S.M.S.L AS400

SMSL AS400 Power Amplifier DAC Headphone Amp Instruction Manual

Model: AS400

1. INTRODUCTION

The SMSL AS400 is a versatile audio device combining a power amplifier, DAC, and headphone amplifier into a single unit. It features advanced chip configurations, a 2.1 channel system, multiple sound modes, and extensive input options for a high-fidelity audio experience.

2. PACKAGE CONTENTS

- AS400 Unit
- AC Power Cable
- USB Cable
- HDMI Cable
- Bluetooth Antenna
- Remote Control
- User Manual
- Service Card

3. PRODUCT OVERVIEW AND FEATURES

The SMSL AS400 integrates several high-performance components to deliver exceptional audio quality and versatility.

3.1 Key Components

- **Amplifier Chip:** Infineon MA5332MS for stable performance and efficient audio processing.
- **DAC Chip:** Cirrus Logic CS43131 for unparalleled immersive listening.
- **Volume Control Chip:** JRC NJW1194A for precise volume control and low distortion.
- **USB Processor:** XMOS XU-316 for high-resolution audio up to 32bit/768kHz and DSD256.

Image: Detailed view of the Infineon MA5332MS, Cirrus Logic CS43131, and XMOS XU-316 chips on the SMSL AS400 circuit board.

3.2 High-Power Output

The AS400 delivers a powerful output of 165W x2 (4Ω) and 85W x2 (8Ω) with an extremely low THD+N distortion rate of only 0.003%. It accurately reproduces energetic rhythms and delicate melodies.

Image: Graphic illustrating the high-power output capabilities of the AS400, showing 165W x2 (4Ω) and 85W x2 (8Ω) with 0.003% THD+N.

3.3 2.1 Channel System

Equipped with a 2.1-channel active audio system, the amplifier provides dual 165W x2 full-range power output and an independent subwoofer channel. An exclusive subwoofer output interface allows connection to a high-power subwoofer unit.

2.1 Channel System: Enjoy a Musical Feast

The AS400 is equipped with a subwoofer signal output port, which allows for easy connection to an active subwoofer to create a 2.1 channel system. This setup enables your audio equipment to achieve greater potential, delivering powerful bass and refined audio quality.

Image: The AS400 connected to a pair of speakers and a subwoofer, illustrating its 2.1 channel system capability.

3.4 Built-in MM Vinyl Phono Preamplifier

A professional-grade MM phono amplifier is built-in, eliminating the need for additional phono equipment. This allows direct connection to a vinyl record player for enjoying analog sound.

Image: The AS400 shown with a turntable in the background, highlighting its built-in low-noise MM phono preamplifier.

3.5 XMOS XU-316 USB and MQA MQA-CD DAC

The combination of XMOS XU-316 and MQA decoding ensures lossless audio playback from studio masters. It supports 32bit/768kHz and DSD256, reproducing music with original sound fidelity.
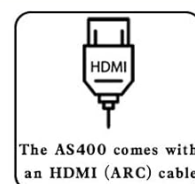
3.6 HDMI ARC Input

The AS400 is equipped with HDMI ARC functionality, allowing TV audio to be output through the TV's HDMI ARC port. This reduces cable clutter and provides a clean audio-visual experience.

Image: Diagram showing how to connect a TV to the AS400 via HDMI ARC for audio output.

3.7 Dual Headphone Jack Design

The unit features both 4.4mm and 6.35mm headphone jacks, compatible with a wide range of headphone devices.

3.8 Bluetooth 5.1 with Full Protocol Decoding

For wireless audio transmission, the AS400 supports LDAC, aptX/HD, SBC, and AAC protocols, ensuring high-fidelity wireless listening.

3.9 5 Filter and 8 EQ Sound Mode Options

The digital amplifier offers 5 PCM filters (Fast and Low-latency, Fast and Phase-compensated, Slow and Low-latency, Slow and Phase-compensated, Nonoversampling) and 8 EQ settings (Direct, Tone, SDB, Bass, Super Bass, Rock, Soft, Clear) for personalized audio tuning.

3.10 Full-Function Remote Control

A new SMSL remote control is included, offering enhanced texture and full control over the device's functions.

4. SETUP

Follow these steps to connect your SMSL AS400 to your audio system.
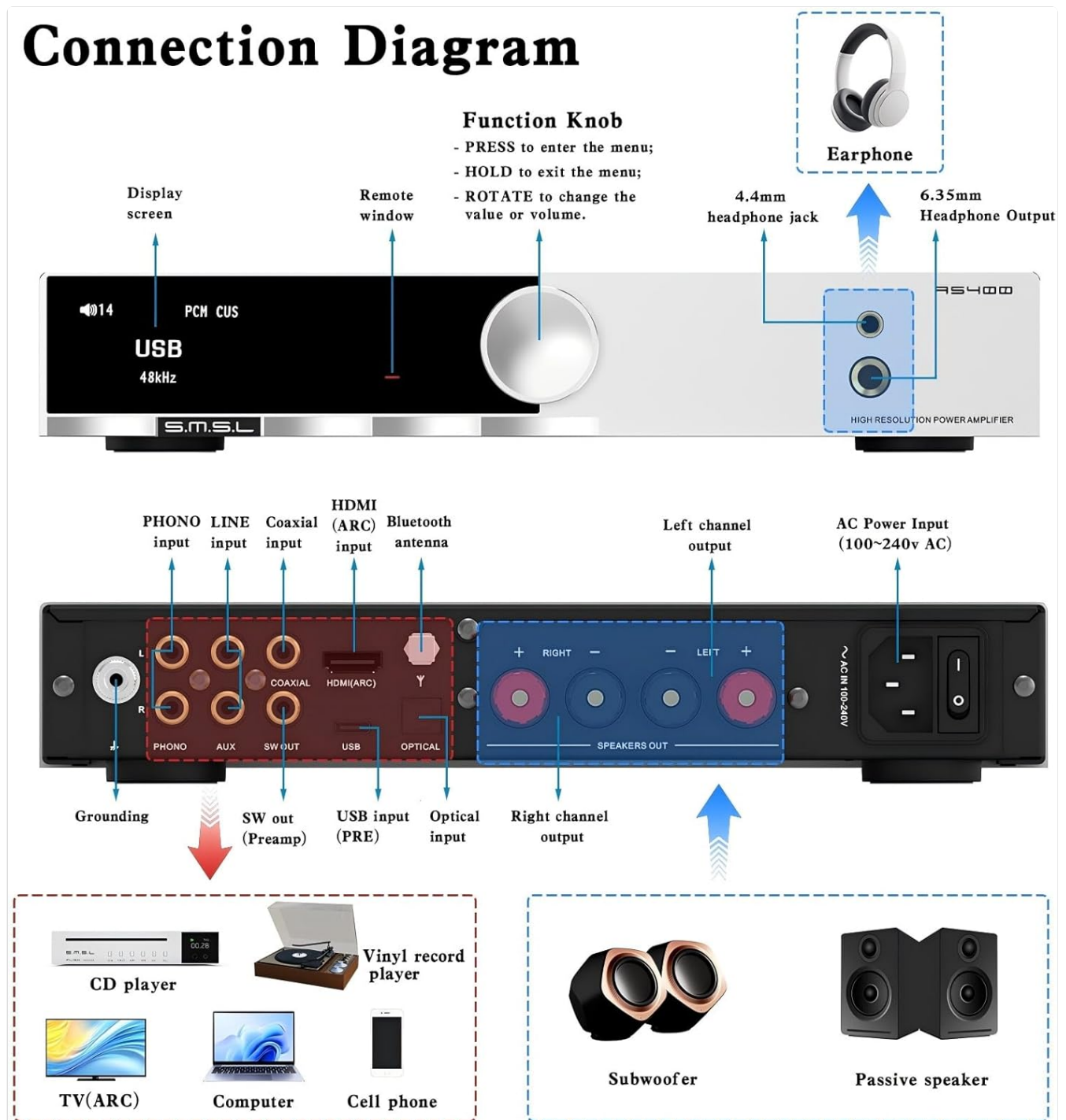
4.1 Connection Diagram

Image: Comprehensive connection diagram for the SMSL AS400, showing various inputs and outputs including PHONO, LINE, Coaxial, HDMI (ARC), Bluetooth, USB, Speaker Outputs, and Headphone Jacks.

4.2 Connecting Speakers

1. Connect your passive speakers to the **SPEAKERS OUT** terminals on the rear panel. Ensure correct polarity (+ to + and - to -).

2. For a 2.1 channel setup, connect an active subwoofer to the **SW OUT (Preamp)** RCA output.

4.3 Connecting Audio Sources

- **RCA Input:** Connect analog audio sources (e.g., CD player) to the **LINE input** RCA jacks.
- **Phono Input:** Connect a turntable with an MM cartridge to the **PHONO input** RCA jacks and ensure proper grounding.
- **Digital Inputs:** Connect digital audio sources to the **USB, OPTICAL, or COAXIAL** inputs.
- **HDMI ARC Input:** Connect an ARC-compatible TV to the **HDMI (ARC)** input. Ensure your TV's audio output is set to PCM.
- **Bluetooth:** Pair your Bluetooth-enabled device with the AS400. Attach the provided Bluetooth antenna to the rear panel.

4.4 Power Connection

Connect the supplied AC power cable to the **AC Power Input (100-240V AC)** on the rear panel and then to a wall outlet.

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Video: SMSL AS400 Product Introduction. This video provides a general overview of the product's features and design.

5. OPERATING INSTRUCTIONS

The SMSL AS400 can be operated using the front panel function knob or the included remote control.

5.1 Function Knob (Front Panel)

- **PRESS:** To enter the menu.
- **HOLD:** To exit the menu.
- **ROTATE:** To change the value or volume.

5.2 Remote Control

The full-function remote control allows you to manage power, input selection, output switching, volume, EQ settings, and more from a distance.

5.3 Input Selection

Use the function knob or remote to navigate to the Input menu and select your desired audio source (USB, Optical, Coaxial, HDMI ARC, Bluetooth, PHONO, LINE).

5.4 Volume Control

Rotate the function knob clockwise to increase volume and counter-clockwise to decrease it. The remote also has dedicated volume buttons.

5.5 EQ and Filter Settings

Access the EQ and Filter menus via the function knob or remote to customize your sound preferences. Choose from 5 PCM filters and 8 EQ settings.

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Video: SMSL AS400 user manual. This video demonstrates basic operations and menu navigation.

5.6 Connecting to an ARC-compatible TV via HDMI(ARC)

Ensure your TV supports HDMI ARC and its audio output is set to PCM. Connect an HDMI cable from your TV's ARC port to the AS400's HDMI ARC input. The AS400 does not support video pass-through.

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Video: Connecting to an ARC-compatible TV via HDMI(ARC). This video illustrates the process of connecting the AS400 to a TV using HDMI ARC.

6. SPECIFICATIONS

Feature	Specification
Product Dimensions	10 x 8.27 x 1.81 inches
Item Weight	3.43 pounds
Item Model Number	AS400
Brand	S.M.S.L
Connectivity Technology	HDMI, RCA, BT, USB, Optical, Coaxial, Phono, I2S
Controller Type	Mechanical knob, Remote Control
Audio Output Mode	Stereo, Surround (2.1 Channel)
Output Power (RMS)	165W x2 (4Ω), 85W x2 (8Ω)
THD+N	0.003%
SNR	107dB
Channel Separation	98dB
USB Compatibility	Windows 7/8/8.1/10/11, Mac OSX, Linux
Sampling Rate (USB)	PCM 44.1-768kHz, DSD 2.8224-11.2896MHz
Sampling Rate (Optical/Coaxial)	PCM 44.1-192kHz, DSD64(DoP)
Bit Depth (USB)	1bit, 16-32bit
Bit Depth (Optical/Coaxial)	1bit, 16-32bit
MQA Decoder	USB/Optical/Coaxial
MQA-CD Decoder	Optical/Coaxial

7. WARRANTY AND SUPPORT

All SMSL products purchased from authorized stores are 100% authentic. We provide 24-hour online service for any questions. A warranty period of 1 year or more from the date of purchase is provided, depending on the specific product.
For support, please reach out to the seller or authorized service center.