DOICOO DOCO105ISCV001

DOICOO Idle Air Control Valve Instruction Manual

Model: DOCO105ISCV001 | Brand: DOICOO

1. Introduction

This manual provides comprehensive instructions for the installation, operation, maintenance, and troubleshooting of the DOICOO Idle Air Control Valve (IACV). The IACV is a critical component in your vehicle's engine management system, responsible for regulating the amount of air bypassing the throttle plate to maintain a stable engine idle speed under various conditions. Proper installation and care will ensure optimal performance and longevity of the part.

2. Product Overview and Compatibility

The DOICOO Idle Air Control Valve is engineered to meet OEM standards, ensuring stable performance and a long-lasting life. It is designed for direct replacement, requiring no calibration, programming, or modification.



Image: Front view of the DOICOO Idle Air Control Valve, showing the main body, electrical connector, and the included gasket.

Compatible OEM Part Numbers:

- 3515033010
- 0K24720660
- 35150-33010
- 0K9A220660A
- 3515006310

Compatible Vehicle Models:

- **Hyundai:**
  - 1999-2005 Sonata 2.4L
  - 2002-2005 Sonata 2.7L
  - 2001-2004 Santa Fe 2.4L
  - 2001-2006 Santa Fe 2.7L
  - 2003-2006 Santa Fe 3.5L

    - 2005-2007 Tucson 2.0L
    - 2005-2007 Tucson 2.7L
- **Kia:**
    - 2002-2006 Optima 2.4L
    - 2002-2006 Optima 2.7L
    - 2005-2007 Sportage 2.0L
    - 2005-2007 Sportage 2.7L

Important Notice: Always carefully check the fitment, part pictures, and part numbers to ensure compatibility with your specific vehicle before installation.

3. Product Features

- **Stable Performance:** Engineered for consistent and reliable operation.
- **Durable and Long-lasting:** Constructed from high-quality materials including electronic parts, chip, brass, and plastic.
- **Pre-shipment Tested:** Each unit is tested before shipment to ensure functionality.
- **OEM Standards:** Meets or exceeds original equipment manufacturer standards and specifications.
- **High-Grade Technology:** Utilizes advanced technology for precise air control.
- **Easy Installation:** Designed for direct replacement without the need for special tools, calibration, programming, or modification.
- **Improved Vehicle Performance:** Helps maintain proper idle speed and eliminates related failure light codes.



Image: Close-up view of the IACV, with annotations pointing to "High quality and longer durability" and "OE design, perfect fitment and easy installation."

4. Installation Guide

Follow these steps carefully for proper installation of the Idle Air Control Valve. If you are unsure about any step, it is recommended to consult a qualified automotive technician.

1. **Diagnostic Check:** Before replacing the part, diagnose the trouble code to confirm that the Idle Air Control Valve is indeed the faulty component.
2. **Disconnect Wiring:** Carefully remove the wiring connector from the old IACV.
3. **Remove Old Part:** Unbolt and remove the existing Idle Air Control Valve from its mounting location. Be mindful of any gaskets.
4. **Install New Part:** Position the new DOICOO IACV, ensuring the gasket is correctly in place. Secure it with the appropriate bolts.
5. **Reconnect Wiring:** Reattach the wiring connector to the new IACV, ensuring a secure connection.
6. **Clear Trouble Codes:** After installation, use an OBD-II scanner to clear any existing trouble codes from the vehicle's computer system.



Image: Top-down view of the IACV, with a circular inset highlighting the electrical connector pins, and the gasket visible.

5. Operation

The Idle Air Control Valve is an electromechanical actuator that works in conjunction with the vehicle's Engine Control Unit (ECU). Its primary function is to regulate the engine's idle speed by controlling the amount of air that bypasses the throttle body. When the engine is idling, the throttle plate is closed, and the IACV opens or closes a passage to allow a precise amount of air into the intake manifold. This ensures a smooth and stable idle, compensating for varying engine loads (e.g., air conditioning, power steering) and temperatures.

6. Maintenance

While the DOICOO IACV is designed for durability, periodic inspection and maintenance of related components can prolong its life and ensure optimal engine performance.

- **Throttle Body Cleaning:** Carbon deposits can build up in the throttle body and around the IACV passage, affecting its operation. Periodically clean the throttle body and the IACV port with a specialized throttle body cleaner.

- **Gasket Integrity:** Ensure the IACV gasket remains in good condition to prevent vacuum leaks, which can lead to erratic idle.
- **Wiring Inspection:** Check the electrical connector and wiring for any signs of corrosion, fraying, or damage.
- **Air Filter:** A clean air filter ensures proper airflow to the engine, reducing strain on the IACV.

Note: If cleaning the old IACV, ensure the electronics are held facing up to prevent cleaner from entering sensitive components.

7. Troubleshooting

If you experience issues after installation or during vehicle operation, consider the following common troubleshooting steps:

Symptom	Possible Cause	Solution
Rough or Unstable Idle	Incorrect installation, vacuum leak, dirty throttle body, faulty IACV.	Recheck installation steps, inspect gasket, clean throttle body, verify IACV connection.
Engine Stalling (especially at stops)	IACV not regulating air flow correctly, electrical issue.	Ensure IACV is properly seated and connected. Check for related diagnostic trouble codes (DTCs).
Check Engine Light (CEL) with IACV-related codes (e.g., P0505, P0507)	Faulty IACV, wiring issue, ECU problem.	Verify part number compatibility. Inspect wiring harness. Clear codes after confirming proper installation. If issues persist, professional diagnosis is recommended.
High Idle Speed	IACV stuck open, vacuum leak.	Check for vacuum leaks around the intake manifold and IACV. Ensure the IACV is functioning correctly.

For persistent issues, it is advisable to consult a certified mechanic or automotive diagnostic specialist.

8. Specifications

Attribute	Detail
Brand	DOICOO
Model Number	DOCO105ISCV001
Material	Electronic parts, Chip, Brass, Plastic etc.
Valve Type	Air Control Valve
Number of Ports	2
Inlet Connection Type	National Pipe Tapered
Outlet Connection Type	NPT
Item Weight	6.9 ounces
Package Dimensions	3.58 x 2.91 x 2.32 inches

Attribute	Detail

UPC	735317504957

9. Warranty and Support

Warranty Information:

The DOICOO Idle Air Control Valve comes with a **one-year quality warranty**. This warranty covers defects in materials and workmanship under normal use.

Customer Support:

If you encounter any problems with the product during the warranty period, please contact DOICOO customer service directly for a quicker and easier solution. Refer to your purchase documentation for specific contact details or visit the official DOICOO website.

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