



## **ZA3 User Manual**

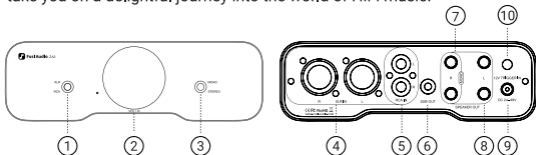
# Introduction

Thank you for purchasing the Fosi Audio ZA3 balanced HiFi Class-D power amplifier!

The ZA3 is a meticulously crafted high-performance balanced power amplifier designed with users' needs deep in mind. It supports XLR balanced input, offering strong interference resistance and effective noise reduction capabilities. Integrated with the high-end Texas Instruments TPA3255 Class-D amplifier chip, when powered by a 48V PSU and connected to 4Ω impedance speakers, it delivers a rated output power of 310 watts (155 watts per channel) in stereo mode and 235 watts in mono mode. You can also pair two ZA3 amps to create a stereo system.

The ZA3 incorporates a side-vented perforated heat dissipation design, facilitating efficient air circulation and significantly enhancing heat dissipation performance. Internally, it integrates audiophile-grade capacitors, inductors, and resistors, ensuring stable output for high-fidelity audio. Furthermore, the ZA3 boasts a replaceable op-amp design, enabling users to effortlessly roll between various op-amps to tailor their musical experience to individual preferences.

The ZA3 is a mini amplifier designed for audiophiles, and we believe it will take you on a delightful journey into the world of HiFi music.



- ① Input Mode Switch
- ② On/Off/Volume Knob (long press 2s to on/off)
- ③ Mono/Stereo Mode Switch
- ④ XLR Balanced Input
- ⑤ RCA Input
- ⑥ Active Subwoofer Output
- ⑦ MONO Mode Output
- ⑧ Passive Speaker Output
- ⑨ DC 24-48V Power Input
- ⑩ 12V Trigger Input

# Specifications

Channel	2.0	
Amplifier Chip	Texas Instruments TPA3255	
Input	RCA, XLR	
Output	Speaker Output (supports banana plug or bare wire connection), Active Subwoofer Output	
SINAD	89dB	
SNR	≥106dB	
Dynamic Range	≥106dB	
THD	<0.006%	
Support Speaker Impedance	2-8Ω	
Rated Output Power	48V/5A	Stereo: 155Wx2 @4Ω Mono: 235Wx1 @4Ω
	32V/5A	Stereo: 95Wx2 @4Ω Mono: 110Wx1 @4Ω
Frequency Response	20Hz - 20KHz (±0.1dB)	
Voltage Range	DC 24-48V	

## Package Contents

Fosi Audio ZA3 Power Amplifier x1

Power Adapter x1

User Manual x1

# Operation Guide

**Please do not connect the power supply before completing all the connections.**

**1.** Prepare your audio source device, the ZA3 amplifier, a 24V-48V power adapter, passive speakers, speaker cables (with banana plugs or bare wires), and RCA or XLR audio cables;

**2.** Insert the RCA or XLR audio cables into the corresponding left and right channels on the ZA3. The red plug represents the right channel, while the white plug represents the left channel. Connect the other end to your audio source device;

**3.** Connect the speaker cables to the left and right channels on the ZA3's speaker output terminals. Please ensure that the speaker cables are correctly connected to the positive and negative terminals;

**4.** Plug the adapter into the DC power input port on the ZA3, then connect the power adapter to the outlet;

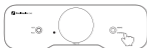
**5.** Long-press the power knob for 2 seconds to turn on the ZA3. At this point, the orange power indicator light will illuminate. You can now play music on your audio source device and start enjoying the music.

**Note:** The subwoofer output terminal can only be used to connect a powered subwoofer!

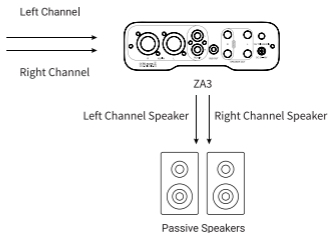
# Setup Instruction

The ZA3 supports stereo and high-power mono modes. In mono mode, the minimum load is set to 2 ohms.

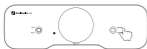
## Stereo Mode



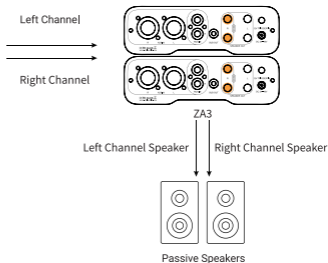
ZD3



## Mono Mode

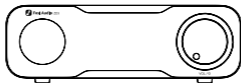


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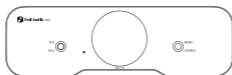


# Setup Instruction

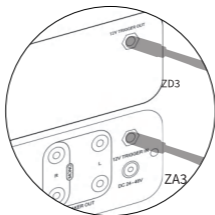
The ZA3 is equipped with a 12V TRIGGER input interface, allowing it to synchronize power on/off with another device, eliminating the need for tedious individual power toggling.



ZD3



ZA3



12V Trigger Interface

# Setup Instruction

It also allows dual op-amps rolling to tailor the audio experience.

## Steps for replacing the op-amps:

**1.** On the PCBA board, there are marked positions for the left and right channel op-amps. 'L-OPAMP' indicates the left channel, while 'R-OPAMP' indicates the right channel. Please confirm which channel's op-amp needs replacement;

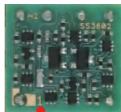
**2.** Use tweezers to carefully remove the op-amps. Every op-amp has a direction, please find the number 1 marking or the circular/semi-circular notch on the cover of the op-amp, align it with the position marked O1 on the PCBA board, and plug the op-amp into the socket;



Markings of channels and op-amp's O1 pin



Round/semi-circular notch



No 1 marking

**3.** Please make sure to install it in the correct direction, otherwise it will burn the op-amp.

# Precautions

1. Before turning on the power for the first time, please set the volume to the minimum level to avoid the risk of sudden loud sounds that could damage the speakers or harm your hearing;
2. The ZA3 features volume memory functionality, so when powered on again, it will retain the volume level from the previous shutdown.

## Frequently Asked Questions

### 1. Why is there no sound after all the devices are connected?

- The amplifier is not powered on, please check whether the mode indicator is on;
- The volume of the amplifier is too small, please turn the volume knob clockwise and adjust it to the right level;
- The audio cable is connected incorrectly, please reconnect it according to the steps in the instruction manual;
- The audio source is not playing or muted, please check the audio source equipment.

### 2. After a successful connection, the sound is abnormal?

- Polarity reversed. Please check if the speaker wires are correctly connected with the red as positive and black as negative;
- Poor speaker wire contact. Reconnect or replace the speaker wire. For RCA/XLR cables, reestablish the connections or try using different RCA/XLR cables;
- Amplifier overload. Reduce the volume if the amplifier is experiencing overload.

### 3. Unable to play properly after connecting the turntable?

- The turntable lacks a built-in preamp: Please check if your turntable has a built-in preamp. The ZA3 does not have a built-in turntable preamp, so you need to connect an external turntable preamp between your turntable and the ZA3. For example, Fosi Audio Box X1, X2, X4, etc.
- Incorrect turntable output mode: Turntables with built-in preamps typically offer both turntable output and line output options. Please select the line output.

If you have any further questions, please contact our support team via [support@fosiaudio.com](mailto:support@fosiaudio.com)

# Warranty and Maintenance

Fosi Audio pledges to give a 24-month limited warranty and support from the date of purchase. If you encounter any problem when using our product, please contact our support team at [support@fosiaudio.com](mailto:support@fosiaudio.com).

## About Us

Fosi Audio designs and builds innovative audio products with all your music in mind. Great sound, simple but elegant designs, high-quality components, and truly useful features are what Fosi Audio pursues. We sincerely hope you can get as much enjoyment from our products as we've had to create them!

**Our Website:** [www.fosiaudio.com](http://www.fosiaudio.com)

**Amazon Store:** [www.amazon.com/fosiaudio](http://www.amazon.com/fosiaudio)

**Facebook Page:** Fosi Audio

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**After-Sales Service and Technical Support Email:**

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