

## GODIYMODULES Mod-RedAD828-004

# GODIYMODULES AD828 Stereo Preamplifier Board Instruction Manual

## 1. INTRODUCTION AND OVERVIEW

This manual provides instructions for the proper installation and operation of the GODIYMODULES AD828 Stereo Preamplifier Board. This compact module is designed for audio pre-amplification, utilizing the AD828 operational amplifier chip for reliable performance. The board features a small size design with SMT process components and uses imported non-polar brand capacitors for input and output coupling.

The AD828 chip offers reliable and consistent performance in stereo preamp applications, functioning as an operational amplifier front amplifier and audio amplifier module with a single power supply.

## 2. PRODUCT FEATURES

- Utilizes the AD828 operational amplifier chip for high-quality audio pre-amplification.
- Compact design with Surface Mount Technology (SMT) components.
- Supports a wide working voltage range: DC 5V-15V.
- Board dimensions: 33mm x 25mm.
- Adjustable audio gain via R7 and R5 resistors.
- Features input and output coupling capacitors for signal integrity.

## 3. SETUP AND INSTALLATION

### 3.1 Power Supply Connection

The AD828 Preamplifier Board operates with a DC working voltage between 5V and 15V. Connect the positive (+) terminal of your power supply to the VCC pin and the negative (-) terminal to the GND pin. It is crucial to use a **regulated power supply** or **battery-powered source** to minimize potential interference, as the board does not include a voltage regulation function.

### 3.2 Audio Input and Output Connections

Connect your audio source to the 'IN' terminals and your amplifier or audio device to the 'OUT' terminals. Ensure correct polarity for left (L), right (R), and ground (GND) channels.

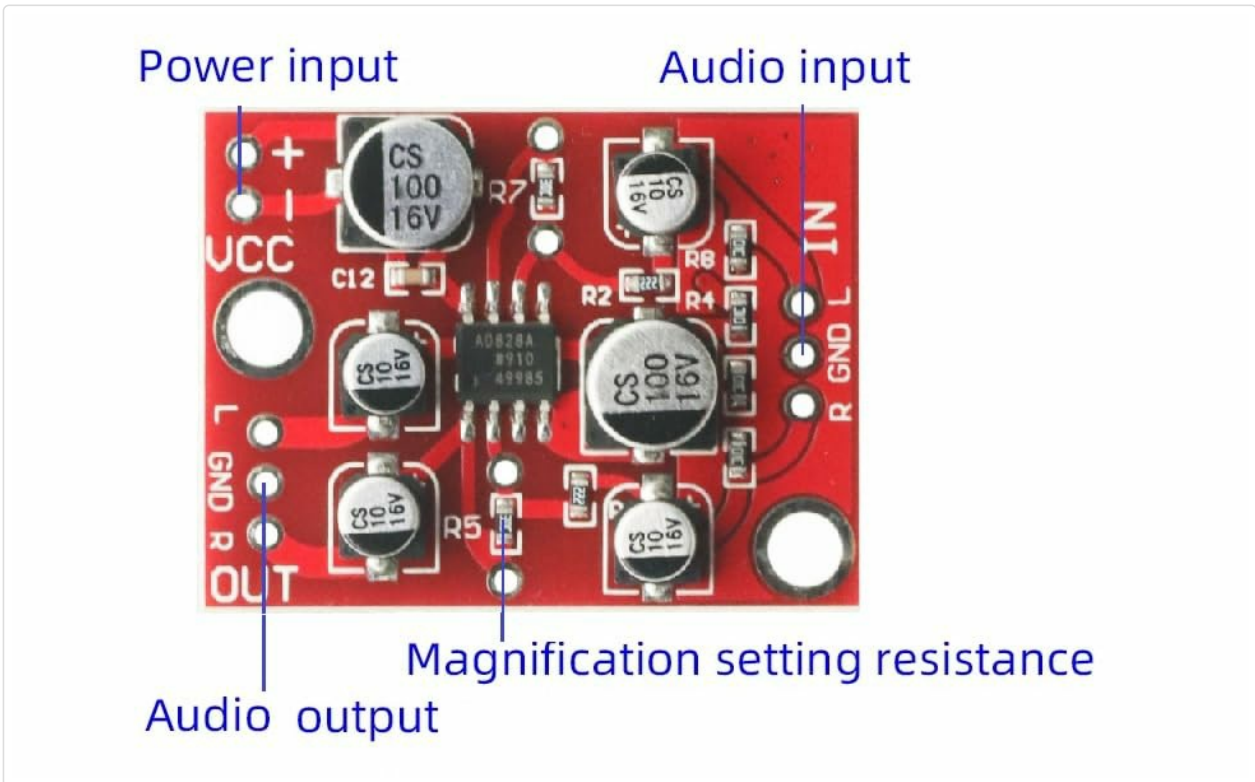


Figure 1: AD828 Preamplifier Board with labeled connections. This image illustrates the locations for power input (VCC, GND), audio input (L, R, GND IN), audio output (L, R, GND OUT), and the magnification setting resistors (R7, R5).



Figure 2: Angled view of the AD828 Preamplifier Board, highlighting the compact layout and surface-mount components.

## 4. OPERATION

### 4.1 Audio Gain Adjustment

The audio gain (magnification) of the preamplifier board can be adjusted by changing the values of resistors R7 and R5. The default gain is approximately 5. To modify the gain:

1. Identify resistors R7 and R5 on the circuit board.
2. The gain can be increased by changing these resistors from their default value to a higher resistance, typically within the range of 5k $\Omega$  to 47k $\Omega$ . A higher resistance value will result in a higher audio gain.
3. If using radial lead resistors, carefully remove the original chip resistors from the circuit board. Solder the leads of the new resistors into the pads provided on the circuit board.



Figure 3: Detailed view of the AD828 Preamplifier Board, showing the location of resistors R5 and R7 for gain adjustment.

## 5. SPECIFICATIONS

Parameter	Value
Model	Mod-RedAD828-004
Working Voltage	DC 5V - 15V
Board Size	33mm x 25mm
Maximum Supply Voltage	15 Volts (DC)
Minimum Supply Voltage	5 Volts (DC)
Mounting Type	Surface Mount
Number of Channels	2 (Stereo)
Output Power	240 Milliwatts

Material Type	Electronic Components, Capacitors
Manufacturer	GODIYMODULES

## 6. TROUBLESHOOTING

---

- **Interference Issues:** If you experience unwanted noise or interference, ensure that the power supply used is regulated or that the board is powered by a battery. The absence of an on-board voltage regulator makes the module susceptible to power supply fluctuations.
- **No Audio Output:** Verify all input and output connections are secure and correctly polarized. Check that the power supply is within the specified 5V-15V DC range and is properly connected.
- **Low or High Gain:** If the audio level is too low or too high, refer to Section 4.1 for instructions on adjusting the gain using resistors R7 and R5.
- **Component Damage:** Avoid exceeding the maximum supply voltage of 15V DC, as this can damage the AD828 chip or other components.

## 7. MAINTENANCE

---

The AD828 Preamplifier Board is a robust electronic component, but proper handling and care will ensure its longevity:

- **Cleanliness:** Keep the board free from dust, dirt, and moisture. Use a soft, dry brush or compressed air for cleaning.
- **Handling:** Handle the board by its edges to avoid touching components, especially the integrated circuit, which can be sensitive to static discharge.
- **Storage:** Store the board in a dry, anti-static environment when not in use.
- **Power:** Always disconnect power before making any adjustments or connections to the board.

## 8. WARRANTY AND SUPPORT

---

For specific warranty information, return policies, or technical assistance regarding your GODIYMODULES AD828 Stereo Preamplifier Board, please refer to the documentation provided at the point of purchase or contact the seller directly. Support resources may also be available through the GODIYMODULES official channels.