

BAIXINDE 1503ES-12A5SUC9SLC24

Instruction Manual

BAIXINDE 1503ES-12A5SUC9SLC24 SA-5156 Fuel Shut Down Solenoid

1. PRODUCT OVERVIEW

This manual provides essential information for the installation, operation, and maintenance of the BAIXINDE 1503ES-12A5SUC9SLC24 SA-5156 Fuel Shut Down Solenoid. This component is designed to control fuel flow in compatible systems, primarily those utilizing Woodward specifications. It ensures the engine's fuel supply is cut off when required, contributing to safe and efficient engine operation.



Figure 1: Main view of the BAIXINDE Fuel Shut Down Solenoid.

2. SAFETY INFORMATION

Always prioritize safety when working with automotive components. Failure to follow these instructions could result in personal injury or damage to the vehicle.

- **Disconnect Battery:** Before beginning any installation or maintenance, always disconnect the vehicle's battery to prevent electrical shorts or accidental engine starts.
- **Wear Protective Gear:** Use appropriate personal protective equipment, including safety glasses and gloves.
- **Fuel Handling:** Be aware of fuel leaks and fumes. Work in a well-ventilated area and have fire suppression equipment readily available.
- **Professional Installation Recommended:** If you are unsure about any step, seek assistance from a qualified automotive technician.
- **Check Compatibility:** Ensure the OE number, model, and brand match your vehicle's requirements before installation.

3. PRODUCT COMPONENTS

The BAIXINDE Fuel Shut Down Solenoid assembly typically includes the following:

- Solenoid Unit with Plunger/Rod
- Mounting Bracket
- Electrical Connector and Wiring Harness



Figure 2: Side view showing the solenoid unit and its integrated mounting bracket.



Figure 3: Detail of the electrical connector for power supply.

4. INSTALLATION GUIDE

This section outlines the general steps for replacing a fuel shut down solenoid. Specific procedures may vary depending on the vehicle or equipment.

1. Preparation:

- Ensure the engine is cool and the vehicle is turned off.
- Disconnect the negative terminal of the vehicle's battery to prevent accidental electrical discharge.
- Locate the existing fuel shut down solenoid. It is typically found near the fuel injection pump or fuel system.

2. Removal of Old Solenoid:

- Carefully disconnect the electrical connector from the old solenoid.
- Unbolt or unmount the old solenoid from its position. Note the orientation and any associated linkages or rods.
- Remove the old solenoid. Be prepared for minor fuel leakage if the solenoid is directly connected to the fuel line.

3. Installation of New Solenoid:

- Compare the new BAIXINDE solenoid with the old one to ensure they are identical in form, fit, and function. Verify the OE number (1503ES-12A5SUC9SLC24, SA-5156).
- Mount the new solenoid in the exact position and orientation as the old one. Secure it with appropriate fasteners.
- Connect the electrical wiring harness to the new solenoid's connector. Ensure a secure and tight connection.

4. Post-Installation:

- Reconnect the negative terminal of the vehicle's battery.
- Start the engine and check for proper operation of the fuel shut down system. Listen for the solenoid's click and observe if the engine starts and shuts off correctly.
- Inspect for any fuel leaks around the installation area.



Figure 4: Illustrative image of a solenoid's typical location within an engine compartment (actual location may vary).

5. OPERATING PRINCIPLES

The 1503ES-12A5SUC9SLC24 SA-5156 Fuel Shut Down Solenoid operates as an electromechanical device. When electrical current is supplied to the solenoid coil, it creates a magnetic field that pulls a plunger, opening or closing a fuel passage.

- **Engine On (Energized):** When the engine is running or the ignition is in the "ON" position, the solenoid is energized, pulling the plunger to allow fuel flow to the engine.
- **Engine Off (De-energized):** When the ignition is turned "OFF," power to the solenoid is cut. A spring mechanism then pushes the plunger to block the fuel passage, effectively shutting down the engine.

6. MAINTENANCE

The BAIXINDE Fuel Shut Down Solenoid is designed for durability and reliability. Regular maintenance is generally not required beyond routine vehicle checks.

- **Visual Inspection:** Periodically inspect the solenoid and its wiring for any signs of damage, corrosion, or loose connections.
- **Cleanliness:** Keep the area around the solenoid clean and free from excessive dirt, oil, or debris that could impede its operation.
- **Connection Integrity:** Ensure the electrical connector remains securely attached and free of moisture.

7. TROUBLESHOOTING

If you experience issues with your fuel shut down solenoid, consider the following common problems and solutions:

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Engine will not start (no fuel)	<ul style="list-style-type: none">Faulty solenoid (not energizing)Loose or corroded electrical connectionNo power to solenoidIncorrect installation	<ul style="list-style-type: none">Check electrical connections and wiring.Test for voltage at the solenoid connector when ignition is on.Verify proper installation and ensure plunger moves freely.Replace solenoid if it fails electrical tests.
Engine will not shut off	<ul style="list-style-type: none">Solenoid stuck in open positionConstant power to solenoid (electrical fault)	<ul style="list-style-type: none">Check if power to the solenoid cuts off when ignition is turned off.Inspect solenoid for physical damage or debris preventing plunger movement.Replace solenoid if it remains open when de-energized.
Intermittent operation	<ul style="list-style-type: none">Loose wiring or poor connectionInternal solenoid fault	<ul style="list-style-type: none">Inspect and secure all electrical connections.Consider professional diagnosis or replacement if issues persist.

8. SPECIFICATIONS

Attribute	Detail
Model Number	1503ES-12A5SUC9SLC24
Manufacturer Part Number	XS-1503ES-12A5SUC9SLC24
Compatible With	Woodward systems
Replaces Numbers	1503ES-12A5SUC9SLC24, SA-5156
Brand	BAIXINDE
Item Weight	1.06 pounds (approx. 0.48 kg)
Package Dimensions	9.49 x 4.13 x 2.44 inches (approx. 24.1 x 10.5 x 6.2 cm)

9. WARRANTY AND SUPPORT

BAIXINDE is committed to customer satisfaction. If you have any questions regarding the installation, operation, or compatibility of your 1503ES-12A5SUC9SLC24 SA-5156 Fuel Shut Down Solenoid, please contact our customer support.

We aim to respond to all inquiries within 24 hours. Please refer to your purchase documentation for specific warranty terms and contact information.