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## FiiO BTR13

# FiiO BTR13 Bluetooth Headphone Amplifier User Manual

Model: BTR13 | Brand: FiiO

## 1. INTRODUCTION

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The FiiO BTR13 is a compact and versatile Bluetooth headphone amplifier designed to enhance your audio experience across various devices. It features advanced Bluetooth codecs, dual high-performance DACs, and multiple connectivity options, making it suitable for both portable and desktop use. This manual provides comprehensive instructions for setting up, operating, and maintaining your BTR13.

## 2. PACKAGE CONTENTS

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Please check the package for the following items:

- FiiO BTR13 Bluetooth Headphone Amplifier
- USB-C to USB-A Charging Cable
- Quick Start Guide
- Warranty Card

## 3. PRODUCT OVERVIEW

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Familiarize yourself with the components and controls of your FiiO BTR13.



Figure 3.1: Front view of the FiiO BTR13, showcasing its compact design and display.

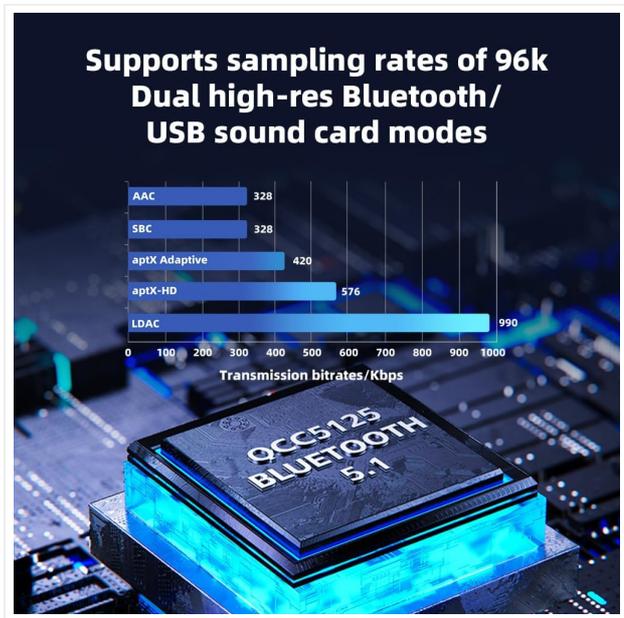


Figure 3.2: Side view of the FiiO BTR13, highlighting the 3.5mm unbalanced and 4.4mm balanced headphone outputs.



**Figure 3.3:** Top view of the FiiO BTR13, showing the PC/BT/PHONE three-position switch for mode selection.



**Figure 3.4:** The 0.96-inch IPS display of the BTR13, showing current audio format and EQ status.

### 3.1. Controls and Ports

- **Power Button:** Press and hold to power on/off. Short press for menu/confirm.
- **Volume Buttons (+/-):** Adjust volume.
- **Multi-function Button:** Play/Pause, Answer/End calls.
- **PC/BT/PHONE Switch:** Select input mode (Computer, Bluetooth, Mobile Phone).
- **3.5mm Unbalanced Output:** Standard headphone jack.
- **4.4mm Balanced Output:** High-performance balanced headphone jack.
- **USB-C Port:** For charging, USB DAC function, and phone dongle mode.

## 4. SETUP

### 4.1. Charging the Device

Connect the FiiO BTR13 to a USB power source using the provided USB-C cable. The device will indicate charging status on its display. A full charge typically takes approximately 1.5 hours.

## 4.2. Initial Power On

Press and hold the Power Button for approximately 3 seconds until the display lights up. The device will boot up and enter the last used mode.

## 4.3. Connecting Headphones

Plug your headphones into either the 3.5mm unbalanced output or the 4.4mm balanced output, depending on your headphone's connector type. Ensure the connection is secure.

# 5. OPERATING INSTRUCTIONS

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## 5.1. Power On/Off

- **Power On:** Press and hold the Power Button for 3 seconds.
- **Power Off:** Press and hold the Power Button for 3 seconds. A confirmation prompt will appear on the display.

## 5.2. Bluetooth Pairing

To pair with a Bluetooth device:

1. Set the PC/BT/PHONE switch to the 'BT' position.
2. The BTR13 will automatically enter pairing mode if no device is connected, or you can manually enter pairing mode via the device menu.
3. On your source device (e.g., smartphone, tablet), search for Bluetooth devices and select "FiiO BTR13".
4. Once connected, the display will show the active Bluetooth codec (e.g., LDAC, aptX HD, AAC) and sampling rate.

The BTR13 supports high-resolution Bluetooth formats including LDAC, aptX Adaptive, aptX HD, aptX LL, AAC, and SBC, ensuring high-fidelity wireless audio transmission.

## 5.3. PC/BT/PHONE Three-Position Switch

This switch allows quick selection between different operating modes:

- **PC:** Connects to a computer for use as a USB DAC and headphone amplifier. Powered by the computer.
- **BT:** Functions as a Bluetooth decoder and headphone amplifier. Powered by its internal battery, can be charged via USB.
- **PHONE:** Connects to a mobile phone as a USB DAC audio dongle. Powered by its internal battery.

# Fully balanced audio Dual high-end CS43131 DACs

Each channel is separately handled by a dedicated high-end Cirrus Logic CS43131 DAC. This effectively reduces crosstalk and allows for higher quality and purer sound.

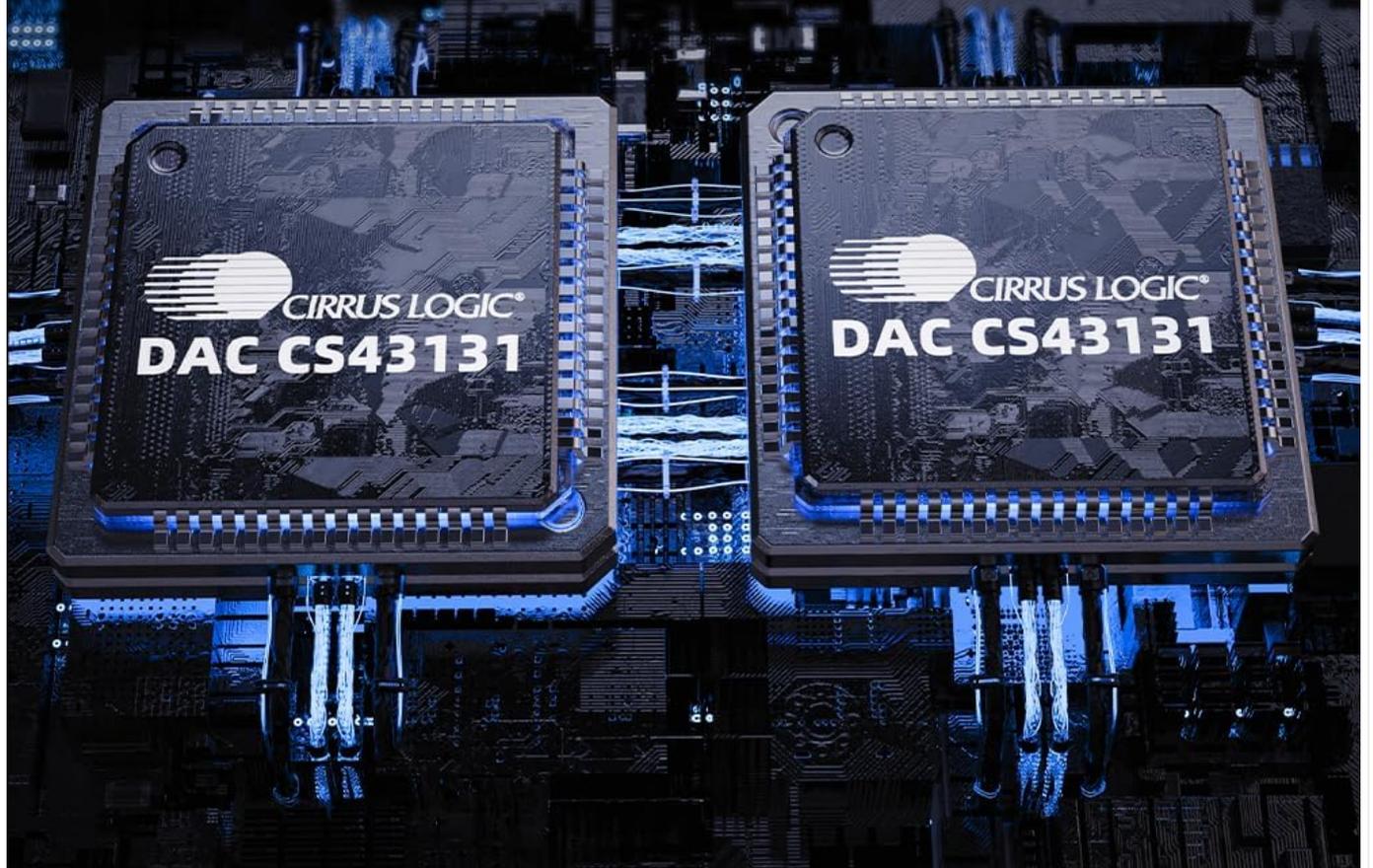


Figure 5.1: Illustration of the BTR13's three operating modes: PC, Bluetooth, and Phone.

## 5.4. Equalizer (EQ) Settings

The BTR13 features a powerful Parametric Equalizer (PEQ) system. You can adjust EQ frequencies, gain, and bandwidth through FiiO's proprietary algorithms via the companion app or web interface. Various preset sound effects are available, and you can also share custom adjustments online.

# Computer sound card/Bluetooth decoder/sound dongle for phones



**PC:**  
Connect to a computer for use as a USB DAC and headphone amp, powered completely by the computer.



**BT:**  
Bluetooth decoder and headphone amplifier, powered by the internal battery, can be charged by USB.



**PHONE:**  
Connect to a phone as a USB DAC audio dongle, being powered by its internal battery.

Figure 5.2: The FiiO BTR13's Global PEQ feature, adjustable via app or web interface.

## 5.5. Volume Control and Inline Controls

Use the dedicated volume buttons on the BTR13 to adjust the output level. The 3.5mm jack supports the CTIA standard for in-line controls, allowing you to use the microphone and control playback (play/pause) directly from your headphone cable.

# All-around in-line controls

## Total control at your fingertips

The 3.5mm jack supports the CTIA standard of in-line controls. Not only can you use the microphone on your headphones, you can also play/pause/adjust the volume using the controls on your headphones' cable.



**Figure 5.3:** The BTR13 supports in-line controls for microphones and playback functions.

## 6. MAINTENANCE

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To ensure the longevity and optimal performance of your FiiO BTR13:

- Keep the device clean by wiping it with a soft, dry cloth. Avoid using harsh chemicals or abrasive materials.
- Store the device in a cool, dry place away from direct sunlight and extreme temperatures.
- Avoid dropping or subjecting the device to strong impacts.
- Do not attempt to disassemble or modify the device, as this will void the warranty.

## 7. TROUBLESHOOTING

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If you encounter issues with your FiiO BTR13, refer to the following common problems and solutions:

Problem	Solution
Device does not power on.	Ensure the device is charged. Connect to a power source and try again.
Cannot pair via Bluetooth.	Ensure the switch is in 'BT' mode. Put the BTR13 into pairing mode and ensure your source device's Bluetooth is on and discoverable. Try restarting both devices.
No sound output.	Check headphone connection. Verify volume levels on both the BTR13 and the source device. Ensure the correct input mode (PC/BT/PHONE) is selected.
Sound quality issues.	Check the audio source quality. Ensure high-quality Bluetooth codecs (LDAC, aptX HD) are active if supported by your source. Disable or adjust EQ settings if necessary.
Device unresponsive.	Perform a factory reset if necessary (refer to the FiiO app or official website for instructions).

## 8. SPECIFICATIONS

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Key technical specifications for the FiiO BTR13:

- **Model Name:** BTR13
- **Brand:** FiiO
- **Bluetooth Chip:** Qualcomm QCC5125
- **DAC:** Dual Cirrus Logic CS43131
- **Bluetooth Codecs:** LDAC, aptX Adaptive, aptX HD, aptX LL, AAC, SBC
- **Sampling Rate (USB/Bluetooth):** Up to 96kHz
- **Headphone Outputs:** 3.5mm Unbalanced, 4.4mm Balanced
- **Balanced Output Power:** 220mW + 220mW
- **Display:** 0.96-inch Color IPS
- **Item Weight:** 28.6g (approx. 1.01 ounces)
- **Material:** Plastic
- **Control Method:** Buttons, App
- **Battery:** 1 Lithium Ion (included)
- **Connectivity Technology:** Wireless (Bluetooth), Wired (USB)

# 0.96-inch large color IPS display Full of information, easy to operate



Figure 8.1: The dual Cirrus Logic CS43131 DACs, providing high-quality audio processing.

# Independent headphone amplifier power supply Unleashing immense force

An independent power supply system, with low noise and capable of high current output, was designed specifically for the built-in amplifier of the CS43131 DAC. This significantly boosts the balanced output power of the BTR13 by 282% compared to the BTR3K up to 220mW - making it easily capable of meeting any portable audio needs.



Figure 8.2: The BTR13's independent headphone amplifier power supply delivers 220mW balanced output power.

## 9. WARRANTY AND SUPPORT

FiiO products come with a limited warranty. For detailed warranty information, please refer to the warranty card included in your package or visit the official FiiO website. For technical support, product inquiries, or service requests, please contact FiiO customer support through their official channels.

Please retain your proof of purchase for warranty claims.

