

AOSHIDA AO200

SMSL AO200 Digital Power Amplifier User Manual

Model: AO200 | Brand: AOSHIDA

1. INTRODUCTION

The SMSL AO200 is a high-performance digital power amplifier designed for desktop HiFi audio systems. It features dual Infineon MA12070 amplifier chips, delivering powerful and clear audio output. With multiple input options including USB, Bluetooth, XLR, and RCA, it offers versatile connectivity for various audio sources. The amplifier also includes a remote control for convenient operation and supports both subwoofer and passive speaker outputs.

2. SAFETY INSTRUCTIONS

- Do not disassemble the unit. Refer all servicing to qualified personnel.
- Do not expose the unit to rain or moisture.
- Avoid placing the unit near heat sources or in direct sunlight.
- Ensure proper ventilation around the unit to prevent overheating.
- Use only the specified power adapter and cables.
- Keep the unit away from strong magnetic fields.

3. PACKAGE CONTENTS

Upon opening the package, verify that all items are present and in good condition. The standard package includes:

- SMSL AO200 Digital Power Amplifier Unit
- Remote Control

- USB Cable
- Bluetooth Antenna
- Power Cable
- User Manual

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Video Description: This video demonstrates the unboxing of the SMSL AO200 Digital Power Amplifier, showcasing the main unit, remote control, USB cable, Bluetooth antenna, and power cable included in the package.

4. PRODUCT OVERVIEW

4.1 Front Panel



Image Description: A front view of the SMSL AO200 Digital Power Amplifier, displaying the brand logo 'S.M.S.L', model 'AO200', a central rotary knob, a color display screen, and a remote control placed next to it.

- **Knob:** Multi-function rotary knob for volume control and menu navigation.
- **Display:** Color screen showing current input, volume level, and other settings.

- **Remote Window:** Infrared receiver for the remote control.

4.2 Rear Panel

Bluetooth 5.0 Power Amplifier

With its Bluetooth 5.0 receiver, the AO200 allows you to broadcast your music from a distance, directly from a smartphone for example.



Image Description: A detailed view of the rear panel of the SMSL AO200 amplifier, with labels indicating the XLR Balanced Input (Left/Right), RCA Input (Left/Right), SW Output, USB Input, Bluetooth Antenna port, Speaker Outputs (Left/Right), Power Input, and Power Switch.

- **XLR Balanced Input (Left/Right):** For connecting balanced audio sources.
- **RCA Input (Left/Right):** For connecting unbalanced audio sources.
- **SW Output:** Subwoofer output.
- **USB Input:** For connecting to a computer or other USB audio source.
- **Bluetooth Antenna:** Connector for the included Bluetooth antenna.
- **Speaker Outputs (Left/Right):** Binding posts for connecting passive speakers.
- **Power Input:** AC power inlet (100-240V).
- **Power Switch:** Main power toggle switch.

5. SETUP

5.1 Initial Connection

1. Connect the power cable to the amplifier's power input and then to a suitable AC outlet.
2. Install the Bluetooth antenna by screwing it into the designated port on the rear panel.
3. Turn on the power switch on the rear panel. The AO200 will start automatically.

5.2 Input Connections

- **USB Input:** Connect a USB-A cable from your computer or audio source to the USB input port on the amplifier.
- **RCA Input:** Connect RCA cables from your audio source (e.g., CD player, DAC) to the RCA input ports (Left/Right).
- **XLR Balanced Input:** Connect XLR cables from your balanced audio source to the XLR input ports (Left/Right).

5.3 Output Connections

- **Speakers:** Connect your passive speakers to the speaker output binding posts (Left/Right). Ensure correct polarity (+ to + and - to -).
- **Subwoofer:** If using an active subwoofer, connect it to the SW Output port.

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Video Description: This video illustrates the connection process for the SMSL AO200 amplifier, including connecting the power cable, Bluetooth antenna, USB-A input, RCA input, and XLR balanced input. It also highlights the subwoofer and speaker output modes.

6. OPERATING INSTRUCTIONS

6.1 Power On/Off

Press the power button on the remote control or the main power switch on the rear panel to turn the unit on or off.

6.2 Input Selection

Use the remote control or the multi-function knob to navigate the menu and select your desired input source (USB, Balanced, Unbalanced, Bluetooth).

6.3 Volume Control

Rotate the multi-function knob on the front panel or use the volume up/down buttons on the remote control to adjust the audio volume.

6.4 EQ Settings

The AO200 features 8 EQ modes to tailor the sound to your preference. Access the EQ settings through the menu using the multi-function knob or remote control. Available modes include: Direct, Tone, SDB (SMSL patent), Bass, Super Bass, Rock, Soft, and Clear.

Your browser does not support the video tag.

Video Description: This video demonstrates the use of the remote control for the SMSL AO200 amplifier, including power on/off, muting, volume adjustment, and navigating the input selection menu to choose between USB, Balanced, Unbalanced, and Bluetooth inputs.

7. FEATURES AND TECHNOLOGY

7.1 Advanced Amplification

- **Dual Infineon MA12070 Chips:** Utilizes two German Infineon MA12070 Class D power amplifier chips for high quality, high efficiency (up to 92%), and reduced power consumption.
- **High Output Power:** Capable of delivering 150W x 2 into 2Ω, 90W x 2 into 4Ω, and 50W x 2 into 8Ω.

MAX Output Power 150W+150W

S M S L AO200 is a compact and powerful Class D digital amplifier, capable of developing a power of 2*150W under 2Ω thanks to its two Infineon MA12070 amplifier chips.



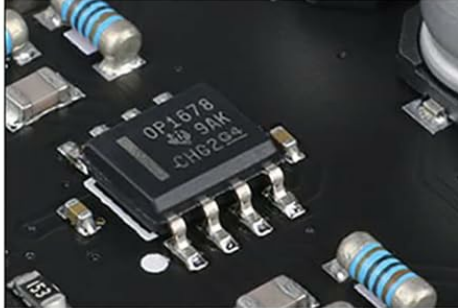
Image Description: The S.M.S.L AO200 amplifier is shown next to a bookshelf speaker, illustrating its capability to drive speakers with a maximum output power of 150W+150W.

7.2 Internal Components

- **Volume Control Chip NJW1194:** Features NJRC's electronic volume control chip NJW1194 for precise volume control and low distortion.
- **High Performance OP Amplifier:** Ensures optimal signal processing.
- **ERO Audio Cap & Low Noise MELF Resistors:** High-quality components for superior audio performance.

Volume Control Chip NJW1194

Using NJRC'S electronic volume control chip NJW1194, precise volume control and low distortion;



High Performance OP Amplifier

ERO Audio Cap



Low noise MELF resistors

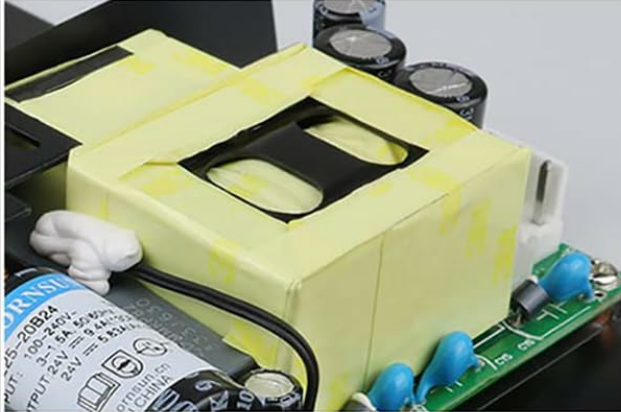
Image Description: A close-up view of the internal circuit board of the SMSL AO200, highlighting the NJW1194 volume control chip, high performance OP amplifier, ERO audio capacitors, and low noise MELF resistors.

7.3 Power Management

- **Customized Power Module:** Provides instantaneous power up to 300W, contributing to excellent sound dynamics and reduced electromagnetic interference.
- **2-Stage Power Input Filtering:** Enhances power stability and reduces noise.
- **Large-Frame Low-Leakage Switching Power Supply Transformer:** Ensures efficient and stable power delivery.

Customized Power Module

The instantaneous power reaches 300W!
It is excellent in terms of sound dynamics
and electromagnetic interference!



Large-Frame Low-Leakage

Switching power supply transformer.

2-Stage Power Input Filtering



Image Description: A detailed view of the internal power module of the SMSL AO200, showcasing the customized power module, 2-stage power input filtering, and the large-frame low-leakage switching power supply transformer.

7.4 Connectivity

- **Bluetooth 5.0:** Allows wireless audio streaming from compatible devices.
- **Multiple Inputs:** USB, Balanced XLR, Unbalanced RCA, and Bluetooth for diverse source connectivity.



Bluetooth 5.0



MA12070*2 Chip



2.1 System Amplifier



Image Description: The S.M.S.L AO200 amplifier is shown with icons highlighting its key features: Bluetooth 5.0, dual Infineon MA12070 chips, and 2.1 system amplifier capability.

8. SPECIFICATIONS



Specifications

Product model	SMAL AO200
Inputs	XLR , RCA , BT , USB
THD+N	0.003%
SNR	110dB
Channel separation	98dB
Input Sensitivity/ Input Impedance	280mV/47k Ω
Output Power	150Wx2(2 Ω) / 90Wx2(4 Ω) / 50Wx2(8 Ω)
Power Consumption	40W(Normal Volume)
Standby power	0.5W
Size	210x40x170mm (WxHxD)
Weight	0.96kg
Weight (In shipping carton)	1.46kg

Image Description: A table detailing the specifications of the S.M.S.L AO200 amplifier, including product model, inputs, THD+N, SNR, channel separation, input sensitivity/impedance, output power, power consumption, standby power, size, and weight.

Specification	Value
Product Model	AO200
Inputs	XLR, RCA, BT, USB
THD+N	0.003%
SNR	110dB
Channel Separation	98dB
Input Sensitivity/Input Impedance	280mV/47k Ω
Output Power	150W x 2 (2 Ω) / 90W x 2 (4 Ω) / 50W x 2 (8 Ω)
Power Consumption	40W (Normal Volume)
Standby Power	0.5W
Size (WxHxD)	210 x 40 x 170mm
Weight	0.96kg
Product Dimensions	7.38 x 1.57 x 6.06 inches; 4.61 Pounds
Voltage	110 Volts
Mounting Type	Tabletop

9. MAINTENANCE

- Clean the unit with a soft, dry cloth. Do not use liquid cleaners or aerosols.
- Ensure all connections are secure and free from dust.
- Store the unit in a cool, dry place when not in use for extended periods.

10. TROUBLESHOOTING

- **No Power:** Check if the power cable is securely connected and the power switch is in the 'ON' position. Verify the power outlet is functional.
- **No Sound:** Ensure the correct input source is selected. Check all audio cable connections. Verify speaker connections and polarity. Adjust the volume level.
- **Distorted Sound / Static at High Volume:** Reduce the volume level. Check for loose connections or damaged cables. Ensure the audio source is not overdriving the input.
- **Bluetooth Connection Issues:** Ensure the Bluetooth antenna is properly installed. Verify the amplifier is in Bluetooth input mode. Disconnect and reconnect the Bluetooth device.
- **Remote Control Not Working:** Check the remote control batteries. Ensure there are no obstructions between the remote and the amplifier's remote window.

11. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official AOSHIDA website or contact their

customer service directly. Keep your purchase receipt as proof of purchase for warranty claims.