LEAUDIO H400

LEAUDIO SMSL H400 Headphone Amplifier and Preamp User Manual

Model: H400

Introduction

Thank you for choosing the LEAUDIO SMSL H400 Headphone Amplifier and Preamp. This device is designed to deliver high-fidelity audio performance for both headphone listening and as a preamplifier in a stereo system. This manual provides essential information for the safe and optimal use of your H400 unit, including setup, operation, maintenance, and troubleshooting.

Product Overview



Figure 0: LEAUDIO SMSL H400 Headphone Amplifier

This image shows an angled front view of the LEAUDIO SMSL H400 Headphone Amplifier, featuring its display screen, control knob, and headphone output jacks.

Front Panel

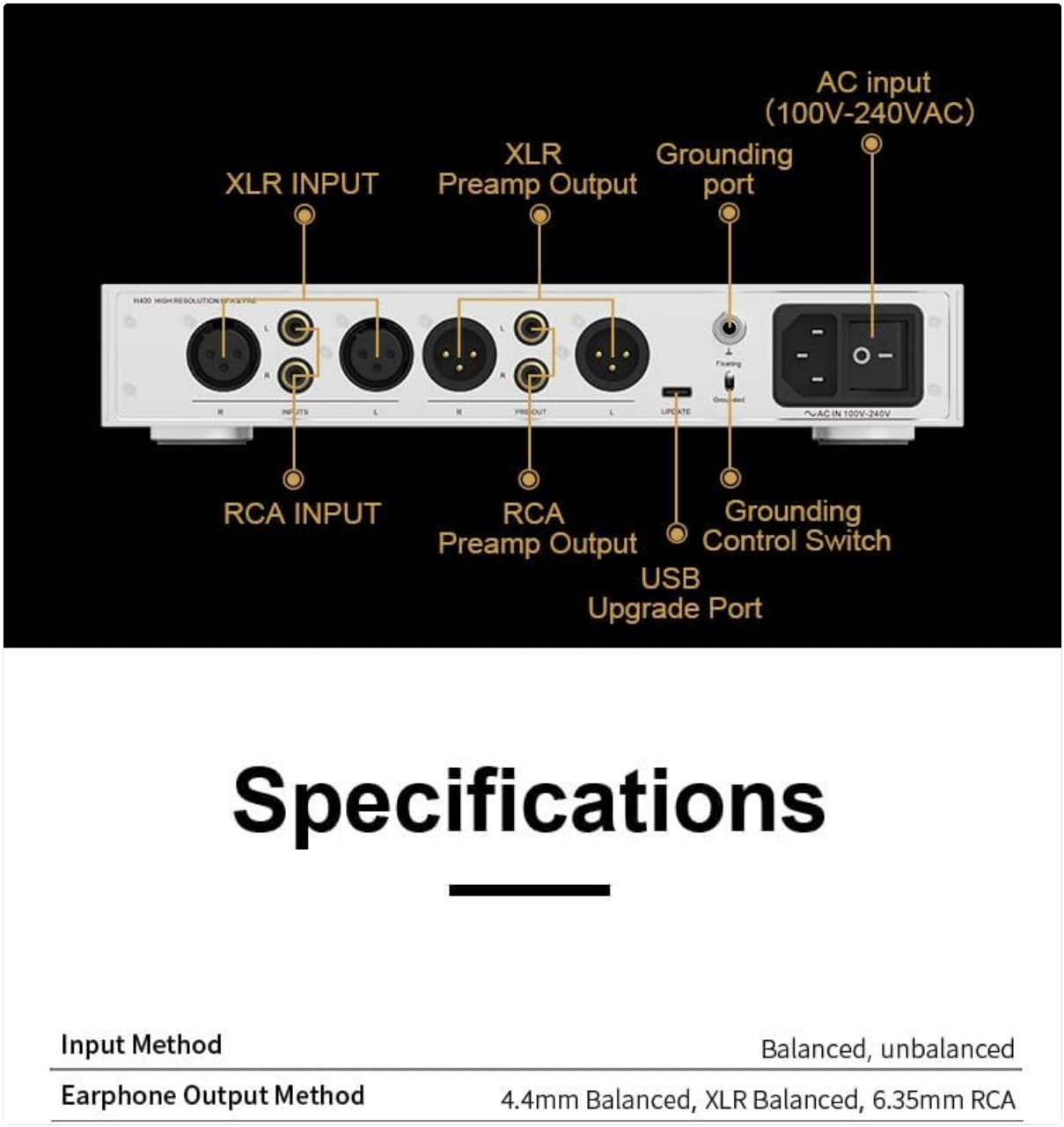


Figure 1: Front Panel Layout

This image displays the front panel of the SMSL H400, highlighting key components such as the display screen, infrared remote window, indicator light, control knob, 4.4mm balanced headphone jack, and 6.35mm headphone jack.

- **Display Screen:** Shows current settings, volume level, and operational status.
- **Infrared Remote Window:** Receives signals from the remote control.
- **Indicator Light:** Provides visual feedback on the unit's status.
- **Control Knob:** Used for volume adjustment and menu navigation.
- **4.4mm Balanced Headphone Jack:** For connecting headphones with a 4.4mm balanced connector.
- **6.35mm Headphone Jack:** For connecting headphones with a standard 6.35mm (1/4 inch) connector.

Rear Panel



Specifications

Input Method	Balanced, unbalanced
Earphone Output Method	4.4mm Balanced, XLR Balanced, 6.35mm RCA

Figure 2: Rear Panel Layout

This image illustrates the rear panel of the SMSL H400, detailing the XLR input, RCA input, XLR preamp output, RCA preamp output, USB upgrade port, grounding control switch (Floating/Grounded), and AC input (100V-240VAC).

- **XLR Input (Balanced):** For connecting balanced audio sources.
- **RCA Input (Unbalanced):** For connecting unbalanced audio sources.
- **XLR Preamp Output (Balanced):** For connecting to a power amplifier or active speakers with balanced inputs.
- **RCA Preamp Output (Unbalanced):** For connecting to a power amplifier or active speakers with unbalanced inputs.
- **USB Upgrade Port:** For firmware updates.
- **Grounding Control Switch:** Selects between Floating and Grounded modes for optimal grounding.
- **AC Input (100V-240VAC):** Power connection for the unit.

Setup

1. **Power Connection:** Connect the supplied power cord to the AC input on the rear panel of the H400 and then to a suitable AC power outlet (100V-240VAC).
2. **Source Connection:**

- For balanced sources, connect them to the XLR Inputs.
- For unbalanced sources, connect them to the RCA Inputs.

3. **Output Connection (Optional - for Preamp Function):**
   - To use the H400 as a preamplifier, connect the XLR Preamp Outputs to a balanced power amplifier or active speakers.
   - Alternatively, connect the RCA Preamp Outputs to an unbalanced power amplifier or active speakers.
4. **Headphone Connection:** Connect your headphones to either the 4.4mm Balanced Headphone Jack or the 6.35mm Headphone Jack on the front panel. Ensure the correct connector type is used for your headphones.
5. **Grounding Control:** Set the Grounding Control Switch to either "Floating" or "Grounded" based on your system's requirements to minimize hum or noise. Experiment with both settings to find the optimal configuration for your environment.

Operating Instructions

1. **Power On/Off:** Press the power switch on the rear panel to turn the unit on or off. The display screen will illuminate upon power-on.
2. **Volume Control:** Rotate the control knob on the front panel clockwise to increase volume and counter-clockwise to decrease volume. The current volume level will be shown on the display. You can also use the remote control for volume adjustment.
3. **Input Selection:** The H400 automatically detects the active input. If multiple inputs are connected, you may need to select the desired input via the menu system using the control knob or remote control. Refer to the on-screen menu for specific navigation.
4. **Gain Control:** The H400 features adjustable gain settings (Low, Medium, High) to match various headphones and listening preferences.
   - Access the gain setting through the menu system.
   - **Low Gain:** Optimized for sensitive In-Ear Monitors (IEMs).
   - **Medium Gain:** Suitable for most standard headphones.
   - **High Gain:** Recommended for high-impedance or less sensitive headphones.
5. **Preamp Output Function:** When connected to a power amplifier or active speakers, the H400 acts as a preamplifier, controlling the volume for the connected output devices. The headphone output and preamp output can operate simultaneously or independently depending on the selected mode in the menu.
6. **Remote Control:** The included remote control provides full functionality, allowing you to adjust volume, select inputs, change gain settings, and navigate menus from a distance. Point the remote control towards the infrared remote window on the front panel.

Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Do not use liquid cleaners or solvents, as they may damage the finish.
- **Ventilation:** Ensure adequate ventilation around the unit to prevent overheating. Do not block ventilation openings.
- **Environment:** Avoid placing the unit in direct sunlight, near heat sources, or in environments with high humidity or excessive dust.
- **Power Off:** Always power off the unit and disconnect it from the power outlet before cleaning or if it will be unused for an extended period.

Troubleshooting

Problem	Possible Cause	Solution
No power	Power cord not connected; Power switch off; Power outlet fault.	Ensure power cord is securely connected. Turn on the power switch. Test the power outlet with another device.
No sound from headphones	Headphones not connected; Incorrect input selected; Volume too low; Source device not playing.	Check headphone connection. Verify correct input is selected. Increase volume. Ensure audio source is active and playing.
No sound from preamp output	Preamp output not connected; Connected amplifier/speakers off; Incorrect input selected.	Check preamp output connections. Ensure connected amplifier/speakers are powered on and set to the correct input. Verify correct input is selected on the H400.
Distorted sound	Input signal too strong; Volume too high; Faulty cables.	Reduce input signal level from the source. Lower the volume. Check and replace audio cables if necessary.
Hum or noise	Grounding issue; Interference from other electronics.	Adjust the Grounding Control Switch (Floating/Grounded). Move the unit away from other electronic devices. Use shielded cables.

The H400 is equipped with comprehensive protection features including DC, overvoltage, and overload protection. If the unit enters a protection mode, power it off, disconnect it from the power source, wait a few minutes, and then reconnect and power on. If the issue persists, contact customer support.

Specifications



Figure 3: Technical Specifications

This image presents a detailed table of the SMSL H400's technical specifications, including input/output methods, output power, SNR, dynamic range, THD+N, impedance, frequency response, gain, consumption, volume, and weight.

Parameter	Value
Input Method	Balanced, Unbalanced
Earphone Output Method	4.4mm Balanced, XLR Balanced, 6.35mm RCA
Preamp Output Method	Balanced, Unbalanced
Output Power (16 Ω)	15W x 2
Output Power (32 Ω)	7.5W x 2
Output Power (300 Ω)	1000mW x 2
Output Power (600 Ω)	550mW x 2
SNR	133dB

Parameter	Value
Dynamic Range	133dB
THD+N	-123dB, 0.00006% (1kHz, 32 Ω)
Input Impedance	47kΩ
Headphone Output Impedance	Almost close to 0 Ω
Preamp Output Impedance (Balanced)	44Ω
Preamp Output Impedance (Unbalanced)	22Ω
Frequency Response	20Hz-100kHz (-0.5dB)
Gain (Balanced)	Low (-5.8dB), Medium (6dB), High (20.4dB)
Gain (Unbalanced)	Low (-11.8dB), Medium (0dB), High (14.4dB)
Consumption (EN60065)	<50W
Standby Power Consumption	<0.5W
Volume (WxHxD)	254x46x189mm
Weight	2.03kg / 4.47lbs

Warranty and Support

The LEAUDIO SMSL H400 Headphone Amplifier and Preamp comes with a one-year warranty period from the date of purchase. This warranty covers manufacturing defects and ensures the product meets its specified performance. Please retain your proof of purchase for warranty claims.
If you encounter any issues or have questions regarding the use, setup, or performance of your H400 unit, please consult this manual first. For further assistance or technical support, please contact LEAUDIO customer service. We are committed to providing you with the best service.
What's in the Box:

- SMSL H400 Unit
- Power cord
- Remote control
- User Manual (this document)

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