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Delphi FG2307

Delphi FG2307 Fuel Pump Module Assembly Instruction Manual

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of the Delphi FG2307 Fuel Pump Module Assembly. Adherence to these instructions is crucial for optimal performance and longevity of the product. This fuel pump module is designed for specific vehicle applications (Vehicle Specific Fit) and is intended for use in cars and trucks.

2. Safety Information

WARNING: Improper installation or handling of fuel system components can lead to serious injury, fire, or explosion. Always follow safety precautions.

- Ensure the vehicle's battery is disconnected before beginning any work on the fuel system.
- Work in a well-ventilated area to avoid inhaling fuel vapors.
- Keep open flames, sparks, and other ignition sources away from the work area.
- Wear appropriate personal protective equipment, including safety glasses and fuel-resistant gloves.
- Refer to the vehicle manufacturer's service manual for specific procedures and torque specifications.
- Fuel is highly flammable. Handle with extreme care.
- It is recommended that installation be performed by a qualified automotive technician.

3. Product Overview

The Delphi FG2307 is a complete Fuel Pump Module Assembly, engineered to meet Original Equipment (OE) specifications for reliable fuel delivery. It integrates the fuel pump, fuel level sender, and other necessary components into a single unit for efficient replacement.

3.1. What's in the Box

- Delphi FG2307 Fuel Pump Module Assembly

3.2. Key Features

- **OE Heritage:** Designed with over 80 years of OE experience, ensuring quality and precise fitment.
- **Durability:** Tested for durability up to 150,000 miles and compatible with fuel containing over 20% ethanol.
- **Temperature Resistance:** Rigorously OE-tested to withstand extreme operating temperatures.
- **Integrated Strainer:** Internal strainer design provides enhanced protection and improved filtering of fuel.

Figure 1: Delphi FG2307 Fuel Pump Module Assembly, showing the complete unit with the blue top, white housing, and fuel level sender arm.

4. Specifications

Specification	Detail
Brand	Delphi
Model Number	FG2307
Fit Type	Vehicle Specific Fit
Vehicle Service Type	Car, Truck
Dimensions (L x W x H)	12.4 x 8.5 x 8.4 inches
Material	Metal (Body)
Item Weight	0.01 Ounces
Specification Met	OE (Original Equipment)
Auto Part Position	Rear
Inlet Connection Type	Threaded (NPT)
Gas Type Compatibility	Ethanol (up to 20% tested)
Mounting Type	Tank Mount
Operation Mode	Automatic
Product Grade	Replacement Part
OEM Part Number(s)	CFG2307, 17040-9PJ0A
UPC	689604329207

Figure 2: Top view of the Delphi FG2307 Fuel Pump Module Assembly, showing the electrical connector and fuel line connections.

5. Setup and Installation

Proper installation is critical for the safe and effective operation of the fuel pump module. Always consult your vehicle's specific service manual for detailed instructions.

5.1. Pre-Installation Checks

- Verify that the Delphi FG2307 is the correct part for your vehicle's make, model, and year.
- Inspect the new fuel pump module for any signs of damage during shipping.
- **Crucial Step:** Thoroughly clean the fuel tank before installing the new module. Contaminants in the fuel tank can quickly damage the new fuel pump and void its warranty.
- Ensure all necessary tools and replacement gaskets/seals (if not included) are available.

Figure 3: Delphi FG2307 Fuel Pump Module Assembly shown with a new O-ring, essential for a proper seal during installation.

5.2. Installation Procedure (General Guidelines)

1. **Depressurize Fuel System:** Follow vehicle manufacturer's instructions to safely relieve fuel system pressure.

2. **Disconnect Battery:** Disconnect the negative terminal of the vehicle's battery.
3. **Access Fuel Tank:** Depending on the vehicle, this may involve removing rear seats, carpet, or dropping the fuel tank.
4. **Disconnect Electrical and Fuel Lines:** Carefully disconnect the electrical connector and fuel lines from the old fuel pump module. Be prepared for residual fuel spillage.
5. **Remove Old Module:** Unscrew or unclamp the retaining ring/lock nut and carefully remove the old fuel pump module from the tank opening.
6. **Install New Module:** Install the new Delphi FG2307 module with a new O-ring/gasket. Ensure it is seated correctly and the retaining ring/lock nut is tightened to the manufacturer's specified torque.
7. **Reconnect Lines:** Reconnect the fuel lines and electrical connector securely. Double-check all connections.
8. **Reconnect Battery:** Reconnect the vehicle's battery.
9. **Check for Leaks:** Turn the ignition to the 'ON' position (without starting the engine) for a few seconds to prime the fuel system. Check for any fuel leaks around the new module. Repeat priming if necessary.
10. **Start Engine:** Start the engine and check for proper operation and any warning lights.

Figure 4: Side view of the Delphi FG2307 Fuel Pump Module Assembly, highlighting the fuel level sender arm and internal components.

6. Operating Principles

The Delphi FG2307 Fuel Pump Module Assembly is an electric fuel pump designed to draw fuel from the vehicle's fuel tank and deliver it under pressure to the engine's fuel injection system. The integrated fuel level sender provides accurate fuel gauge readings to the vehicle's dashboard. The pump operates automatically when the ignition is turned on and during engine operation, ensuring a continuous and regulated supply of fuel.

7. Maintenance

The Delphi FG2307 Fuel Pump Module Assembly is designed for long-term, maintenance-free operation under normal conditions. However, certain practices can help ensure its longevity:

- **Keep Fuel Tank Clean:** Regularly inspect and clean the fuel tank to prevent contaminants from reaching the fuel pump's internal strainer.
- **Use Quality Fuel:** Always use the recommended fuel type and quality for your vehicle.
- **Avoid Running on Low Fuel:** Consistently running the vehicle with very low fuel levels can cause the fuel pump to overheat as it relies on fuel for cooling.
- **Replace Fuel Filter (External):** If your vehicle has an external fuel filter, replace it according to the vehicle manufacturer's recommended service intervals. This helps protect the fuel pump from debris.

8. Troubleshooting

If you experience issues with your fuel system after installing the Delphi FG2307, consider the following common troubleshooting steps:

8.1. Engine Cranks but Does Not Start

- **Check Fuel Level:** Ensure there is sufficient fuel in the tank.
- **Listen for Pump Prime:** Turn the ignition to 'ON' (without starting) and listen for a faint hum from the fuel tank area. This indicates the pump is priming. If no sound, check electrical connections and fuses.
- **Check Fuel Pressure:** A fuel pressure gauge can confirm if the pump is delivering adequate pressure. This requires specialized tools and knowledge.
- **Inspect Electrical Connections:** Ensure the electrical connector to the fuel pump module is securely attached and free from corrosion.

8.2. Engine Stumbles or Loses Power

- **Check Fuel Filter:** A clogged external fuel filter can restrict fuel flow.
- **Inspect Fuel Lines:** Look for kinks or damage in the fuel lines.
- **Fuel Quality:** Poor quality or contaminated fuel can affect pump performance.

8.3. Inaccurate Fuel Gauge Reading

- **Check Electrical Connection:** Ensure the electrical connector for the fuel level sender is properly

seated.

- **Sender Arm Obstruction:** Verify that the fuel level sender arm is not obstructed or bent, preventing free movement.

If troubleshooting steps do not resolve the issue, it is recommended to seek assistance from a certified automotive technician.

9. Warranty and Support

For warranty information and technical support regarding your Delphi FG2307 Fuel Pump Module Assembly, please refer to the official Delphi product website or contact Delphi customer service directly. Keep your purchase receipt as proof of purchase for any warranty claims.
Delphi Website: www.delphi.com