



## Installation Instructions

### 18SP566—Install Low-Pressure Regulator Water Seal Kit P/N 23532165

#### Introduction

This kit includes the parts required to repair CNG low-pressure regulator P/N 23528950. The kit consists of the items listed in Table 1.

Qty.	Description
1	Gasket, Water Seal
6	Screw, Heat Exchanger Cover
1	Installation Instructions

Table 1. Components of Kit 23532165

#### Installation



#### CAUTION:

To avoid injury from hot surfaces, allow the engine to cool before removing any component. Wear protective gloves.



#### CAUTION:

To avoid injury from accidental engine start-up while servicing the engine, disconnect/disable the starting system.



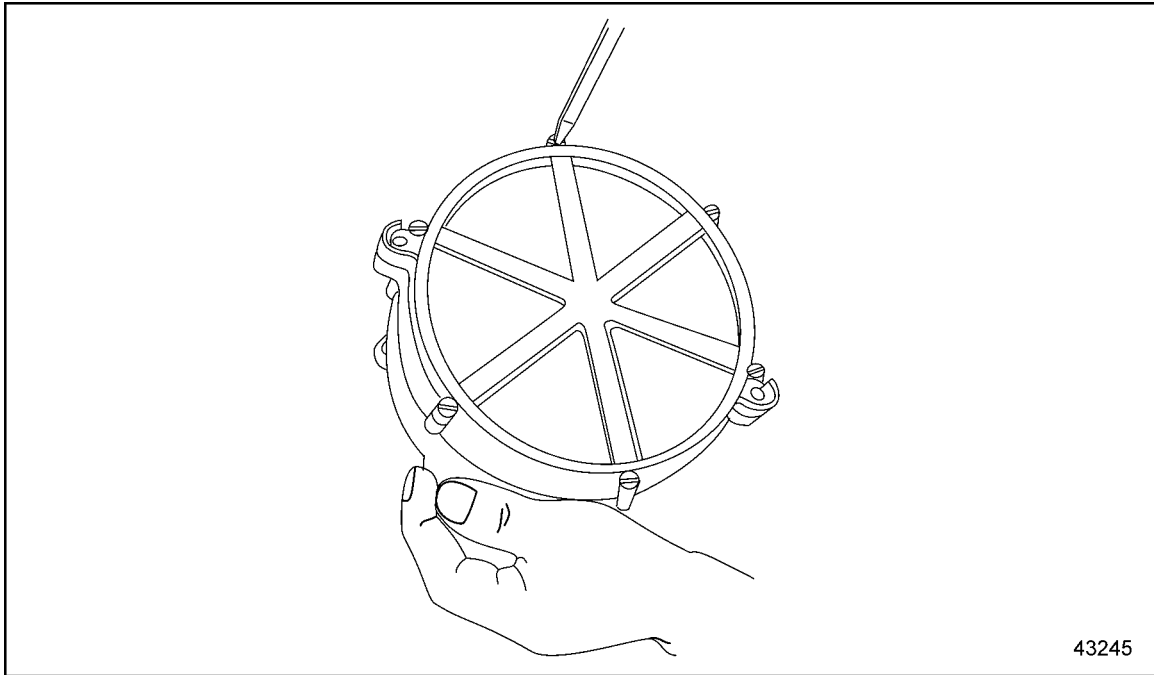
#### CAUTION:

To avoid injury from an explosion of natural gas, the following precautions must be taken:

- Do not smoke when installing or servicing the engine or fuel system.
  - Installation or servicing of natural gas equipment must only be conducted in well ventilated, natural gas-compatible areas. Do not install or service equipment in an enclosed area where ignition sources are present without first ensuring that an undetected gas leak may be safely vented without being ignited.
  - Bleed natural gas lines before installing or servicing any component connected to the fuel lines.
  - Natural gas systems are pressurized. Relieve pressure from any fuel system component prior to installation or service of that component.
- Natural gas is highly flammable and explosive and may be extremely cold (-260 °F [-162 °C]).

1. With the engine shut down and at ambient temperature (cool to the touch), refer to the current *Series 50 Service Manual*, 6SE50 or the current *Series 60 Service Manual*, 6SE483, and depressurize the fuel system. Remove the CNG low-pressure gas regulator.
2. Remove and discard the six (6) cover-retaining screws. See Figure 1.

**NOTE:** The original cover screws are shorter than the new screws and must not be reused.



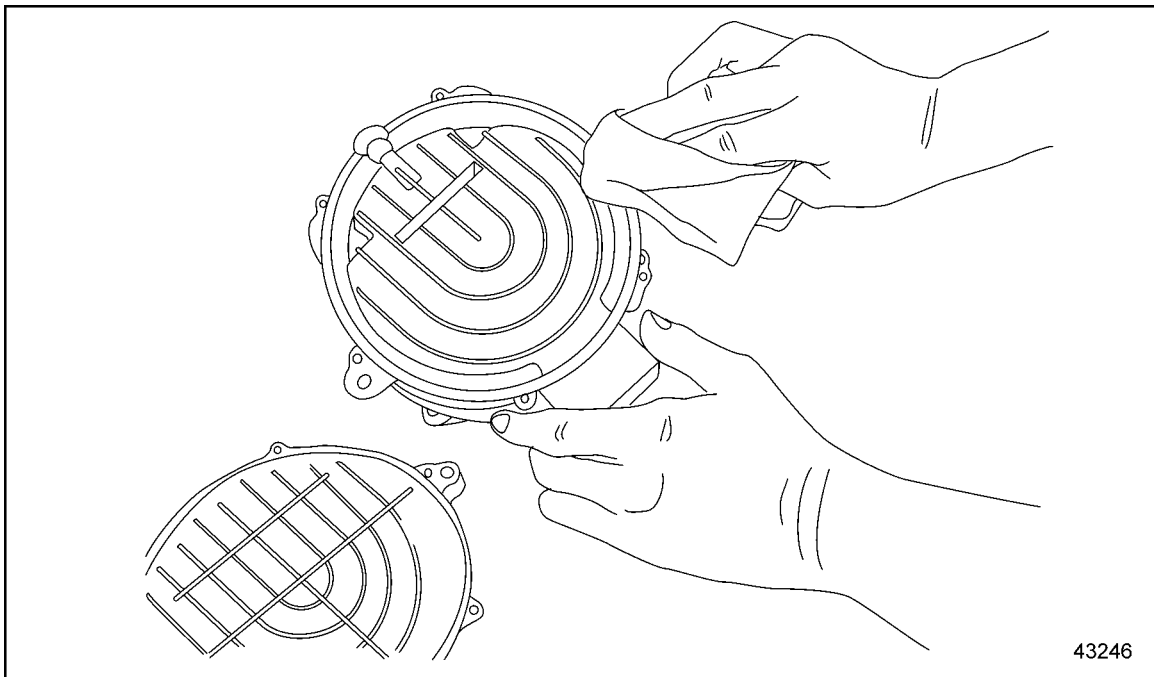
**Figure 1. Remove Cover Screws from Regulator**

3. Carefully separate the cover and gasket from the regulator body and place on a clean work surface.

**NOTICE:**

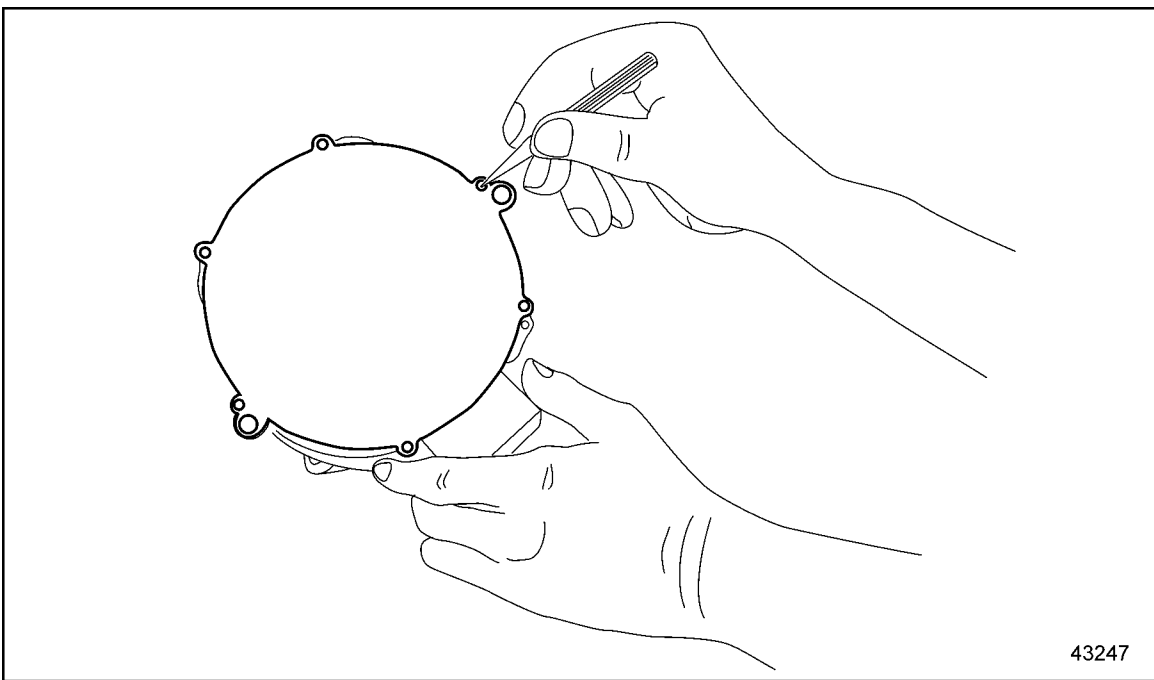
Failure to remove potential contaminants before assembling the regulator may lead to inefficient regulator operation, which could reduce gas pressure, causing engine stalling.

4. Remove the gasket and all residual gasket or sealing material from the regulator cover and body. Clean mating surfaces with pure mineral spirits and wipe dry. See Figure 2.



**Figure 2. Clean Regulator Cover and Body Mating Surfaces**

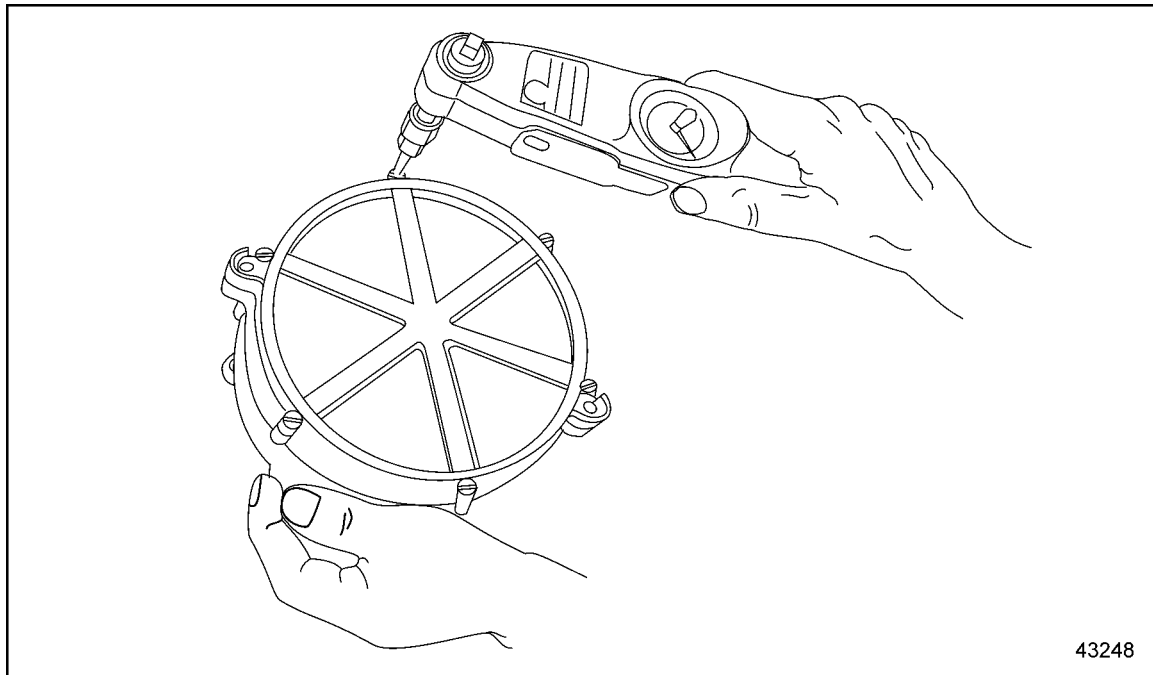
5. Inspect cover and body sealing surfaces for cracks or corrosion. If cracks or corrosion are found, the unit is not repairable and must be replaced.
6. If no cracks or corrosion are found, install the new gasket onto the regulator body, aligning the index holes as shown. See Figure 3.



**Figure 3. Align Gasket Index Holes with Regulator Body**

7. Install the cover onto the body, aligning the cover with the proper boltholes. Install the six (6) new screws and tighten evenly until bolt heads contact the cover plate.

8. Using a criss-cross pattern, torque screws to 30 lb-in (3.9 N•m). See Figure 4.



**Figure 4 Torque Cover Screws to Specification**

9. Refer to the current *Series 50 Service Manual*, 6SE50 or the current *Series 60 Service Manual*, 6SE483, and install the CNG gas regulator onto the engine.

11. Start the engine and check for proper regulator valve operation.

10. After installation, pressurized the fuel system and check for gas leaks. Repair leaks as required.

12. Shut down the engine.

**DETROIT DIESEL**



13400 Outer Drive, West, Detroit, Michigan 48239-4001  
Telephone: 313-592-5000  
www.detroitdiesel.com

**18SP566 Page 4 of 4**