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› DAJUNGUO XY-S350H 2.1 Bluetooth Power Amplifier Board Instruction Manual

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Model: XY-S350H

1. INTRODUCTION

The DAJUNGUO XY-S350H is a high-performance 2.1 channel Bluetooth power amplifier board designed for audio enthusiasts. Utilizing two TPA3251 amplifier chips, it delivers a powerful output of 220W*2 for stereo channels and 350W for the subwoofer. This module supports a wide voltage input range of 18V-36V and offers versatile audio input options including Bluetooth 5.1, 3.5mm AUX, and USB flash disk. It features independent control for treble, bass, and subwoofer, allowing for precise audio customization.



This image displays the DAJUNGUO XY-S350H amplifier board, highlighting its control knobs for volume, treble, bass, and subwoofer. A smartphone screen demonstrates the Bluetooth control application, indicating connectivity and customization options.

2. SAFETY INFORMATION

- **Power Supply:** Ensure the power supply voltage is within the specified range of **18V-36V DC**. Operating below 18V will prevent the board from functioning.
- **Current:** A power supply capable of delivering at least 10A is recommended for optimal performance, especially at higher volumes.
- **Polarity:** Always observe correct polarity when connecting the DC power input. Incorrect connection can damage the device.
- **Speaker Impedance:** Connect speakers with an impedance of 2-8 ohms for stereo channels and 2-8 ohms for the subwoofer.
- **Ventilation:** Ensure adequate ventilation around the amplifier board to prevent overheating. The integrated fan and heatsink require unobstructed airflow.
- **Environment:** Avoid exposing the board to moisture, dust, or extreme temperatures.

- **Handling:** Handle the board with care to avoid damage to electronic components.



An important visual reminder stating that the amplifier board requires a power input of at least 18V DC to operate correctly. It emphasizes that voltages below 18V will prevent the board from starting.

3. PRODUCT OVERVIEW

3.1 Key Features

- Dual TPA3251 HIFI Amplifier Chips.
- 2.1 Channel Output: 220W x 2 (stereo) + 350W (subwoofer).
- Wide Voltage Input: DC 18V-36V.
- Multiple Audio Inputs: Bluetooth 5.1, 3.5mm AUX, USB Flash Disk.
- Adjustable Treble, Bass, Subwoofer Volume, and Subwoofer Frequency.
- Protection Mechanisms: Short circuit, undervoltage, overvoltage, clipping.
- Customizable Bluetooth Name and Password via APP.

3.2 Package Contents

Verify that all items are present in the package:

- XY-S350H Amplifier Board
- Control Knobs (pre-installed or separate)
- Small Screwdriver
- Mounting Screws



This image displays the items included in the product package: the XY-S350H amplifier board, a set of control knobs, a small screwdriver, and various screws for assembly.

4. SETUP

4.1 Component Identification

220W+220W+350W TPA3251 HIFI CHIP 2.1 CHANNEL



Power Supply : DC18-36V/above 10A

Bluetooth Version : 5.1

Audio Channel : 2.1 channel

Audio Input : Bluetooth+AUX+U Flash disk+USB sound card

Audio Output : Left and right channels + subwoofer

Frequency Range : 20HZ--20KHZ

Volume Adjustment : High-end encoder knob adjustment, smooth feel

L&R channel maximum output power :

220W/3Ω--36VDC;175W/4Ω--36VDC;100W/8Ω--36VDC

Subwoofer maximum output power :

355W/2Ω--36VDC;250W/3Ω--36VDC;195W/4Ω--36VDC

Protection mechanism : Overvoltage, undervoltage, clipping, short circuit, overheating, etc.

Unique Function : Support control through APP, support custom bluetooth name, bluetooth password, and set on/off prompt tone.

Product Size : 5.31in*5.11in*1.06in(135mm*130mm*27mm)

A technical diagram illustrating the physical layout of the XY-S350H amplifier board. It includes measurements for various components and labels for the DC power input, subwoofer output, right and left channel outputs, USB flash disk port, and 3.5mm AUX input. Control knobs for subwoofer frequency, subwoofer volume, master volume, R&L treble, and R&L bass are also clearly marked.

4.2 Power Connection

1. Connect a DC power supply (18V-36V, minimum 10A recommended) to the DC socket (5.5mm*2.1mm) on the board.
2. Alternatively, if not using a DC plug, connect the positive and negative wires of your power supply directly to the designated power input terminals on the board, ensuring correct polarity.

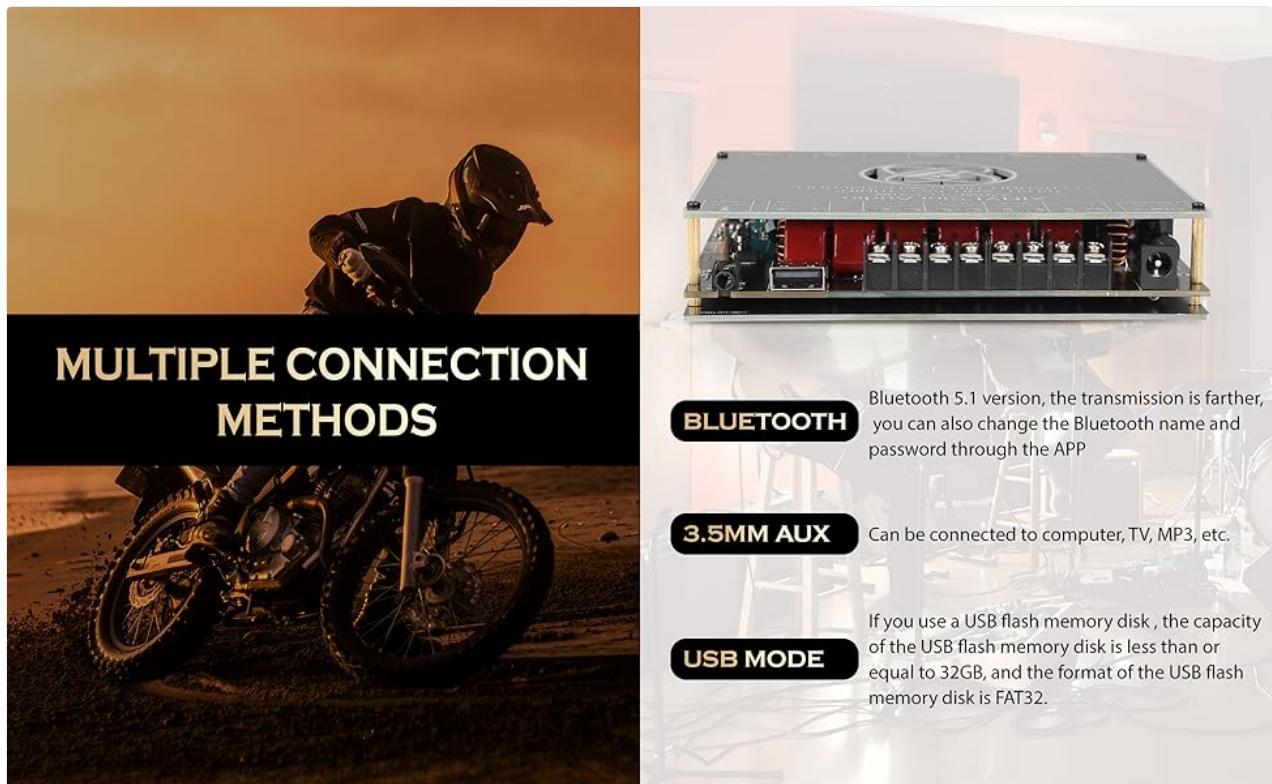
4.3 Speaker Connections

1. Connect your passive stereo speakers to the R (Right) and L (Left) output terminals. Ensure correct positive (+) and negative (-) connections.
2. Connect your passive subwoofer to the Subwoofer output terminals. Ensure correct positive (+) and negative (-) connections.

4.4 Audio Input Connections

The XY-S350H supports three audio input methods:

- **Bluetooth:** The default and primary input method.
- **3.5mm AUX:** Connect external audio sources like computers, MP3 players, or phones using a 3.5mm audio cable.
- **USB Flash Disk:** Insert a USB flash drive (up to 32GB, FAT32 format) into the USB port for direct audio playback.



This diagram outlines the versatile input options for the amplifier board. It shows connections for Bluetooth 5.1, a 3.5mm AUX input for devices like computers or MP3 players, and a USB mode for flash drives up to 32GB (FAT32 format).

5. OPERATING INSTRUCTIONS

5.1 Power On/Off

The master volume knob also functions as the power switch. Short press to pause/play audio. Long press to power the unit on or off.

5.2 Bluetooth Pairing

1. Ensure the amplifier board is powered on.
2. On your Bluetooth device (e.g., smartphone), search for available Bluetooth devices.
3. Select the amplifier's Bluetooth name (default is typically 'XY-S350H' or similar) to pair.
4. Once paired, audio from your device will play through the amplifier.

5.3 Customizing Bluetooth Settings (via APP)

The XY-S350H supports customization of its Bluetooth name, password, and prompt tone via a dedicated mobile application. Refer to the product packaging or manufacturer's website for details on downloading the

compatible app.



This image highlights the custom Bluetooth name feature of the XY-S350H amplifier. It shows the amplifier connected to speakers, with a smartphone displaying the app interface for modifying the Bluetooth name, setting a connection password, and adjusting prompt tones.

5.4 AUX Input Usage

Connect your audio source to the 3.5mm AUX input jack. The amplifier will automatically switch to AUX mode or can be manually selected via the input switch if available.

5.5 USB Flash Disk Playback

Insert a USB flash drive (formatted to FAT32, max 32GB) containing audio files into the USB port. The amplifier will automatically detect and play audio from the drive.

5.6 Volume and Tone Controls

- **Master Volume:** Adjusts the overall output volume.
- **R&L Treble:** Adjusts the high-frequency response of the stereo channels.

- **R&L Bass:** Adjusts the low-frequency response of the stereo channels.
- **Subwoofer Volume:** Adjusts the output level of the subwoofer.
- **Subwoofer Frequency:** Adjusts the crossover frequency for the subwoofer, controlling which low frequencies are sent to it.

6. MAINTENANCE

6.1 Cleaning

Use a soft, dry cloth to clean the amplifier board. Avoid using liquid cleaners or solvents, as they may damage components.

6.2 Cooling System

The XY-S350H is equipped with a heatsink and a fan for active cooling. Regularly check that the fan is free from dust and debris to ensure efficient heat dissipation. Maintain clear airflow around the board.



A detailed view of the amplifier board's air cooling system. It features a large aluminum alloy heatsink and a fan designed to reduce operating temperature and ensure stable performance during high power output.

7. TROUBLESHOOTING

- **No Power:**
 - Check if the DC power supply is connected correctly and providing 18V-36V. Voltages below 18V will prevent the board from starting.
 - Ensure the master volume knob is pressed for power on.
- **No Sound Output:**
 - Verify all speaker connections are secure and correctly polarized.
 - Check the audio input source (Bluetooth, AUX, USB) and ensure it is active and playing.
 - Adjust the master volume, individual channel volumes, and tone controls.
- **Bluetooth Connection Issues:**
 - Ensure the amplifier is in Bluetooth mode.
 - Delete the amplifier from your device's Bluetooth history and attempt to re-pair.
 - Try customizing the Bluetooth name and password via the app to avoid interference.
- **Distortion or Poor Sound Quality:**
 - Ensure the power supply is sufficient (minimum 10A recommended for high power).
 - Check speaker impedance compatibility.
 - Reduce volume levels if distortion occurs at maximum settings.
 - Ensure proper cooling to prevent thermal throttling.
- **Overheating:**
 - Ensure the cooling fan is operating and not obstructed.
 - Provide adequate ventilation around the amplifier board.
 - Reduce continuous high-power operation if overheating persists.

8. SPECIFICATIONS

Feature	Specification
Model Number	XY-S350H
Amplifier Chip	2 x TPA3251
Channels	2.1 Channel
Output Power (R&L)	220W x 2 (4Ω, 36VDC); 175W x 2 (4Ω, 36VDC); 100W x 2 (8Ω, 36VDC)
Output Power (Subwoofer)	350W (2Ω, 36VDC); 250W (3Ω, 36VDC); 195W (4Ω, 36VDC)
Power Supply	DC 18V-36V (above 10A recommended)
Bluetooth Version	5.1
Audio Input	Bluetooth, AUX (3.5mm), USB Flash Disk

Feature	Specification
Frequency Range	20Hz - 20KHz
Protection Mechanisms	Overvoltage, Undervoltage, Clipping, Short Circuit, Overheating
Product Dimensions (L x W x H)	5.31 x 4.56 x 1.06 inches (135 x 116 x 27 mm)

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or contact DAJUNGUO customer service through the retailer where the product was acquired. Keep your proof of purchase for any warranty claims.