



Manuals.plus /

- › SMSL /
- › SMSL C-200 HiFi DAC Headphone Amplifier User Manual

## SMSL C200

# SMSL C-200 HiFi DAC Headphone Amplifier User Manual

Model: C200

## 1. INTRODUCTION

The SMSL C-200 is a high-performance Digital-to-Analog Converter (DAC) and Headphone Amplifier designed to deliver exceptional audio fidelity. Featuring an ES9038Q2M DAC chip, multiple input options including USB, Optical, Coaxial, and Bluetooth, along with versatile headphone and line outputs, the C-200 provides a comprehensive solution for discerning audio enthusiasts. This manual provides detailed instructions for the proper setup, operation, and maintenance of your C-200 unit.

## 2. SAFETY INFORMATION

- 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 such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Use only attachments/accessories specified by the manufacturer.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Ensure proper ventilation around the unit to prevent overheating.

## 3. PACKAGE CONTENTS

Please check the package for the following items:

- 1 x SMSL C-200 Unit
- 1 x Remote Control
- 1 x USB Cable
- 1 x AC Power Cable

- 1 x Bluetooth Antenna
- 1 x User Manual (this document)

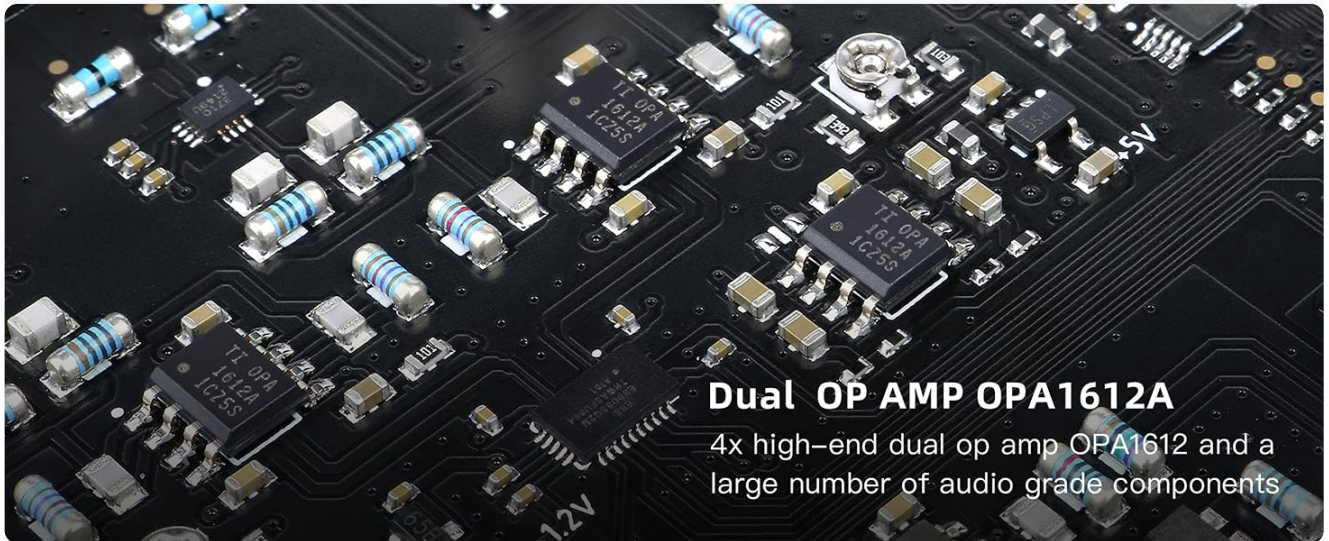


Image: The SMSL C-200 unit, remote control, USB cable, AC power cable, and Bluetooth antenna are shown, representing the typical contents of the product package.

## 4. PRODUCT OVERVIEW

### 4.1 Front Panel



Image: The front panel of the SMSL C-200, featuring the 6.35mm and 4.4mm headphone output jacks on the left, a central multi-function knob, and a digital display on the right.

- **6.35mm Headphone Output:** Standard headphone jack.
- **4.4mm Balanced Headphone Output:** Balanced headphone jack for improved audio performance.
- **Multi-function Knob:** Controls volume, navigates menus, and selects inputs.
- **Display Screen:** Shows current input, sampling rate, volume level, and menu options.

## 4.2 Rear Panel



### 4.4mm / 6.35mm Headphone output Jack

4.4mm balanced / 6.35mm two kinds of headphone output jack to meet different headphone needs.

### High-Quality Gold-Plated Connection terminals

C200 has RCA single ended line and TRS balanced output.



### Various digital inputs

C200 supports USB, Bluetooth, optical fiber, and coaxial input

Image: The rear panel of the S.M.S.L C-200, displaying the AC power input, USB input, Optical input, Coaxial input, RCA stereo outputs, and TRS balanced outputs. A Bluetooth antenna port is also visible.

- **AC Power Input:** Connects to the included AC power cable.
- **USB Input:** Connects to a computer, game console (PS4/PS5, Switch), or mobile device.
- **Optical Input:** Digital audio input for TVs, CD players, etc.
- **Coaxial Input:** Digital audio input for various sources.
- **Bluetooth Antenna Port:** Connect the included Bluetooth antenna for wireless audio reception.
- **RCA Outputs:** Unbalanced analog audio outputs for connecting to amplifiers or active speakers.
- **TRS Balanced Outputs:** Balanced analog audio outputs for professional audio equipment.

## 5. SETUP

### 5.1 Connecting Power

Connect the supplied AC power cable to the AC power input on the rear panel of the C-200, then plug the other end into a standard wall outlet. The C-200 features a built-in AC adapter, eliminating the need for an external power

brick.



Image: An illustration highlighting the C-200's internal power supply design, contrasting it with devices that require an external power adapter.

## 5.2 Connecting Audio Sources

The C-200 offers multiple input options:

- **USB Input:** Use the provided USB cable to connect the C-200 to your computer, PS4/PS5, Nintendo Switch, or mobile phone. The C-200 supports both USB 1.1 (driver-free for most devices, up to 24bit/96kHz) and USB 2.0 (requires driver installation for Windows systems, supports high-standard sampling rates).
- **Optical/Coaxial Inputs:** Connect your digital audio sources (e.g., TV, CD player, game console) using optical or coaxial cables.
- **Bluetooth Input:** Screw the included Bluetooth antenna onto the dedicated port on the rear panel.

### 4.4mm balanced / 6.3 5mm Headphone Jack

C200 has 4.4mm balanced / 6.35mm headphone Jack, providing High / Low gain options.

#### Headphone output power

<u>2.6W x2</u>	<u>1.3W x2</u>
16Ω	32Ω

#### Headphone Gain

<u>0dB</u>	<u>11dB</u>
G L	G H



Image: A PlayStation controller is shown, illustrating the C-200's compatibility with game consoles like PS4, PS5, and Nintendo Switch via USB input.

## SPECIFICATION

Product model	SMSL C200	SNR	TRS 126dB RCA 124dB Headphone out 123dB	Power Consumption	5W
Output	6.35mm headphone / 4.4mm headphone / TRS / RCA	Output impedance	Line output 100 Ω Headphone out Near 0 Ω	Standby power	<0.5W
Output Level	TRS 4.0Vrms RCA 2.0Vrms	Bit depth	USB 1bit, 16~32bit Optical/Coaxial 1bit, 16~24bit	Size	139x32x147.5mm(WxHxD)
Headphone output power	16Ω 2.6Wx2 32Ω 1.3Wx2	Sampling Rate	USB PCM 44.1~768kHz DSD 2.8224~22.5792MHz Optical/Coaxial PCM 44.1~192kHz DSD DSD64(DoP)	Weight	510g / 1.12lbs
Headphone Gain	Low-Gain 0 dB High-Gain 11dB	Bluetooth specification (5.0)	LDAC 24bit/96kHz (990kbps/ 660kbps/330kbps) AptX-HD 24bit/48 kHz_576kbps AptX 16bit/44.1 kHz_352kbps SBC 16bit/44.1 kHz_328kbps AAC 16bit/44.1 kHz_320kbps		
THD+N	Line output 0.0001% (-120dB) Headphone out 0.00013% (-117dB)				
Dynamic range	TRS 126dB RCA 125dB Headphone out 123dB				

Image: A comprehensive connection diagram for the C-200, detailing how to connect USB, Optical, Coaxial, and Bluetooth inputs to various devices, and how to connect the RCA and TRS outputs to amplifiers or speakers.

### 5.3 Connecting Headphones or Speakers

- **Headphones:** Plug your headphones into either the 6.35mm or 4.4mm balanced headphone jack on the front panel.
- **Active Speakers/Amplifier:** Connect the RCA or TRS balanced outputs on the rear panel to your active speakers or a power amplifier.

## 4.4mm balanced /6.35mm Headphone Jack

C200 has 4.4mm balanced /6.35mm headphone Jack, providing High / Low gain options.

### Headphone output power

$\frac{2.6W \times 2}{16\Omega}$	$\frac{1.3W \times 2}{32\Omega}$
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### Headphone Gain

$\frac{0dB}{G L}$	$\frac{11dB}{G H}$
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Image: Headphones are shown with the C-200, emphasizing the 4.4mm balanced and 6.35mm headphone jacks and their respective output power capabilities (2.6W x2 at 16 $\Omega$ , 1.3W x2 at 32 $\Omega$ ) and gain options (0dB/11dB).

## 6. OPERATION

### 6.1 Power On/Off

Press the multi-function knob on the front panel to power on the unit. Press and hold the knob for a few seconds to power off.

### 6.2 Input Selection

Rotate the multi-function knob to cycle through available inputs (USB, Optical, Coaxial, Bluetooth). The selected input will be displayed on the screen.

### 6.3 Volume Control

Rotate the multi-function knob to adjust the volume level. The volume range is typically from -99dB to 0dB. Adjust to a comfortable listening level before playing audio.

## 6.4 Menu Navigation

Press the multi-function knob to enter the menu. Rotate the knob to navigate through menu options and press again to select. Use the remote control for convenient menu navigation.

## 6.5 Gain Settings

The C-200 offers two gain settings for the headphone output: Low Gain (0dB) and High Gain (11dB). This can be adjusted in the menu to match the impedance and sensitivity of your headphones.

## 6.6 Bluetooth Pairing

To pair a Bluetooth device:

1. Select Bluetooth as the input on the C-200.
2. On your mobile device, search for Bluetooth devices and select "SMSL C-200".
3. Once paired, audio from your device will stream to the C-200.

### High Quality Gold Plated Interface

C200 Input ports support DSD transmission, coaxial and optical supports DoP64

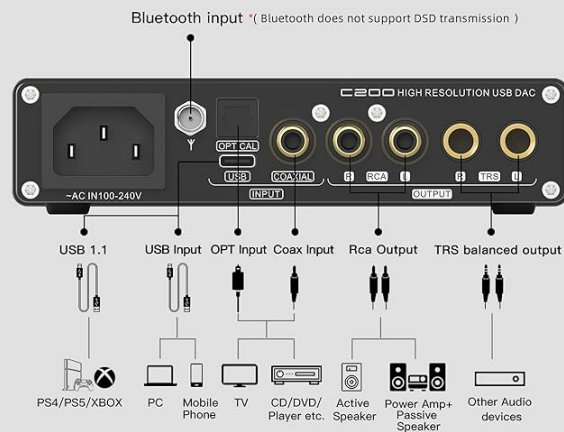


Image: The SMSL C-200 is shown on a desktop setup alongside a smartphone, illustrating its Bluetooth 5.1 reception capability for wireless audio streaming.

## 7. SPECIFICATIONS



Image: A detailed table outlining the technical specifications of the SMSL C-200, including output levels, headphone power, gain, THD+N, dynamic range, SNR, bit depth, sampling rate, Bluetooth specifications, power consumption, size, and weight.

Feature	Specification
Product Model	SMSL C200
DAC Chip	ESS ES9038Q2M
OP-AMPs	4x OPA1612A
USB Interface	2nd-generation XMOS
Bluetooth Chip	Qualcomm QCC5125 (Bluetooth 5.1)
Bluetooth Codecs	LDAC, aptX-HD, aptX, SBC, AAC
Inputs	USB, Optical, Coaxial, Bluetooth
Outputs	6.35mm Headphone, 4.4mm Balanced Headphone, RCA, TRS Balanced
USB Sampling Rate	PCM up to 32bit/768kHz, DSD512 (Native)
Optical/Coaxial Sampling Rate	PCM up to 24bit/192kHz, DoP64
Headphone Output Power (16Ω)	2.6W x2
Headphone Output Power (32Ω)	1.3W x2
Headphone Gain	Low Gain: 0dB, High Gain: 11dB
SNR (TRS)	126dB
SNR (RCA)	124dB
SNR (Headphone)	123dB
THD+N	0.0001% (-120dB)
Dynamic Range (TRS)	126dB
Dynamic Range (RCA)	125dB
Dynamic Range (Headphone)	123dB
Power Consumption	5W
Standby Power	<0.5W
Dimensions (WxHxD)	139 x 132 x 147.5 mm
Weight	510g / 1.12lbs
Material	Metal

## 8. TROUBLESHOOTING

Problem	Possible Cause	Solution
No sound output	Incorrect input selected, cables loose, volume too low, device not powered on.	Verify input selection, check all cable connections, increase volume, ensure unit is powered on.
Static or distorted sound	Poor cable connection, source issue, interference, incorrect gain setting.	Check cable integrity, test with a different source, move unit away from other electronics, adjust gain setting.
Bluetooth not pairing	C-200 not in pairing mode, device too far, interference.	Ensure Bluetooth input is selected on C-200, bring devices closer, restart both devices.
Unit not responding to remote	Remote batteries low/dead, obstruction, remote not pointed at unit.	Replace remote batteries, remove obstructions, ensure direct line of sight to the unit's sensor.
USB connection issues (Windows)	Driver not installed for USB 2.0 mode.	Install the necessary USB driver from the SMSL official website.

## 9. MAINTENANCE

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

## 10. WARRANTY AND SUPPORT

The SMSL C-200 comes with a standard manufacturer's warranty. Please refer to the warranty card included in your package for specific terms and conditions. For technical support, troubleshooting assistance beyond this manual, or warranty claims, please contact the seller or the official SMSL support channels. Contact information can typically be found on the seller's page or the manufacturer's website.

If you have any questions or need assistance, feel free to contact the seller. Seller support staff and technicians are always here to help.