

FUEL LEVEL SENSOR REPLACEMENT

Removal Procedure

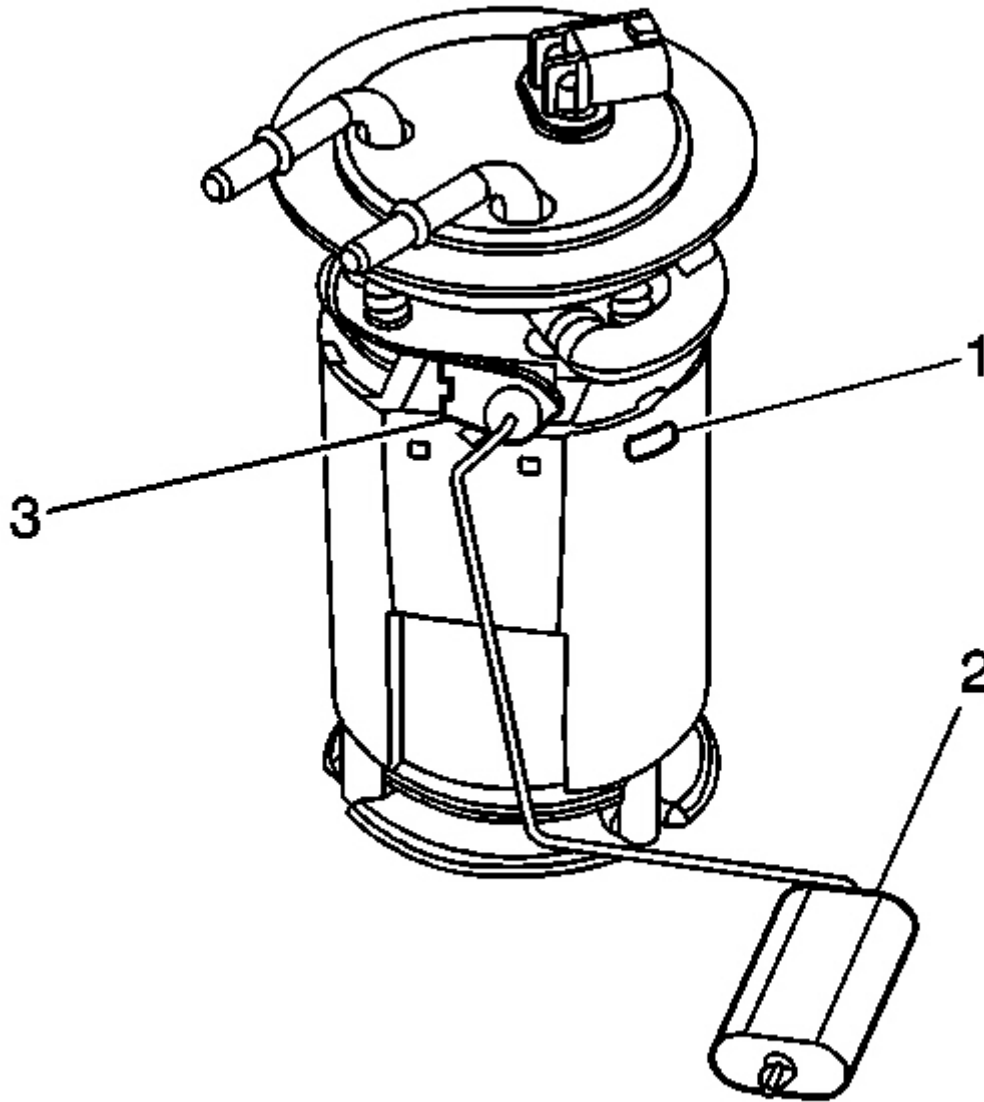


Fig. 105: Identifying Fuel Tank Module
Courtesy of GENERAL MOTORS CORP.

1. Remove the fuel sender assembly. Refer to [Fuel Sender Assembly Replacement](#).

2. Disconnect the fuel pump electrical connector.
3. Remove the retaining clip from the fuel level sensor connector.
4. Disconnect the electrical connector from under the fuel sender cover.
5. Remove the sensor retaining clip.
6. Squeeze the locking tangs and remove the fuel level sensor (3).

Installation Procedure

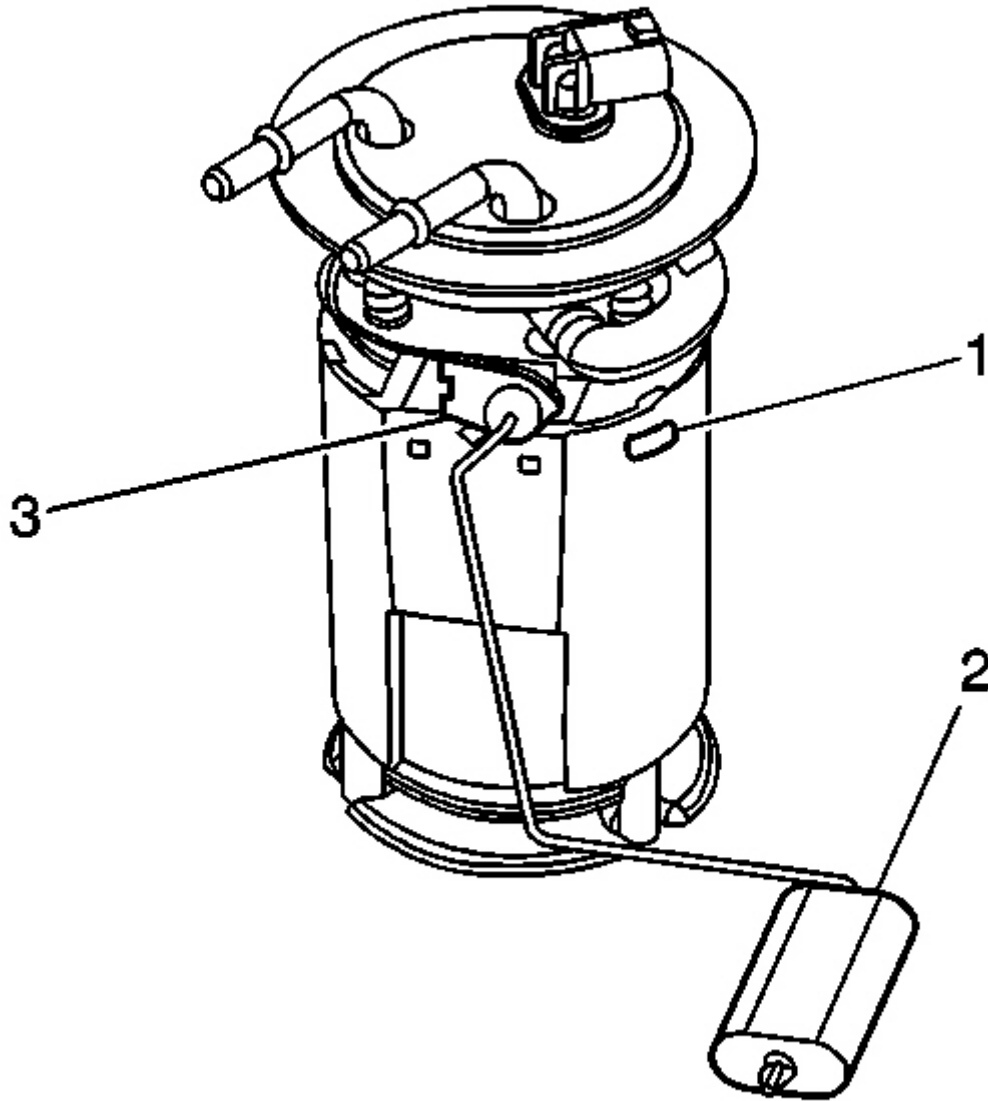


Fig. 106: Identifying Fuel Tank Module
Courtesy of GENERAL MOTORS CORP.

1. Install the fuel level sensor (3).
2. Install the sensor retaining clip.
3. Connect the electrical connector to the fuel level sensor.
4. Install the retaining clip to the fuel level sensor electrical connector.

5. Connect the fuel pump electrical connector.
6. Install the fuel sender assembly. Refer to [Fuel Sender Assembly Replacement](#).

FUEL SENDER ASSEMBLY REPLACEMENT

Tools Required

J 45722 Fuel Tank Sending Unit Wrench. See [Special Tools](#).

Removal Procedure

1. Remove the fuel tank. Refer to [Fuel Tank Replacement \(TrailBlazer EXT, Envoy XL, Envoy XUV\)](#) or [Fuel Tank Replacement \(TrailBlazer, Envoy, Rainier\)](#).

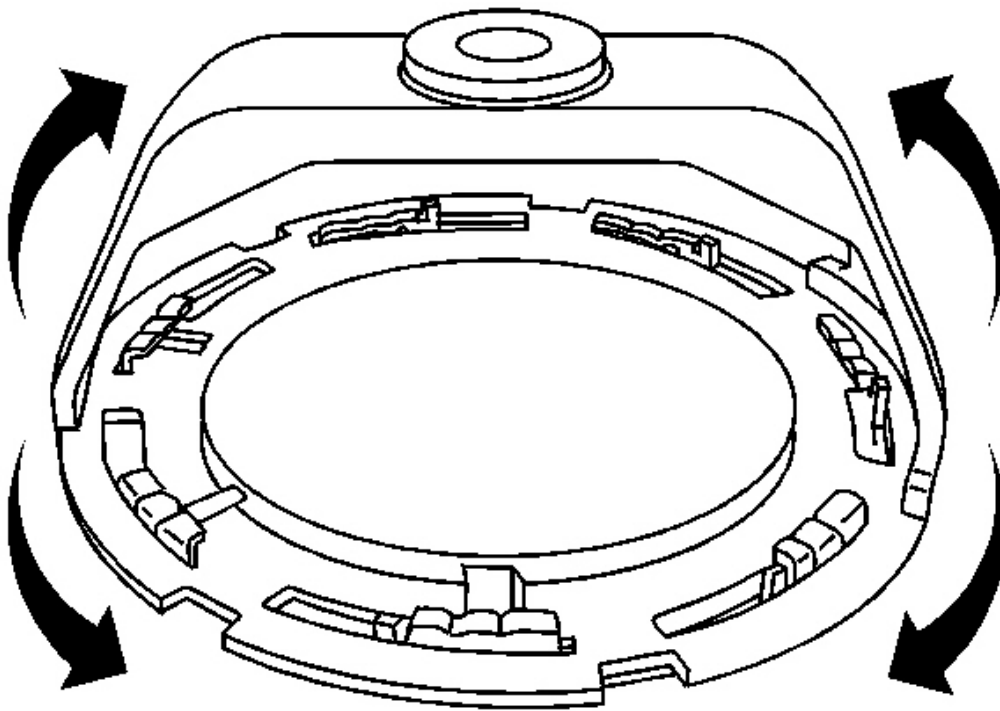


Fig. 107: Identifying Lock Ring
Courtesy of GENERAL MOTORS CORP.

NOTE: Avoid damaging the lock ring. Use only J-45722 to prevent damage to the lock ring.

NOTE: Do Not handle the fuel sender assembly by the fuel pipes. The amount of leverage generated by handling the fuel pipes could damage the joints.

IMPORTANT: Do NOT use impact tools. Significant force will be required to release the lock ring. The use of a hammer and screwdriver is not recommended. Secure the fuel tank in order to prevent fuel tank rotation.

2. Use the **J 45722** and a long breaker-bar in order to unlock the fuel sender lock ring. See **Special Tools**. Turn the fuel sender lock ring in a counterclockwise direction.

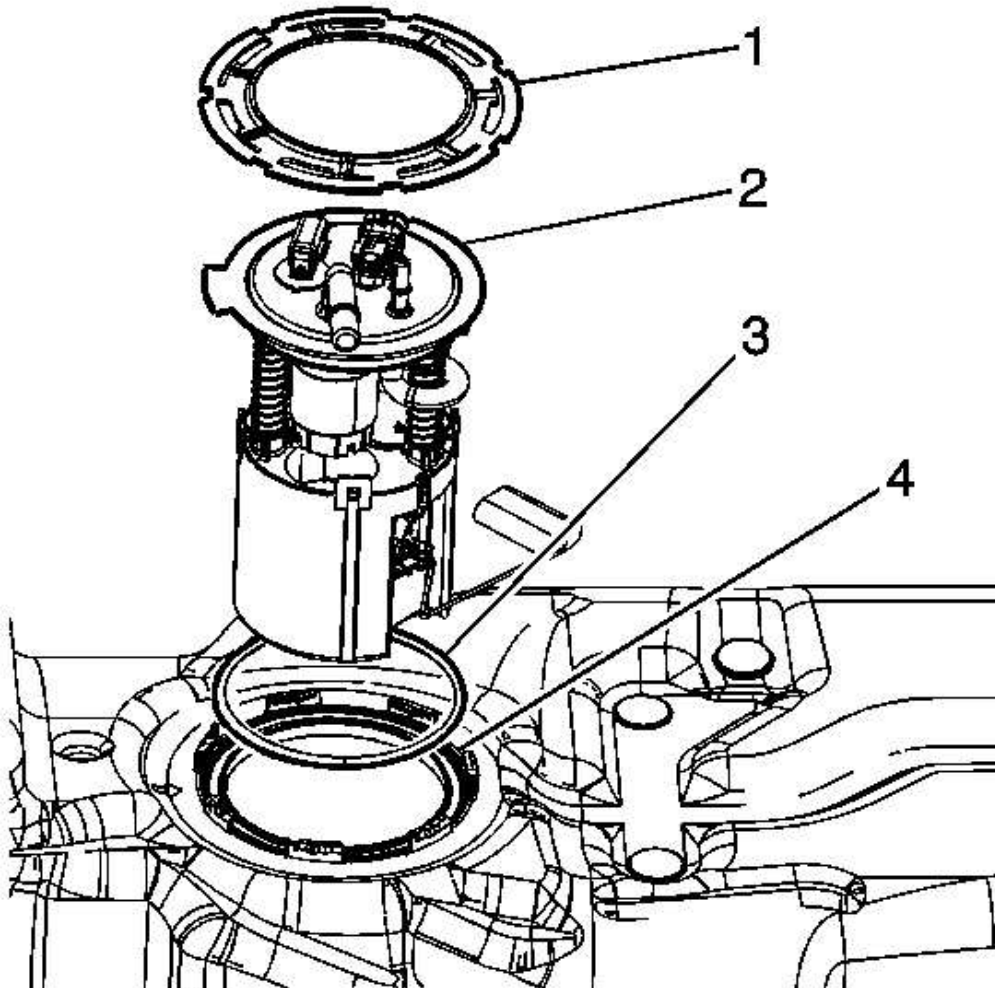


Fig. 108: Fuel Sender Assembly & Seal

Courtesy of GENERAL MOTORS CORP.

CAUTION: Drain the fuel from the fuel sender assembly into an approved container in order to reduce the risk of fire and personal injury. Never store the fuel in an open container.

3. Remove the fuel sender assembly (2) and the seal (3). Discard the seal.
4. Clean the fuel sender sealing surfaces (4).

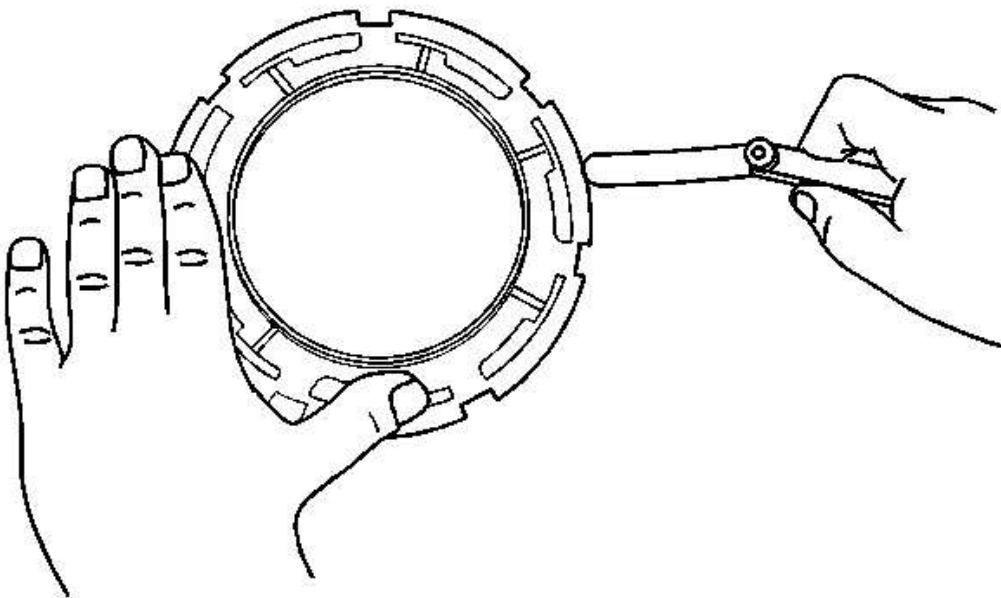


Fig. 109: Checking Lock Ring For Flatness

Courtesy of GENERAL MOTORS CORP.

IMPORTANT:

- Some lock ring were manufactured with **DO NOT REUSE** stamped into them. These lock rings may be reused if they are not damaged or warped.
- Inspect the lock ring for damage due to improper removal or installation procedures. If damage is found, install a **NEW** lock ring.
- Check the lock ring for flatness.

5. Place the lock ring on a flat surface. Measure the clearance between to lock ring and the flat surface using a feeler gage at 7 points.

6. If the warpage is less than 0.41 mm (0.016 in), the lock ring does not require replacement.
7. If the warpage is greater than 0.41 mm (0.016 in), the lock ring must be replaced.

Installation Procedure

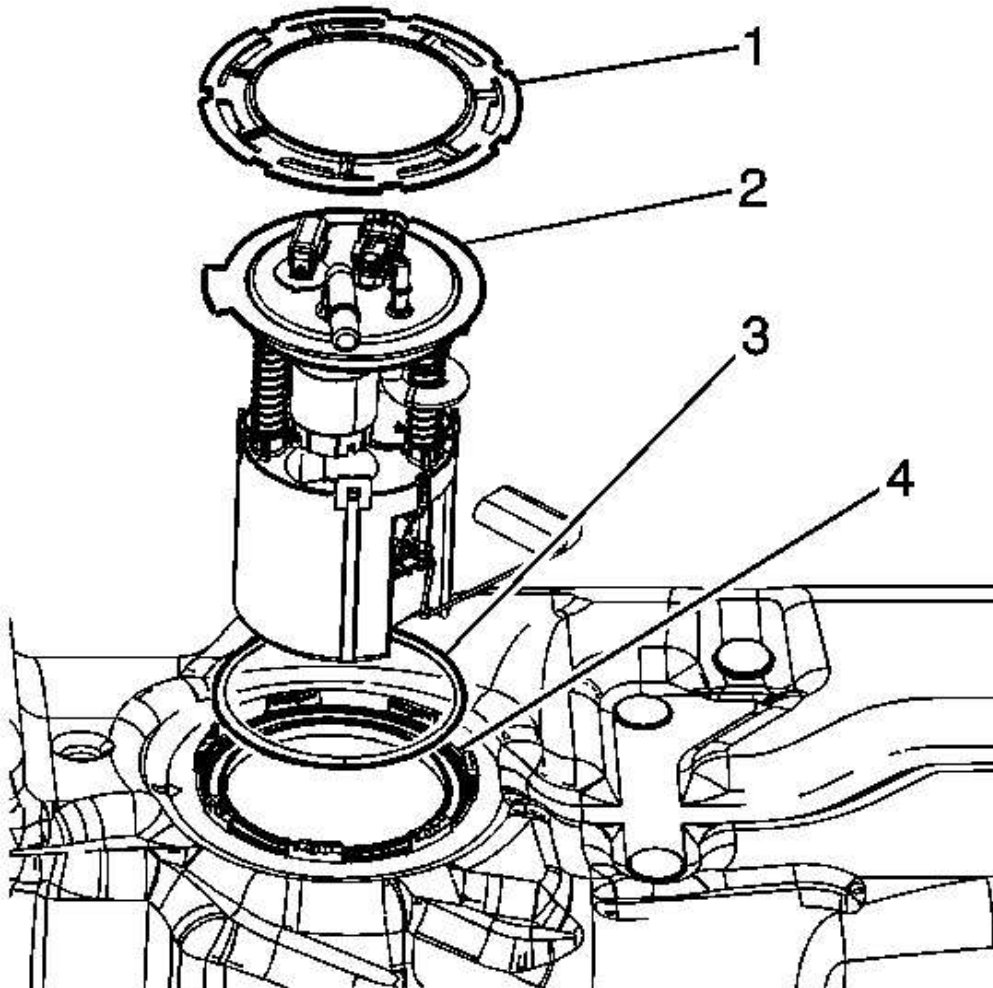


Fig. 110: Fuel Sender Assembly & Seal
Courtesy of GENERAL MOTORS CORP.

IMPORTANT: The fuel pump strainer must be in a horizontal position when the fuel sender is installed in the tank. When installing the fuel sender assembly, assure that the fuel pump strainer does not block full travel of the float

arm.

1. Install the new seal (3) on the fuel tank.
2. Install the fuel sender assembly (2) into the fuel tank.

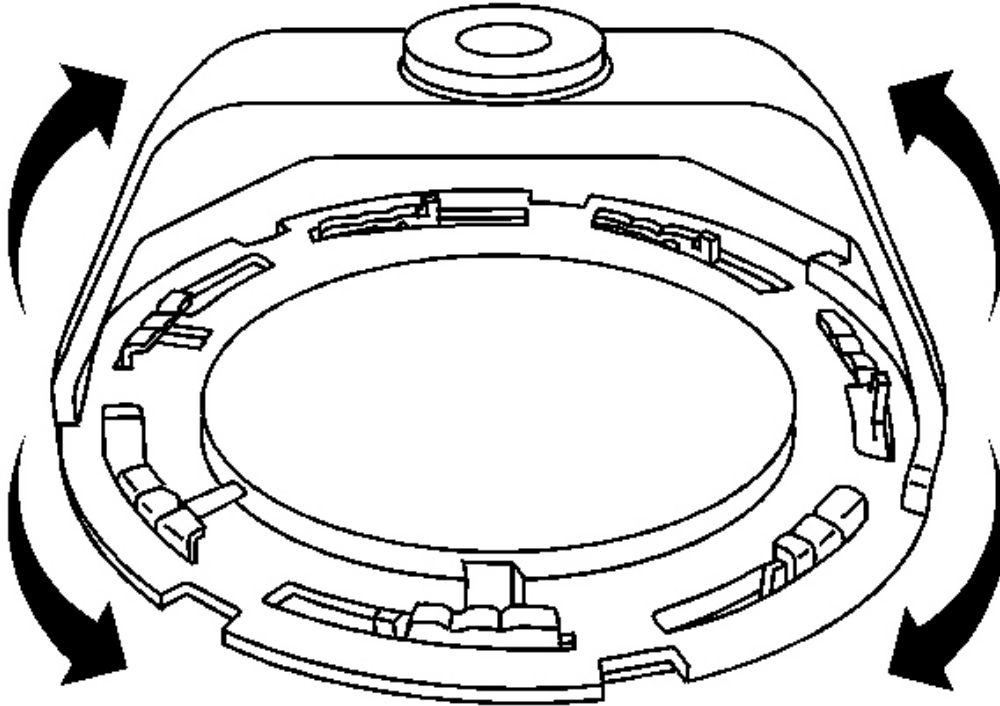


Fig. 111: Identifying Lock Ring

Courtesy of GENERAL MOTORS CORP.

IMPORTANT: Always replace the fuel sender seal when installing the fuel sender assembly. Replace the lock ring if necessary. Do not apply any type of lubrication in the seal groove.

Ensure the lock ring is installed with the correct side facing upward. A correctly installed lock ring will only turn in a clockwise direction.

3. Use the **J 45722** in order to install the fuel sender lock ring. See **Special Tools**. Turn the fuel sender lock ring in a clockwise direction.
4. Install the fuel tank. Refer to **Fuel Tank Replacement (TrailBlazer EXT, Envoy XL, Envoy XUV)** or **Fuel Tank Replacement (TrailBlazer, Envoy, Rainier)**.