xDuoo XD05 BAL

XDUOO XD05 BAL Portable Headphone Amplifier and USB DAC User Manual

Model: XD05 BAL

1. Introduction

The XDUOO XD05 BAL is a high-performance portable headphone amplifier and USB DAC designed to deliver exceptional audio quality. Featuring dual ES9038 DAC chips, support for DSD512 and PCM 32Bit/768kHz, and multiple input options including USB, AES, Optical, Coaxial, and Bluetooth, this device offers versatile connectivity and superior sound reproduction for various audio sources.

2. Product Overview

The XD05 BAL combines a powerful DAC with a robust headphone amplifier, offering both single-ended (6.5mm) and balanced (4.4mm) outputs. Its compact design makes it suitable for portable use, while its extensive input options allow integration with desktop computers, smartphones, tablets, and dedicated audio players.

2.1 Key Features

- **High-Performance DAC:** Supports DSD512 and PCM up to 32Bit/768kHz.
- **Multiple Inputs:** USB, AES, Optical, Coaxial, and Bluetooth.
- **Balanced Output:** Features a 4.4mm balanced headphone output for enhanced audio.
- **Powerful Amplification:** Delivers 1000mW output power into a 32Ω load.
- **User-Replaceable Op-Amps:** Allows for sound customization.
- **OLED Display:** Provides real-time status information.
- **Long Battery Life:** Up to 24 hours via AUX input.

2.2 Device Layout



Figure 1: Overall view of the XDUOO XD05 BAL unit, showcasing its compact design and various ports.



Figure 2: Front panel featuring 6.5mm Phone output, 4.4mm Balanced output, OLED display, Power button, Boost switch, and Gain switch.



Figure 3: Rear panel showing AUX In/Out, EXT/BATT switch, USB In, AES input, DC 5V charging port, and Coaxial/Optical input.

3. Setup

3.1 Charging the Device

Before initial use, fully charge the XD05 BAL. Connect the device to a 5V power adapter using the provided USB cable to the DC 5V port. Charging time is approximately 5 hours with a 1.2A fast charger or 11 hours with a 500mA slow charger.

3.2 Connecting Audio Sources

- **USB Input:** Connect your computer (Windows 7/8/10, Linux, Mac OS X), smartphone (iOS, Android), or HIFI player to the USB IN port using a compatible USB cable.
- **AES/Optical/Coaxial Input:** Connect digital audio sources such as CD players, digital turntables, or other audio devices to the respective input ports.
- **AUX Input:** For analog audio sources, connect to the AUX IN/OUT port. Ensure the EXT/BATT switch is set to BATT for internal battery power or EXT for external power if available.

3.3 Connecting Headphones

Connect your headphones to either the 6.5mm single-ended output or the 4.4mm balanced output on the front panel. For optimal performance with balanced headphones, use the 4.4mm balanced output.

4. Operating Instructions

4.1 Power On/Off

Press and hold the Power button on the front panel to turn the device on or off. The OLED display will illuminate upon power-on.

4.2 Input Selection

Use the input selection button (usually located on the side or front, refer to Figure 2 and 3 for exact location) to cycle through available audio inputs: USB, AES, Optical, Coaxial, AUX, and Bluetooth. The selected input will be displayed on the OLED screen.

4.3 Volume Control

Adjust the volume using the rotary knob on the side of the device. Turn clockwise to increase volume and counter-clockwise to decrease. Exercise caution when adjusting volume, especially with sensitive headphones, to prevent hearing damage.



Figure 4: Side view highlighting the volume control knob and the OLED display showing current settings.

4.4 Gain and Boost Settings

The XD05 BAL features Gain and Boost switches on the front panel (refer to Figure 2). Use these to match the output power to your headphones' impedance and sensitivity. Higher gain/boost settings are suitable for harder-to-drive headphones, while lower settings are for more sensitive ones. Adjust these settings carefully to avoid overdriving your

headphones or causing distortion.

4.5 Bluetooth Operation

To use Bluetooth, select the Bluetooth input. The device will enter pairing mode. Search for

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Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question