

Manuals.plus /

- › [Standard Motor Products](#) /
- › Standard Motor Products ICP102 Fuel Injection Pressure Sensor User Manual

Standard Motor Products ICP102

Standard Motor Products ICP102 Fuel Injection Pressure Sensor User Manual

Model: ICP102 | Brand: Standard Motor Products

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Standard Motor Products ICP102 Fuel Injection Pressure Sensor. Please read this manual thoroughly before installation and keep it for future reference. The ICP102 sensor is designed to accurately measure fuel injection control pressure in compatible vehicle systems, ensuring optimal engine performance and fuel efficiency.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the product and vehicle:

- Ensure the vehicle's engine is off and cool before beginning any installation or maintenance.
- Disconnect the vehicle's battery to prevent electrical hazards.
- Wear appropriate personal protective equipment, including safety glasses and gloves.
- Fuel systems are under pressure; relieve fuel pressure according to vehicle manufacturer specifications before disconnecting any fuel lines or components.
- Handle fuel carefully; it is highly flammable. Work in a well-ventilated area away from open flames or sparks.
- If you are unsure about any step, consult a qualified automotive technician.

3. PRODUCT COMPONENTS

The Standard Motor Products ICP102 Fuel Injection Pressure Sensor package typically includes the following:

- One (1) ICP102 Fuel Injection Pressure Sensor
- Associated O-ring/seal (pre-installed or separate, depending on design)



Figure 3.1: Front view of the ICP102 Fuel Injection Pressure Sensor. This image shows the sensor's main body, electrical connector, and threaded end with an O-ring.



Figure 3.2: Side view of the ICP102 Fuel Injection Pressure Sensor. This image provides another angle of the sensor, highlighting its compact design and connection point.

4. SETUP AND INSTALLATION

The ICP102 sensor is a direct replacement part. Installation typically involves removing the old sensor and installing the new one. Refer to your vehicle's specific service manual for exact location and torque specifications.

4.1. Tools Required

- Wrench or socket set (size may vary by vehicle)
- Torque wrench
- Clean rags
- Safety glasses and gloves

4.2. Installation Steps

1. **Preparation:** Park the vehicle on a level surface, engage the parking brake, and ensure the engine is off and cool. Disconnect the negative terminal of the vehicle's battery.
2. **Locate Sensor:** Identify the existing fuel injection pressure sensor on your vehicle. Its location varies by make and model; consult your vehicle's service manual.
3. **Relieve Fuel Pressure:** Follow your vehicle manufacturer's procedure to safely relieve fuel system pressure. This is a critical safety step.
4. **Disconnect Electrical Connector:** Carefully disconnect the electrical connector from the old sensor. Avoid pulling on the wires.
5. **Remove Old Sensor:** Using the appropriate wrench or socket, carefully unscrew and remove the old sensor. Be prepared for a small amount of fuel to leak out.
6. **Inspect Area:** Clean the mounting surface and inspect for any debris or damage.
7. **Install New Sensor:** Ensure the new ICP102 sensor has its O-ring or seal properly seated. Thread the new sensor into its mounting location by hand to prevent cross-threading.
8. **Torque Sensor:** Use a torque wrench to tighten the sensor to the vehicle manufacturer's specified torque. Overtightening can damage the sensor or mounting threads.
9. **Reconnect Electrical Connector:** Reconnect the electrical connector to the new sensor, ensuring it clicks securely into place.
10. **Reconnect Battery:** Reconnect the negative terminal of the vehicle's battery.
11. **Check for Leaks:** Start the engine and carefully check for any fuel leaks around the newly installed sensor. Allow the engine to run for a few minutes and re-check.

5. OPERATING PRINCIPLES

The ICP102 Fuel Injection Pressure Sensor is a critical component in your vehicle's engine management system. It measures the pressure within the fuel injection system and sends this data to the Powertrain Control Module (PCM). The PCM uses this information to precisely control fuel delivery and injection timing, optimizing engine performance, fuel economy, and emissions. Once installed, the sensor operates continuously as part of the vehicle's normal operation, requiring no user interaction.

6. MAINTENANCE

The Standard Motor Products ICP102 Fuel Injection Pressure Sensor is designed to be a maintenance-free component. Regular maintenance of the sensor itself is not required. However, it is important to ensure the surrounding area and electrical connections remain clean and free from corrosion or damage. If any fuel leaks are detected around the sensor, address them immediately.

Periodically inspect the electrical connector for secure fitment and signs of wear or damage. Do not use harsh chemicals or abrasive materials to clean the sensor.

7. TROUBLESHOOTING

If you experience issues after installing the ICP102 sensor, consider the following common troubleshooting steps. Note that a diagnostic scan tool may be required to read vehicle trouble codes.

Symptom	Possible Cause	Solution
Check Engine Light (CEL) illuminated with ICP sensor related codes (e.g., P0093, P0190, P0191)	Faulty sensor, poor electrical connection, wiring issue, or incorrect installation.	Verify electrical connector is fully seated. Inspect wiring for damage or corrosion. Ensure sensor is torqued to specification. If issues persist, professional diagnosis may be required to test sensor output and wiring integrity.
Engine Cranks but Does Not Start	Incorrect fuel pressure reading from sensor, leading to improper fuel delivery.	Check for proper installation and electrical connection. Verify fuel pressure with a diagnostic tool if possible. Consult a qualified technician.
Rough Idling or Stalling	Inaccurate fuel pressure data affecting engine control.	Ensure sensor is correctly installed and connected. Check for other related engine codes.

For complex issues or persistent problems, it is recommended to seek assistance from a certified automotive mechanic or a Standard Motor Products authorized service center.

8. SPECIFICATIONS

Attribute	Detail
Brand	Standard Motor Products
Model Number	ICP102
Item Dimensions (L x W x H)	2 x 1.4 x 3.4 inches
Item Weight	0.8 ounces (22.68 g)
Mounting Type	Flange Mount
Output Type	Analog
Specific Uses For Product	Pressure Measurement (Fuel Injection Control)
UPC	025623263007
Country of Origin	China

9. WARRANTY AND SUPPORT

Standard Motor Products provides a limited warranty on its products. For specific warranty terms and conditions, please refer to the warranty information included with your product packaging or visit the official Standard Motor Products website. Warranty coverage typically applies to defects in material and workmanship under normal use and service.

9.1. Customer Support

If you have questions regarding the installation, operation, or troubleshooting of your ICP102 sensor, or if you need to inquire about warranty service, please contact Standard Motor Products customer support. Contact information can typically be found on their official website or product packaging.

When contacting support, please have your product model number (ICP102) and purchase information readily available.

© 2023 Standard Motor Products. All rights reserved.

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