

## AUGUESLD XY-S220H

# AUGUESLD XY-S220H 2.1 Channel Bluetooth Power Amplifier Board Instruction Manual

Model: XY-S220H

## 1. INTRODUCTION

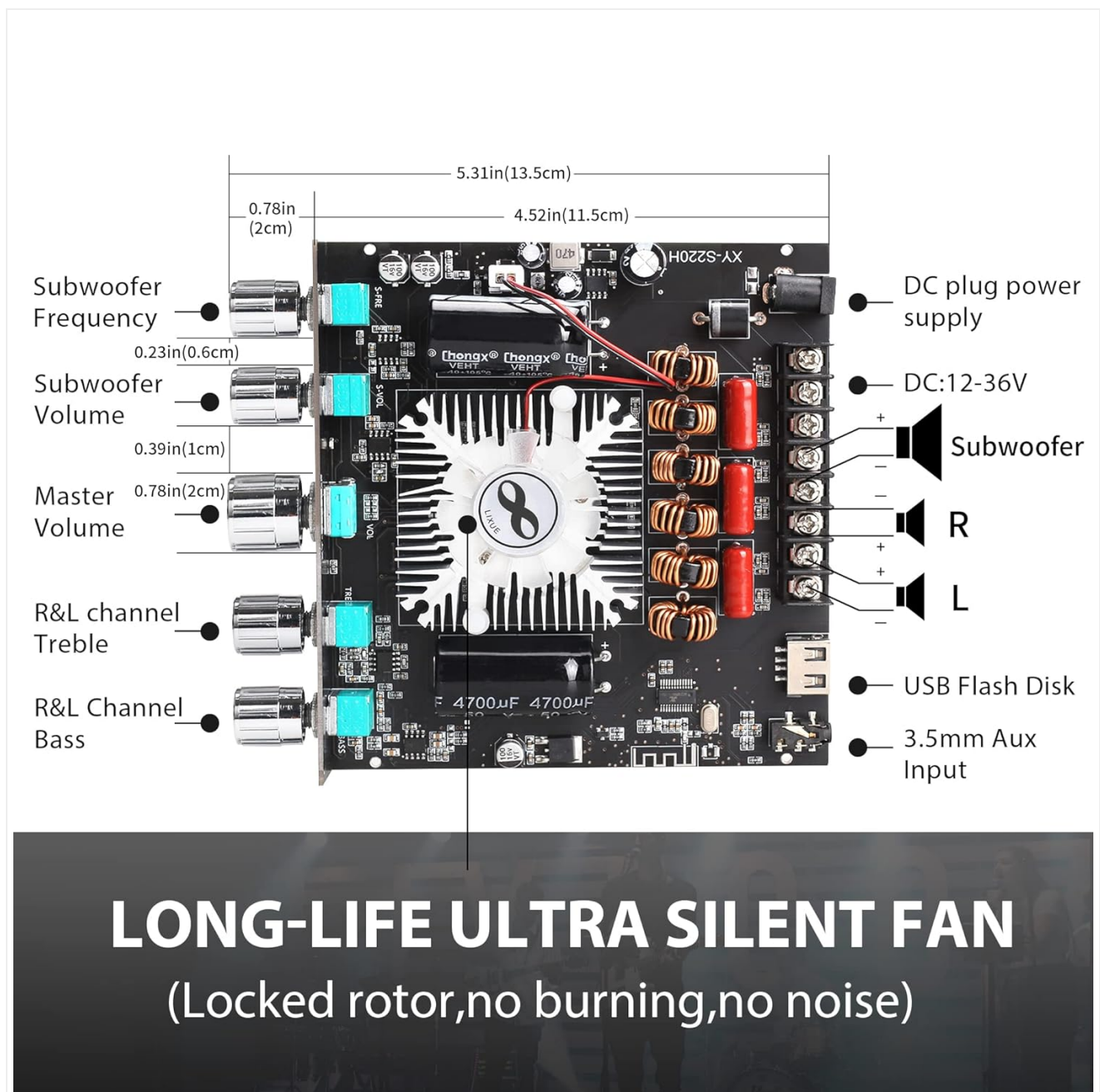
The AUGUESLD XY-S220H is a high-fidelity 2.1 channel audio power amplifier board designed for various audio applications. It features a TDA7498E chip, providing a powerful output of 160W for left and right channels and 220W for the subwoofer. This module supports Bluetooth 5.1 connectivity, AUX input, and USB flash disk playback. Advanced features include custom Bluetooth name and password settings, along with comprehensive protection mechanisms for safe operation.

## 2. KEY FEATURES

- **2.1 Channel Audio Output:** Provides stereo sound for left and right channels plus a dedicated subwoofer output.
- **High Power Output:** 160W x 2 (Left/Right) + 220W (Subwoofer) for robust audio performance.
- **Bluetooth 5.1 Connectivity:** Stable and efficient wireless audio streaming.
- **TDA7498E Chip:** Ensures high-quality audio output with built-in protection features.
- **Multiple Audio Inputs:** Supports Bluetooth, 3.5mm AUX, and USB Flash Disk.
- **Customizable Bluetooth:** Set a unique Bluetooth name and password via a dedicated application.
- **Adjustable Controls:** Independent knobs for subwoofer frequency, subwoofer volume, master volume, R&L channel treble, and R&L channel bass.
- **Wide Voltage Range:** Operates efficiently with DC 12V-36V power supply.
- **Integrated Cooling Fan:** Ensures stable operation and prevents overheating.
- **Protection Mechanisms:** Includes overvoltage, undervoltage, clipping, short circuit, and overheating protection.

## 3. PRODUCT OVERVIEW

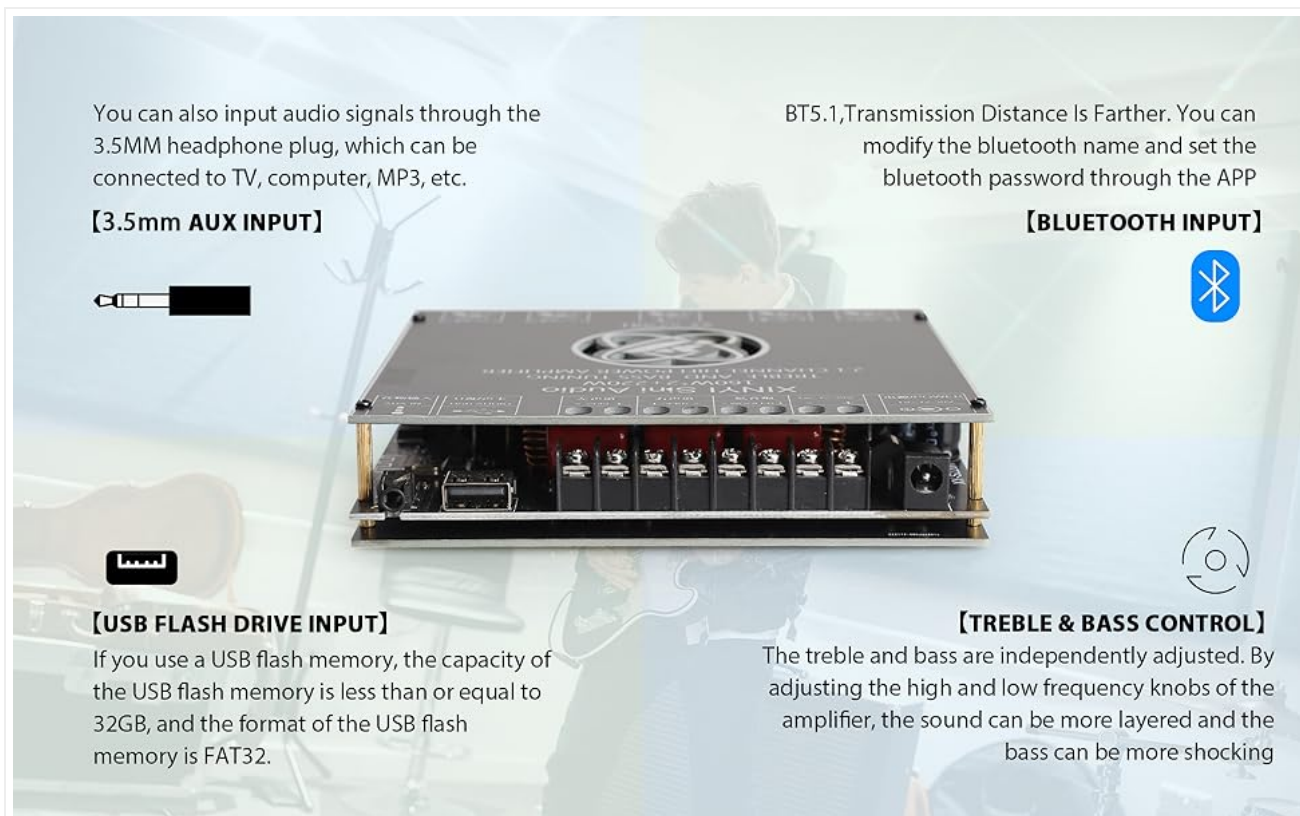
Familiarize yourself with the components and controls of your amplifier board:



**Figure 3.1: Amplifier Board Layout**

This image displays the top view of the XY-S220H amplifier board, highlighting its various controls and connection points. From left to right, the knobs control Subwoofer Frequency, Subwoofer Volume, Master Volume, R&L Channel Treble, and R&L Channel Bass.

On the right side, connections include DC power input (12-36V), Subwoofer output, Right (R) and Left (L) channel outputs, USB Flash Disk input, and 3.5mm Aux Input.



**Figure 3.2: Input Modes and Controls**

This image illustrates the different input options available: 3.5mm AUX input for connecting devices like TVs, computers, or MP3 players; Bluetooth 5.1 input for wireless streaming with extended transmission distance and customizable name/password via app; and USB Flash Drive input for playing audio files (FAT32 format, up to 32GB). It also highlights the independent Treble & Bass controls for sound customization.

## 4. SETUP INSTRUCTIONS

Follow these steps to set up your AUGUESLD XY-S220H amplifier board:

1. **Power Connection:** Connect a DC 12V-36V power supply (minimum 10A recommended) to the DC plug power supply terminal on the board. Ensure correct polarity.
2. **Speaker Connection:** Connect your passive speakers to the corresponding output terminals.
  - Connect the subwoofer to the 'Subwoofer' terminals.
  - Connect the right channel speaker to the 'R' terminals.
  - Connect the left channel speaker to the 'L' terminals.

Ensure all speaker wires are securely connected and observe correct polarity (+ to + and - to -).

3. **Audio Input Selection:** Choose your desired audio input method (Bluetooth, AUX, or USB).
4. **Initial Volume Adjustment:** Before powering on, set the Master Volume knob to a low level to prevent sudden loud sounds.

## 5. OPERATING MODES

### 5.1 AUX Input Mode

To use the 3.5mm AUX input:

1. Connect your audio source (e.g., smartphone, computer, MP3 player) to the 3.5mm Aux Input port on the

amplifier board using an audio cable.

2. The amplifier will automatically switch to AUX mode or you may need to short press the Master Volume knob to cycle through input modes until AUX is selected.
3. Adjust the Master Volume, Subwoofer Volume, Subwoofer Frequency, Treble, and Bass knobs to your preference.

#### **Video 5.1.1: AUX Input Demonstration**

This video demonstrates connecting an audio source (laptop) to the amplifier board via the 3.5mm AUX input. It shows how to adjust the volume and other sound parameters using the control knobs, and how to pause/play by short-pressing the Master Volume knob.

## **5.2 Bluetooth Mode**

To connect via Bluetooth:

1. Ensure the amplifier board is powered on and in Bluetooth pairing mode (indicated by a flashing blue LED). If not, short press the Master Volume knob to cycle to Bluetooth mode.
2. On your mobile device, enable Bluetooth and search for available devices.
3. Select "XinYi" (default name) or your custom Bluetooth name from the list to pair. A confirmation tone will sound upon successful connection.
4. You can now play audio from your device through the amplifier. Adjust volume and sound settings using the amplifier knobs or your device.

#### **Customizing Bluetooth Name and Password (via App):**

- Download the "Sinilink-APP" from your device's app store.
- Open the app and connect to your amplifier board.
- Within the app, you can modify the Bluetooth name, set a connection password, and turn on/off prompt tones. This helps prevent signal hijacking and confusion with multiple devices.



**Figure 5.2.1: App Control for Bluetooth Settings**

This image illustrates the mobile application interface, demonstrating how users can customize the Bluetooth name, set a connection password, and manage prompt tones for their amplifier board. This feature enhances security and personalization.

#### **Video 5.2.2: Bluetooth Mode Demonstration**

This video shows the process of connecting a mobile phone to the amplifier board via Bluetooth. It highlights how to select the Bluetooth device on the phone and play music, demonstrating the wireless audio capabilities of the amplifier.

### **5.3 USB Flash Disk Mode**

To play audio from a USB flash disk:

1. Insert a USB flash disk (formatted as FAT32, maximum 32GB capacity) containing audio files into the USB Flash Disk port on the amplifier board.
2. The amplifier will automatically detect the USB disk and begin playback, or you may need to short press the Master Volume knob to cycle to USB mode.
3. Use the Master Volume knob to control playback (short press for play/pause, rotate for volume).

## **6. SPECIFICATIONS**

Feature	Specification
Product Model	XY-S220H
Power Supply	DC 12-36V / 10A (minimum)
Bluetooth Version	5.1
Audio Channel	2.1 Channel
Audio Input	Bluetooth + AUX + U Flash Disk
Audio Output	Left and Right Channels + Subwoofer
Frequency Range	20Hz - 20KHz
Volume Adjustment	High-end encoder knob adjustment, smooth feel
L&R Max Output Power	160W/4Ω --- 36VDC 80W/8Ω --- 36VDC
Subwoofer Max Output Power	220W/3Ω --- 36VDC 160W/4Ω --- 36VDC
Protection Mechanism	Overvoltage, Undervoltage, Clipping, Short Circuit, Overheating
Unique Function	Support Sinilink-APP to modify Bluetooth name, set Bluetooth password, turn off/on prompt tone
Product Dimensions	5.3 x 4.9 x 1.02 inches
Item Weight	10.9 ounces

## 7. TROUBLESHOOTING

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

- **No Power:**

- Ensure the power adapter is correctly connected and providing the specified DC 12V-36V.
- Check the power outlet for functionality.
- Verify that the power supply meets the minimum current requirement (10A recommended).

- **No Sound Output:**

- Confirm that speakers are correctly wired to the output terminals with proper polarity.
- Check the audio input source (Bluetooth, AUX, USB) is correctly selected and functioning.
- Increase the Master Volume knob and ensure the audio source device's volume is also up.
- Verify that the speaker wires are not short-circuited or damaged.

- **Bluetooth Connection Issues:**

- Ensure the amplifier is in Bluetooth pairing mode (flashing blue LED).
- Disable and re-enable Bluetooth on your mobile device, then try searching again.

- Move your device closer to the amplifier to ensure it's within range.
  - If a password is set, ensure it is entered correctly.
  - Try forgetting the device on your phone and re-pairing.
- **Distorted Sound:**
    - Reduce the Master Volume on the amplifier and/or the audio source device.
    - Check speaker impedance compatibility with the amplifier's output specifications.
    - Ensure the power supply is stable and sufficient for the output power.
    - Adjust the Treble and Bass knobs to find optimal sound balance.

## 8. MAINTENANCE

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

- **Cleaning:** Use a soft, dry cloth to wipe the surface of the amplifier. Do not use liquid cleaners or solvents, as they may damage the components.
- **Ventilation:** Ensure the cooling fan and ventilation holes are not obstructed to allow proper airflow and prevent overheating.
- **Storage:** Store the amplifier in a cool, dry place away from direct sunlight, high temperatures, and excessive humidity.
- **Handling:** Handle the board with care to avoid physical damage to components or connectors.
- **Power Off:** Always disconnect the power supply when not in use for extended periods or during maintenance.

## 9. WARRANTY AND SUPPORT

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For warranty information, technical support, or service inquiries, please refer to the documentation provided with your purchase or contact the seller directly. Keep your proof of purchase for any warranty claims.