



Manuals.plus /

› AUDIOTEK /

› Audiotek AT4000M 1 Channel Monoblock Car Amplifier User Manual

## AUDIOTEK AT4000M

# Audiotek AT4000M Monoblock Car Amplifier User Manual

Model: AT4000M

## 1. INTRODUCTION

---

Thank you for choosing the Audiotek AT4000M Monoblock Car Amplifier. This amplifier is designed to provide powerful and clear audio for your car audio system, specifically optimized for subwoofers. To ensure optimal performance and safe operation, please read this manual thoroughly before installation and use. Keep this manual for future reference.

### Safety Precautions

- Always disconnect the vehicle's negative battery terminal before making any electrical connections.
- Ensure proper grounding to prevent electrical hazards and noise.
- Install the amplifier in a well-ventilated area to prevent overheating.
- Use appropriate gauge wiring for power, ground, and speaker connections as specified in this manual.
- Avoid mounting the amplifier in locations exposed to direct sunlight, excessive heat, moisture, or dust.
- Do not attempt to service the amplifier yourself. Refer all servicing to qualified personnel.

## 2. PACKAGE CONTENTS

---

- Audiotek AT4000M Monoblock Amplifier
- Remote Subwoofer Level Control (Bass Knob)
- Mounting Hardware (screws)
- User Manual

## 3. FEATURES

---

- 1 Channel Monoblock Car Amplifier - 4000 Watts Max Power

- 2 Ohm Stable Operation
- Bridgeable MOSFET Amplifier
- Tri-mode capable
- Heavy-Duty aluminum alloy heat sink
- Class A-B Operation
- Continuously Variable Low Pass Crossover
- Bass Boost: 0 to +18dB
- Remote Subwoofer Level Control
- Nickel Plated RCA and Speaker Level Inputs
- Remote Turn-On/Turn-Off Circuit
- MOSFET Pulse Width Modulated Power Supply
- Thermal and Speaker Short Protection Circuitry
- LED Power and Protection Indicators

## 4. SETUP AND INSTALLATION

### 4.1 Mounting the Amplifier

Choose a secure location for mounting the amplifier, such as in the trunk or under a seat. Ensure the location provides adequate ventilation to prevent overheating. Use the provided mounting hardware to secure the amplifier firmly to a solid surface.

### 4.2 Wiring Connections

Before making any connections, ensure the vehicle's negative battery terminal is disconnected.



Image: Overview of the amplifier's input/control panel and power/speaker connection panel.

### Power Connections



Image: Close-up of the power and speaker connection terminals.

- **BATT+ (12V Power):** Connect a heavy-gauge power cable (e.g., 4 AWG or larger) directly from the positive terminal of the vehicle's battery to the BATT+ terminal on the amplifier. Install an in-line fuse holder (not supplied) within 18 inches (45 cm) of the battery.
- **GROUND (GND):** Connect a heavy-gauge ground cable (same gauge as power cable) from the GND terminal on the amplifier to a clean, unpainted metal surface of the vehicle's chassis. Ensure a good electrical connection.
- **REMOTE (REM):** Connect a remote turn-on wire (e.g., 18 AWG) from your head unit's remote output to the REM terminal on the amplifier. This wire turns the amplifier on and off with your head unit.

### Speaker Connections

- Connect your subwoofer(s) to the SPEAKER terminals. Ensure correct polarity (+ to + and - to -).
- The AT4000M is 2 Ohm stable. Ensure the total impedance of your connected speakers is not below 2 Ohms.

### Input Connections



Image: Close-up of the input and control panel.

- **Low Level Inputs (RCA):** For best audio quality, connect RCA cables from your head unit's subwoofer or full-range pre-outs to the LEFT and RIGHT RCA INPUTS on the amplifier.
- **High Level Inputs:** If your head unit does not have RCA outputs, connect the speaker wires from your head unit to the HIGH LEVEL INPUTS using the provided connector. The amplifier features remote sensing capability to automatically turn on when a signal is detected.

### Remote Bass Knob Connection

- Connect the remote bass knob cable to the 'REMOTE' port on the amplifier's input panel. Mount the bass knob in an accessible location for easy adjustment of subwoofer level.

### 4.3 Initial Adjustments

- **INPUT LEVEL (Gain):** Start with the INPUT LEVEL control set to minimum (MIN). Gradually increase the gain until you achieve a clear, undistorted sound at your desired volume level. Avoid setting the gain too high, as this can cause distortion and damage to speakers.
- **FREQ (Low Pass Filter):** This control adjusts the low-pass crossover frequency. For subwoofers, set this between 35Hz and 160Hz to filter out higher frequencies, allowing only bass frequencies to pass through. Adjust to blend smoothly with your main speakers.
- **BASS BOOST:** This control provides a bass boost from 0 to +18dB at a fixed frequency. Use sparingly to enhance bass response. Excessive bass boost can lead to distortion.

## 5. OPERATING INSTRUCTIONS

---

### LED Indicators

- **POWER LED (Green):** Illuminates when the amplifier is powered on and operating normally.
- **PROTECTION LED (Red):** Illuminates when the amplifier enters protection mode due to a fault (e.g., overheating, short circuit, low impedance). If this LED lights up, turn off your audio system and investigate the cause.

### Remote Subwoofer Level Control

The included remote bass knob allows you to conveniently adjust the subwoofer output level from your listening position without needing to access the amplifier directly.

## 6. MAINTENANCE

---

- **Cleaning:** Periodically wipe the amplifier's exterior with a soft, dry cloth. Do not use harsh chemicals or solvents.
- **Connections:** Regularly check all power, ground, and speaker connections to ensure they are secure and free from corrosion.
- **Ventilation:** Ensure that the amplifier's heat sink fins are not obstructed by debris or other objects to maintain proper cooling.
- **Fuse Replacement:** If the amplifier's internal fuses blow, replace them only with fuses of the exact same type and rating. Using incorrect fuses can damage the amplifier or cause a fire.

## 7. TROUBLESHOOTING

---

<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
No Power (Power LED off)	Blown fuse (in-line or internal) Poor power or ground connection No remote turn-on signal	Check and replace fuses. Ensure power and ground wires are securely connected. Verify remote wire has 12V when head unit is on.
Protection LED on	Overheating Speaker short circuit Speaker impedance too low	Allow amplifier to cool. Check speaker wiring for shorts. Verify speaker impedance is 2 Ohms or higher. Ensure proper ventilation.
No Sound	Input level too low RCA/High-level input cables disconnected Speaker wires disconnected Head unit settings	Increase input level (gain). Check all input and speaker connections. Verify head unit output settings.
Distorted Sound	Input level (gain) set too high Speaker impedance mismatch Poor ground connection	Reduce input level. Verify speaker impedance. Improve ground connection.
Engine Noise/Whine	Poor grounding RCA cables routed near power cables Faulty RCA cables	Ensure a solid ground connection. Reroute RCA cables away from power cables. Try different RCA cables.

## 8. SPECIFICATIONS

---

<b>Feature</b>	<b>Specification</b>
Model	AT4000M
Channels	1 (Monoblock)
Max Power Output	4000 Watts
Impedance Stability	2 Ohm Stable
Amplifier Class	Class A-B
Low Pass Crossover (LPF)	Variable (35Hz - 160Hz)
Bass Boost	0 to +18dB
Power Supply	MOSFET Pulse Width Modulated
Protection Circuitry	Thermal, Speaker Short
Inputs	Nickel Plated RCA, Speaker Level
Remote Control	Included (Subwoofer Level)
Mounting Type	Surface Mount

## **9. WARRANTY INFORMATION**

---

Audiotek products are designed and manufactured to the highest quality standards. This product is covered by a limited warranty against defects in materials and workmanship. Please refer to the warranty card included with your product or contact Audiotek customer support for specific warranty terms and conditions.

## **10. SUPPORT**

---

For technical assistance, troubleshooting, or warranty inquiries, please contact Audiotek customer support. Contact information can typically be found on the product packaging or the official Audiotek website. Please have your product model number (AT4000M) and purchase details ready when contacting support.