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Wuzhi Audio ZK-1001B

Wuzhi Audio ZK-1001B Mono Bluetooth Amplifier Board User Manual

Model: ZK-1001B | Brand: Wuzhi Audio

1. INTRODUCTION

The Wuzhi Audio ZK-1001B is a compact and powerful mono Bluetooth amplifier board designed for various audio projects. Featuring the TPA3116D2 chip, it delivers up to 100W of peak output power. This board supports multiple audio input methods including Bluetooth, AUX, USB flash drive, and USB sound card. It also includes a True Wireless Stereo (TWS) pairing function for creating a stereo sound experience with two units. This manual provides essential information for the proper setup, operation, and maintenance of your ZK-1001B amplifier board.

2. PRODUCT FEATURES

- **Multiple Audio Input Methods:** Supports Bluetooth, AUX (3.5mm), USB flash drive, and USB sound card input for versatile connectivity.
- **High-Performance TPA3116D2 Chip:** Delivers exceptional audio quality with a peak power output of up to 100W.
- **True Wireless Stereo (TWS) Function:** Allows seamless pairing of two ZK-1001B boards for immersive left/right channel stereo sound.
- **Comprehensive Protective Functions:** Includes over-voltage protection, under-voltage protection, over-heat protection, and short-circuit protection to ensure durability and safety.
- **Wide Voltage Input:** Operates within a DC 7-24V input range.

3. PACKAGE CONTENTS

Please verify that all items are present upon opening the package:

- 1 x Wuzhi Audio ZK-1001B Power Amplifier Board
- 1 x Screwdriver
- 1 x DC Adapter Plug

Note: The power amplifier board requires assembly.



Image: ZK-1001B Amplifier Board and included accessories: screwdriver and DC adapter plug.

4. SPECIFICATIONS

Specification	Value
Model	ZK-1001B
Brand	Wuzhi Audio
Chip	TPA3116D2
Number of Channels	1 (Mono)
Output Power	100W (Peak)
Minimum Supply Voltage	DC 7V
Maximum Supply Voltage	DC 24V
Supply Current	4A (Recommended)
Mounting Type	Surface Mount
UPC	194852391604

5. SETUP INSTRUCTIONS

Follow these steps to set up your ZK-1001B amplifier board:

- 1. Unpack Components:** Carefully remove all items from the packaging and ensure no components are missing or damaged.
- 2. Assembly:** The amplifier board requires minor assembly. Use the provided screwdriver to attach any necessary components, such as the multifunction knob, if not pre-assembled.

3. **Connect Speaker:** Connect your passive speaker to the 'SPEAKER +' and 'SPEAKER -' terminals on the board. Ensure correct polarity. This is a mono amplifier, so connect a single speaker.
4. **Connect Power Supply:** Connect a DC power supply (7-24V) to the 'DC IN' port. The recommended current is 4A for optimal performance. Ensure the power supply is off before connecting.

Achieving True Wireless Connection

This product is very suitable for DIY simple mono amplifiers, with built-in boost circuits, and is very suitable for upgrading or producing battery powered outdoor speakers, telescopic speakers, and mobile speakers.

After TWS interconnection, two independent speakers instantly become left and right channel stereo speakers, achieving true wireless connection.



Image: Diagram showing connections for the ZK-1001B amplifier board, including power input, speaker output, and various audio inputs.

6. OPERATING INSTRUCTIONS

The ZK-1001B amplifier board features a multifunction knob for easy control:

- **Power On/Off:** Long press the multifunction knob to power the device on or off.
- **Play/Pause:** Short press the multifunction knob to play or pause audio playback.
- **Next Track:** Double press the multifunction knob to skip to the next audio track.
- **Volume Control:** Rotate the multifunction knob to adjust the volume.
- **Input Selection:** The amplifier automatically switches between available inputs (Bluetooth, AUX, USB). Connect your desired source.

6.1 Bluetooth Pairing

1. Power on the ZK-1001B amplifier board.
2. The board will enter Bluetooth pairing mode automatically (indicated by a flashing LED, if present).
3. On your audio device (smartphone, tablet, etc.), enable Bluetooth and search for available devices.
4. Select 'ZK-1001B' from the list to pair. Once connected, a confirmation sound may play, and the LED will become solid.

6.2 TWS (True Wireless Stereo) Pairing

To achieve stereo sound, you can pair two ZK-1001B amplifier boards:

1. Ensure both ZK-1001B boards are powered on and not connected to any Bluetooth device.

2. On one of the boards, triple press the multifunction knob. This board will become the master unit.
3. The two boards will automatically search and pair with each other. A confirmation sound will indicate successful TWS pairing.
4. Once TWS is established, connect your audio device to the master ZK-1001B board via Bluetooth as described in section 6.1. One board will play the left channel, and the other will play the right channel.
5. To exit TWS mode, triple press the multifunction knob on either board.



Image: Diagram illustrating the TWS pairing function between two ZK-1001B amplifier boards for stereo sound.

6.3 USB Input

The ZK-1001B supports audio playback from a USB flash drive or can function as a USB sound card.

- **USB Flash Drive:** Insert a USB flash drive (formatted as FAT32) containing audio files into the USB-IN port. The amplifier will automatically detect and play the audio.
- **USB Sound Card:** Connect the USB-IN port to a computer using a USB cable. The amplifier will be recognized as an audio output device, allowing you to play audio from your computer through the amplifier.

ZK-1001B MONO AMP

100W Bluetooth Amplifier Board



Multifunction Knob/Volume Knob

Short Press: Play/Pause
Double Press: Next Track
Triple Press: Enter/Exit TWS Mode
Long Press: Power On/Off

What's in the box

Power Amplifier Board * 1
Screwdriver * 1
DC Adapter Plug*1

Note:
The power amplifier board needs to be assembled by oneself.

Image: Multiple input methods of the ZK-1001B amplifier board: Bluetooth, 3.5mm AUX, and USB input.

7. MAINTENANCE

To ensure the longevity and optimal performance of your ZK-1001B amplifier board, follow these maintenance guidelines:

- **Keep Dry:** Avoid exposing the board to moisture, water, or high humidity, as this can cause damage to electronic components.
- **Clean Gently:** Use a soft, dry cloth to clean the surface of the board. Do not use harsh chemicals or abrasive materials.
- **Proper Ventilation:** Ensure the board is operated in a well-ventilated area to prevent overheating.
- **Handle with Care:** Avoid dropping or subjecting the board to strong impacts.

8. TROUBLESHOOTING

If you encounter issues with your ZK-1001B amplifier board, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No power	Incorrect power supply voltage or current; loose power connection.	Ensure power supply is DC 7-24V and provides sufficient current (e.g., 4A). Check all power connections are secure.
No sound output	Speaker not connected correctly; incorrect input selected; volume too low; faulty audio source.	Verify speaker connections and polarity. Check if the correct audio input is active. Increase volume. Test with a different audio source.
Bluetooth pairing fails	Device too far; amplifier already paired; Bluetooth on source device is off.	Ensure the amplifier is in pairing mode. Move the source device closer. Disconnect from other Bluetooth devices. Restart Bluetooth on your source device.

TWS pairing fails	One or both boards already paired via Bluetooth; incorrect TWS activation.	Ensure both boards are not connected to any Bluetooth device. Triple press the multifunction knob on one board to initiate TWS pairing.
Distorted sound	Volume too high; inadequate power supply; impedance mismatch with speaker.	Reduce volume. Use a power supply with sufficient current. Ensure speaker impedance is compatible.

9. WARRANTY AND SUPPORT

Wuzhi Audio is committed to customer satisfaction. If you have any questions about the product, encounter quality problems, or require technical assistance, please contact our customer support. Refer to your purchase documentation for specific warranty terms and contact information.

For further assistance, please visit the official Wuzhi Audio website or contact your retailer.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

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

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question