# **Astemo Technical Information**



# ELECTRIC FUEL PUMPS REPLACEMENT INSTRUCTIONS

#### TOOLS AND MATERIALS REQUIRED:

- Replacement fuel pump
- Safety Glasses
- Pliers Screwdrivers & hammer
- Fuel line disconnect tools.
- Safety gloves & Rag or shop Towels

## **REPLACEMENT PROCEDURE**

#### **Prepare the Vehicle**

- Open the hood and locate the vehicle's fuel pump access panel, typically located under the rear seats or in the trunk area.
- Remove any obstructions or covers blocking access to the fuel pump module.

#### **Depressurize the Fuel Systems**

- Relieve fuel system pressure by locating the fuel pump fuse or relay in the vehicle's fuse box.
- Start the vehicle and allow it to run until it stalls, indicating that the fuel system pressure has been released.
- Turn off the ignition and disconnect the battery.

#### **Remove Old Fuel Pump Module**

- Disconnect the electrical connectors and fuel lines from the old fuel pump module.
- Depending on the vehicle model, you may need to use a fuel line disconnect tool to disconnect the fuel lines.
- Remove any retaining clips, bolts, or screws securing the fuel pump module in place.
- Carefully lift the old fuel pump module out of the fuel tank, taking care not to damage the fuel lines or wiring harness.

#### Install The new Fuel Pump

- Place the new fuel pump module into the fuel tank, aligning it properly with the mounting points.
- Secure the fuel pump module in place using the retaining clips, bolts, or screws removed earlier.
- Reconnect the electrical connectors and fuel lines to the new fuel pump module, ensuring they are properly seated and secured.
- Double-check all connections to ensure they are tight and leak-free.

#### Test The Fuel Pump

- Reconnect the vehicle's battery.
- Turn the ignition key to the "ON" position without starting the engine, allowing the fuel pump to pressurize the system.
- Listen for the sound of the fuel pump priming. It should run for a few seconds and then shut off.
- If the fuel pump does not prime, recheck the connections and troubleshoot as necessary.

#### **Reassemble And Test**

- Replace any access panels, covers, or components removed during the installation process.
- Lower the vehicle hood and ensure all tools and equipment are removed from the work area.
- Start the vehicle and check for any leaks or abnormal noises from the fuel system.
- Take the vehicle for a short test drive to verify proper fuel pump operation.

## DO'S

While installation and proper functionality of the fuel system. Here are some key "dos" to keep in mind.

- **Ensure Compatibility:** Use a fuel pump that is compatible with your vehicle's make, model, and engine specifications. Verify compatibility before proceeding with the replacement.
- **Disconnect Battery:** Before starting the installation, disconnect the vehicle's battery to prevent electrical shocks or accidental activation of the fuel system.
- **Relive fuel Systems:** Properly relieve fuel system pressure before removing the old fuel pump. This can be done by locating and removing the fuel pump fuse or relay, then starting the engine until it stalls.
- **Secure Mounting:** Ensure that the new fuel pump is securely mounted in the fuel tank according to the manufacturer's instructions. Use the provided hardware and follow proper torque specifications for fasteners.
- Check Seal & Gaskets: Verify that all seals, gaskets, and O-rings are in good condition and properly seated before installing the fuel pump. Replace any damaged or worn seals to prevent fuel leaks.
- **Inspect Related Components:** Before installing the new fuel pump, inspect surrounding components such as fuel lines, connectors, and wiring harnesses for signs of wear, damage, or corrosion. Replace any damaged components as needed.
- **Perform Functional test:** After installation, perform a functional test of the fuel pump. Check for proper fuel pressure, verify that there are no leaks, and ensure the fuel pump operates smoothly.

# DON'T

While installation and proper functionality of the fuel system. Here are some key "don't" to keep in mind.

- **Don't Disregard Fuel System Pressure**: Before starting the installation, relieve fuel system pressure properly. Failure to do so can result in fuel spray or leaks, posing a fire hazard.
- **Don't Ignore Electrical Connections:** Double check all electrical connections and ensure they are clean, secure, and properly seated. Poor connections can lead to electrical issues or fuel pump malfunction.
- **Don't Install Dirty Fuel Pump:** Ensure the new fuel pump and surrounding components are clean before installation. Contaminants can cause premature wear or damage and affect fuel system performance.
- **Don't Forget To Inspect Fuel Lines:** Before installing the new fuel pump, inspect fuel lines for signs of wear, corrosion, or damage. Replace any damaged lines to prevent fuel leaks or system failure.
- **Don't Forget to Reconnect the Components:** After installing the fuel pump, ensure all disconnected components, such as fuel lines, electrical connectors, and the fuel tank, are properly reconnected and secured.
- **Don't Skip Functional test**: After installing the fuel pump, perform a functional test to ensure proper operation. Check for leaks, verify fuel pressure, and confirm that the pump runs smoothly without unusual noises.

By following these dos and don'ts, you can safely and effectively replace the fuel pump in your vehicle, ensuring proper operation of the fuel system and preventing potential issues or hazards. If you are unsure about any aspect of the replacement process, consult a qualified automotive technician for assistance.

#### Cautions:

To ensure optimal performance and safety, please take note of the following cautionary points.

- 1) Professional Installation: Proper installation of the fuel pump module is critical for its performance and longevity. We highly recommend having the installation performed by a certified automotive technician familiar with fuel system components.
- 2) Proper Handling: Handle the fuel pump module with care to avoid damaging delicate components, such as the pump motor, float arm, and electrical connectors. Avoid dropping or mishandling the module during installation.
- 3) Fuel System Cleanliness: Prior to installation, ensure that the fuel tank and fuel lines are clean and free from debris, rust, or contaminants. Contaminated fuel can damage the fuel pump module and compromise its performance.

#### Safety Precautions:

- Work in a well-ventilated area away from open flames or sources of ignition.
- Wear safety glasses and gloves to protect against fuel and debris.
- Ensure the vehicle is parked on a flat, stable surface with the parking brake engaged.
- Disconnect the vehicle's battery to prevent accidental fuel pump activation.

**Note:** These instructions are general guidelines and may vary depending on the vehicle's make and model. Always refer to the vehicle service manual for specific instructions and safety precautions.

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