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ADMARK AD-442

ADMARK AD-442 Professional Class-D Power Amplifier User Manual

Model: AD-442

1. INTRODUCTION

The ADMARK AD-442 is a high-power, professional-grade 4-channel Class-D amplifier designed for demanding audio environments such as live performances and studio settings. This amplifier incorporates advanced Gallium Nitride (GaN) technology, which contributes to reduced heat production and improved operational efficiency. The AD-442 is engineered for durability, stability, and consistent delivery of high-quality sound.

Its compact, rack-mountable design ensures easy integration into various audio setups, making it a versatile and relatively lightweight solution for a professional-grade amplifier. The unit supports versatile operation modes including stereo, parallel, and bridge, and features built-in protection against short circuits, overloads, and overheating to ensure reliable performance.



Figure 1: Front view of the ADMARK AD-442 Professional Class-D Power Amplifier, showing the dual digital signal LEDs and power switch.

2. WHAT'S IN THE BOX

- ADMARK AD-442 Power Amplifier
- Power Cable
- User Manual (this document)

3. SETUP

3.1 Rack Mounting

The AD-442 is designed for standard 1U rack mounting. Ensure adequate ventilation space around the amplifier when installing it in a rack. Avoid obstructing the front and rear ventilation grilles to prevent overheating.

3.2 Power Connection

- Connect the provided power cable to the amplifier's power input and then to a suitable AC power outlet.

- The amplifier operates within a wide voltage range of 60V to 400V. Verify that your power source is within this range.
- Ensure the power switch on the front panel is in the OFF position before connecting to power.

3.3 Audio Input/Output Connections

Connect your audio source (e.g., mixer, preamplifier) to the input connectors on the rear panel of the AD-442. Connect your loudspeakers to the output connectors. Ensure all connections are secure and correctly polarized.



Figure 2: Rear view of the ADMARK AD-442 amplifier, highlighting the various input and output ports for audio connections and the power input.

4. OPERATING INSTRUCTIONS

4.1 Powering On/Off

- To power on, ensure all connections are made, then press the power switch on the front panel. The digital signal LEDs will illuminate.
- To power off, press the power switch again. It is recommended to lower all volume levels before powering off.

4.2 Operation Modes

The AD-442 supports three primary operation modes: Stereo, Parallel, and Bridge. Refer to the diagrams on the amplifier's rear panel or consult a professional for specific wiring configurations for each mode to match your audio system requirements.

- **Stereo Mode:** Each channel operates independently, driving a separate speaker.
- **Parallel Mode:** Inputs are linked, but outputs remain separate, often used for driving multiple speakers with the same signal.
- **Bridge Mode:** Two channels are combined to deliver higher power to a single, typically lower impedance, speaker (e.g., a subwoofer).

4.3 Low-Frequency Exciter

The amplifier includes a built-in low-frequency exciter to enhance bass performance. This feature can be engaged or disengaged based on your audio preferences and system requirements. Consult the amplifier's controls for activation.

5. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the amplifier. Do not use liquid cleaners or solvents.
- **Ventilation:** Regularly check that the ventilation grilles are free from dust and obstructions to ensure proper airflow and prevent overheating.
- **Connections:** Periodically inspect all audio and power connections for tightness and corrosion.



Figure 3: Internal view of the ADMARK AD-442 amplifier, showcasing the advanced Gallium Nitride components and cooling design.

6. TROUBLESHOOTING

The AD-442 features comprehensive built-in protection circuits to safeguard against common issues. If you encounter a problem, consider the following:

- **No Power:** Check the power cable connection and the power outlet. Ensure the power switch is engaged.
- **No Sound:** Verify all audio input and output connections. Check the source device and speaker connections. Ensure the amplifier is not in a protection mode (indicated by specific LED patterns, refer to the full manual if available).
- **Distorted Sound:** Check input levels to prevent clipping. Ensure speaker impedance matches the amplifier's capabilities for the selected operation mode.
- **Overheating:** Ensure adequate ventilation. Clear any obstructions from the air vents. The amplifier has overheat protection and may shut down temporarily if it gets too hot.
- **Short Circuit Protection:** If the amplifier shuts down unexpectedly, check speaker cables for any short circuits (e.g., frayed wires touching).

If the issue persists after checking these points, contact qualified service personnel.

7. SPECIFICATIONS

Feature	Specification
Model	AD-442
Channels	4
Output Power (per channel)	4,200W at 8 Ohm 7,200W at 4 Ohm 7,400W at 2 Ohm
Amplifier Class	Class-D (with Gallium Nitride technology)

Feature	Specification
Operation Modes	Stereo, Parallel, Bridge
Power Supply Voltage Range	60V to 400V
Protection Features	Short circuit, Overload, Overheat
Special Features	Built-in Low-Frequency Exciter, Dual Digital Signal LEDs
Dimensions (W x H x D)	482 mm x 44 mm x 470 mm (18.98 x 1.73 x 18.5 inches)
Weight	10.5 kg (23.1 lbs)
Rack Size	1U