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Senzooe XY-AP15H

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Model: XY-AP15H

1. INTRODUCTION

This user manual provides detailed instructions for the installation, operation, and maintenance of the Senzooe XY-AP15H Stereo Power Amplifier Module. Please read this manual thoroughly before using the product to ensure proper functionality and safety.

The XY-AP15H is a high-power digital stereo amplifier board designed for various audio applications. It supports 10W, 15W, and 20W output power and operates within a 12V to 24V DC power supply range.

2. KEY FEATURES

- High-power digital stereo amplifier module.
- Output Power: 10W, 15W, 20W (depending on power supply and speaker impedance).
- Wide Operating Voltage: DC 12V - 24V.
- Compact design with approximate dimensions of 52mm x 52mm x 16mm.
- Integrated volume control knob.
- Multiple audio input options: AUX In, USB Audio.
- Stereo audio output.

3. PRODUCT OVERVIEW AND COMPONENTS

Familiarize yourself with the various components and connection points of the XY-AP15H amplifier board.



Figure 3.1: XY-AP15H Amplifier Board Layout. This image displays the top view of the amplifier board, highlighting the main volume knob, AUX In port, USB Audio port, DC power input (8-24V), and stereo audio output terminals (R and L).



Figure 3.2: XY-AP15H Dimensions. This image provides a dimensional drawing of the amplifier board, showing its compact size of 52mm x 52mm x 16mm, with the volume knob extending 10mm above the board surface.



Figure 3.3: XY-AP15H with Smartphone. This image illustrates the amplifier board alongside a smartphone, indicating potential wireless control or audio streaming capabilities, possibly via Bluetooth, though specific app details are not provided.

4. SETUP AND INSTALLATION

4.1 Power Supply Connection

Connect a DC power supply within the range of 12V to 24V to the "DC: 8-24V" input terminals. Ensure correct polarity: positive (+) to positive, and negative (-) to negative. Using an incorrect voltage or reversed polarity can damage the module.

4.2 Speaker Connection

Connect your stereo speakers to the "AUDIO OUTPUT" terminals. The left channel speaker connects to the 'L' terminal and the right channel speaker connects to the 'R' terminal. Ensure proper impedance matching for optimal performance and to prevent damage to the amplifier or speakers.

4.3 Audio Input Connection

The XY-AP15H supports two primary audio input methods:

- **AUX In:** Connect your audio source (e.g., smartphone, MP3 player, PC) to the "AUX IN" jack using a 3.5mm audio cable.
- **USB Audio:** Connect a device supporting USB audio output to the "USB AUDIO" port. This allows the module to function as an external sound card for your device.

Select the desired input source based on your audio setup.

5. OPERATING INSTRUCTIONS

5.1 Powering On/Off

Once all connections are secure, apply power to the DC input. The module will power on automatically. To power off, disconnect the DC power supply.

5.2 Volume Control

Adjust the audio output volume using the large central rotary knob. Turn clockwise to increase volume and counter-clockwise to decrease volume.

5.3 Input Selection

The module automatically detects the active audio input. If both AUX In and USB Audio are connected, the module may prioritize one input or require manual switching (if a switch is present, which is not explicitly shown but implied by multiple inputs). Refer to the device's behavior for specific input switching.

6. TECHNICAL SPECIFICATIONS

Parameter	Value
Model	XY-AP15H
Brand	Senzooe
Operating Voltage	DC 12V - 24V
Output Power	10W / 15W / 20W (Stereo)
Dimensions (L x W x H)	Approx. 52mm x 52mm x 16mm
Audio Inputs	AUX In (3.5mm), USB Audio
Audio Output	Stereo Speaker Terminals

7. MAINTENANCE

The XY-AP15H amplifier module requires minimal maintenance. Follow these guidelines to ensure its longevity:

- Keep the module clean and free from dust. Use a soft, dry cloth for cleaning.
- Avoid exposing the module to moisture, extreme temperatures, or direct sunlight.
- Do not attempt to disassemble or modify the module. This will void any potential warranty and may cause damage.
- Ensure proper ventilation around the module during operation to prevent overheating.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
No sound output	<ul style="list-style-type: none">◦ No power or incorrect power supply.◦ Incorrect speaker connection.◦ Audio input cable loose or incorrect.◦ Volume knob set too low.◦ Audio source not playing or muted.	<ul style="list-style-type: none">◦ Verify DC 12V-24V power supply and polarity.◦ Check speaker wiring for correct polarity and secure connection.◦ Ensure audio input cable is fully inserted and functional.◦ Increase volume using the knob.◦ Check audio source playback and volume settings.
Distorted sound	<ul style="list-style-type: none">◦ Volume set too high (clipping).◦ Improper speaker impedance.◦ Poor quality audio source.◦ Insufficient power supply current.	<ul style="list-style-type: none">◦ Reduce volume.◦ Ensure speakers match amplifier's impedance requirements.◦ Try a different audio source.◦ Use a power supply capable of delivering sufficient current for the desired output power.
Module gets hot	<ul style="list-style-type: none">◦ Lack of ventilation.◦ Operating at maximum power for extended periods.◦ Speaker impedance too low.	<ul style="list-style-type: none">◦ Ensure adequate airflow around the module.◦ Reduce volume or operating time.◦ Verify speaker impedance is within the recommended range.

9. WARRANTY INFORMATION

Senzooe products are manufactured to high quality standards. For specific warranty terms and conditions, please refer to the documentation provided at the time of purchase or contact your retailer. Typically, warranties cover defects in materials and workmanship under normal use.

Please note that damage caused by improper installation, misuse, unauthorized modification, or operating outside the specified parameters (e.g., incorrect voltage) is generally not covered by warranty.

10. CUSTOMER SUPPORT

If you encounter any issues that cannot be resolved using the troubleshooting guide, or if you require further assistance, please contact your point of purchase or the manufacturer, Senzooe. When contacting support, please have your product model (XY-AP15H) and purchase details ready.

For the most up-to-date support information, please visit the official Senzooe website or contact their customer service department.