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Acouto

YS XPSM 50Wx2 Power Amplifier Module User Manual

Brand: Acouto

Introduction

This manual provides comprehensive instructions for the installation, operation, and maintenance of your YS XPSM 50Wx2 Power Amplifier Module. Designed with the TDA7498E chip, this 2.0 channel amplifier board offers robust audio performance with independent treble and bass control, supporting both AUX and Bluetooth 5.0 input methods. Please read this manual thoroughly before use to ensure proper functionality and safety.

Product Overview

Key Features:

- **Enhanced Control:** Precise control over treble and bass frequencies with independent adjustment.
- **Immersive Stereo Sound:** 2.0 channel stereo playback with AUX and Bluetooth connectivity.
- **Advanced Safety Features:** Equipped with anti-reverse connection, undervoltage, overheating, overcurrent, and short circuit protection mechanisms.
- **Dual Input Options:** Seamlessly switch between Bluetooth and AUX input for versatile music playback.
- **Premium Components:** Utilizes the TDA7498E chip for high-quality stereo dual channel output.
- **Wide Voltage Input:** Operates within a DC 12-32V range, suitable for various applications.

Component Identification:

Familiarize yourself with the various components of the amplifier board:



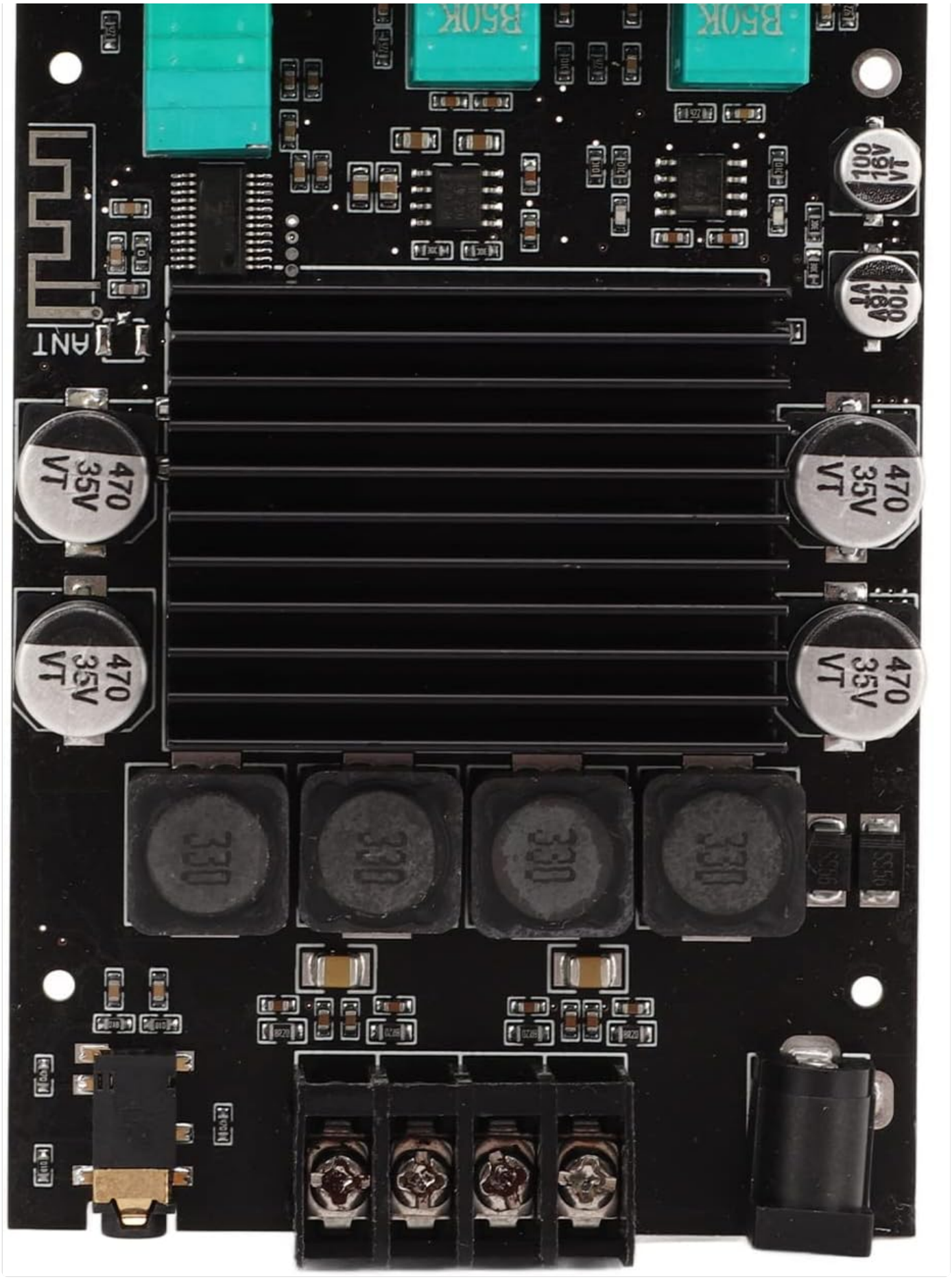


Figure 1: Top view of the amplifier module, showing the heat sink, input/output terminals, and control knobs for volume, treble, and bass.

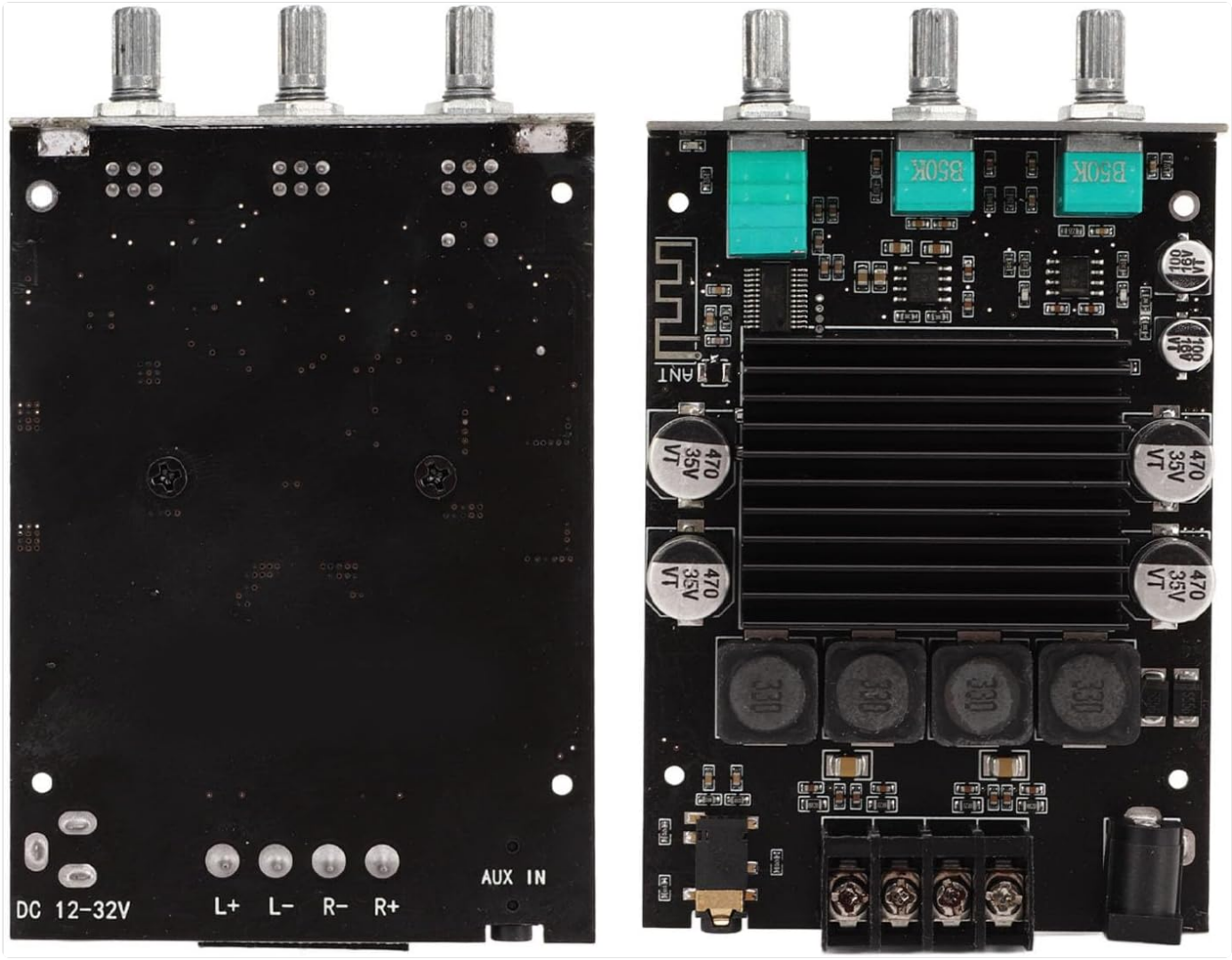


Figure 2: Exploded view illustrating the main power amplifier board, the upper and lower cover plates, and the included hardware for assembly.

SPECIFICATIONS

Parameter	Value
Product Material	PCB
Bluetooth Version	5.0 (No Occlusion, 15m range)
Input Mode	AUX, Bluetooth
Number Of Channels	2.0 Channels (Left Channel, Right Channel)
Adaptive Power Supply	DC 12-32V (Supports 12V power supply, undervoltage lower than 9V)
Adapter Speaker	30-200W, 4-8Ω
Output Power	Left and Right Channels ≤150W
Protection Mechanisms	Anti-Reverse Connection, Undervoltage, Overheating, Overcurrent, Short Circuit
Item Weight	Approx. 185g / 6.5oz

Package Dimensions	5.91 x 3.54 x 1.97 inches
Model Number	Acoutoob7wea42kh

Package Contents

Verify that all components are present in your package:

- 1 x Power Amplifier Board
- 1 x Upper Cover Plate
- 1 x Lower Cover Plate
- 3 x Knob
- 1 x Screwdriver
- 8 x M2x3mm Screws
- 4 x M2x14 Copper Column
- 4 x M2x3+3 Copper Column



Figure 3: Included assembly hardware, including various screws and copper standoffs.

Setup Guide

Follow these steps to correctly set up your amplifier module:

1. **Assemble the Enclosure (Optional):** If using the included cover plates, align the upper and lower cover plates with

the amplifier board. Secure them using the provided M2x3mm screws and copper columns. The longer M2x14 copper columns are typically used to create space between the board and the bottom plate, while the M2x3+3 copper columns might be for mounting the top plate.

2. **Connect Speakers:** Identify the speaker output terminals on the board (L+, L-, R-, R+). Connect your passive speakers (30-200W, 4-8Ω) to these terminals. Ensure correct polarity (positive to positive, negative to negative) for optimal sound.

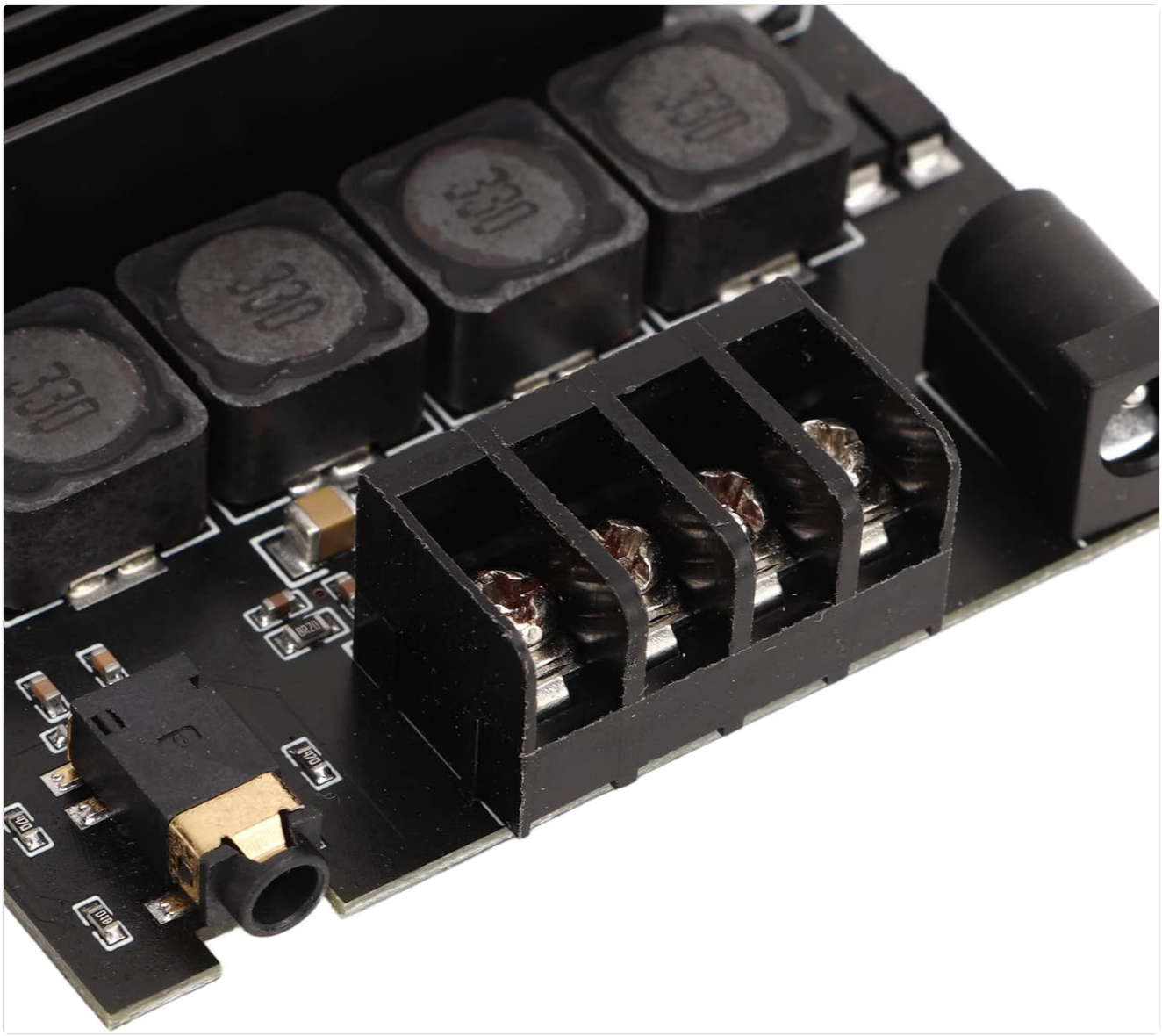


Figure 4: Detailed view of the screw terminals for speaker connections (L+, L-, R-, R+) and the DC power input jack.

3. **Connect Power Supply:** Connect a DC 12-32V power supply to the power input jack or screw terminals labeled "DC 12-32V". Ensure the power supply can provide sufficient current (typically >5A for full power output). The amplifier has anti-reverse connection protection, but always double-check polarity.
4. **Connect Audio Source (AUX):** For wired audio input, connect your audio device (e.g., smartphone, MP3 player) to the 3.5mm AUX IN jack using a standard audio cable.

Operating Instructions

Once the amplifier is set up, follow these steps for operation:

1. **Power On:** Ensure all connections are secure, then connect the power supply to a power outlet. The amplifier board will power on automatically.

2. **Select Input Mode:** The amplifier supports both AUX and Bluetooth inputs.
    - **Bluetooth Mode:** If no AUX cable is connected, the amplifier will automatically enter Bluetooth pairing mode. Search for "YS-XPSM" or a similar device name on your Bluetooth-enabled device (e.g., smartphone, tablet) and pair with it. The Bluetooth range is approximately 15 meters without occlusion.
    - **AUX Mode:** If an AUX cable is plugged into the 3.5mm jack, the amplifier will prioritize AUX input. To switch back to Bluetooth, unplug the AUX cable.
3. **Adjust Volume:** Use the main volume knob (usually labeled "VOL") to adjust the overall audio output level. Turn clockwise to increase volume, counter-clockwise to decrease.
4. **Adjust Treble and Bass:** Use the dedicated treble and bass control knobs to fine-tune the high and low frequencies of your audio.
    - **Treble Control:** Adjusts the intensity of high-frequency sounds.
    - **Bass Control:** Adjusts the intensity of low-frequency sounds.
5. **Play Audio:** Start playing audio from your connected source (Bluetooth device or AUX device).

Maintenance

Proper maintenance ensures the longevity and optimal performance of your amplifier module:

- **Cleaning:** Disconnect power before cleaning. Use a soft, dry cloth to wipe the surface of the amplifier board. Do not use liquid cleaners or solvents, as they may damage the electronic components.
- **Storage:** Store the amplifier in a cool, dry place away from direct sunlight, excessive heat, humidity, and dust.
- **Ventilation:** Ensure adequate airflow around the heat sink during operation to prevent overheating. Do not obstruct the heat sink.

Troubleshooting

If you encounter issues, refer to the following common problems and solutions:

Problem	Possible Cause / Solution
No sound output.	◦ Check power supply connection and ensure it's within DC 12-32V. ◦ Verify speaker connections are secure and correct polarity. ◦ Ensure the volume knob is turned up. ◦ Confirm the correct input mode (AUX/Bluetooth) is selected. ◦ Check if the audio source is playing and its volume is adequate.
Distorted or unclear sound.	◦ Reduce the volume to prevent clipping. ◦ Check speaker impedance (must be 4-8Ω). ◦ Ensure audio cables are fully inserted and not damaged. ◦ Try a different audio source or cable. ◦ Adjust treble and bass controls to a neutral position.

Bluetooth connection issues.	◦ Ensure no AUX cable is plugged in. ◦ Move the Bluetooth device closer to the amplifier. ◦ Forget the device on your Bluetooth source and re-pair. ◦ Restart both the amplifier (by cycling power) and your Bluetooth device.
Amplifier gets hot.	◦ This is normal during operation, especially at high volumes. ◦ Ensure adequate ventilation around the heat sink. ◦ If it becomes excessively hot and shuts down, it's likely the overheating protection. Reduce volume or improve ventilation.

Safety Information

Please observe the following safety precautions:

- Do not expose the amplifier to water, moisture, or extreme temperatures.
- Ensure the power supply voltage is within the specified DC 12-32V range. Using an incorrect voltage can damage the device.
- Do not attempt to disassemble or modify the amplifier board beyond the assembly instructions. This may void the warranty and pose a safety risk.
- Keep out of reach of children.
- Avoid placing the amplifier near strong magnetic fields.
- Always disconnect power before making any connections or performing maintenance.

Warranty and Support

This product is manufactured by Acouto. For warranty information, technical support, or service inquiries, please refer to the documentation provided at the point of purchase or contact your retailer. Keep your purchase receipt as proof of purchase for any warranty claims.
For further assistance, you may visit the official Acouto store on Amazon:Acouto Store

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Model: Acoutoob7wea42kh

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Example: How do I reset this device or fix this error?

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How can I switch the Acouto YS XPSM 50Wx2 Power Amplifier Module to mono mode for a subwoofer, and what is the best voltage for low-frequency performance?

Based on the manual for the Acouto YS XPSM 50Wx2 Power Amplifier Module, here is the information regarding your request: Mono Mode Support: This specific module is designed as a 2.0 channel (stereo) amplifier....

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