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› Standard Motor Products AC151 Idle Air Control Valve User Manual

Standard Motor Products AC151

Standard Motor Products AC151 Idle Air Control Valve User Manual

Model: AC151

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Standard Motor Products AC151 Idle Air Control Valve (IACV). Please read these instructions thoroughly before proceeding with installation or any related procedures to ensure safe and effective use.

The Idle Air Control Valve is a critical component in your vehicle's engine management system, responsible for regulating the engine's idle speed by controlling the amount of air bypassing the throttle plate.

2. PRODUCT OVERVIEW

The Standard Motor Products AC151 is a replacement Idle Air Control Valve designed to restore proper idle function to compatible vehicles. It is manufactured to meet original equipment specifications for fit, form, and function.

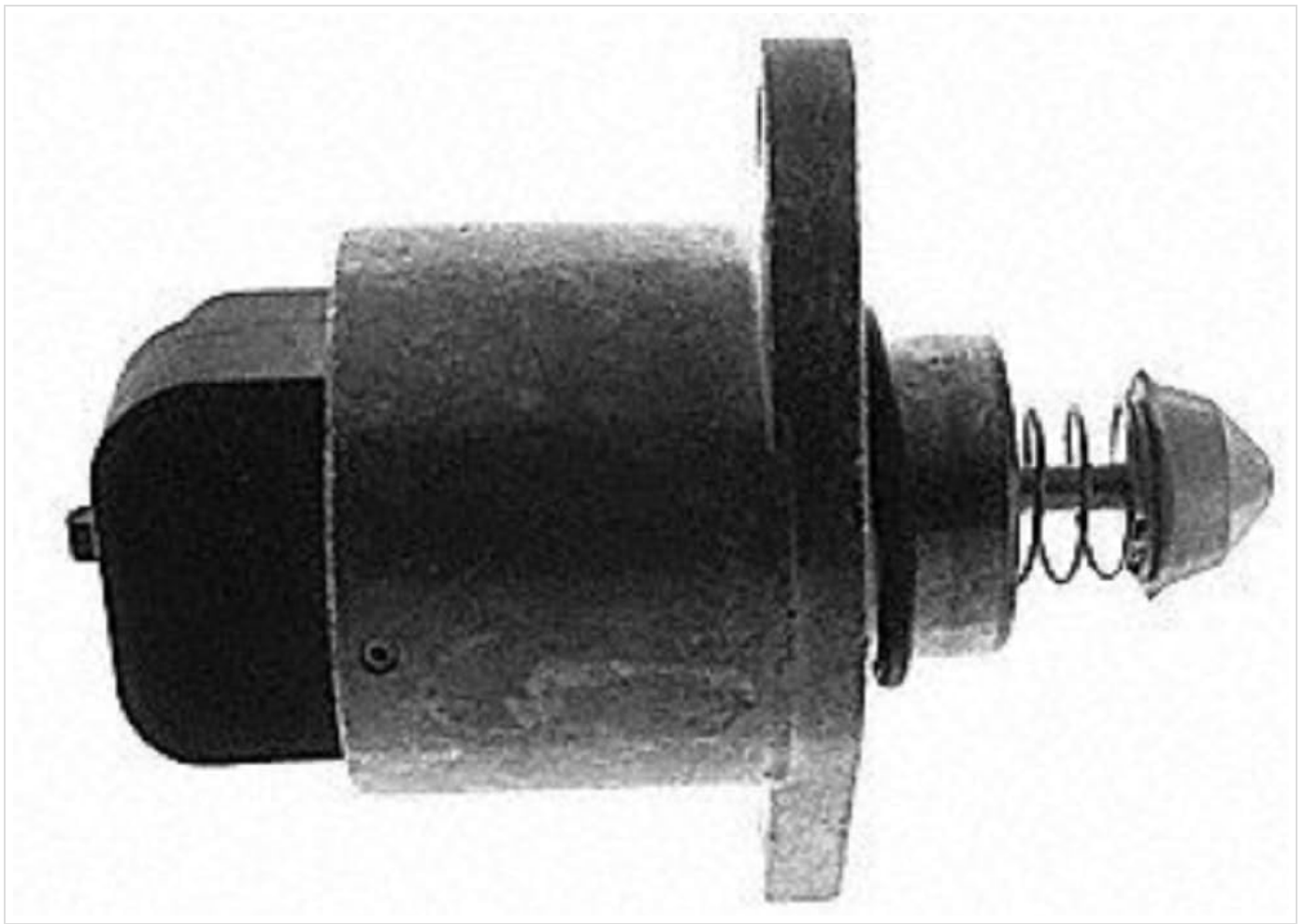


Figure 1: Standard Motor Products AC151 Idle Air Control Valve. This image shows the side profile of the idle air control valve, highlighting its cylindrical body, mounting flange, electrical connector, and the spring-loaded plunger mechanism.

What's in the Box:

- 1x Standard Motor Products AC151 Idle Air Control Valve

3. SAFETY INFORMATION

Always prioritize safety when working on your vehicle. Failure to follow safety precautions can result in injury or damage to the vehicle.

- **Disconnect Battery:** Before beginning any work, always disconnect the negative terminal of your vehicle's battery to prevent electrical shorts and accidental engine starts.
- **Wear Protective Gear:** Use appropriate personal protective equipment, including safety glasses and gloves.
- **Consult Service Manual:** Refer to your vehicle's specific service manual for detailed instructions and torque specifications relevant to your make and model.
- **Professional Installation:** If you are unsure about any step, it is recommended to seek assistance from a qualified automotive technician.
- **Proposition 65 Warning:** This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

4. INSTALLATION

The following steps provide a general guide for replacing an Idle Air Control Valve. Specific procedures may vary by vehicle. Always consult your vehicle's service manual.

1. Preparation:

- Ensure the engine is cool.
- Disconnect the negative battery terminal.
- Locate the existing Idle Air Control Valve, typically mounted on the throttle body.

2. Removal of Old IACV:

- Disconnect the electrical connector from the old IACV.
- Remove the mounting screws or bolts securing the IACV to the throttle body.
- Carefully remove the old IACV. Note its orientation and the condition of the gasket.

3. Throttle Body Cleaning:

- Clean the mounting surface and air passages on the throttle body where the IACV sits. Use a throttle body cleaner to remove carbon deposits.

4. New IACV Installation:

- **Important: Plunger Adjustment:** Before installing the new AC151, compare the extended length of its plunger to that of the old unit. If the new plunger is significantly shorter, gently turn the plunger counter-clockwise to extend it to approximately the same length as the old one. This can help prevent high idle issues after installation.
- Install a new gasket (if applicable) onto the throttle body or the new IACV.
- Position the new AC151 IACV onto the throttle body and secure it with the mounting screws/bolts. Tighten to the manufacturer's specified torque.
- Reconnect the electrical connector to the new IACV.

5. Post-Installation Procedures:

- Reconnect the negative battery terminal.
- **Computer Reset:** After installation, it is often necessary to perform a computer reset or an idle relearn procedure. This typically involves disconnecting the battery for a short period (e.g., 15-30 minutes) or following specific steps outlined in your vehicle's service manual. Failure to do so may result in an incorrect idle speed.
- Start the engine and allow it to reach operating temperature. Observe the idle speed. It may take a few driving cycles for the engine control unit (ECU) to fully adapt to the new IACV.

5. OPERATION

The Standard Motor Products AC151 Idle Air Control Valve operates automatically as part of your vehicle's engine management system. Its primary function is to maintain a stable engine idle speed under various conditions, such as when the engine is cold, when accessories (like air conditioning) are engaged, or when the steering wheel is turned.

The vehicle's Engine Control Unit (ECU) sends signals to the IACV to adjust the amount of air bypassing the throttle plate, thereby controlling the engine's RPM at idle. A properly functioning IACV ensures a smooth and consistent idle.

6. MAINTENANCE

The AC151 Idle Air Control Valve is designed for long-term reliability. However, carbon buildup can sometimes affect its performance. While the unit can be cleaned, it is generally recommended to replace a faulty IACV rather than attempting extensive repairs.

- **Inspection:** Periodically inspect the IACV and its electrical connector for any signs of damage or corrosion.

- **Cleaning (if necessary):** If experiencing minor idle issues, the IACV can sometimes be carefully removed and cleaned with a specialized throttle body cleaner to remove carbon deposits from the plunger and air passages. Ensure the cleaner is safe for electronic components.
- **Gasket Replacement:** Always use a new gasket when reinstalling or replacing the IACV to ensure a proper seal.

7. TROUBLESHOOTING

If you experience issues after installing the AC151 IACV or if your vehicle exhibits symptoms of a failing IACV, consider the following:

- **High RPM After Installation:**
 - **Cause:** The plunger on the new IACV may be too short, or the vehicle's computer has not properly adapted.
 - **Solution:** Disconnect the negative battery terminal for 15-30 minutes to reset the ECU. If the issue persists, remove the IACV and gently extend the plunger by turning it counter-clockwise to match the length of the original unit more closely. Reinstall and perform the computer reset again.
- **Rough or Unstable Idle:**
 - **Cause:** Carbon buildup, electrical connection issues, or a faulty unit.
 - **Solution:** Check electrical connections for corrosion or looseness. Ensure the throttle body passages are clean. If the unit is new and issues persist after proper installation and computer reset, the unit may be defective.
- **Stalling at Idle:**
 - **Cause:** The IACV is not allowing enough air to bypass the throttle plate.
 - **Solution:** Verify proper installation and computer reset. Inspect for vacuum leaks around the throttle body or intake manifold.
- **Check Engine Light:**
 - **Cause:** A faulty IACV can trigger diagnostic trouble codes (DTCs).
 - **Solution:** Use an OBD-II scanner to retrieve trouble codes. Address any codes related to idle air control or engine performance.

If troubleshooting steps do not resolve the issue, consult a professional automotive technician.

8. SPECIFICATIONS

Brand	Standard Motor Products
Model Number	AC151
Item Weight	4.8 ounces
Product Dimensions (L x W x H)	2 x 1.4 x 3.4 inches
Exterior Finish	Machined
Inlet Connection Size	0.5 Inches
Inlet Connection Type	NPT

Outlet Connection Size	0.5 Inches
Outlet Connection Type	NPT
Number of Ports	1
Country of Origin	China
UPC	091769263591

9. WARRANTY INFORMATION

Specific warranty terms for the Standard Motor Products AC151 Idle Air Control Valve are provided by the manufacturer. Please refer to the packaging or the official Standard Motor Products website for detailed warranty coverage, duration, and claim procedures. Retain your proof of purchase for warranty purposes.

10. SUPPORT

For technical assistance, installation questions, or further support regarding your Standard Motor Products AC151 Idle Air Control Valve, please contact Standard Motor Products customer service or consult a certified automotive technician.

You can find contact information on the official Standard Motor Products website or through your product retailer.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

