

Audiotek AT-625S

Audiotek 1400W 2-Channel Amplifier

MODEL: AT-625S USER MANUAL

1. Introduction

Thank you for choosing the Audiotek AT-625S 2-Channel Amplifier. This amplifier is designed to provide high-quality audio amplification for your car audio system. Please read this manual thoroughly before installation and operation to ensure proper use and to achieve optimal performance from your amplifier.

This manual provides detailed instructions for installation, operation, maintenance, and troubleshooting. Keep this manual for future reference.

2. Safety Instructions

- **Electrical Safety:** Always disconnect the vehicle's battery negative terminal before starting any electrical work to prevent short circuits and electrical shock.
- **Professional Installation:** If you are unsure about the installation process, seek assistance from a qualified professional car audio installer.
- **Ventilation:** Ensure the amplifier is mounted in a location that allows for adequate air circulation to prevent overheating. Do not block the cooling fins.
- **Wiring:** Use appropriate gauge wiring for power, ground, and speaker connections as specified in this manual to prevent damage to the amplifier or vehicle's electrical system.
- **Moisture:** Do not expose the amplifier to moisture or water.
- **Secure Mounting:** Mount the amplifier securely to prevent it from becoming a projectile in the event of a sudden stop or accident.

3. Package Contents

Please check the contents of the package to ensure all items are present:

- Audiotek AT-625S 2-Channel Amplifier
- Mounting Hardware (screws)
- User Manual (this document)

- Remote Subwoofer Level Control (if included with your model)

4. Installation and Setup

Proper installation is crucial for the performance and longevity of your amplifier. Follow these steps carefully.

4.1 Mounting the Amplifier

Choose a mounting location that is dry, well-ventilated, and secure. Avoid mounting the amplifier directly on carpet or in enclosed spaces without airflow. Common locations include under a seat, in the trunk, or on a custom amplifier rack.

1. Place the amplifier in the desired location and mark the mounting holes.
2. Drill pilot holes if necessary, ensuring no wires or fuel lines are underneath.
3. Secure the amplifier using the provided mounting screws.



Image: The Audiotek AT-625S 2-Channel Amplifier, showcasing its compact design and various connection terminals for power, ground, remote, RCA inputs, and speaker outputs.

4.2 Wiring Connections

Ensure all connections are secure and properly insulated.

- **Power (B+):** Connect a heavy-gauge power cable (e.g., 8 AWG or 4 AWG depending on total system power) directly from the positive terminal of the vehicle's battery to the amplifier's B+ terminal. Install an in-line fuse holder within 18 inches (45 cm) of the battery.
- **Ground (GND):** Connect a heavy-gauge ground cable of the same size as the power cable from the amplifier's GND terminal to a clean, unpainted metal surface of the vehicle 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 amplifier's REM terminal. This wire turns the amplifier on and off with your head unit.

- **RCA Inputs:** Connect RCA cables from your head unit's pre-amp outputs to the amplifier's Chrome Plated RCA Inputs.
- **Speaker Outputs:** Connect your speakers to the amplifier's speaker output terminals. For 2-channel operation, connect one speaker to each channel. For bridged operation (mono), refer to the diagram usually printed on the amplifier or consult a professional. The AT-625S is Bridgeable and 2 Ohm Stable.
- **Remote Subwoofer Level Control:** If applicable, connect the remote level control to the designated port on the amplifier and mount it in an accessible location for easy adjustment.

5. Operating Instructions

Once installed, adjust the amplifier settings for optimal sound.

5.1 Initial Power-Up and Adjustments

1. **Gain Control:** The Variable Gain Controls (Input Level) should be set to match the output voltage of your head unit. Start with the gain set to minimum (fully counter-clockwise). Play a familiar track at about 75% of your head unit's maximum volume. Slowly increase the amplifier's gain until you hear distortion, then back off slightly.
2. **Bass Boost:** The Variable Bass Boost Control allows you to enhance low frequencies. Use sparingly to avoid distortion and speaker damage. Start at minimum and adjust to taste.
3. **Subsonic Filter:** The Variable Subsonic Filter helps protect subwoofers by removing extremely low frequencies that are inaudible and can cause damage. Adjust this filter to a frequency just below the lowest frequency your subwoofer can reproduce effectively.
4. **LED Indicators:** The amplifier features LED Power & Protection Indicators. The power LED (usually green) indicates the amplifier is on. The protection LED (usually red) indicates a fault condition (e.g., overheating, short circuit, low voltage).

6. Maintenance

The Audiotek AT-625S amplifier requires minimal maintenance to ensure long-term performance.

- **Cleaning:** Periodically wipe the amplifier's exterior with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners.
- **Ventilation:** Ensure the cooling fins remain free of dust and debris to maintain proper heat dissipation.
- **Connections:** Occasionally check all wiring connections (power, ground, remote, RCA, speaker) to ensure they are secure and free from corrosion.

7. Troubleshooting

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

Problem	Possible Cause	Solution
No Power (Power LED off)	Blown fuse, poor power/ground connection, no remote signal.	Check in-line fuse, verify power and ground connections, check remote wire for 12V when head unit is on.
Protection LED is on	Overheating, short circuit in speaker wiring, low impedance load.	Ensure adequate ventilation, check speaker wires for shorts, verify speaker impedance is within amplifier's limits (2 Ohm Stable).

Problem	Possible Cause	Solution
No Sound	No input signal, incorrect gain setting, faulty RCA cables, speaker wires disconnected.	Check RCA connections, ensure head unit is on and playing, verify gain setting, check speaker wire connections.
Distorted Sound	Gain set too high, poor ground connection, damaged speakers, low voltage.	Reduce gain, check ground connection, inspect speakers, verify vehicle's electrical system.

8. Specifications

- **Model:** AT-625S
- **Channels:** 2-Channel
- **Amplifier Class:** AB Class
- **Maximum Power Output:** 1400 Watts
- **RMS Power (2 Ohm):** 700W x 2
- **RMS Power (4 Ohm):** 550W x 2
- **Stability:** 2 Ohm Stable
- **Bridging Capability:** Yes
- **Inputs:** Chrome Plated RCA Inputs
- **Controls:** Variable Gain Controls, Variable Bass Boost Control, Variable Subsonic Filter
- **Indicators:** LED Power & Protection Indicators
- **Additional Features:** Remote Subwoofer Level Control

9. Warranty and Support

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

Please retain your proof of purchase for warranty claims.