

SHANLING XI2

SHANLING Onix Beta XI2 Portable Headphone Amplifier User Manual

Model: XI2

1. INTRODUCTION

Thank you for choosing the SHANLING Onix Beta XI2 Portable Headphone Amplifier. This device is designed to enhance your audio experience by providing high-fidelity sound through its advanced digital-to-analog conversion and amplification capabilities. The XI2 features a unique blend of modern digital precision with the warmth of analog sound, thanks to its dedicated tube output.

This manual provides detailed instructions on how to set up, operate, and maintain your Onix Beta XI2. Please read it thoroughly before using the device to ensure optimal performance and longevity.

2. PRODUCT OVERVIEW

Key Features:

- **JAN6418 Tube Output:** Integrates dual JAN6418 tubes for a warm, musical analog sound, housed discreetly with visual glow windows.
- **Dual CS43198 DAC Chipset:** Ensures high-resolution audio decoding with exceptional clarity and detail, supporting up to 768kHz/32bit and DSD512.
- **Upgraded Amplifier Architecture:** Features 4x BUF634 and 2x OPA1662 op-amps, delivering up to 550mW @ 32Ω for dynamic and distortion-free performance.
- **Compact Screen & User Interface:** 0.87-inch OLED screen for monitoring playback formats, volume, and settings.
- **Refined Design:** A slightly longer and wider chassis accommodates upgraded components while maintaining elegance and durability.

Package Contents:

- SHANLING Onix Beta XI2 Portable Headphone Amplifier
- User Manual (this document)
- ONIX OL1 Cable (Silver-plated Copper)

- USB-C to USB-A Adapter

Device Layout:



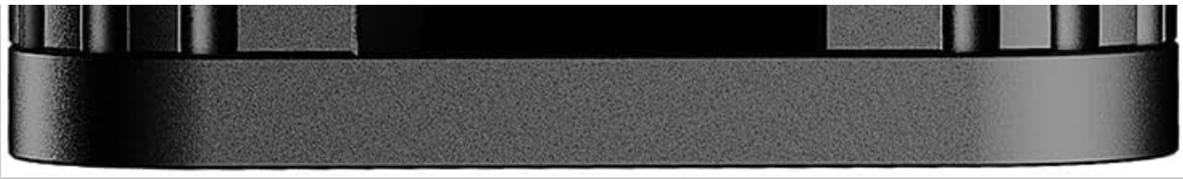


Figure 2.1: Front view of the Onix Beta X12, highlighting the OLED screen, volume control, and multi-function button.



Figure 2.2: Side view of the Onix Beta X12, illustrating the window where the JAN6418 tube glow is visible.



Figure 2.3: Top view of the Onix Beta X12, displaying the 3.5mm single-ended and 4.4mm balanced headphone output jacks.

3. SETUP

3.1 Connecting to a Source Device (Smartphone/Tablet/Computer)

1. **Connect the USB Cable:** Use the provided ONIX OL1 USB-C to USB-C cable (or USB-C to USB-A adapter for computers) to connect the Onix Beta X12 to your source device. The USB-C port on the X12 is located at the bottom.
2. **Power On:** The Onix Beta X12 will automatically power on once connected to a compatible source device. The OLED screen will illuminate.
3. **Connect Headphones:** Plug your headphones into either the 3.5mm single-ended output or the 4.4mm balanced output jack on the top of the X12. Ensure the connection is secure.
4. **Select Audio Output:** On your source device, navigate to its audio settings and select the "SHANLING Onix Beta X12" or similar USB audio device as the preferred audio output.
5. **Start Playback:** Begin playing audio on your source device. Adjust the volume using the X12's volume controls or your source device's volume.

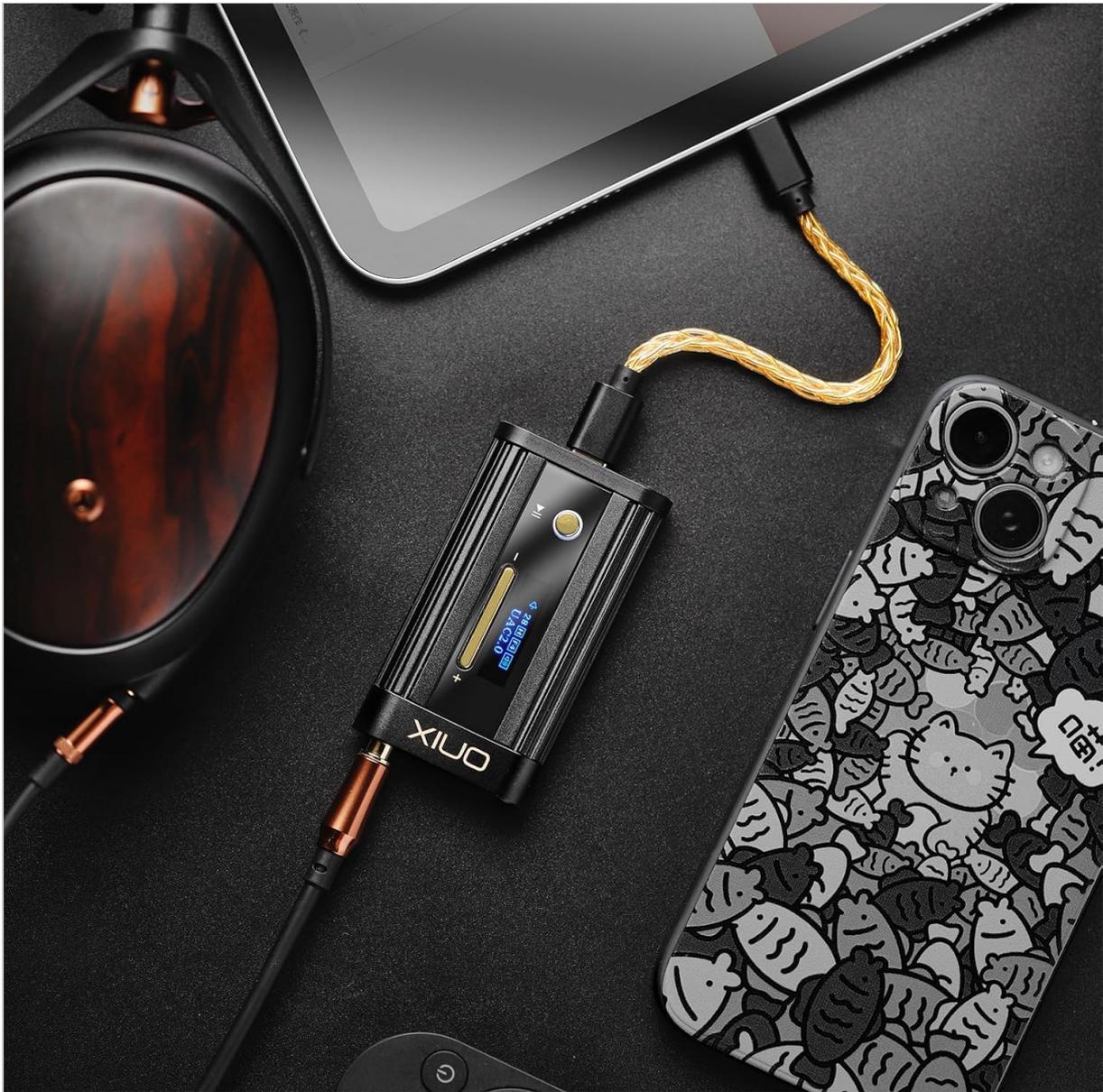


Figure 3.1: The Onix Beta X12 connected to a smartphone via USB-C, with headphones plugged into the amplifier.

Note: For optimal performance, it is recommended to use high-quality audio files and headphones.

4. OPERATING INSTRUCTIONS

4.1 Basic Controls

- **Volume Control:** Use the physical volume slider on the front of the device to adjust the output volume. Slide up for louder, down for quieter.
- **Multi-function Button:** This button typically controls playback (play/pause) and can be used to navigate menus or confirm selections. Refer to the on-screen prompts for specific functions.
- **OLED Screen:** Displays current playback information, volume level, sampling rate, and device settings.

4.2 Tube / Transistor Mode Switching

The Onix Beta X12 offers both tube and transistor amplification modes, allowing you to choose between a warmer, more musical sound (tube) and a more neutral, precise sound (transistor). The mode can be switched via the device's settings menu or the companion app.



Figure 4.1: The tube glow visible through the side window, indicating the tube mode is engaged.

4.3 Companion Application (Eddict Player)

For advanced settings and control, download the "Eddict Player" companion application on your smartphone or tablet. This app allows you to:

- Adjust gain settings (Low/High).
- Switch between digital filters.
- Control screen orientation.
- Manage other device-specific settings.



Figure 4.2: The Eddict Player application interface, demonstrating available settings for the Onix Beta XI2.

Note: The Eddict Player app is available for both Android and iOS devices. Search for "Eddict Player" in your device's app store.

4.4 Sampling Rate Indicator

The LED light on the device indicates the current sampling rate:

- **PCM32, 44.1, 48kHz:** Blue
- **PCM64, 88.2, 96kHz:** Green
- **PCM128, 176.4, 192kHz:** Yellow
- **PCM352.8, 384, 705.6, 768kHz:** Purple
- **DSD:** White

5. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the device. Avoid using harsh chemicals or abrasive materials.
- **Storage:** Store the device in a cool, dry place away from direct sunlight and extreme temperatures.
- **Handling:** Handle the device with care. Avoid dropping it or subjecting it to strong impacts.
- **Tube Care:** The JAN6418 tubes are designed for durability within the device. Avoid unnecessary exposure to vibrations or physical shocks.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
No sound output.	<p>Device not properly connected.</p> <p>Incorrect audio output selected on source.</p> <p>Volume too low.</p> <p>Headphones not connected or faulty.</p>	<p>Ensure USB cable is securely connected to both the XI2 and the source device.</p> <p>Verify that "SHANLING Onix Beta XI2" is selected as the audio output on your source device.</p> <p>Increase the volume on both the XI2 and the source device.</p> <p>Check headphone connection and test with another pair if possible.</p>

Problem	Possible Cause	Solution
<p>Device not recognized by computer/smartphone.</p>	<p>Loose USB connection. Driver issue (for some operating systems). Incompatible USB port.</p>	<p>Reconnect the USB cable. Try a different USB port or cable.</p> <p>For Windows, ensure necessary drivers are installed (usually plug-and-play, but check SHANLING's official website if issues persist).</p> <p>Ensure the USB port on your source device is functional and provides sufficient power.</p>
<p>Sound distortion or poor quality.</p>	<p>Volume too high (clipping). Low-quality audio source. Interference.</p>	<p>Reduce the volume on both the XI2 and the source device.</p> <p>Use higher quality audio files.</p> <p>Move away from other electronic devices that might cause interference.</p>

7. SPECIFICATIONS

Feature	Detail
Weight	45.3g
Dimensions	69.8 x 39 x 14mm
Hi-Res Support	768kHz / 32-bit and DSD512
DACs	2x Cirrus Logic CS43198
USB Modes	UAC 1.0 / UAC 2.0
Sampling Rate Indicator	PCM32, 44.1, 48kHz – Blue PCM64, 88.2, 96kHz – Green PCM128, 176.4, 192kHz – Yellow PCM352.8, 384, 705.6, 768kHz – Purple DSD – White
3.5mm Single-Ended Output (Transistor Mode)	Output Power: Low Gain: 45mW @ 32Ω, High Gain: 180mW @ 32Ω Frequency Response: 20Hz-40kHz (-0.5dB) THD+N: 0.0006% (A-Weight@2V)
4.4mm Balanced Output (Transistor Mode)	Output Power: Low Gain: 180mW @ 32Ω, High Gain: 550mW @ 32Ω Frequency Response: 20Hz-40kHz (-0.5dB) THD+N: 0.0008% (A-Weight@4V)
3.5mm Headphone Output (Tube Mode)	Output Power: Low Gain: 37mW @ 32Ω, High Gain: 152mW @ 32Ω Frequency Response: 20Hz-40kHz (-0.5dB) THD+N: 0.06% (A-Weight@2V)
Dynamic Range	124dB
Channel Separation	73dB
Signal-to-Noise Ratio	124dB
Noise	116dB
Output Impedance	0.3Ω

8. PRODUCT VIDEO DEMONSTRATION

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This video provides a visual overview of the SHANLING Onix Beta X12 Portable Headphone Amplifier, demonstrating its design, key features, and usage scenarios. It highlights the dual DAC, advanced amplifier, tube mode, and connectivity options.

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official SHANLING website or contact your authorized dealer. Keep your purchase receipt as proof of purchase for warranty claims. For further assistance, you may also visit the SHANLING store on Amazon:[SHANLING Store](#).

