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- › [Douk Audio](#) /
- › [Douk Audio H7 PRO Digital Amplifier User Manual](#)

Douk Audio H7 PRO

Douk Audio H7 PRO Digital Amplifier User Manual

Model: H7 PRO

1. INTRODUCTION AND OVERVIEW

The Douk Audio H7 PRO is a high-fidelity digital power amplifier designed for home stereo systems. It incorporates the advanced TPA3255 high-end digital Class D amplifier chip, enabling it to deliver a maximum power output of 300W per channel. This amplifier is engineered to drive 4-8Ω speakers with impressive sound quality, making it suitable for various audio setups, from bookshelves and desktop environments to comprehensive home theater systems. Its compact size and robust construction are complemented by dual VU meters, which dynamically respond to audio signals, adding a classic visual element to its modern performance.

The H7 PRO features both standard RCA and balanced XLR inputs to minimize interference and reduce noise, along with a preamp RCA output for connecting additional amplifiers or active subwoofers. Crafted from customized all-aluminum alloy, the unit ensures durability and a premium feel, while audiophile-grade components contribute to its exceptional clarity and low distortion.



Figure 1.1: Front view of the Douk Audio H7 PRO amplifier, showcasing the dual VU meters, balance control, volume knob, and input selector switch.

2. PACKAGE CONTENTS

Please verify that all items listed below are included in your package. If any items are missing or damaged, please contact customer support.

- 1 × H7 PRO Amplifier
- 1 × DC 32V Power Adapter
- 1 × User Manual



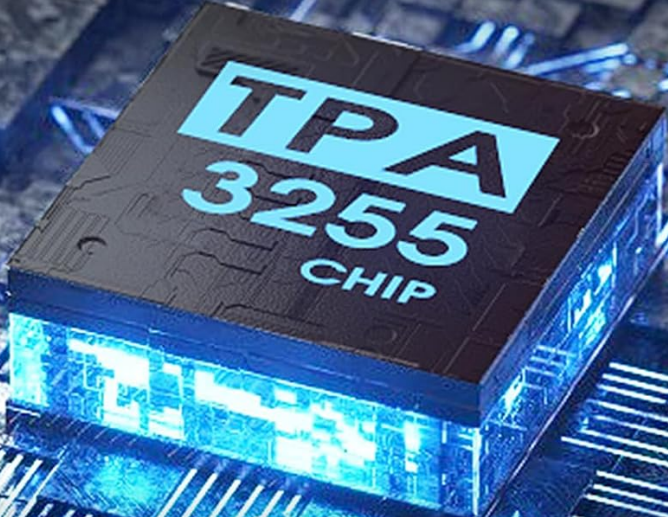
Figure 2.1: Contents of the Douk Audio H7 PRO package, including the amplifier unit, power adapter, and user manual.

3. FEATURES

- **Compact but output strong power:** H7PRO features the TPA3255 high-end digital class D amp chip, max power output of per channel can up to 300W, it can effortlessly drive 4-8Ω speakers, delivering impressive sound quality. Its compact size makes it suitable for various applications, from bookshelves and desktop setups to home theaters.
- **Dual VU meter design and balance control:** Based on H7 and helpful advice from our users, H7PRO designed with dual VU meters dynamically swings with changes in the audio signal. Remove the independent volume control of the L/R channel but add the balance control, to adjust the balance volume of the left and right speakers for a more even and natural sound.
- **Dual analog inputs and preamp output:** H7PRO combines a minimalist design with exceptional function. Besides standard RCA input, also with a balanced XLR input to minimize interference and reduce noise floor. H7PRO also features its preamp RCA output, another amplifier and active speaker/subwoofer can be connected to build 2.1 or multi-channel home theater systems.
- **Audiophile-grade components and sound:** H7PRO adopts Japanese ELNA and Rubycon filter array, professional audio inductors and all-sealed precision potentiometer etc., with an SNR of up to 110dB and ultra-low noise floor to deliver exceptional clarity and low distortion. Traditional design but with enough heat dissipation area to ensure optimal performance and long-time stable working.
- **Refined craftsmanship and attractive appearance:** CNC-machined, customized all-aluminum alloy construction, ensuring both longevity and a luxurious feel. VU meters to show the volume in real-time, harmoniously combine retro charm with contemporary design, let us experience a HIFI musical journey through time via Douk Audio H7PRO.

Compact but output strong power

H7PRO features the TPA3255 high-end digital class D amp chip, max power output of per channel can up to 300W, it can effortlessly drive 4-8Ω speakers, delivering impressive sound quality. Its compact size makes it suitable for various applications, from bookshelves and desktop setups to home theaters.

A detailed illustration of the TPA3255 amplifier chip. The chip is a square, dark-colored component with 'TPA3255 CHIP' printed in white on its top surface. It is shown mounted on a complex circuit board with various traces and components visible. The chip has a glowing blue light emanating from its base, suggesting it is powered on.

Power Supply	Speaker Impedance	Output Power
32V / 5A	4 Ω	78W*2
	8 Ω	65W*2
48V / 10A	4 Ω	250W*2
	8 Ω	185W*2

Figure 3.1: Illustration of the TPA3255 amplifier chip and a table detailing power output based on power supply and speaker impedance.

Dual VU meter design and balance control

Based on H7 and helpful advice from our users, H7 PRO designed with dual VU meters dynamically swings with changes in the audio signal. Remove the independent volume control of the L/R channel but add the balance control, to adjust the balance volume of the left and right speakers for a more even and natural sound.



Figure 3.2: The H7 PRO amplifier integrated into a desktop audio setup, highlighting its dual VU meters and compact design.

4. SETUP

Follow these steps for initial setup of your Douk Audio H7 PRO amplifier:

1. **Placement:** Place the amplifier on a stable, flat surface with adequate ventilation. Ensure there is enough space around the unit for heat dissipation.
2. **Speaker Connection:** Connect your passive speakers to the "SPK OUT" binding posts on the rear panel. Ensure correct polarity (+ to + and - to -) for each channel (Left and Right).
3. **Input Source Connection:**
 - For unbalanced sources (e.g., CD player, DAC with RCA outputs), connect RCA cables to the "INPUT" RCA jacks.
 - For balanced sources (e.g., professional audio equipment with XLR outputs), connect XLR cables to the "INPUT" XLR jacks.
4. **Preamp Output (Optional):** If connecting an additional amplifier or active subwoofer, use RCA cables to connect from the "OUTPUT" RCA jacks to your external device.
5. **Power Connection:** Connect the supplied DC 32V power adapter to the "DC 24V-48V" input on the rear panel, then plug the adapter into a wall outlet.

Dual analog inputs and preamp output

H7 PRO combines a minimalist design with exceptional function. Besides standard RCA input, also with a balanced XLR input to minimize interference and reduce noise floor.

H7PRO also features its preamp RCA output, another amplifier and active speaker/subwoofer can be connected to build 2.1 or multi-channel home theater systems.



Figure 4.1: Detailed view of the rear panel, showing XLR inputs, RCA inputs, RCA preamp outputs, speaker binding posts, and DC power input.

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Video 4.1: An overview of the Douk Audio H7 PRO amplifier, demonstrating its features and various connection points.

5. OPERATING INSTRUCTIONS

Once the amplifier is set up, follow these instructions for operation:

1. **Power On/Off:** Use the input selector switch on the front panel. Move it to "RCA" or "XLR" to power on the unit and select the desired input. Move it to "OFF" to power off.
2. **Volume Control:** Rotate the "VOL" knob clockwise to increase volume and counter-clockwise to decrease volume. Adjust to a comfortable listening level.
3. **Balance Control:** Use the "BAL" knob to adjust the balance between the left and right channels. Rotate it to fine-tune the stereo image for optimal listening.
4. **Input Selection:** The switch labeled "RCA / XLR" allows you to toggle between the RCA and XLR input sources. Ensure the switch is set to the input you are currently using.
5. **VU Meter Adjustment:** The VU meters on the front panel display the audio signal level. If desired, you can adjust

their sensitivity using the small adjustment screws located on the bottom of the unit (refer to Figure 5.1). Use a small screwdriver to turn the L and R screws to calibrate the meter swing.

PACKING LIST



1× H7 PRO Amplifier

Net Weight
803g/1.77lb

Package Weight
1.50kg/3.31lb



1× DC 32V Power Adapter

Figure 5.1: Diagram illustrating the front panel controls (VU meters, balance, volume, input switch) and rear panel connections (XLR/RCA inputs, RCA output, speaker output, power input).

Refined craftsmanship and attractive appearance

CNC-machined, customized all-aluminum alloy construction, ensuring both longevity and a luxurious feel. VU meters to show the volume in real-time, harmoniously combine retro charm with contemporary design, let us experience a HIFI musical journey through time via Douk Audio H7 PRO.



Figure 5.2: Bottom view of the amplifier, indicating the location of the VU meter sensitivity adjustment screws (L and R).

6. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your amplifier:

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Avoid using liquid cleaners, aerosols, or abrasive materials, as they may damage the finish or internal components.
- **Ventilation:** Ensure the amplifier is placed in a well-ventilated area. Do not block any ventilation openings. Overheating can lead to reduced performance and potential damage.
- **Power Off When Not in Use:** For extended periods of inactivity, it is recommended to power off the amplifier and unplug it from the wall outlet.
- **Avoid Moisture:** Keep the unit away from water, excessive humidity, and direct sunlight.

7. TROUBLESHOOTING

If you encounter issues with your Douk Audio H7 PRO, please refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No sound output	<ul style="list-style-type: none">Power not connected or unit off.Incorrect input selected.Speaker cables loose or incorrectly connected.Source device not playing or volume too low.	<ul style="list-style-type: none">Ensure power adapter is connected and unit is switched ON (RCA or XLR input selected).Verify the input selector switch matches your source (RCA or XLR).Check all speaker cable connections for secure and correct polarity.Confirm your audio source is playing and its volume is adequate.
Distorted or unclear sound	<ul style="list-style-type: none">Volume too high, causing clipping.Poor cable connections.Interference from other electronic devices.Improper speaker impedance match.	<ul style="list-style-type: none">Reduce the volume.Check all audio cables for secure connections.Move the amplifier away from potential sources of interference.Ensure your speakers' impedance (4-8Ω) is compatible with the amplifier.
VU meters not moving or erratic	<ul style="list-style-type: none">No audio signal.Sensitivity setting too low.	<ul style="list-style-type: none">Ensure audio is playing through the amplifier.Adjust the VU meter sensitivity screws on the bottom of the unit (refer to Figure 5.2).
Volume knob has no effect on first few clicks	<ul style="list-style-type: none">Characteristic of the potentiometer used.High input signal level.	<ul style="list-style-type: none">This behavior is normal for some potentiometers at very low settings.If the minimum audible volume is too loud, consider reducing the output level from your source device if possible.

8. SPECIFICATIONS

Specification	Value
Model Number	H7 PRO
Amplifier Chip	TPA3255
Max Power Output (per channel)	Up to 300W
Speaker Impedance	4-8Ω
Inputs	Balanced XLR, RCA
Outputs	Speaker Output, RCA Preamp Output
SNR	Up to 110dB
Item Weight	3.1 pounds (approx. 1.4 kg)
Package Dimensions	11.89 x 9.02 x 2.99 inches
Manufacturer	Douk Audio

Rated Output Power Table:

Power Supply	Speaker Impedance	Rated Output Power
32V/5A	4Ω	78W+78W

Power Supply	Speaker Impedance	Rated Output Power
	6Ω	71W+71W
	8Ω	65W+65W
48V/5A	4Ω	120W+120W
	6Ω	110W+110W
	8Ω	102W+102W
48V/10A	4Ω	250W+250W
	6Ω	210W+210W
	8Ω	185W+185W

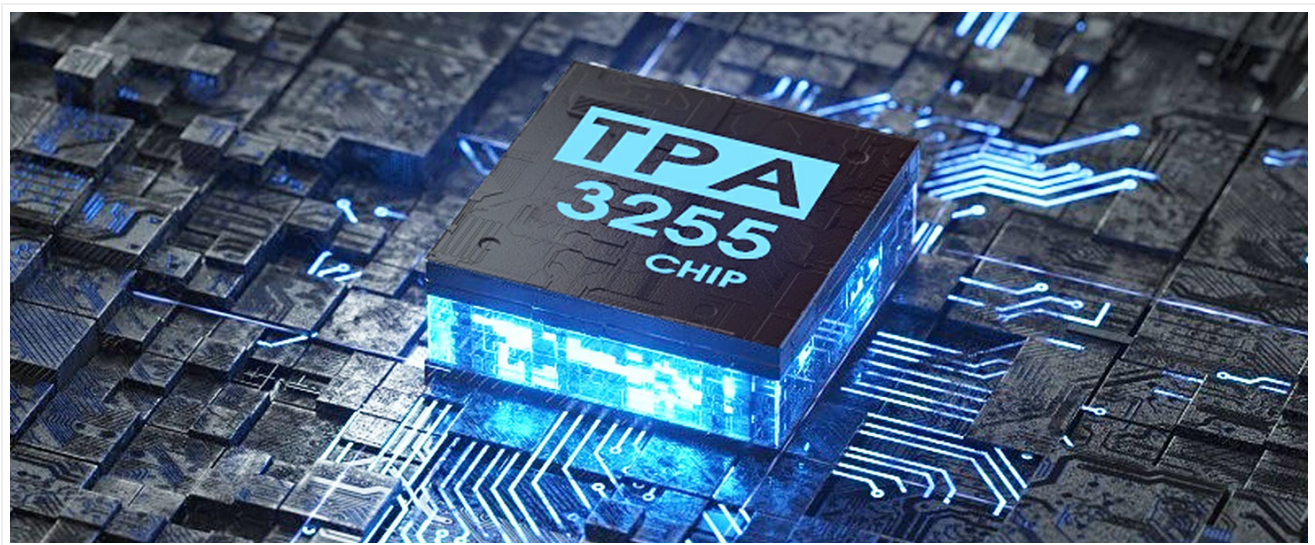


Figure 8.1: Detailed power output specifications based on different power supplies and speaker impedances.

9. WARRANTY AND SUPPORT

Douk Audio products are designed for reliability and performance. For warranty information, technical support, or service inquiries, please refer to the warranty card included with your product or visit the official Douk Audio website. Please retain your proof of purchase for warranty claims.

Official Website: www.doukaudio.com