth for cleaning.
- **Servicing:** Do not attempt to service this product yourself. Refer all servicing to qualified service personnel.
- **Placement:** Place the subwoofer on a stable, level surface to prevent it from falling.

## PACKAGE CONTENTS

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Verify that all items are present in the package:

- Acoustic Audio PSW500-12 Powered Subwoofer
- 9-foot Dual RCA/LFE Cable
- RCA "Y" Adapter
- Instruction Manual (this document)



Image: The subwoofer, a 9-foot dual RCA/LFE cable, an RCA "Y" adapter, and the user manual are included in the package.

## PRODUCT OVERVIEW

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### Front View

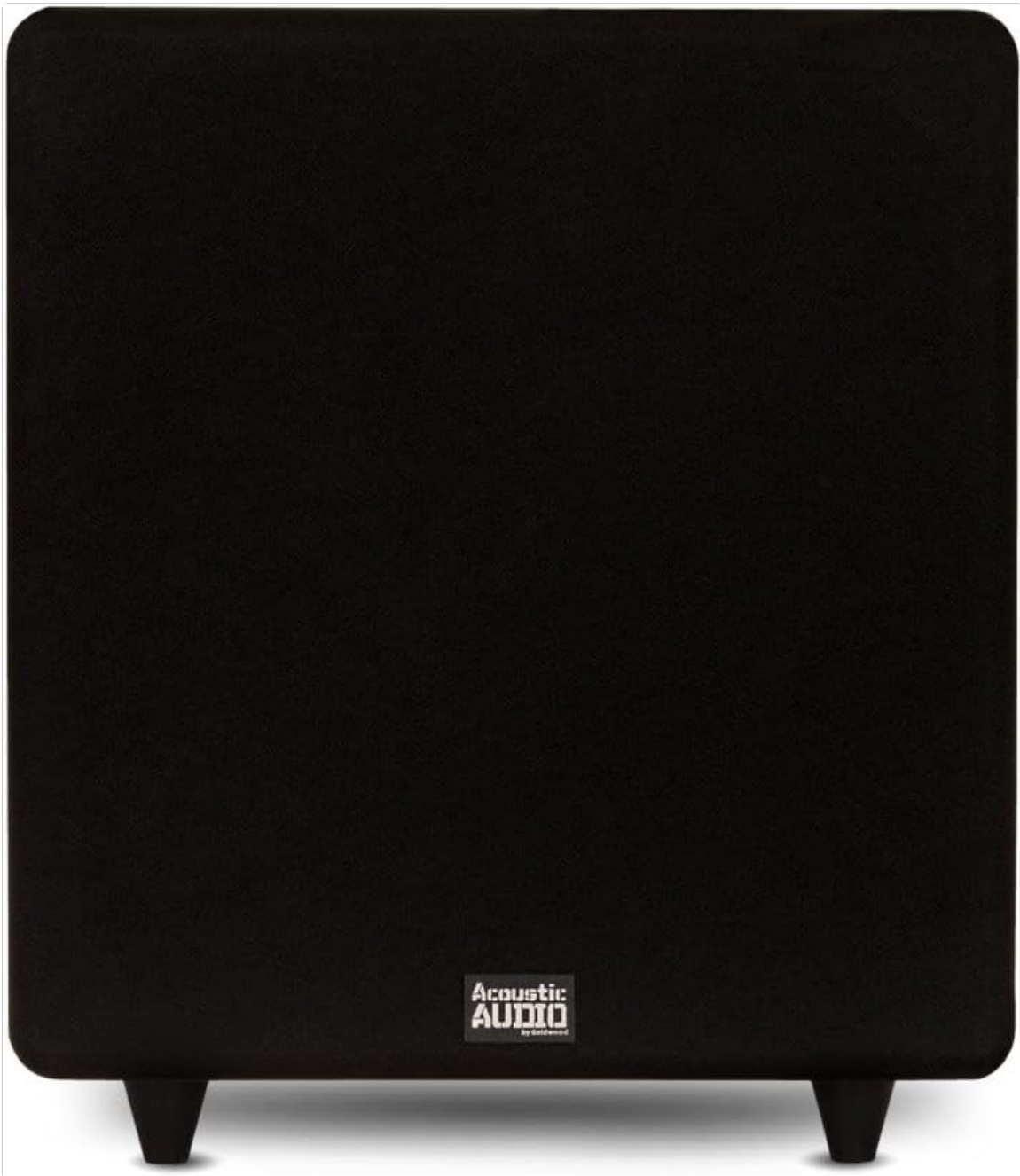


Image: Front view of the subwoofer with its black acoustically transparent grille and the Acoustic Audio logo at the bottom.

## **Rear Panel Controls and Connections**



Image: Rear panel of the subwoofer displaying the power switch, power input, LFE/Line inputs, High Level inputs/outputs, Phase control, Gain control, and Crossover frequency control.

The PSW500-12 subwoofer features a high-current, 500-watt amplifier driving a 12-inch front-firing woofer. Key controls and connections on the rear panel include:

- **LFE/Line Inputs:** RCA inputs for connecting to a home theater receiver's subwoofer output.
- **High Level Inputs/Outputs:** Speaker wire terminals for connecting to a stereo receiver or amplifier.
- **Gain Control:** Adjusts the subwoofer's output volume.
- **Crossover Control:** Adjusts the upper frequency limit (40-140 Hz) for seamless integration with main speakers.
- **Phase Control:** A 0-180 degree switch to match the subwoofer's phase with other speakers.
- **Auto ON/OFF:** Signal sensing feature to automatically turn the subwoofer on/off.
- **Power Switch:** Main power control for the unit.

## Bottom View and Dimensions



Image: Bottom view of the subwoofer, highlighting the bass reflex port and vibration-absorbing feet.



Image: Diagram showing the dimensions of the subwoofer: 17 inches (Height), 14.8 inches (Width), and 13.5 inches (Depth).

## SETUP

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### Placement

The placement of your subwoofer can significantly affect its performance. Experiment with different locations to find the best sound for your room. Generally, placing the subwoofer in a corner can enhance bass output, while placing it along a wall can provide a more balanced response. Ensure the subwoofer is placed on a stable surface and has adequate space for ventilation.

### Connection Options

There are two primary ways to connect your PSW500-12 subwoofer to your audio system:

**1. LFE/RCA Input (Recommended for Home Theater Receivers):**

If your home theater receiver has a dedicated "Subwoofer Out" or "LFE Out" RCA jack, use the supplied RCA cable to connect this output on your receiver to the "LFE IN" or "LINE IN" (L or R) jack on the subwoofer's rear panel. If using a single RCA cable, you can use the supplied "Y" adapter to split the signal for both L and R inputs on the subwoofer for potentially stronger signal, though connecting to just one (L or R) is often sufficient for LFE.

**2. High Level Input (For Stereo Receivers/Amplifiers without Subwoofer Out):**

If your receiver or amplifier does not have a dedicated subwoofer output, you can connect the subwoofer using the "High Level Input" terminals. Connect the speaker outputs from your receiver/amplifier to the "Hi

Level Input" terminals on the subwoofer. Then, connect the "Hi Level Output" terminals on the subwoofer to your main speakers. Ensure correct polarity (+ to + and - to -) for all connections.

## Power Connection

Once audio connections are made, plug the subwoofer's power cord into a standard US 110V grounded wall outlet. Ensure the power switch on the rear panel is in the "OFF" position before plugging it in.

## OPERATING INSTRUCTIONS

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### Initial Power On

After all connections are secure, flip the power switch on the rear panel to the "ON" position. The subwoofer features an Auto ON/OFF function, which will activate the subwoofer when an audio signal is detected and put it into standby mode after a period of inactivity.

### Adjusting Controls

- **Gain Control:** Start with the Gain control set to its minimum position. Play some audio and slowly increase the Gain until the subwoofer's output blends smoothly with your main speakers. Avoid setting the gain too high, as this can lead to distorted bass.
- **Crossover Control (40-140 Hz):** This control determines the highest frequency the subwoofer will reproduce.
  - If your receiver has a built-in bass management system (e.g., LFE output), set the subwoofer's crossover control to its maximum (140 Hz) or bypass position, and manage the crossover frequency through your receiver's settings.
  - If your receiver does not have bass management, adjust the crossover control to match the low-frequency capabilities of your main speakers. For smaller bookshelf speakers, a higher crossover frequency (e.g., 80-100 Hz) might be appropriate. For larger floor-standing speakers, a lower frequency (e.g., 40-60 Hz) may be suitable. The goal is a seamless transition between the subwoofer and main speakers.
- **Phase Control (0-180 degrees):** This switch helps to ensure that the subwoofer's sound waves are in sync with your main speakers.
  - Play music with a strong, consistent bass line.
  - Toggle the phase switch between 0 and 180 degrees.
  - Choose the setting that produces the loudest and most impactful bass at your listening position.

## MAINTENANCE

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Proper maintenance ensures the longevity and performance of your subwoofer.

- **Cleaning:** Disconnect the power cord before cleaning. Use a soft, dry cloth to wipe the cabinet. Do not use liquid cleaners or aerosol sprays, as they may damage the finish or internal components.
- **Grille:** The acoustically transparent grille is removable. If it becomes dusty, gently brush it or use a low-power vacuum cleaner with a soft brush attachment.
- **Ventilation:** Periodically check that the ventilation openings are not obstructed by dust or debris.

## TROUBLESHOOTING

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If you experience issues with your subwoofer, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No sound from subwoofer	<ul style="list-style-type: none"> <li>Power cord unplugged</li> <li>Power switch OFF</li> <li>No audio signal</li> <li>Gain control too low</li> <li>Incorrect input selected on receiver</li> </ul>	<ul style="list-style-type: none"> <li>Ensure power cord is securely plugged in.</li> <li>Turn power switch to ON.</li> <li>Verify audio source and connections.</li> <li>Increase Gain control gradually.</li> <li>Check receiver settings for subwoofer output.</li> </ul>
Distorted or boomy bass	<ul style="list-style-type: none"> <li>Gain control too high</li> <li>Incorrect crossover setting</li> <li>Poor room acoustics/placement</li> </ul>	<ul style="list-style-type: none"> <li>Decrease Gain control.</li> <li>Adjust Crossover control for smoother blend.</li> <li>Experiment with subwoofer placement.</li> </ul>
Weak or thin bass	<ul style="list-style-type: none"> <li>Gain control too low</li> <li>Incorrect phase setting</li> <li>Subwoofer placement</li> </ul>	<ul style="list-style-type: none"> <li>Increase Gain control.</li> <li>Toggle Phase switch (0/180 degrees).</li> <li>Try different placement locations.</li> </ul>
Subwoofer turns off unexpectedly	<ul style="list-style-type: none"> <li>Auto ON/OFF feature activated due to no signal</li> <li>Overheating</li> </ul>	<ul style="list-style-type: none"> <li>Ensure a continuous audio signal is present.</li> <li>Check for adequate ventilation around the unit.</li> </ul>

## SPECIFICATIONS

Feature	Detail
Model Number	PSW500-12
Brand	Acoustic Audio by Goldwood
Speaker Type	Powered Subwoofer
Woofer Diameter	12 Inches
Peak Power Output	500 Watts
Frequency Response	24 Hz - 250 Hz
Impedance	8 Ohms
Connectivity Technology	RCA, Wired (High Level)
Crossover Control	Adjustable 40 - 140 Hz
Phase Control	0 - 180 Degrees
Special Features	Signal Sensing Auto ON/OFF, Bass Boost
Enclosure Material	MDF Wood
Color	Black

Feature	Detail
Power Source	Corded Electric (110V US Standard)
Dimensions (H x W x D)	17" x 14.75" x 13.5"
Item Weight	29 Pounds

## WARRANTY INFORMATION

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This Acoustic Audio PSW500-12 Subwoofer comes with a **Limited Warranty**. For specific details regarding the warranty period, coverage, and terms, please refer to the warranty card included with your product or contact Acoustic Audio by Goldwood customer support.

## SUPPORT

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If you require further assistance or have questions not covered in this manual, please contact Acoustic Audio by Goldwood customer support. You can typically find contact information on the manufacturer's website or on the product packaging.

For more information about Acoustic Audio by Goldwood products, visit their official store: [Acoustic Audio by Goldwood Store](#)