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AUDIOTEK AT-3.5 + BCC4AB

Audiotek AT-3.5 Farad Capacitor and 4 Gauge Amplifier Installation Kit User Manual

INTRODUCTION

This manual provides essential instructions for the proper installation, operation, and maintenance of your Audiotek AT-3.5 Farad Car Audio Capacitor and the accompanying BCC4AB 4 Gauge Amplifier Installation Wiring Kit. The capacitor is designed to stabilize the voltage supply to your car audio amplifier, providing instantaneous power bursts when needed, thereby improving sound quality and reducing strain on your vehicle's electrical system. The wiring kit provides all necessary components for a complete amplifier installation.

SAFETY INFORMATION

Please read and understand all safety warnings before attempting installation. Improper installation can lead to electrical shock, fire, or damage to your vehicle and audio equipment.

- Always disconnect the vehicle's negative battery terminal before beginning any electrical installation.
- Ensure all wiring connections are secure and properly insulated to prevent short circuits.
- Install the fuse holder as close to the vehicle's battery as possible (within 18 inches) to protect the power cable.
- Observe correct polarity (+ to + and - to -) when connecting the capacitor and amplifier. Reversing polarity can cause severe damage.
- Mount the capacitor securely to prevent movement during vehicle operation.
- If you are unsure about any part of the installation process, seek assistance from a qualified car audio professional.

PACKAGE CONTENTS

Verify that all items are present in your package:

- 1x Audiotek AT-3.5 Farad Capacitor with Digital Voltage Display
- 1x Audiotek BCC4AB 4 Gauge Amplifier Installation Wiring Kit (Blue), including:

- 17 Feet (FT) 4 Gauge GA Power Cable
- 3 Feet (FT) 4 Gauge GA Ground Cable
- Inline AGU Fuse Holder & 80A Fuse
- 17 Feet (FT) Double Shielded RCA Cable
- 17 Feet (FT) / 18 GA Turn-On Cable
- 20 Feet (FT) / 16 GA Speaker Wire
- All necessary accessories and terminals

SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and safety. Follow these steps carefully.

Capacitor Installation

Before connecting the capacitor to your vehicle's electrical system, it must be charged. This prevents a sudden current surge that could damage the capacitor or other components.

1. **Mounting:** Securely mount the capacitor in a dry, accessible location, typically near the amplifier. Use the provided mounting brackets.
2. **Initial Charging:** Connect the negative terminal of the capacitor to a good chassis ground point. Connect the positive terminal of the capacitor to the positive terminal of your vehicle's battery using a 1000 Ohm, 1/2 Watt resistor (not included) in series with the power cable. The digital display will show the voltage gradually increasing. Once the display matches your battery voltage (approximately 12-14V), the capacitor is charged.
3. **Final Wiring:** Disconnect the resistor. Connect the main power cable (from the fuse holder near the battery) directly to the positive terminal of the capacitor. Connect a short power cable from the capacitor's positive terminal to the amplifier's positive terminal. Connect the capacitor's negative terminal to a good chassis ground point. Connect a short ground cable from the capacitor's negative terminal to the amplifier's negative terminal.
4. **Remote Turn-On:** Connect the remote turn-on wire from your head unit to the amplifier's remote input. If your capacitor has a remote input, connect it in line with the amplifier's remote input.



Image: Audiotek AT-3.5 Farad Capacitor shown with its transparent mounting brackets, ready for secure installation.



Image: A close-up view of the Audiotek AT-3.5 Farad Capacitor's digital red 3-digit voltage display and chrome-plated battery post terminals.

Amplifier Wiring Kit Installation

The provided 4-gauge wiring kit includes all necessary cables for connecting your amplifier.

1. **Power Cable:** Run the 17-foot 4-gauge power cable from the positive terminal of your vehicle's battery to the location of your amplifier/capacitor. Install the inline AGU fuse holder with the 80A fuse within 18 inches of the battery's positive terminal.
2. **Ground Cable:** Connect the 3-foot 4-gauge ground cable from the amplifier's negative terminal (and capacitor's negative terminal) to a clean, unpainted metal surface on the vehicle's chassis. Ensure a solid electrical connection.
3. **RCA Cables:** Run the 17-foot double-shielded RCA cable from the RCA outputs of your head unit to the RCA inputs of your amplifier. Route these cables away from power cables to prevent noise.
4. **Remote Turn-On Cable:** Connect the 17-foot 18 GA turn-on cable from the remote output of your head unit to the remote input of your amplifier (and capacitor if applicable).
5. **Speaker Wire:** Run the 20-foot 16 GA speaker wire from the speaker outputs of your amplifier to your speakers. Observe correct polarity for each speaker.
6. **Final Checks:** Double-check all connections for tightness and correct polarity. Reconnect the vehicle's negative battery terminal.

OPERATING INSTRUCTIONS

Once properly installed and charged, the Audiotek AT-3.5 Farad Capacitor operates automatically. The digital red 3-digit voltage display will show the current voltage of your vehicle's electrical system at the capacitor's terminals. This display provides real-time monitoring of your system's voltage stability. When your amplifier demands a sudden burst of power (e.g., during a bass drop), the capacitor will discharge rapidly to supply this power, preventing voltage drops that can lead to amplifier clipping and poor sound quality. It then recharges quickly from the vehicle's charging system.

MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your capacitor and wiring kit.

- **Connection Checks:** Periodically inspect all wiring connections to ensure they remain tight and free from corrosion. Loose connections can lead to power loss or intermittent operation.
- **Cleaning:** Keep the capacitor and its terminals clean and free of dust and debris. Use a dry, soft cloth for cleaning. Do not use harsh chemicals or abrasive materials.
- **Fuse Inspection:** Check the 80A fuse in the inline fuse holder periodically. If the fuse is blown, replace it with a fuse of the same rating (80A). A blown fuse often indicates an underlying electrical issue that should be investigated.
- **Environmental Conditions:** Ensure the capacitor is not exposed to extreme temperatures or moisture, which can degrade its performance and lifespan.

TROUBLESHOOTING

If you encounter issues with your car audio system after installing the capacitor and wiring kit, refer to the following table:

Problem	Possible Cause	Solution
Capacitor display shows 0.0V or no display	Capacitor not charged; loose power/ground connection; blown fuse.	Ensure capacitor is properly charged (see Setup); check all power and ground connections; inspect and replace fuse if necessary.
Voltage display is lower than battery voltage	Poor ground connection; insufficient charging; high current draw.	Verify ground connection is clean and secure; ensure capacitor was fully charged; check vehicle's charging system.
Amplifier not turning on	No remote turn-on signal; blown fuse; loose power/ground.	Check remote turn-on wire connection; inspect fuse; verify power and ground connections to amplifier.
System noise (whine, hiss)	Poor grounding; RCA cables routed near power cables; faulty components.	Improve ground connections; re-route RCA cables away from power wires; test components individually.

SPECIFICATIONS

Feature	Detail
Capacitance	3.5 Farad
Maximum Voltage	12 Volts
Operating Voltage	12 Volts
Digital Display	Red 3-Digit Voltage Display
Terminals	Chrome Plated Battery Post
Mounting Type	Pole Mount (with included brackets)
Materials	Metal, Plastic
Model Number	AT-3.5 + BCC4AB
Amp Kit Gauge	4 Gauge
Amp Kit Fuse	80A AGU Fuse

WARRANTY AND SUPPORT

For warranty information or technical support regarding your Audiotek AT-3.5 Farad Capacitor and Amplifier Installation Kit, please refer to the documentation provided at the time of purchase or contact Audiotek customer service directly. Keep your purchase receipt as proof of purchase for any warranty claims.