

## Douk Audio NS-02E

# Douk Audio Nobsound NS-02E Vacuum Tube Headphone Amplifier User Manual

## 1. INTRODUCTION

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The Douk Audio Nobsound NS-02E is a compact and versatile vacuum tube headphone amplifier designed to enhance your audio experience. It features an anodized aluminum chassis and a replaceable vacuum tube with blue illumination. This amplifier delivers a soft and warm sound while maintaining exceptional clarity, making it suitable for various audio setups.

The NS-02E can function as a dedicated headphone amplifier or as a tube pre-amplifier, allowing integration with existing power amplifiers to improve musicality and dynamic range. Its design supports easy tube replacement, offering flexibility for sound customization.

## 2. PACKAGE CONTENTS

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Please check the package for the following items:

- 1 × Nobsound NS-02E Headphone Amplifier
- 1 × Power Supply Adapter
- 1 × 6N3 Vacuum Tube (pre-installed or separate)
- 1 × Audio Cable (3.5mm to 3.5mm)

## 3. PRODUCT OVERVIEW

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The NS-02E features a robust anodized aluminum chassis, providing durability and a sleek aesthetic. The visible vacuum tube is illuminated with a blue light when powered on, adding to its unique appeal. The front panel includes a volume control knob and 3.5mm input/output jacks, while the rear panel houses the power input.

# AMP FEATURING AN ANODIZED ALUMINUM CHASSIS

Designed by Douk Audio Studio, it is a powerful and affordable Hi-Fi headphone amp featuring an anodized aluminum chassis and top mounted vacuum tube with blue illumination.

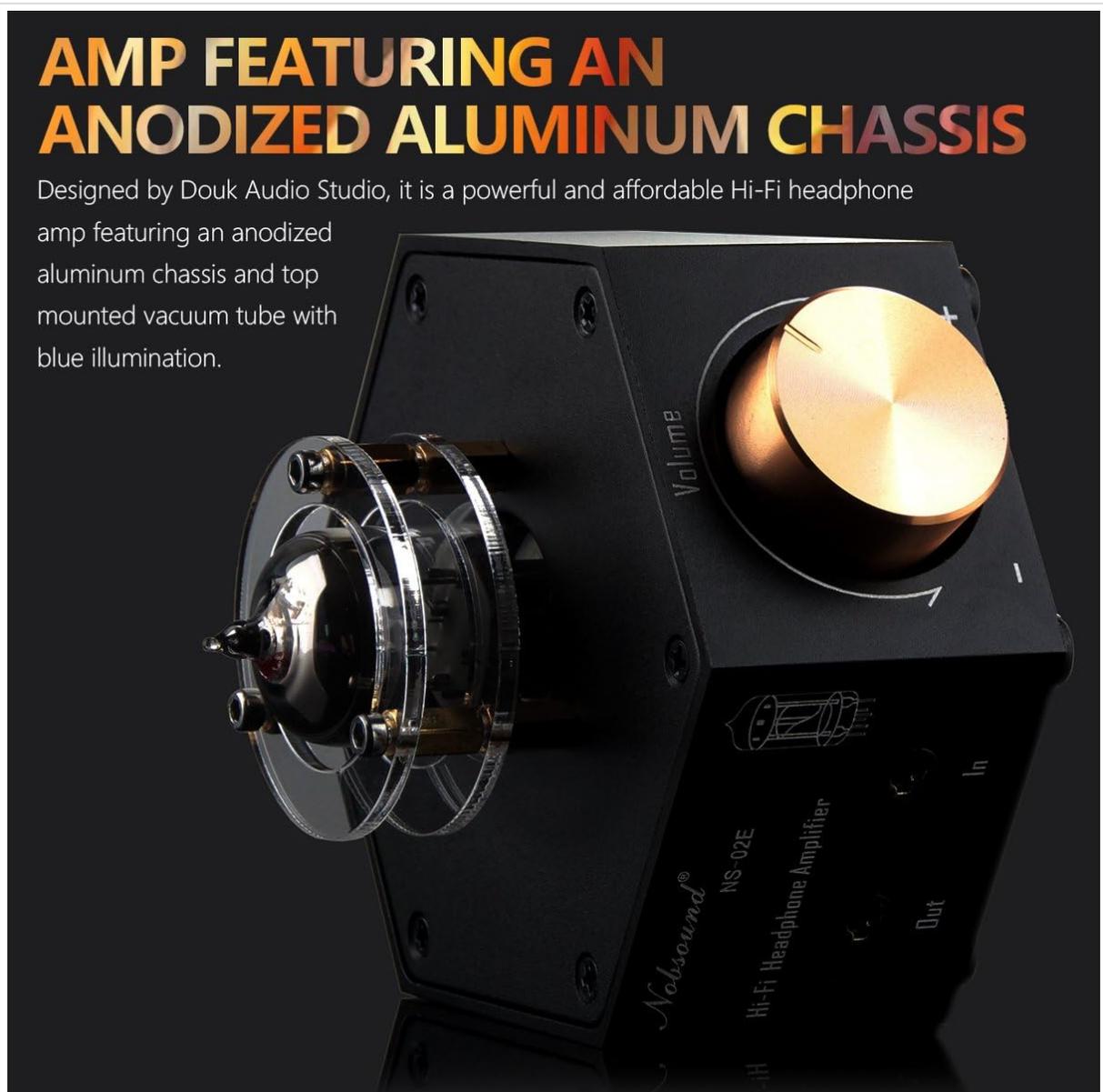


Image: Front view of the Nobsound NS-02E Headphone Amplifier, highlighting its anodized aluminum chassis and the illuminated vacuum tube.

# MINI AND COMPACT

Excellent Fashion Appearance, Mini and Compact, High Current Class A, Hi-Fi  
The Nobsound NS-02E is the latest vacuum tube headphone amplifier in the world.  
Volume: (W)90×(L)90×(H)39 mm  
(3.54 x 3.54 x 1.54 inches) H: 80 mm with tube and feet



Image: The Nobsound NS-02E amplifier shown with its compact dimensions (90x90x39mm), illustrating its small footprint.

## 4. SETUP INSTRUCTIONS

Follow these steps to set up your Nobsound NS-02E amplifier:

- 1. Tube Installation (if not pre-installed):** Gently insert the 6N3 vacuum tube into the socket on top of the amplifier. Ensure the pins align correctly with the socket holes and push down firmly but carefully until it is seated.
- 2. Connect Audio Input:** Use the provided 3.5mm audio cable to connect your audio source (e.g., smartphone, computer, iPod, stereo system) to the 'In' jack on the front panel of the NS-02E.
- 3. Connect Headphones:** Plug your headphones into the 'Out' jack on the front panel of the NS-02E. The amplifier supports headphones with impedance ranging from 18 to 600 ohms.
- 4. Connect Power:** Connect the power supply adapter to the DC 6V input jack on the rear panel of the amplifier. Then, plug the power adapter into a suitable wall outlet.
- 5. Initial Volume Setting:** Before powering on, turn the volume knob counter-clockwise to its minimum setting to prevent sudden loud sounds.

# EASY USE EASY DRIVE

The NS-02E can easily power high-performance headphones including the HD 580, HD 600, HD 650, K 701, K 702, Q 701, DT880, T70, T90, SR225, SR325, RS1e, and many more. It will also be a good match for active speaker systems.



Image: Connection diagram illustrating how to connect various audio sources (iPod, smartphone, computer) to the 'In' port and headphones or active speakers to the 'Out' port of the NS-02E.

## Using as a Pre-Amplifier:

To use the NS-02E as a pre-amplifier, connect your audio source to the 'In' jack as described above. Then, connect the 'Out' jack of the NS-02E to the input of your power amplifier or active speaker system. This configuration allows the NS-02E to process the audio signal before it reaches your main amplification system.

## 5. OPERATING INSTRUCTIONS

1. **Power On:** After all connections are made, press the power button (if available, otherwise it powers on when connected to power). The vacuum tube will illuminate with a blue light, indicating the unit is powered on.
2. **Adjust Volume:** Slowly turn the volume knob clockwise to increase the sound level to your desired listening volume.
3. **Enjoy:** Begin playing audio from your connected source.
4. **Power Off:** To turn off the amplifier, disconnect the power supply from the wall outlet or press the power button if present.

## 6. MAINTENANCE

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### Tube Replacement

The default 6N3 vacuum tube can be replaced with various compatible tubes to customize the sound signature. To replace the tube:

1. **Power Off and Disconnect:** Ensure the amplifier is powered off and disconnected from the power supply. Allow the tube to cool down completely before handling.
2. **Remove Old Tube:** Gently grasp the existing tube and pull it straight up from its socket. Avoid twisting or bending the pins.
3. **Insert New Tube:** Carefully align the pins of the new tube with the holes in the socket. Gently push the tube straight down until it is fully seated. Do not force it.

#### Compatible Tube Types:

- **United States:** 6A8Q, 2C51, 5670, 5185, 6385, 6185, WE396
- **Europe:** ECC 42
- **Soviet Union:** 6H3N, 6H3II
- **Germany:** ECF82
- **Czech Republic:** 6CC42

# HIGH PLAYABILITY

Can direct change lots of tubes model. (Default tube: 6N3)

United States: 6A8Q, 2C51,5670,5185,6385,6185, WE396

Europe: ECC 42

Soviet Union: 6H3N, 6H3II

Germany: ECF82

Czech Republic: 6CC42

Specifications:



Image: The Nobsound NS-02E amplifier with a separate vacuum tube, demonstrating the user's ability to replace the default tube with other compatible models for sound customization.

## General Care

- Keep the amplifier in a clean, dry environment, away from direct sunlight, heat sources, and moisture.
- Clean the chassis with a soft, dry cloth. Do not use liquid cleaners or abrasive materials.
- Avoid placing heavy objects on top of the amplifier.

## 7. TROUBLESHOOTING

If you encounter issues with your NS-02E amplifier, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
No sound	<ul style="list-style-type: none"> <li>• Power not connected or turned on.</li> <li>• Input/output cables incorrectly connected.</li> <li>• Volume knob set too low.</li> <li>• Faulty audio source or headphones.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure power adapter is securely connected and plugged in.</li> <li>• Verify all 3.5mm cables are fully inserted into the correct 'In' and 'Out' jacks.</li> <li>• Increase the volume gradually.</li> <li>• Test with a different audio source or headphones.</li> </ul>
Distorted or static sound	<ul style="list-style-type: none"> <li>• Loose cable connections.</li> <li>• Interference from other electronic devices.</li> <li>• Faulty vacuum tube.</li> <li>• Input signal too strong (clipping).</li> </ul>	<ul style="list-style-type: none"> <li>• Check all cable connections for tightness.</li> <li>• Move the amplifier away from other electronics.</li> <li>• Try replacing the vacuum tube with a known good one.</li> <li>• Reduce the volume output from your audio source.</li> </ul>
Humming or buzzing noise	<ul style="list-style-type: none"> <li>• Ground loop issue.</li> <li>• Interference from power supply or nearby devices.</li> </ul>	<ul style="list-style-type: none"> <li>• Try plugging the amplifier into a different power outlet.</li> <li>• Ensure all audio cables are properly shielded.</li> <li>• Move the amplifier away from power cables or transformers.</li> </ul>
Blue tube illumination not working	<ul style="list-style-type: none"> <li>• Unit not powered on.</li> <li>• LED failure (rare).</li> </ul>	<ul style="list-style-type: none"> <li>• Confirm the amplifier is receiving power.</li> <li>• If the unit functions otherwise, the illumination is cosmetic and does not affect performance.</li> </ul>

## 8. SPECIFICATIONS

Feature	Specification
Model	Nobsound NS-02E
Tube Type	6N3 (default), replaceable
Output Power	≥1100 mW (32 ohm)
Adapter Headphone Impedance	18-600 ohm
Total Harmonic Distortion (THD)	<0.005%
Signal-to-Noise Ratio (SNR)	≥110 dB
Frequency Response	20 Hz – 30 kHz
Dimensions (L×W×H)	90 × 90 × 39 mm (3.54 × 3.54 × 1.54 inches)

<b>Feature</b>	<b>Specification</b>
Height with Tube and Feet	80 mm
Net Weight	165g (0.36 lbs)
Input/Output Audio Jacks	3.5 mm
Chassis Material	Aluminum

## **9. WARRANTY AND SUPPORT**

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For warranty information and technical support, please refer to the documentation provided with your purchase or contact Douk Audio customer service directly. Contact details can typically be found on the manufacturer's official website or through your retailer.