

## Senzoee XY-C50L

# Senzoee XY-C50L Stereo Digital Power Amplifier Board User Manual

## 1. PRODUCT OVERVIEW

The Senzoee XY-C50L is a compact and versatile stereo digital power amplifier board designed for various audio amplification applications. This board delivers 50W per channel, providing a robust dual-channel audio output. It features a 360-degree stepless rotary encoder for precise volume control and supports multiple audio input options, including AUX, USB Audio, and Bluetooth connectivity. Its bare board design makes it suitable for integration into custom audio projects.

## 2. SPECIFICATIONS

Feature	Description
Model	XY-C50L
Type	Stereo Digital Power Amplifier Board
Output Power	50W x 2 (Dual-channel)
Input Voltage	DC 5-26V
Control	360-degree Stepless Rotary Encoder (Volume/Input)
Audio Inputs	AUX, USB Audio, Bluetooth
Brand	Senzoee
ASIN	B0CD87VJTC

## 3. SAFETY INFORMATION

- Always ensure the power supply voltage is within the specified range of DC 5-26V. Exceeding this range can cause irreversible damage to the amplifier board.
- Observe correct polarity when connecting the power supply and speakers. Incorrect polarity can lead to damage or malfunction.
- Avoid short circuits on the speaker output terminals.
- Do not operate the board in wet, humid, or excessively dusty environments.
- Keep the device out of reach of children.
- Always disconnect the power supply before making any connections, disconnections, or adjustments to the wiring.

## 4. SETUP

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Follow these steps to correctly set up your XY-C50L amplifier board:

### 4.1 Component Identification (Front View)



**Image 1:** Front view of the XY-C50L amplifier board. This image displays the main components visible from the top, including the

USB-A port, the 360-degree stepless rotary encoder (volume knob), and various surface-mounted components and capacitors. The Bluetooth antenna trace is also visible on the left side.

## 4.2 Component Identification (Rear View)



**Image 2:** Rear view of the XY-C50L amplifier board. This image highlights the connection terminals: DC 5-26V power input, SPKL (Left Speaker) and SPKR (Right Speaker) outputs, AUDIO OUTPUT, USB AUDIO input, and AUX INPUT. The rotary encoder shaft is also visible from this side.

## 4.3 Connection Steps

1. **Power Connection:** Connect a DC power supply (5-26V) to the designated "DC: 5-26V" input terminals. Ensure correct positive (+) and negative (-) polarity.
2. **Speaker Connection:** Connect your passive speakers to the "SPKL" (Left Speaker) and "SPKR" (Right Speaker) screw terminals. Pay close attention to the positive and negative terminals for each speaker.
3. **Audio Input:** Choose one of the following audio input methods:
  - **AUX Input:** Connect an audio source (e.g., smartphone, MP3 player) to the "AUX INPUT" 3.5mm jack using a standard audio cable.
  - **USB Audio Input:** Connect a device (e.g., computer) via a USB cable to the "USB AUDIO" port.

- **Bluetooth Input:** Power on the board. It will automatically enter Bluetooth pairing mode. On your audio device, search for Bluetooth devices and select "XY-C50L" to pair.
4. **Audio Output (Optional):** The "AUDIO OUTPUT" port can be used to pass the audio signal to another amplifier or recording device.
  5. **USB Port (Data/Power):** The larger USB-A port on the front of the board can be used for USB drive playback (if supported by the firmware) or to provide 5V power to low-power USB devices.

## 5. OPERATING INSTRUCTIONS

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1. **Power On:** Once all connections are securely made, apply power to the board. An indicator light (if present) should illuminate, signifying the board is active.
2. **Volume Control:** Rotate the 360-degree stepless knob clockwise to increase volume and counter-clockwise to decrease volume.
3. **Input Selection:** The rotary encoder typically functions as a button. A short press on the knob will cycle through the available audio inputs (AUX, USB Audio, Bluetooth).
4. **Bluetooth Pairing:** If using Bluetooth, ensure your device is in pairing mode and select "XY-C50L" from the list of available devices. The board will confirm successful pairing.

## 6. MAINTENANCE

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- Keep the amplifier board clean and free from dust. Use a soft, dry cloth for cleaning.
- Avoid exposing the board to extreme temperatures, direct sunlight, or high humidity.
- Do not attempt to disassemble or modify the board. Unauthorized modifications may cause damage and void any implied warranty.
- Ensure proper ventilation around the board, especially during extended operation, to prevent overheating.

## 7. TROUBLESHOOTING

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- **No Sound:**
  - Check all power supply connections and ensure the board is powered on.
  - Verify speaker connections and ensure correct polarity.
  - Ensure the audio source is playing and connected correctly to the selected input.
  - Check volume levels on both the amplifier board and the audio source.
  - If using Bluetooth, confirm it is paired and connected to your device.
- **Distorted Sound:**
  - Reduce the volume on both the amplifier and the audio source. Overdriving the input or output can cause distortion.
  - Check for loose speaker or audio input connections.
  - Ensure the power supply is stable and within the specified voltage range (DC 5-26V). Insufficient power can lead to distortion.
- **Board Not Powering On:**
  - Verify that the power supply is working correctly and connected with the correct polarity.
  - Check that the input voltage is within the DC 5-26V range.

## 8. WARRANTY AND SUPPORT

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Specific warranty details for the Senzooe XY-C50L Stereo Digital Power Amplifier Board are not provided in this manual. For any support inquiries, troubleshooting assistance beyond this guide, or warranty information, please contact the seller directly through your purchase platform. Please retain your proof of purchase for any warranty claims.