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› Nemesis Audio NA-4.5KM 4500W Monoblock Car Amplifier User Manual

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Nemesis Audio NA-4.5KM 4500W Monoblock Car Amplifier User Manual

Model: NA-4.5KM

1. INTRODUCTION

Thank you for choosing the Nemesis Audio NA-4.5KM Monoblock Car Amplifier. This amplifier is designed to provide powerful and clear audio performance for your vehicle's sound system. This manual provides essential information for proper installation, operation, and maintenance to ensure optimal performance and longevity of your amplifier.

2. SAFETY INSTRUCTIONS

Please read all instructions carefully before installing and operating your amplifier. Failure to follow these guidelines may result in damage to the amplifier, vehicle, or personal injury.

- **Professional Installation Recommended:** Installation of car audio components requires experience with electrical wiring and automotive procedures. If you are unsure, seek professional assistance.
- **Disconnect Battery:** Always disconnect the vehicle's negative battery terminal before starting any electrical work to prevent short circuits.
- **Proper Wiring:** Use appropriate gauge wiring for power, ground, and speaker connections as specified in this manual. Incorrect wiring can cause overheating and damage.
- **Secure Mounting:** Mount the amplifier securely to prevent it from coming loose during vehicle operation, which could cause damage or injury.
- **Ventilation:** Ensure adequate ventilation around the amplifier to prevent overheating. Do not mount in enclosed spaces without airflow.
- **Fuse Protection:** Always use an external fuse on the main power cable, located within 18 inches of the battery.
- **Volume Levels:** Prolonged exposure to high volume levels can cause hearing damage.

3. PACKAGE CONTENTS

Verify that all items are present upon opening the package:

- Nemesis Audio NA-4.5KM Monoblock Amplifier

- Mounting Hardware (screws)
- User Manual (this document)

Note: Additional wiring (power, ground, remote, RCA, speaker cables) and an external fuse holder are typically sold separately and are required for installation.

4. FEATURES

The Nemesis Audio NA-4.5KM amplifier offers the following key features:

- **Monoblock Design:** Optimized for driving subwoofers with high power output.
- **High Power Output:** Up to 4500 Watts (Max).
- **Variable Low Pass Filter (LPF):** Allows precise tuning for subwoofer integration.
- **Variable Bass Boost:** Enhances low-frequency response.
- **Protection Circuitry:** Safeguards against overload, short circuit, thermal, and DC offset.

5. SETUP AND INSTALLATION

Proper installation is crucial for the performance and safety of your amplifier. Refer to the diagram below for a general overview of connections. Always consult a professional if you are unsure about any step.



Figure 5.1: An overhead view of the Nemesis Audio NA-4.5KM monoblock car amplifier, showcasing its black brushed metal finish, model number 'NA-4.5KM' on one side, 'NEMESIS AUDIO' logo in the center, and '4500W MAX' on the other side, with power/speaker terminals visible on the right.

5.1 Mounting Location

Choose a mounting location that provides:

- Adequate ventilation for heat dissipation.
- Protection from moisture and direct sunlight.
- Secure attachment to a solid surface.
- Accessibility for wiring and adjustments.

Common locations include under a seat, in the trunk, or mounted to a custom amplifier rack.

5.2 Wiring Connections

1. **Power (BATT+):** Connect a heavy-gauge power cable (e.g., 4 AWG or larger for 4500W) directly from the positive terminal of the vehicle's battery to the amplifier's BATT+ terminal. Install an appropriate fuse holder with a fuse (rated for the

amplifier's current draw) within 18 inches of the battery.

2. **Ground (GND):** Connect a heavy-gauge ground cable (same gauge as power) from the amplifier's GND terminal to a clean, unpainted metal surface on the vehicle's chassis. Ensure a solid, low-resistance connection.
3. **Remote (REM):** Connect a smaller gauge wire (e.g., 18 AWG) from the amplifier's REM terminal to the remote output of your head unit. This wire turns the amplifier on and off with the head unit.
4. **RCA Input:** Connect RCA cables from the pre-out (subwoofer output) of your head unit to the RCA input jacks on the amplifier.
5. **Speaker Output:** Connect your subwoofer(s) to the amplifier's speaker output terminals. Ensure correct polarity (+ to + and - to -). Refer to your subwoofer's specifications for impedance matching. This is a monoblock amplifier, designed for a single channel output.

6. OPERATING THE AMPLIFIER

Once installed, adjust the amplifier settings for optimal sound performance.

6.1 Gain Adjustment

The gain control matches the amplifier's input sensitivity to the output level of your head unit. It is **not** a volume control.

1. Turn the amplifier gain control to its minimum (fully counter-clockwise).
2. Set your head unit volume to about 75-80% of its maximum.
3. Slowly increase the amplifier gain control until you hear distortion, then back it off slightly until the sound is clear.

6.2 Crossover Settings (LPF)

The Low Pass Filter (LPF) allows only frequencies below the set point to pass through to the subwoofer. This is essential for proper subwoofer integration.

- Adjust the LPF control to a frequency typically between 60Hz and 100Hz, depending on your subwoofer and other speakers.
- Experiment with the setting to achieve a smooth transition between your subwoofer and main speakers.

6.3 Bass Boost

The bass boost control provides an increase in sound level at a specific low frequency. Use this sparingly to avoid distortion and potential damage to your subwoofer.

- Start with the bass boost at its minimum setting.
- Increase gradually if desired, listening for any signs of distortion.

7. MAINTENANCE

The Nemesis Audio NA-4.5KM amplifier requires minimal maintenance.

- **Cleaning:** Periodically wipe the amplifier's exterior with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners.
- **Ventilation:** Ensure that the cooling fins are free from dust and debris to maintain proper airflow.
- **Connections:** Occasionally check all wiring connections to ensure they are secure and free from corrosion.

8. TROUBLESHOOTING

If you experience problems with your amplifier, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
No Power / Amplifier Not Turning On	Blown fuse (external or internal) Loose or incorrect power/ground/remote wiring Faulty head unit remote output	Check and replace fuses. Verify all power, ground, and remote connections are secure and correctly wired. Test remote wire for 12V when head unit is on.
No Sound Output	Loose or incorrect RCA/speaker wiring Amplifier in protection mode Head unit settings	Check RCA and speaker connections for proper seating and polarity. Check for short circuits in speaker wiring. Ensure head unit volume is up and correct source is selected.
Distorted Sound	Gain set too high Improper crossover settings Speaker impedance mismatch Poor ground connection	Reduce gain setting. Adjust LPF and bass boost. Verify speaker impedance is compatible with amplifier. Ensure ground connection is clean and secure.
Amplifier Overheating	Insufficient ventilation Speaker impedance too low Gain set too high	• Relocate amplifier or improve airflow. • Check speaker impedance. • Reduce gain setting.

9. SPECIFICATIONS

The following specifications apply to the Nemesis Audio NA-4.5KM Monoblock Amplifier:

- **Model:** NA-4.5KM
- **Number of Channels:** 1 (Monoblock)
- **Output Power:** 4500 Watts (Max)
- **Item Dimensions (L x W x H):** 19 x 3 x 9 inches
- **Item Weight:** 11.38 pounds
- **Voltage:** 5 Volts (*Note: This typically refers to internal operating voltage; the amplifier requires a 12V vehicle power supply.*)
- **Operating Temperature:** Up to 125 Degrees Celsius (*Note: This refers to internal component temperature rating, not ambient operating temperature.*)
- **Mounting Type:** Surface Mount
- **Compliance:** FCC
- **UPC:** 636655223336

Note: Specifications are subject to change without notice for product improvement.

10. WARRANTY AND SUPPORT

Nemesis Audio products are designed for reliability and performance. For specific warranty information, please refer to the warranty card included with your product or visit the official Nemesis Audio website. For technical support or service inquiries, please contact Nemesis Audio customer service through their official channels.

Website: www.nemesisaudio.com

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question