

## SMSL AD18-black

# SMSL AD18 HiFi Amplifier User Manual

Model: AD18-black

## 1. INTRODUCTION

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This manual provides detailed instructions for the proper setup, operation, and maintenance of your SMSL AD18 HiFi Amplifier. Please read this manual thoroughly before using the device to ensure optimal performance and safety. The SMSL AD18 is a versatile digital amplifier designed to deliver high-fidelity audio with multiple input options and powerful stereo output.



Figure 1.1: Front view of the SMSL AD18 HiFi Amplifier.

## 2. PRODUCT OVERVIEW

### 2.1 Key Features

- **Versatile Connectivity:** Supports USB, coaxial, analog, Bluetooth 4.2 (with apt-X), and dual optical fiber inputs.
- **High-Resolution Audio:** Utilizes advanced Cirrus Logic CS8422 chips for high-resolution audio up to 24bit/192kHz (decodes up to 96kHz on AD18 USB input).
- **Powerful Stereo Output:** Delivers 80Wx2 output with dedicated circuits for speakers and headphones, plus an active subwoofer output.
- **Precision Sound Customization:** Features a built-in digital equalizer with bass and treble controls, and SMSL's patented SDB sound enhancement technology.
- **Advanced Power Efficiency:** Incorporates Texas Instruments (TI) TAS5508C and TAS5342 chips for efficient, high-resolution amplification.

## 2.2 Components and Controls

The SMSL AD18 amplifier comes with essential accessories for immediate use. Familiarize yourself with the main unit and its included components.



Figure 2.1: The SMSL AD18 amplifier shown with its remote control, highlighting key features such as Bluetooth 4.2, remote control functionality, color TFT screen, DSP, CNC chassis, and NFC capability.

## Premium components & advanced processing chips

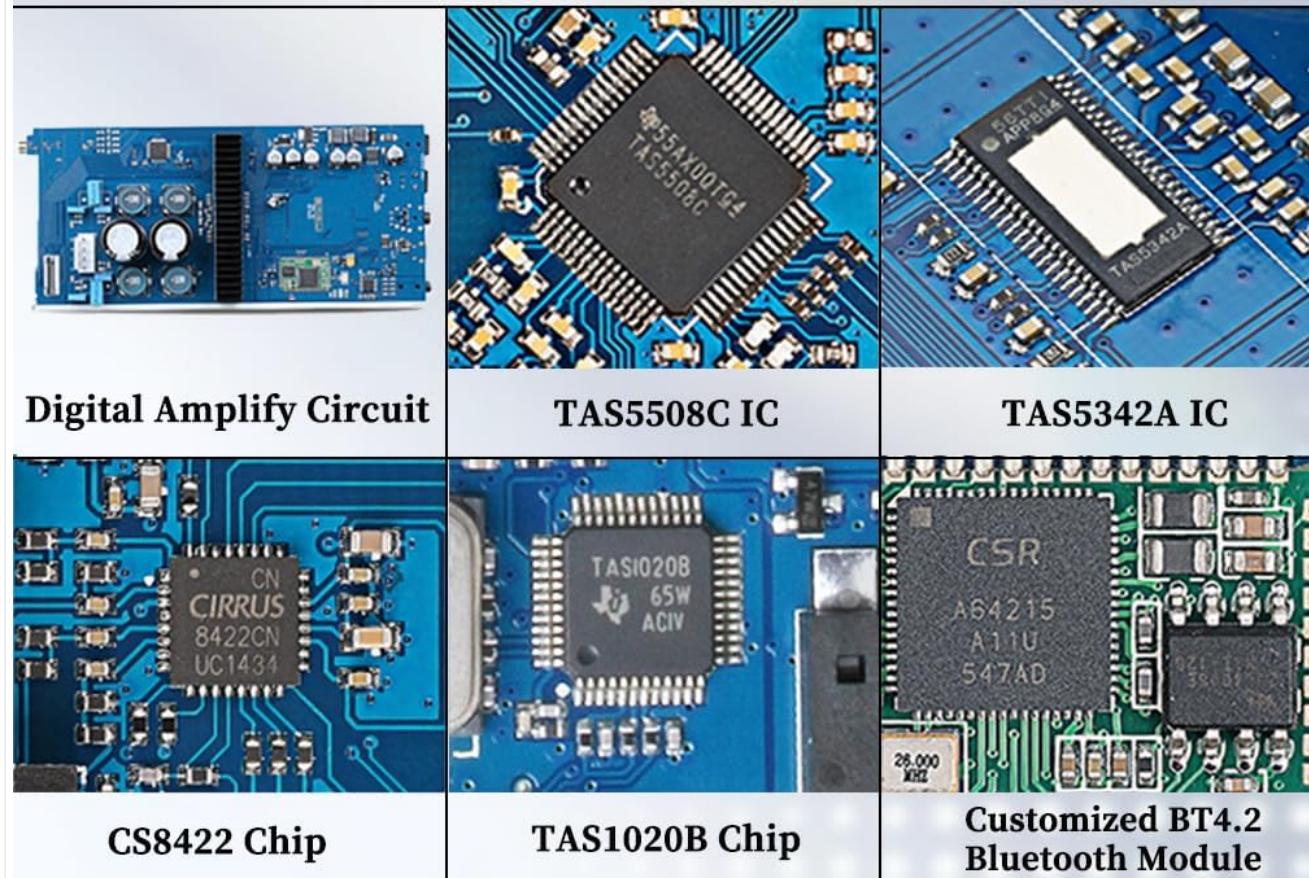


Figure 2.2: Internal view of the SMSL AD18, showcasing premium components and advanced processing chips like TAS5508C, TAS5342, CS8422, TAS1020B, and the customized BT4.2 Bluetooth Module.

## 3. SETUP

### 3.1 Connecting Audio Sources and Speakers

The AD18 offers a variety of input and output options. Ensure all connections are secure before powering on the device.

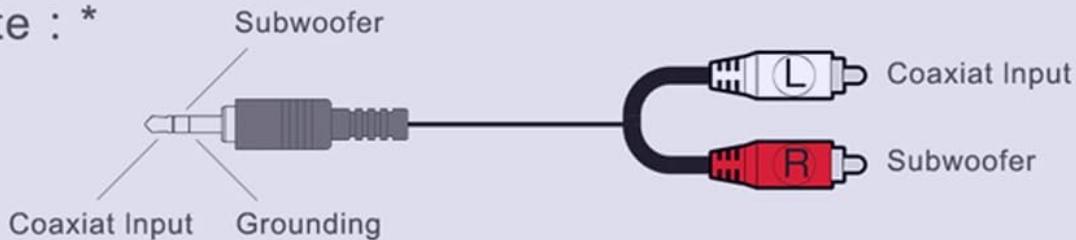
# Multiple Connection Methods



Figure 3.1: Rear panel of the SMSL AD18, indicating connection points for AUX input, USB input, 3.5mm coaxial/optical input, optical input, power input jack, Bluetooth antenna, and left/right speaker terminals.

- **USB Input:** Connects to your computer's USB jack and supports 24bit/96kHz high-resolution music files.
- **3.5mm OPT1 Input:** Designed for decoding and connecting with CD players, TV-BOX, PS4, and TV optical signals.
- **Standard OPT2 Input:** A convenient optical jack for various audio source devices. Two optical inputs are available, eliminating the need to unplug and plug cables to switch signals.
- **3.5mm Coaxial Input:** Shares the same 3.5mm jack with OPT1 input. This jack can connect with CD players via coaxial output.
- **3.5mm AUX Analog Input:** Sends analog signals to the amplifier for digital signal processing before outputting to speakers, providing enhanced performance. This jack is suitable for computers, phones, and TVs.
- **Speaker Outputs:** Connect your passive speakers to the left and right speaker terminals. Ensure correct polarity (+ to + and - to -).
- **Subwoofer Output:** Connect an active subwoofer to this output for enhanced bass.

Note : \*



**Input Jacks:**

1. USB input; connects with computer's USB jack and supports 24bit/96kHz High-resolution music file.
2. 3.5mm OPTI1 input jack designs for decoding and connecting with CD ,TV-BOX,PS4 and TV optical signal,
3. Standard OPTI2 input jack that convenient different type of optical jack of audio source devices.Two Optical inputs totally,so no need to unplug and plug cable to switch signal.
4. 3.5mm coaxial input,it shares the same 3.5mm jack with OPTI1 input.This jack can connect with CD player with Coaxial output function.
5. BT4.2 bluetooth input,it enables to long distance wireless transmission and play phone or computer music.

**How to pairing:**

- (1) Switching on your device BT function and sourcing "SMSL BT4.2",and click to pair with your device.
- (2) Using phone's NFC function to pair with bluetooth to work.
6. 3.5mm AUX analog signal input send to amplifier,then it will be digital signal processing before conveying to speaker. That will have a better performance.This jack mostly suit for computer,phone and TV.

Figure 3.2: Diagram illustrating the 3.5mm coaxial input and subwoofer output connections, along with detailed descriptions of all input jacks.

### 3.2 Bluetooth and NFC Pairing

The AD18 supports Bluetooth 4.2 with apt-X for wireless audio streaming and NFC for quick pairing.

# S.M.S.L

Hi-Fi Sound Quality & Stable Transmission

**Bluetooth 4.2 Wireless Connection & NFC Function**

**NFC Connection:**

Phone NFC area get close and induce to AD18 NFC area.

**Bluetooth Connection:**

Searching "SMSL BT4.2" in your device.



Figure 3.3: Instructions for Bluetooth 4.2 wireless connection and NFC function. For Bluetooth, search for "SMSL BT4.2" on your device. For NFC, bring your phone's NFC area close to the AD18's NFC area to induce connection.

- Bluetooth Pairing:** Switch on your device's Bluetooth function and search for "SMSL BT4.2". Select it to pair with your device.
- NFC Pairing:** Use your phone's NFC function. Bring your phone close to the AD18's NFC area to initiate pairing automatically.

## 4. OPERATING INSTRUCTIONS

### 4.1 Power On/Off

Press the power button on the front panel or the remote control to turn the unit on or off.

### 4.2 Input Selection

Use the input selector button on the front panel or the remote control to cycle through the available input sources (USB, Coaxial, Optical 1, Optical 2, AUX, Bluetooth).

### 4.3 Volume Control

Rotate the large knob on the front panel or use the volume up/down buttons on the remote control to adjust the output volume.

## 4.4 Tone Control and EQ

The AD18 features a built-in digital equalizer. Access the menu via the remote or front panel controls to adjust bass and treble levels ( $\pm 8\text{dB}$ ) and select from 7 preset EQ modes. The patented SDB sound enhancement technology can also be activated for dynamic audio optimization.

## 5. MAINTENANCE

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To ensure the longevity and optimal performance of your SMSL AD18 amplifier, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Avoid using liquid cleaners or abrasive materials, as they may damage the finish.
- **Ventilation:** Ensure adequate ventilation around the amplifier. Do not block the ventilation openings. Avoid placing the unit in enclosed spaces or on soft surfaces that may impede airflow.
- **Environment:** Keep the amplifier away from direct sunlight, heat sources, excessive dust, moisture, and strong electromagnetic fields.
- **Power:** Disconnect the power supply from the wall outlet if the unit will not be used for an extended period.

## 6. TROUBLESHOOTING

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If you encounter issues with your SMSL AD18, refer to the following common problems and solutions:

- **No Power:**

- Ensure the power adapter is securely connected to both the amplifier and a working power outlet.
- Verify the power outlet is active.

- **No Sound Output:**

- Check that the correct input source is selected on the amplifier.
- Verify that speakers are correctly connected and their cables are secure.
- Ensure the volume is not set to minimum or muted.
- Test with a different audio source or cable to rule out source or cable issues.

- **Bluetooth Connection Issues:**

- Ensure the Bluetooth antenna is securely attached to the amplifier.
- Make sure the amplifier is in Bluetooth pairing mode.
- Delete the AD18 from your device's Bluetooth list and try pairing again.
- Reduce the distance between the amplifier and the Bluetooth device.

- **Distorted Sound:**

- Check audio cables for damage or loose connections.
- Ensure the input signal level is not too high, causing clipping.
- Verify speaker impedance matches the amplifier's specifications.

If the problem persists after attempting these solutions, please contact customer support.

## 7. SPECIFICATIONS

Detailed technical specifications for the SMSL AD18 amplifier:



**AD18 Parameters**

Type	Full digital decoding Amplifier	USB	USB2.0
Color	Black	USB sampling rate	96kHz
Treble adjustment range	±8dB	Optical Sampling Rate	44.1kHz-192kHz
EQ Qty	7	Coaxial Sampling rate	44.1kHz-192kHz
Bass adjustment range	±8dB	Bluetooth version	BT4.2
SNR	90dB	Input jack	Amplifier output port, Headphone port
Output power	80W*2	Output jack	USB, Coaxial, 3.5mm, Bluetooth, Optical*2
Voltage	24V	Machine Size	172*51*85 ( mm )
Power consumption	50W	Package Size	285*232*75(mm)
Standby power	0.8W	Headphone output ( 32ohm )	53mW @THD=0.04%
Net Weight	572g	Package include	Power supply, MICRO USB cable, Remote control, Antenna
Gross Weight	1585g	Chip	TAS5508C, TAS1020B, CA8422, VT1600A, MAX97220A, CS5341, BT4.2, NE5532

Figure 7.1: Table detailing the parameters and specifications of the SMSL AD18 amplifier.

Parameter	Value
Type	Full digital decoding Amplifier
Color	Black
Treble Adjustment Range	±8dB
EQ Quantity	7
Bass Adjustment Range	±8dB
SNR	90dB
Output Power	80W*2

Parameter	Value
Voltage	24V
Power Consumption	50W
Standby Power	0.8W
Net Weight	572g (1.26 lbs)
Gross Weight	1585g (3.49 lbs)
USB Sampling Rate	96kHz
Optical Sampling Rate	44.1kHz-192kHz
Coaxial Sampling Rate	44.1kHz-192kHz
Bluetooth Version	BT4.2
Input Jack	Amplifier output port, Headphone port
Output Jack	USB, Coaxial, 3.5mm, Bluetooth, Optical*2
Machine Size	172*51*85 (mm) / 6.77"D x 2.01"W x 3.35"H
Package Size	285*232*75 (mm)
Headphone Output (32ohm)	53mW @THD=0.04%
Chips Used	TAS5508C, TAS1020B, CA8422, VT1600A, MAX97220A, CS5341, BT4.2, NE5532

## 8. WHAT'S IN THE BOX

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Upon opening the package, you should find the following items:

# Packaging Content



Figure 8.1: The SMSL AD18 amplifier, power supply, remote control, MICRO USB cable, and antenna as included in the package.

- SMSL AD18 Amplifier Unit
- Power Supply
- MICRO USB Cable
- Remote Control
- Antenna

## 9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or visit the official SMSL website. Keep your proof of purchase for warranty claims.

## 10. OFFICIAL PRODUCT VIDEOS

No official product videos from the seller were found in the provided data. Please refer to the manufacturer's official website or authorized channels for any available video resources.

## Related Documents

 <b>AL200</b> 使用说明书  <small>本说明书仅适用于AL200产品，如需使用，请参阅AL200产品说明书。 Version 1.0</small>	<p><a href="#"><b>SMSL AL200 User Manual: High Resolution Power Amplifier</b></a></p> <p>Comprehensive user manual for the SMSL AL200 High Resolution Power Amplifier. This guide details safety precautions, warranty terms, product features, technical specifications, remote control operation, display interface, and MQA playback instructions.</p>
 <b>PO100</b> 使用说明书/USER MANUAL  <small>本说明书仅适用于PO100产品，如需使用，请参阅PO100产品说明书。 Version 1.0</small>	<p><a href="#"><b>SMSL PO100 USB Digital Audio Interface User Manual</b></a></p> <p>User manual for the SMSL PO100, a compact USB digital audio interface featuring XMOS design, Type-C USB input, optical and coaxial outputs, and support for high sample rates and DOP64. Includes safety notes, warranty terms, features, specifications, and parts identification.</p>
 <b>A50PRO</b>  使用说明书 <a href="https://smsl-audio.com/">https://smsl-audio.com/</a> <small>本说明书仅适用于A50PRO产品，如需使用，请参阅A50PRO产品说明书。 Version 1.0</small>	<p><a href="#"><b>SMSL A50PRO Amplifier User Manual</b></a></p> <p>User manual for the SMSL A50PRO amplifier, detailing its features, specifications, safety notes, warranty terms, and operating instructions.</p>
 <b>PO100 PRO</b> 使用说明书  <small>本说明书仅适用于PO100 PRO产品，如需使用，请参阅PO100 PRO产品说明书。 Version 1.0</small>	<p><a href="#"><b>SMSL PO100 PRO User Manual</b></a></p> <p>User manual for the SMSL PO100 PRO, a digital to analog audio converter with MQA decoding, XMOS XU316 USB solution, and various output options including I2S, Optical, and Coaxial.</p>