

AINAVI AMP-D4

AINAVI AMP-D4 4-Channel 1200W Car Audio Amplifier User Manual

Comprehensive guide for installation, operation, and maintenance.

1. INTRODUCTION

Thank you for choosing the AINAVI AMP-D4 4-Channel 1200 Watt Full Range Class A/B Stereo Power Amplifier. This manual provides detailed instructions for the proper installation, operation, and maintenance of your new car audio amplifier. Please read this manual thoroughly before attempting installation or operation to ensure optimal performance and safety.

The AMP-D4 is designed to enhance your vehicle's audio system, delivering powerful and clear sound. It features a robust Class A/B design, efficient heat dissipation, and versatile controls for a customized audio experience.

2. PRODUCT FEATURES

- **4-Channel Full Range Class A/B Amplifier:** Delivers 1200 Watts Maximum Peak Power, with RMS Power at 2 Ohms: 300 Watts x 4 CH, and RMS Power at 4 Ohms: 90 Watts x 4 CH.
- **Universal Compatibility:** Adopts 12V-16V power input, suitable for various vehicles including Cars, Trucks, SUVs, RVs, and vans.
- **Efficient Cooling:** Features a 2*30A Fuse, built-in cooling fans, and an all-aluminum alloy body with an efficient heat dissipation design for reliability and performance.
- **Adjustable Controls:** User-adjustable controls include Gain, Variable LPF (Low Pass Filter), HPF (High Pass Filter), and Bass EQ Switch (0, +6, +12 dB).
- **Robust Connectivity:** Equipped with 8 Gauge Power and Ground Input Terminals, and 4 Gauge Power & Ground Input Terminals for maximum current flow.
- **Audio Performance:** Frequency Response: 10Hz - 30KHz, Signal Noise Ratio: >96 dB.
- **Protection Circuitry:** Features 4-Way Protection Circuitry for enhanced safety and durability.



Figure 2.1: AINAVI AMP-D4 Amplifier highlighting its 1200W power, high efficiency, and sound quality.

3. SPECIFICATIONS

Feature	Specification
Brand	AINAVI
Model	AMP-D4
Channels	4-Channel
Amplifier Class	Class A/B
Maximum Peak Power	1200 Watts
RMS Power at 2 Ohms	300 Watts x 4 CH
RMS Power at 4 Ohms	90 Watts x 4 CH

Feature	Specification
Voltage Input	12V-16V (DC)
Frequency Response	10Hz - 30KHz
Signal Noise Ratio	>96 dB
Power/Ground Input Terminals	8 Gauge / 4 Gauge
Fuse	2*30A
Mounting Type	Freestanding

4. SAFETY INFORMATION

Always ensure the vehicle's battery is disconnected before beginning any electrical installation. Improper wiring can lead to electrical shorts, damage to the amplifier, or vehicle electrical systems. Consult a professional if you are unsure about any installation steps. Ensure all connections are secure and insulated to prevent accidental contact.

5. INSTALLATION GUIDE

This section outlines the steps for installing the AINAVI AMP-D4 amplifier. Proper installation is crucial for optimal performance and safety.

5.1. Preparing for Installation

Before starting, gather all necessary tools and components, including the amplifier, wiring kits (power, ground, remote, speaker, RCA cables), screwdrivers, wire strippers, and electrical tape. Ensure the vehicle's battery is disconnected.

4 Channel Class-A/B Full Range Amplifier

Can be installed in cars, trucks or SUVs to enhance the performance and sound quality of the audio system.



Compatibility Mode ①



2 Speakers + 1 Passive Subwoofer

The passive subwoofer must have two channels bridged, otherwise the power will not be enough.

Compatibility Mode ②



4 Speakers

Figure 5.1: Amplifier compatibility modes for speaker and subwoofer configurations.

5.2. Amplifier Wiring

Connect the power, ground, and remote wires to the amplifier. The power cable (+12V) connects to the positive terminal of the car battery (via an inline fuse), the ground cable (GND) connects to a solid metal point on the vehicle chassis, and the remote turn-on wire (REM) connects to the head unit's remote output. Connect speaker wires to the appropriate channels (CH1-CH4) and RCA cables for audio input.

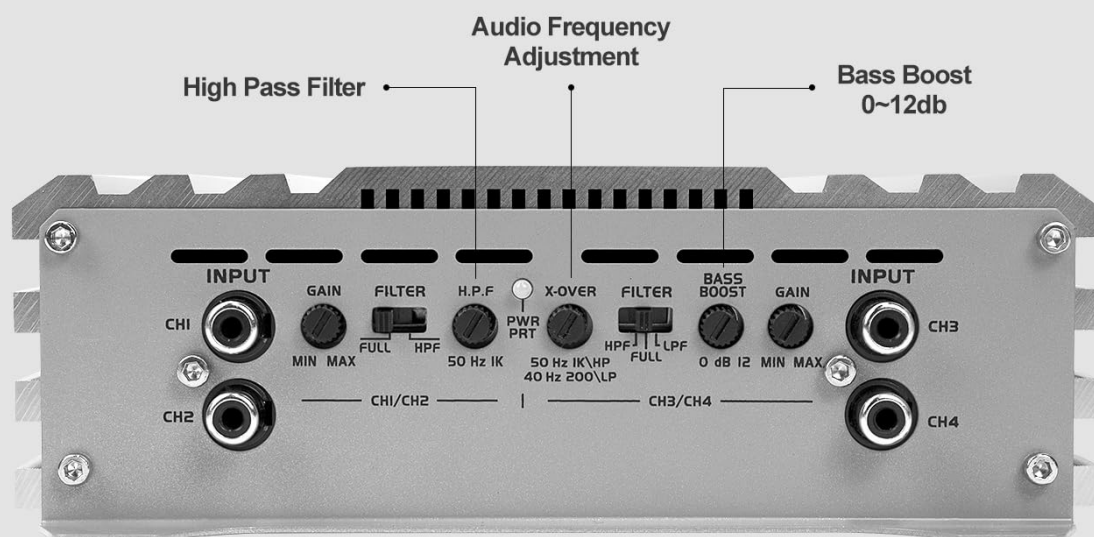
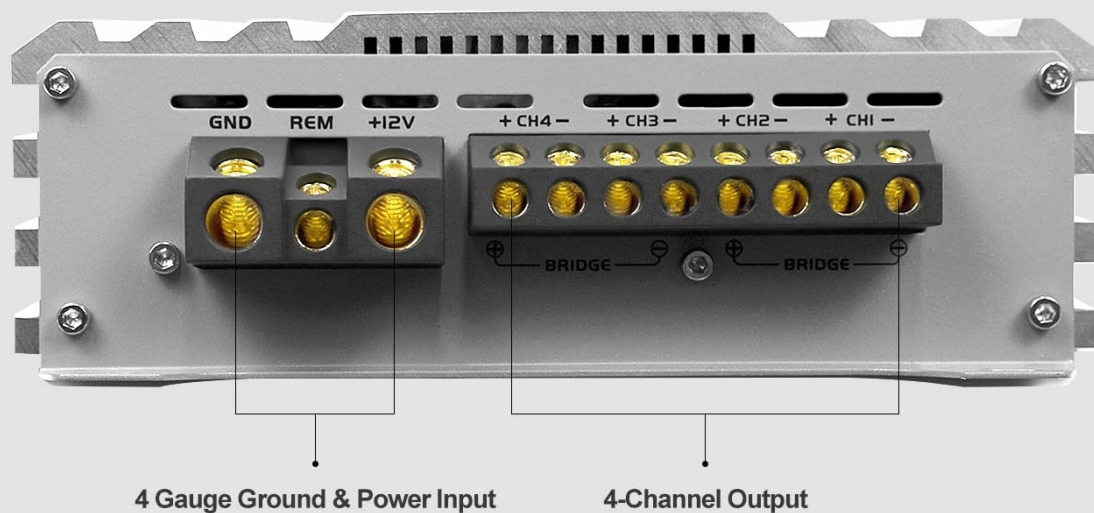


Figure 5.2: Amplifier connection terminals and control panel.

1. **Power Connection:** Connect the main power cable to the +12V terminal on the amplifier. Ensure the cable is properly stripped and secured.
2. **Ground Connection:** Connect the ground cable to the GND terminal. This cable should be as short as possible and securely fastened to a clean, unpainted metal surface on the vehicle chassis.
3. **Remote Turn-On:** Connect the remote turn-on wire to the REM terminal. This wire signals the amplifier to turn on when the head unit is active.
4. **Speaker Connections:** Connect your speaker wires to the CH1, CH2, CH3, and CH4 output terminals. Pay attention to polarity (+ and -). For bridged mode (e.g., for a subwoofer), connect to the designated bridged terminals.
5. **Audio Input:** Connect RCA cables from your head unit's pre-amp outputs to the amplifier's input jacks (Input CH1/CH2, Input CH3/CH4).

5.3. Routing Wires

Route the power cable, ground cable, remote wire, speaker wires, and RCA cables carefully. It is recommended to route power cables and audio cables separately to prevent interference and noise. Secure all cables to prevent them from moving or getting pinched.

5.4. Connecting to Head Unit

Connect the RCA cables and remote turn-on wire to the corresponding outputs on your car's head unit. Ensure all connections are firm and correctly matched (e.g., Front Left RCA to Front Left input, etc.).

5.5. Battery Connection

Connect the main power cable (with the inline fuse) to the positive terminal of the car battery. Ensure the fuse holder is easily accessible for maintenance. Connect the ground wire to a suitable chassis ground point, ensuring a clean metal-to-metal contact.

6. OPERATION

After installation, reconnect the car battery. Turn on your car's ignition and head unit. The amplifier should power on automatically via the remote turn-on wire. Adjust the amplifier's settings (Gain, LPF, HPF, Bass EQ) to match your audio system and personal preferences. Start with low gain settings and gradually increase until desired volume and clarity are achieved without distortion.



Figure 6.1: Enjoying enhanced audio with the AMP-D4 amplifier.

7. MAINTENANCE

Regularly check all wiring connections for tightness and corrosion. Ensure the amplifier's cooling fins are free from dust and debris to maintain optimal heat dissipation. Avoid exposing the amplifier to excessive moisture or extreme temperatures. If the fuse blows, replace it with a fuse of the same rating (2*30A).

8. TROUBLESHOOTING

- **No Power:** Check the power cable connection at the battery and amplifier, the ground connection, and the remote turn-on wire. Verify the inline fuse is intact.
- **No Sound:** Check all RCA audio input connections and speaker wire connections. Ensure the head unit is sending an audio signal and the amplifier's gain is not set too low.
- **Distorted Sound:** Reduce the amplifier's gain setting. Check for proper speaker impedance matching. Ensure speaker wires are not shorting.
- **Noise/Humming:** Ensure power and audio cables are routed separately. Check for proper grounding.
- **Amplifier Overheating:** Ensure adequate ventilation around the amplifier. Check for proper impedance matching of speakers.

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the warranty card included with your product or visit the official AINAVI website. Keep your purchase receipt as proof of purchase for warranty claims.