

AUDIOTEK AT804S

Audiotek AT804S 4-Channel Class AB Car Amplifier Instruction Manual

Model: AT804S

1. INTRODUCTION

Thank you for purchasing the Audiotek AT804S 4-Channel Class AB Car Amplifier. This amplifier is designed to provide high-quality audio performance for your vehicle's sound system. Please read this manual thoroughly before installation and operation to ensure proper use and to achieve optimal performance.

2. SAFETY INFORMATION

Important Safety Instructions:

- Always disconnect the vehicle's negative battery terminal before starting any electrical work.
- Ensure all wiring is properly routed and secured to prevent damage or short circuits.
- Use appropriate gauge wiring for power, ground, and speaker connections as specified in this manual.
- Mount the amplifier securely in a location that allows for adequate ventilation and is protected from moisture and excessive heat.
- Do not operate the amplifier if it is damaged or malfunctioning. Refer to the troubleshooting section or contact qualified service personnel.
- Avoid listening to audio at excessively high volumes for prolonged periods, as this can cause hearing damage.

3. PACKAGE CONTENTS

Please check the contents of your amplifier package. If any items are missing or damaged, contact your dealer immediately.

- Audiotek AT804S 4-Channel Car Amplifier
- Mounting Hardware (screws)
- User Manual (this document)

- Remote Bass Control (if applicable)
- Spare Fuses (if applicable)

4. FEATURES

The Audiotek AT804S amplifier incorporates advanced features for superior audio performance and reliability:

- **Bridgeable MOSFET Amplifier:** Offers flexible configuration options for various speaker setups.
- **Tri-mode Capable:** Allows for simultaneous stereo and mono operation.
- **Heavy-Duty Aluminum Alloy Heat Sink:** Ensures efficient heat dissipation for stable operation.
- **Class A-B Operation:** Provides a balance of sound quality and efficiency.
- **Continuously-Variable Low Pass Crossover:** Allows precise tuning of low-frequency output for subwoofers.
- **Remote Subwoofer Control:** Enables convenient adjustment of subwoofer level from the driver's seat.
- **Continuously-Variable Input Gain Control:** Matches the amplifier's input sensitivity to the output of your head unit.
- **Fixed High Pass Crossover: 200Hz:** Filters out low frequencies to protect full-range speakers.
- **Nickel Plated RCA and Speaker Level Inputs:** Ensures reliable signal transfer.
- **Remote Turn-On/Turn-Off Circuit:** Integrates seamlessly with your vehicle's ignition system.
- **MOSFET Pulse Width Modulated Power Supply:** Delivers stable and efficient power.
- **Thermal and Speaker Short Protection Circuitry:** Safeguards the amplifier and speakers from damage.
- **LED Power and Protection Indicators:** Provides visual status of amplifier operation.

5. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and safety. If you are unsure about any part of the installation process, consult a professional car audio installer.

5.1 Mounting Location

Choose a mounting location that:

- Provides sufficient air circulation around the amplifier for cooling.
- Is protected from direct sunlight, moisture, and excessive vibration.
- Allows for secure attachment to a solid surface.
- Is away from fuel lines, brake lines, and electrical wiring harnesses.

Common mounting locations include under a seat, in the trunk, or behind a panel.

5.2 Wiring Connections

Refer to the diagrams below for proper wiring connections. Ensure all connections are secure and insulated.



Image 1: Audiotek AT804S Amplifier showing power, ground, remote, and speaker output terminals. The fuse holder is also visible.

5.2.1 Power Connection (BATT+)

- Run a heavy gauge power cable (e.g., 8 AWG or larger for 1000W) directly from the positive terminal of the vehicle's battery to the BATT+ terminal on the amplifier.
- Install an in-line fuse holder with a fuse (appropriate amperage, typically 40-60A for a 1000W amplifier) within 18 inches (45 cm) of the battery.

5.2.2 Ground Connection (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 the ground point is free of paint, rust, or dirt for a good electrical connection. The cable length should be as short as possible, ideally less than 3 feet (1 meter).

5.2.3 Remote Turn-On Connection (REMOTE)

- Connect a remote turn-on wire (typically 18 AWG) from the REMOTE terminal on the amplifier to the remote output of your head unit.
- This wire signals the amplifier to turn on when the head unit is powered on.

5.2.4 Speaker Output Connections

- Connect your speakers to the amplifier's speaker output terminals. The AT804S is a 4-channel amplifier.
- Ensure correct polarity (+ to + and - to -) for all speakers.

- The amplifier is 2 Ohm stable, allowing for various speaker configurations. Refer to the diagram for stereo and bridged (mono) wiring options.
- For bridged mode, connect the positive lead of the speaker to the CH1+ terminal and the negative lead to the CH2- terminal for one bridged pair. Repeat for CH3+ and CH4- for the second bridged pair.



Image 2: Audiotek AT804S Amplifier showing RCA inputs, gain controls, crossover switches, and LED indicators.

5.2.5 RCA Input Connections

- Connect RCA cables from the pre-out outputs of your head unit to the RCA input jacks on the amplifier (CH1/2 INPUT and CH3/4 INPUT).
- If your head unit does not have RCA outputs, the amplifier also supports speaker level inputs.

6. OPERATING INSTRUCTIONS

Once the amplifier is installed, follow these steps for initial setup and operation.

6.1 Initial Power-Up

- After all connections are made and verified, reconnect the vehicle's negative battery terminal.
- Turn on your head unit. The amplifier's POWER LED should illuminate, indicating it is receiving power and is operational. If the PROTECTION LED illuminates, refer to the troubleshooting section.

6.2 Gain Adjustment (Input Level)

- Set the head unit volume to about 75% of its maximum level.
- Slowly increase the amplifier's GAIN control (Input Gain Control) until you hear slight distortion, then back it off slightly until the sound is clear.
- This control matches the amplifier's input sensitivity to the output of your head unit and is not a volume control.

6.3 Crossover Settings

The AT804S features both high-pass and low-pass crossovers to optimize sound for different speakers.

- **High Pass Crossover (HPF):** Fixed at 200Hz. Use this for full-range speakers to prevent them from playing very low bass frequencies, which can cause distortion and damage.
- **Low Pass Crossover (LPF):** This control allows you to set the upper frequency limit for speakers connected to the low-pass channels (typically for subwoofers). Adjust this to allow only frequencies below the set point to pass through. The specific frequency range is continuously variable.
- Adjust the crossover points to blend the sound between your speakers and any subwoofers.

6.4 Remote Subwoofer Control

If a remote subwoofer level control is connected, you can adjust the bass output level from your listening position. This control typically only affects the channels configured for low-pass output.

7. MAINTENANCE

The Audiotek AT804S amplifier requires minimal maintenance. Follow these guidelines to ensure its longevity:

- Keep the amplifier clean and free of dust and debris. Use a soft, dry cloth for cleaning.
- Ensure that the heat sink fins are not obstructed to allow for proper cooling.
- Periodically check all wiring connections for tightness and corrosion.
- If a fuse blows, replace it only with a fuse of the same type and amperage rating.

8. TROUBLESHOOTING

If you experience problems with your amplifier, refer to this section for common issues and solutions.

Problem	Possible Cause	Solution
No Power / Amplifier Not Turning On	Blown fuse (in-line or on amplifier)	Check and replace fuses.
	Poor power or ground connection	Verify all power and ground connections are secure and clean.
	No remote turn-on signal	Check remote wire connection and ensure head unit is sending a signal.
	Vehicle battery discharged	Charge or replace vehicle battery.

Problem	Possible Cause	Solution
Protection LED On	Speaker short circuit Overheating Low impedance load DC offset	Check speaker wiring for shorts to ground or between positive/negative. Ensure adequate ventilation; allow amplifier to cool. Verify speaker impedance is within amplifier's rated limits (2 Ohm stable). Disconnect speakers and RCA inputs; if protection light remains, amplifier may require service.
No Sound Output	RCA input cables disconnected or faulty Speaker wires disconnected or faulty Gain set too low Head unit settings incorrect	Check RCA connections at both amplifier and head unit. Verify speaker wire connections at amplifier and speakers. Adjust gain control (refer to section 6.2). Ensure head unit's pre-out or speaker outputs are active and volume is up.
Distorted Sound	Gain set too high Poor ground connection Speaker impedance mismatch Damaged speakers	Reduce gain control (refer to section 6.2). Check ground connection for cleanliness and tightness. Verify speaker impedance. Test speakers with another amplifier or replace if damaged.

9. SPECIFICATIONS

The following are the technical specifications for the Audiotek AT804S Car Amplifier:

Feature	Specification
Model	AT804S
Brand	AUDIOTEK
Number of Channels	4
Amplifier Class	Class AB
Output Power	1000 Watts (Max)
Impedance Stability	2 Ohm Stable
Dimensions (L x W x H)	11 x 14 x 2 inches
Mounting Type	Surface Mount
High Pass Crossover	Fixed at 200Hz
Low Pass Crossover	Continuously Variable (Frequency range not specified)
Power Supply	MOSFET Pulse Width Modulated
Protection Circuitry	Thermal, Speaker Short

Feature	Specification
GTIN / UPC	701160332665

10. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or contact Audiotek customer service. Keep your proof of purchase for warranty claims.

Manufacturer: AUDIOTEK