

Douk Audio K5

Douk Audio K5 DAC Headphone Amplifier User Manual

Model: K5

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1. INTRODUCTION

The Douk Audio K5 is a versatile digital-to-analog converter (DAC) and headphone amplifier designed to enhance your audio experience. It features multiple input and output options, including USB-C and optical inputs, and 3.5mm/6.35mm headphone outputs, as well as RCA and optical line outputs. The K5 can function as a high-performance headphone amplifier, a USB DAC, a preamplifier, and a USB to optical converter. This manual provides detailed instructions for setting up, operating, and maintaining your Douk Audio K5 to ensure optimal performance and longevity.

2. PRODUCT FEATURES

- **Multi-functional Design:** Functions as a headphone amplifier, USB DAC, preamplifier, and USB to optical converter.
- **High-Resolution Audio:** Supports PCM 32bit/384kHz and DSD256 playback for superior sound quality.
- **Premium Chipset:** Utilizes ESS9038Q2M (DAC), SA9312 (DSP), OPA1678 (LPF), and SGM8262 (amp) op-amps.
- **Powerful Headphone Output:** Dual 6.35mm and 3.5mm headphone outputs with 560mW/470mW@32Ω per channel.
- **Adjustable Gain:** High and low gain modes to accommodate headphones with impedance from 16Ω to 600Ω.

- **Tone Control with Bypass:** Independent treble and bass controls with a 'PURE' bypass function for unaltered audio.
- **Multiple Inputs/Outputs:** USB-C, SPDIF optical input, RCA line out, SPDIF optical out.
- **User-Friendly Interface:** Integrated volume/power knob, one-click input/tone/gain switches, and colorful LED indicators for mode and sampling rate.
- **Durable Construction:** Aluminum alloy body with CNC-molded design.

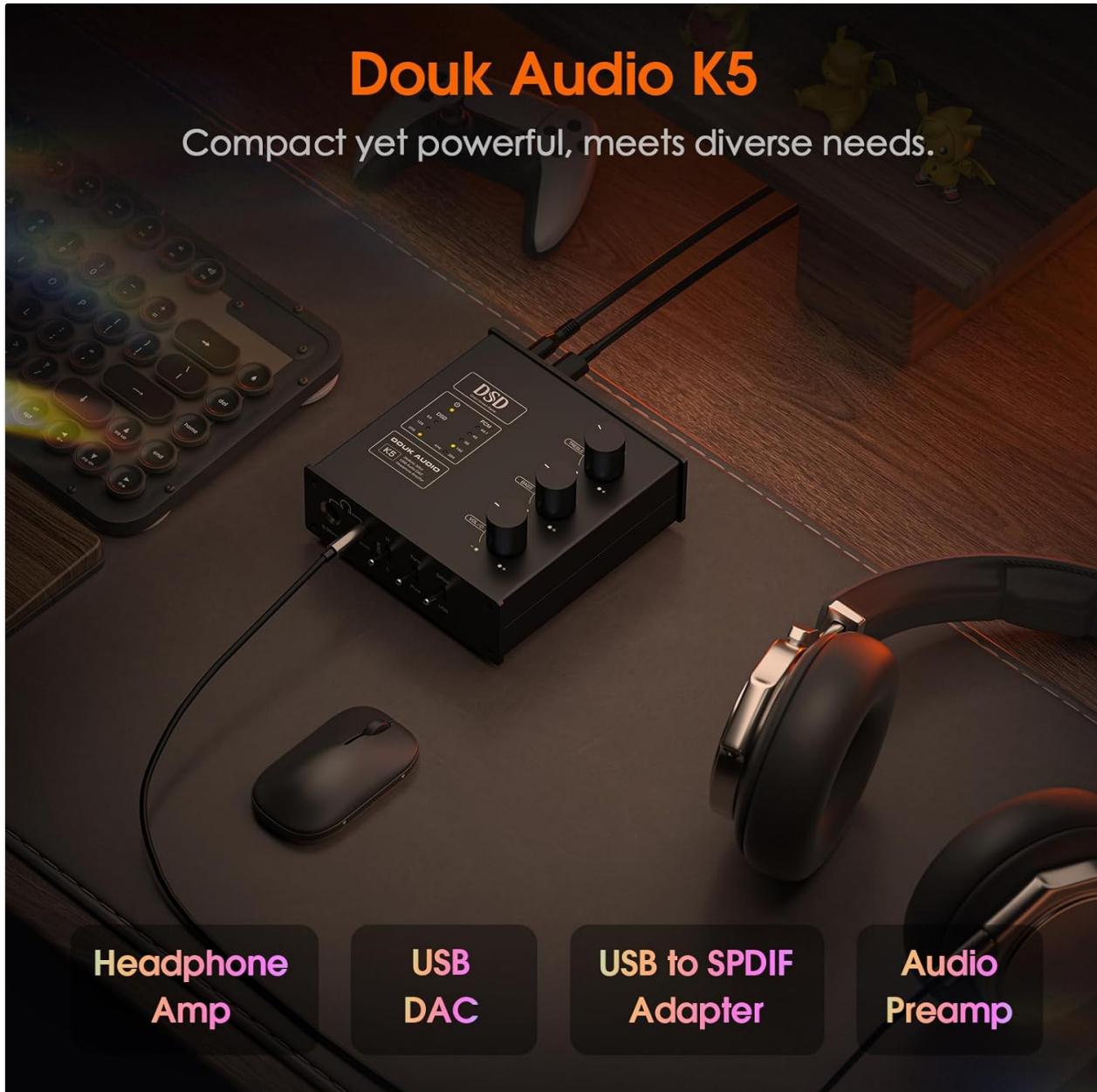


Image: The Douk Audio K5 unit showcasing its compact design and multiple functionalities as a headphone amp, USB DAC, USB to SPDIF adapter, and audio preamp.

6.35/3.5mm Output and High/Low Gain

Effortlessly adapts to 16-600 Ω headphones for a customized listening experience.



Image: The K5 DAC connected to a laptop and external speakers, illustrating its role in a home audio system. It can transmit high-quality audio from USB to high-end audio systems via its optical output.

Additional Optical Output, Stronger Compatibility

Transmits high-quality audio from the
USB to your high-end audio systems.



Image: The K5 unit with headphones connected to both 6.35mm and 3.5mm outputs, demonstrating its high/low gain modes for headphones ranging from 16Ω to 600Ω.

Premium Chipset for Ultra-pure Sound

ES9038Q2M+SA9312, supports DSD256 and PCM384Khz/32Bit



Image: A detailed view of the premium ESS9038Q2M chipset, SA9312, OPA1678, and SGM8262 op-amps, emphasizing the K5's audiophile-grade parameters like SNR >121dB and THD <0.0007%.

Tone Controls with Bypass

Treble and bass with midpoint positioning, support bypass for original sound.

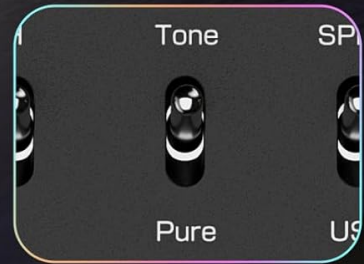


Image: Close-up of the tone controls (treble and bass) and the 'Pure' bypass switch, allowing users to adjust sound or enjoy an unaltered audio signal.

Abundant Interfaces & Adjustments

Build your personalized sound output

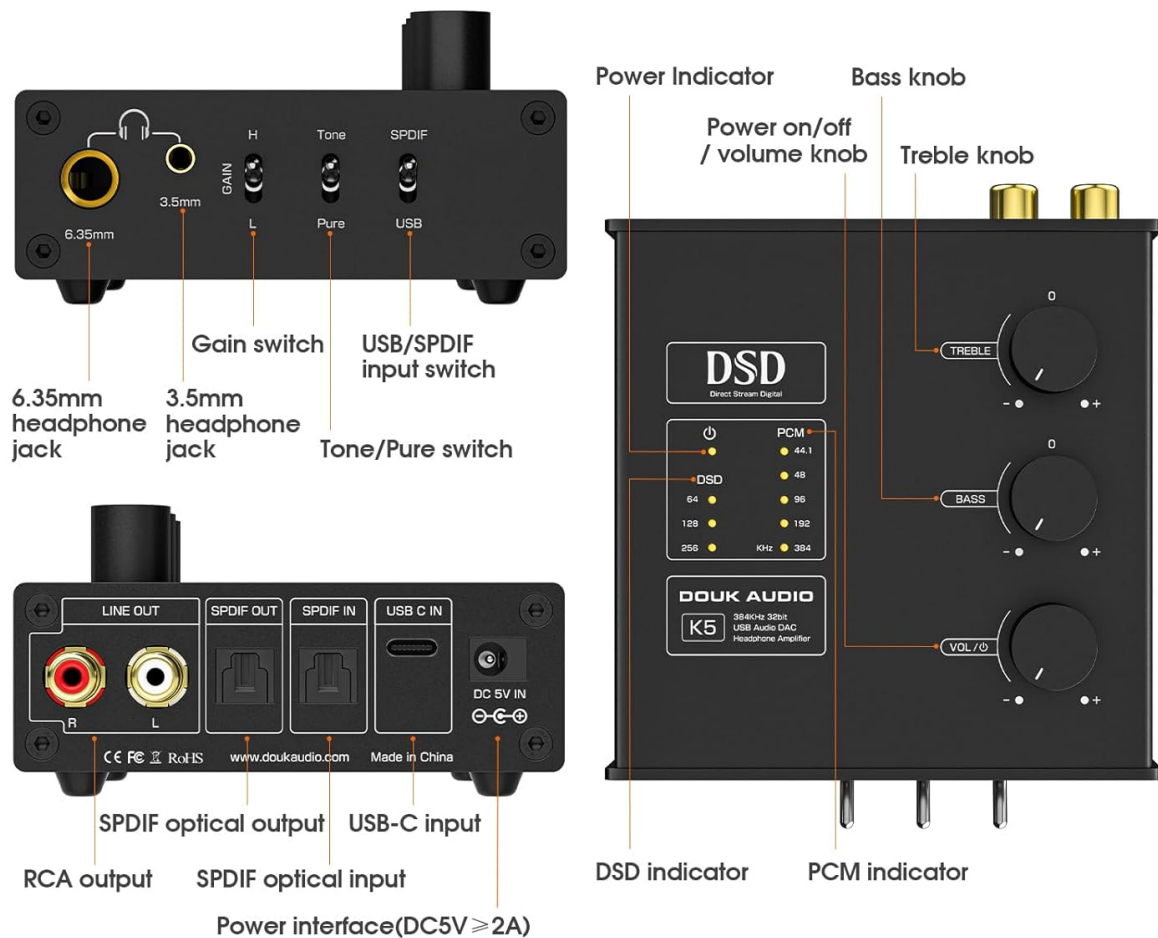


Image: A comprehensive diagram labeling all front and rear panel interfaces and controls, including headphone jacks, gain switch, tone/pure switch, input switch, RCA output, SPDIF in/out, USB-C input, and DC 5V power input.

3. SETUP GUIDE

Follow these steps to set up your Douk Audio K5 DAC Headphone Amplifier:

- 1. Unpack the Device:** Carefully remove the K5 unit and all accessories from the packaging. Verify that all components listed in the 'What's in the Box' section are present.
- 2. Power Connection:** Connect the provided power adapter to the DC 5V IN port on the rear panel of the K5. Plug the adapter into a suitable power outlet. The K5 can also be powered directly via the USB Type-C input with sufficient current.
- 3. Input Source Connection:**
 - **USB Input:** Connect your PC or other USB audio source to the USB C IN port on the rear panel using the provided USB cable.
 - **Optical Input:** Connect an optical cable from your audio source (e.g., TV, CD player) to the SPDIF IN port on the rear panel.
- 4. Output Device Connection:**

- **Headphones:** Plug your headphones into either the 6.35mm or 3.5mm headphone jack on the front panel.
 - **RCA Line Out:** Connect RCA cables from the LINE OUT (R/L) ports on the rear panel to your amplifier or active speakers.
 - **Optical Out:** Connect an optical cable from the SPDIF OUT port on the rear panel to a device that accepts optical input, such as a soundbar or another DAC.
5. **Power On:** Turn the integrated volume/power knob clockwise to power on the device. The LED indicators will illuminate.

4. OPERATING INSTRUCTIONS

Understand and utilize the various controls and functions of your K5 unit:

- **Power On/Off & Volume Control:** The large knob on the front panel controls both power (turn clockwise to turn on) and volume. Adjust to your desired listening level.
- **Input Selection:** Use the toggle switch labeled "SPDIF / USB" on the front panel to select your desired audio input source.
- **Gain Adjustment:** The "GAIN" toggle switch (H/L) allows you to select between high and low gain modes. Use 'H' for high-impedance or less sensitive headphones and 'L' for low-impedance or more sensitive headphones.
- **Tone Control:** The "TREBLE" and "BASS" knobs allow you to adjust the high and low frequencies of the audio. The midpoint position provides a flat, balanced sound.
- **Tone Bypass (PURE Mode):** The "Tone / Pure" toggle switch allows you to bypass the treble and bass controls. When set to 'PURE', the audio signal will be unprocessed by the tone controls, providing the purest sound.
- **LED Indicators:** The front panel features LED indicators for DSD and PCM sampling rates, as well as a power indicator. These lights provide visual feedback on the current audio format and device status.

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Video: A sound check demonstration of the K5 DAC, showcasing its audio performance with various instruments (drums, vocal, acoustic guitar, electric guitar, piano). This video helps illustrate the sound quality and clarity provided by the device.

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Video: A product overview of the Douk Audio K5 PC Gaming DAC & Headphone Amp, highlighting its design, inputs, outputs, and controls. This video provides a visual guide to the physical aspects and connectivity of the K5.

5. MAINTENANCE

To ensure the longevity and optimal performance of your Douk Audio K5, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to wipe the exterior of the unit. Avoid using harsh chemicals, solvents, or abrasive cleaners, as these can damage the finish.
- **Placement:** Place the K5 on a stable, flat surface away from direct sunlight, heat sources, and excessive moisture. Ensure adequate ventilation around the unit to prevent overheating.
- **Connections:** Periodically check all cable connections to ensure they are secure. Loose connections can lead to signal loss or poor audio quality.
- **Power Off When Not in Use:** If the device will not be used for an extended period, it is recommended to power it off and unplug it from the power outlet.

6. TROUBLESHOOTING

If you encounter any issues with your Douk Audio K5, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No sound output	<ul style="list-style-type: none">• Incorrect input selected.• Loose cable connections.• Volume too low.• Headphones not properly connected.• External device not sending audio.	<ul style="list-style-type: none">• Verify the input switch is set to the correct source (USB or SPDIF).• Check all audio cables (USB, optical, RCA, headphone) for secure connections.• Increase the volume using the main knob.• Ensure headphones are fully plugged into the correct jack (6.35mm or 3.5mm).• Confirm the audio source (PC, TV) is playing audio and its output is correctly configured.
Distorted or poor sound quality	<ul style="list-style-type: none">• Incorrect gain setting.• Tone controls set too high/low.• Faulty cables.• Source audio quality is low.	<ul style="list-style-type: none">• Adjust the "GAIN" switch (H/L) to match your headphones' impedance.• Set the "Tone / Pure" switch to 'PURE' to bypass tone controls, or adjust treble/bass knobs to a neutral position.• Try different audio cables.• Ensure the audio source is providing a high-quality signal.
Device does not power on	<ul style="list-style-type: none">• Power adapter not connected or faulty.• Power outlet not working.	<ul style="list-style-type: none">• Ensure the power adapter is securely connected to the K5 and a working power outlet.• Try a different power outlet.• Verify the power adapter is functioning correctly.
No DSD/PCM indicator light	<ul style="list-style-type: none">• No audio signal or unsupported format.• Incorrect input selected.	<ul style="list-style-type: none">• Ensure audio is playing from the source.• Verify the audio format is supported by the K5.• Check the input selection switch.

7. TECHNICAL SPECIFICATIONS

Feature	Detail
Model	K5
Brand	Douk Audio
DAC Chipset	ESS9038Q2M
DSP Chipset	SA9312

Feature	Detail
LPF Op-amp	OPA1678
Amp Op-amp	SGM8262
PCM Decoding	Up to 32bit/384kHz
DSD Playback	DSD256
SNR (Signal-to-Noise Ratio)	>121dB
THD (Total Harmonic Distortion)	<0.0007%
Noise Floor	<3 μ V
Headphone Output Power	560mW/470mW@32 Ω per channel
Headphone Impedance Range	16 Ω to 600 Ω
Inputs	USB-C, SPDIF Optical
Outputs	6.35mm Headphone, 3.5mm Headphone, RCA Line Out, SPDIF Optical Out
Power Supply	DC 5V (2A recommended)
Material	Aluminum Alloy
Item Weight	0.5 Pounds (approx. 228g)

8. WHAT'S IN THE BOX

The Douk Audio K5 package includes the following items:

- 1x K5 DAC Headphone Amplifier Unit
- 1x Power Adapter
- 1x USB Cable (Type-A to Type-C)
- 1x Optical Cable
- 1x User Manual

PACKING LIST

What's in the Box ?

Net Weight
228g/0.50lb

Package Weight
500g/1.10lb



Image: A visual representation of the K5 DAC and its included accessories: power supply, optical cable, USB-A to USB-C cable, and user manual.

9. WARRANTY AND SUPPORT

Douk Audio products are designed for reliability and performance. For warranty information and customer support, please refer to the official Douk Audio website or contact your retailer. Keep your purchase receipt for warranty claims.

For further assistance, visit the Douk Audio store online: [Douk Audio Store](#)