

HiBy FC4

HiBy FC4 Portable DAC Headphone Amplifier User Manual

Model: FC4

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1. INTRODUCTION

The HiBy FC4 is a portable USB DAC (Digital-to-Analog Converter) and headphone amplifier designed to enhance your audio experience across various devices. It features dual DAC chips, independent crystal oscillators, and supports high-resolution audio formats including MQA 16X, PCM768K, and DSD256. With both 3.5mm single-ended and 4.4mm balanced headphone outputs, it offers versatility for different headphone types.

MQA 16X unfolding



16X

Image: The HiBy FC4 device shown alongside its product packaging.

2. SETUP GUIDE

Follow these steps to set up your HiBy FC4 with your preferred device.

2.1 Connecting to Devices

The FC4 is designed for plug-and-play operation with most modern operating systems.

- **Android/iOS:** Connect the FC4 to your smartphone or tablet using the appropriate USB-C to USB-C cable (for Android) or a Lightning to Type-C OTG cable (for iOS, sold separately). No drivers are typically required.
- **Mac/Windows 10 and up:** Connect the FC4 to your computer's USB port using the provided USB-C to USB-C cable. The device will be recognized automatically, and no additional drivers are needed.
- **Windows (below 10):** For Windows versions older than Windows 10, you may need to download and install specific drivers from the official HiBy website. Refer to the support section of the HiBy website for driver downloads.



Image: The HiBy FC4 demonstrating connectivity with various platforms including Android, iOS, and Mac/Windows devices.

2.2 Initial Use

1. Connect your headphones to either the 3.5mm single-ended or 4.4mm balanced output port on the FC4.
2. Connect the FC4 to your source device (smartphone, tablet, or computer).
3. Ensure your source device's volume is set to a low level before playing audio.
4. Begin playing audio from your source device. Adjust the volume using the FC4's physical volume buttons.

Your browser does not support the video tag.

Video: An official product video demonstrating the features and usage of the HiBy FC4 Portable DAC Amplifier.

3. OPERATION

Understanding the features and controls of your HiBy FC4 will help you maximize its performance.

3.1 Headphone Outputs

The FC4 provides two headphone output options:

- **3.5mm Single-Ended (SE):** Standard headphone jack for most common headphones.
- **4.4mm Balanced:** Offers improved sound separation and power for compatible balanced headphones.



Image: A detailed view of the HiBy FC4's top, highlighting the 3.5mm single-ended and 4.4mm balanced headphone output jacks.

3.2 Volume Control

The FC4 features a 30-step physical hardware volume control for precise audio level adjustments. Use the '+' and '-' buttons on the side of the device to increase or decrease the volume.



Image: The side of the HiBy FC4, illustrating the physical volume control buttons.

3.3 RGB Indicator Light

The FC4 includes an RGB indicator light that displays different colors to indicate the current audio sample rate being processed:

- **Blue:** Standard Definition (SD) audio.
- **Green:** High-Resolution (Hi-Res) audio (e.g., PCM up to 48kHz).
- **Yellow:** High-Resolution (Hi-Res) audio (e.g., PCM above 48kHz).
- **Magenta:** MQA audio.



Image: The HiBy FC4 connected to a smartphone, with its RGB indicator light illuminated, signifying the current audio sample rate.

3.4 MQA 16X Unfolding

The HiBy FC4 supports MQA (Master Quality Authenticated) full decoding technology, allowing it to unfold MQA audio files and streams up to 16 times, delivering the full quality of the original master recording.



Image: The HiBy FC4 highlighting its MQA 16X unfolding capability.

3.5 Hi-Res Audio Support

The FC4 is capable of decoding high-resolution audio formats, including PCM up to 768kHz/32bit and native DSD256, ensuring a detailed and accurate sound reproduction.



Image: The HiBy FC4 displaying its Hi-Res Audio certification and support for PCM768K and DSD256.

4. MAINTENANCE

Proper care and maintenance will ensure the longevity and optimal performance of your HiBy FC4.

4.1 Cleaning

- Wipe the device with a soft, dry, lint-free cloth.
- Do not use liquid cleaners, aerosols, or solvents, as these may damage the finish or internal components.
- Keep the ports free of dust and debris. Use a soft brush or compressed air if necessary, ensuring the device is powered off.

4.2 Storage

- Store the FC4 in a cool, dry place away from direct sunlight and extreme temperatures.
- Avoid storing in environments with high humidity or excessive dust.
- When not in use, disconnect the FC4 from all devices and store it safely to prevent physical damage.

5. TROUBLESHOOTING

If you encounter issues with your HiBy FC4, refer to the following common problems and solutions.

- **No Sound Output:**
 - Ensure the FC4 is securely connected to both the source device and headphones.
 - Check the volume levels on both the FC4 and your source device.
 - Verify that the correct audio output device (HiBy FC4) is selected in your source device's sound settings.
 - Test with different headphones and cables to rule out faulty accessories.

- **Device Not Recognized:**

- Ensure the USB cable is fully inserted and not damaged.
- Try connecting to a different USB port on your computer or a different source device.
- For Windows versions below 10, confirm that the necessary drivers are installed from the HiBy website.
- Restart your source device.

- **Intermittent Audio/Distortion:**

- Check for loose connections.
- Ensure the audio file or streaming quality is not corrupted.
- Avoid using excessively long or low-quality USB cables.
- Reduce the volume if distortion occurs at high levels.

- **Rapid Battery Drain on Source Device:**

- The FC4 draws power from the connected device. High-power headphones or continuous high-volume playback may increase power consumption.
- This is normal operation for a bus-powered DAC/amp.

If the problem persists after trying these solutions, please contact HiBy customer support for further assistance.

6. SPECIFICATIONS

Key technical specifications for the HiBy FC4 Portable DAC Headphone Amplifier:

Feature	Specification
Model Number	FC4
DAC Chips	2 x ES9219
PCM Support	Up to 768kHz/32bit
DSD Support	Up to DSD256 (Native)
MQA Support	MQA 16X Unfolding
Headphone Outputs	3.5mm Single-Ended, 4.4mm Balanced
Driving Power (32Ω)	340mW + 340mW
Signal-to-Noise Ratio (SNR)	>123dB
Total Harmonic Distortion + Noise (THD+N)	<0.0006%
Hardware Interface	USB-C
Compatible Devices	Smartphone, Tablet, Personal Computer, Laptop
Supported Platforms	Android, iOS, Mac, Windows 10 and up
Product Dimensions	2.57 x 0.87 x 0.47 inches (6.53 x 2.21 x 1.19 cm)
Item Weight	2.82 ounces (80 grams)

An Outstanding Listening Experience with Top-Notch Audio Performance



SNR>123dB / THD+N<0.0006% / 1.7uV

Image: The HiBy FC4 highlighting its impressive audio performance metrics, including SNR and THD+N.

7. WARRANTY & SUPPORT

HiBy products are manufactured to high quality standards. For warranty information, please refer to the warranty card included with your product or visit the official HiBy website. Keep your proof of purchase for warranty claims.

7.1 Customer Support

If you have any questions, require technical assistance, or need to report an issue, please contact HiBy customer support through their official website or the contact information provided in your product packaging.

Official Website: www.hiby.com

