

Delphi FG1159

Delphi FG1159 Fuel Module Instruction Manual

Model: FG1159

1. INTRODUCTION

This manual provides essential information for the proper installation, function, and maintenance of the Delphi FG1159 Fuel Module. The Delphi FG1159 is an automotive replacement part designed to restore fuel delivery system integrity and performance. It is engineered to meet original equipment (OE) standards for fit, form, and function.

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.
- Relieve fuel system pressure according to the vehicle manufacturer's service manual before disconnecting fuel lines.
- Work in a well-ventilated area, away from open flames, sparks, or other ignition sources.
- Wear appropriate personal protective equipment, including safety glasses and fuel-resistant gloves.
- Keep a fire extinguisher readily available.
- It is highly recommended that installation be performed by a qualified automotive technician.

3. PRODUCT OVERVIEW

The Delphi FG1159 Fuel Module is a complete assembly that typically includes the fuel pump, fuel level sensor (float), fuel filter, and necessary electrical and fuel line connections. This integrated design ensures optimal performance and simplifies installation.



Figure 1: Complete Delphi FG1159 Fuel Module assembly, showing the main body, fuel lines, electrical connectors, and fuel level float arm.



Figure 2: Bottom view of the fuel module, highlighting the fuel strainer (blue mesh) and the fuel level float arm assembly.



Figure 3: Top view of the fuel module, illustrating the various fuel line ports and electrical connections for integration into the vehicle's fuel system.

4. SETUP AND INSTALLATION

The Delphi FG1159 Fuel Module is designed for vehicle-specific fitment. Refer to your vehicle's service manual for detailed, model-specific installation procedures. The following are general steps and considerations:

1. **Preparation:** Park the vehicle on a level surface, engage the parking brake, and disconnect the negative battery terminal.

2. **Access Fuel Tank:** Depending on the vehicle, access to the fuel module may require removing the rear seat, carpet, or dropping the fuel tank.
3. **Relieve Fuel Pressure:** Follow vehicle manufacturer guidelines to safely relieve fuel system pressure.
4. **Disconnect:** Disconnect electrical connectors and fuel lines from the old fuel 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 module from the fuel tank opening.
6. **Inspect and Clean:** Inspect the fuel tank interior for debris or contamination. Clean the fuel tank opening and sealing surface thoroughly.
7. **Install New Module:** Carefully insert the Delphi FG1159 Fuel Module into the fuel tank opening, ensuring the new gasket (if supplied) is properly seated. Secure it with the retaining ring/lock nut.
8. **Connect:** Reconnect fuel lines and electrical connectors. Ensure all connections are secure and free of leaks.
9. **Final Checks:** Reconnect the battery. Turn the ignition to the 'ON' position (without starting the engine) for a few seconds to allow the fuel pump to prime the system. Check for any fuel leaks.
10. **Test Operation:** Start the engine and check for proper fuel pressure and absence of leaks.

Note: Always replace the fuel tank gasket/seal when installing a new fuel module to prevent leaks.

5. OPERATION

The Delphi FG1159 Fuel Module operates as a critical component of the vehicle's fuel delivery system. Upon ignition, the electric fuel pump within the module draws fuel from the tank, filters it, and delivers it under pressure to the engine's fuel rail. The integrated fuel level sensor accurately reports the fuel tank's contents to the vehicle's gauge cluster, ensuring correct fuel level readings.

The module's design, featuring internal springs and a large volume reservoir, contributes to consistent fuel flow and improved performance, especially in low-fuel conditions or during vehicle cornering. Its lower amperage draw reduces the load on the vehicle's electrical system.

6. MAINTENANCE

The Delphi FG1159 Fuel Module is designed for long-term reliability with minimal maintenance. However, proper fuel system hygiene is crucial for its longevity:

- **Fuel Quality:** Use high-quality fuel to prevent contaminants from entering the fuel system.
- **Fuel Filter:** While the module includes an internal filter, some vehicles may have an additional in-line fuel filter that should be replaced according to the vehicle manufacturer's recommended service intervals.
- **Fuel Tank Cleaning:** If the original fuel module failed due to significant contamination, it is advisable to thoroughly clean the fuel tank before installing the new module to prevent premature failure.

7. TROUBLESHOOTING

If you experience issues after installation, consider the following common troubleshooting steps:

- **No Start/Hard Start:**
 - Check electrical connections to the fuel module for looseness or corrosion.
 - Verify that the fuel pump is receiving power (check fuses and relays).

- Confirm fuel pressure at the fuel rail using a pressure gauge.
- Ensure there is sufficient fuel in the tank.
- **Incorrect Fuel Gauge Reading:**
 - Check the electrical connection to the fuel level sensor on the module.
 - Ensure the float arm moves freely and is not obstructed within the tank.
 - Verify the empty float height and float retention match OE specifications.
- **Fuel Leaks:**
 - Inspect all fuel line connections for proper seating and tightness.
 - Ensure the fuel tank gasket/seal is correctly installed and not damaged.

If issues persist, consult a qualified automotive technician or refer to your vehicle's specific diagnostic procedures.

8. SPECIFICATIONS

Attribute	Specification
Brand	Delphi
Model	FG1159
Fit Type	Vehicle Specific Fit
Material	Metal, Plastic
Item Weight	3.1 Pounds
Product Dimensions (L x W x H)	15.7 x 8.3 x 8.3 inches
OEM Part Numbers	30792739-0, 30792742-0, 31274743-0, A46530, E8790M
UPC	689604231357

9. WHAT'S IN THE BOX

- 1x Delphi FG1159 Fuel Pump Module Assembly

10. WARRANTY AND SUPPORT

Delphi products purchased through, from, or on Amazon do not qualify for Delphi's standard LIMITED warranty. When purchased through, from, or on Amazon, any warranty on this product is offered by and is the sole responsibility of the seller identified on the shipment details of your order. Please review all warranties carefully and contact the identified seller for all warranty details and claims.

For technical support or further assistance, please contact the seller from whom you purchased this product. Ensure you have your purchase details and product model number (FG1159) available.

