

FUEL SYSTEM PRESSURE RELEASE

1. Remove the fuel fill cap.

NOTE: If equipped with a capless fuel system, insert funnel or equivalent into capless unit to release pressure.

2. Remove the fuel pump relay from the Auxiliary PDC.

3. Start and run the engine until it stalls.

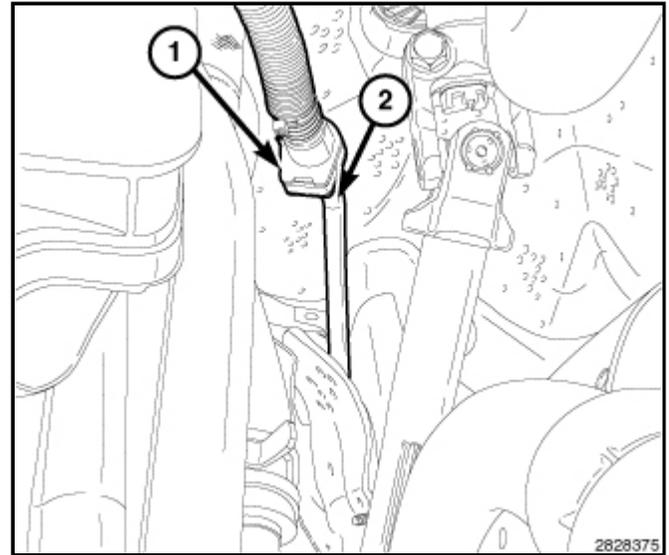
4. Attempt restarting the engine until it will no longer run.

5. Turn the ignition key to the OFF position.

6. Place a rag or towel below the fuel supply line quick-connect fitting (2) located near the cowl.

7. Disconnect the fuel supply line quick-connect fitting at the fuel supply line (1).

8. Return the fuel pump relay to the Auxiliary PDC.



NOTE: One or more Diagnostic Trouble Codes (DTC) may have been stored in the PCM memory due to fuel pump fuse removal. A diagnostic scan tool must be used to erase a DTC.

DRAINING FUEL TANK

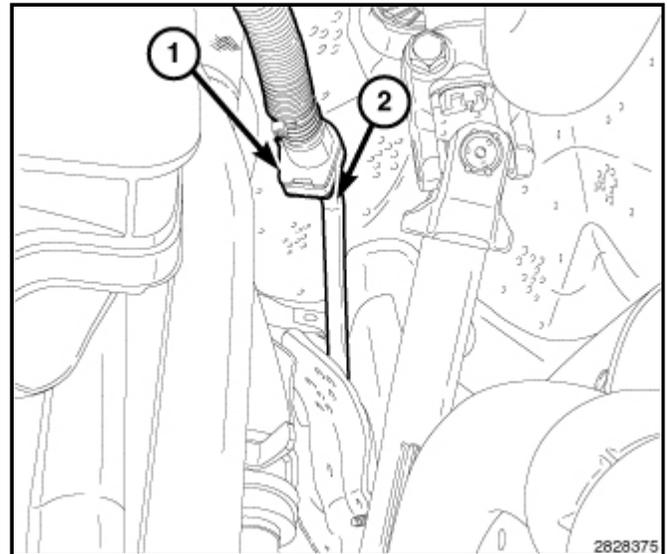
Conventional Procedure

WARNING: The fuel system is under constant high pressure even with engine off. Until the fuel pressure has been properly released from the system, do not attempt to open the fuel system. Do not smoke or use open flames/sparks when servicing the fuel system. Wear protective clothing and eye protection. Make sure the area in which the vehicle is being serviced is in a well ventilated area and free of flames/sparks. Failure to comply may result in serious or fatal injury.

WARNING: No sparks, open flames or smoking. Risk of poisoning from inhaling and swallowing fuel. Pour fuel only into appropriately marked OSHA approved containers. Wear protective clothing. Risk of injury to eyes and skin from contact with fuel.

Due to a one-way check valve installed into the fuel fill fitting at the tank, the tank cannot be drained at the fuel fill cap.

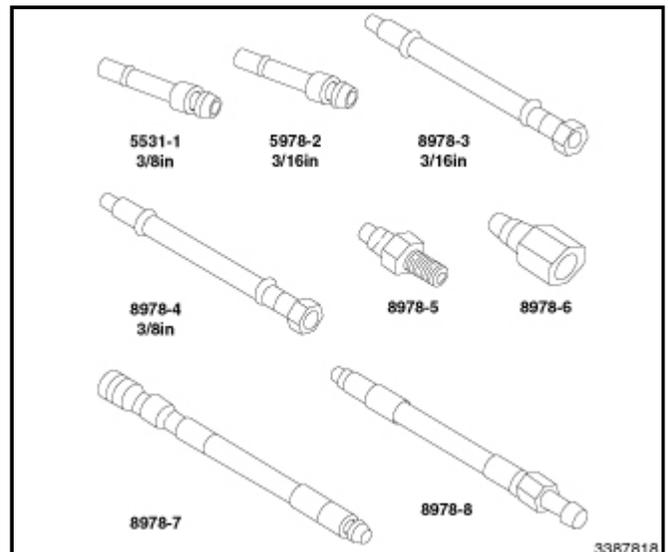
1. Perform the fuel system pressure release procedure
2. Disconnect the fuel supply line at the quick-connect fitting (1) near the cowl



3. Install the appropriate fuel line adapter fitting from the [Decay Tool, Fuel 8978A](#) to the fuel supply line. Route the opposite end of this hose to an OSHA approved fuel storage tank such as the JohnDow Gas Caddy 320-FC-P30-A or equivalent.

NOTE: Activation of the fuel pump module may time out and need to be restarted several times to completely drain the fuel tank.

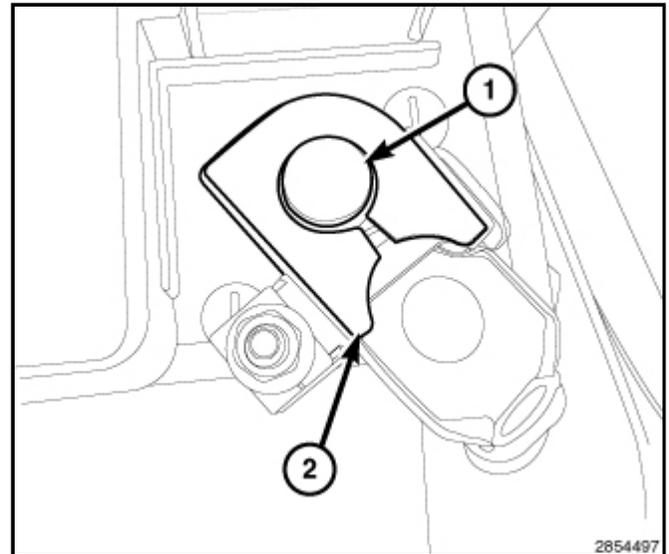
4. Using a diagnostic scan tool, activate the fuel pump module until the fuel tank has been evacuated.



Alternative Procedure

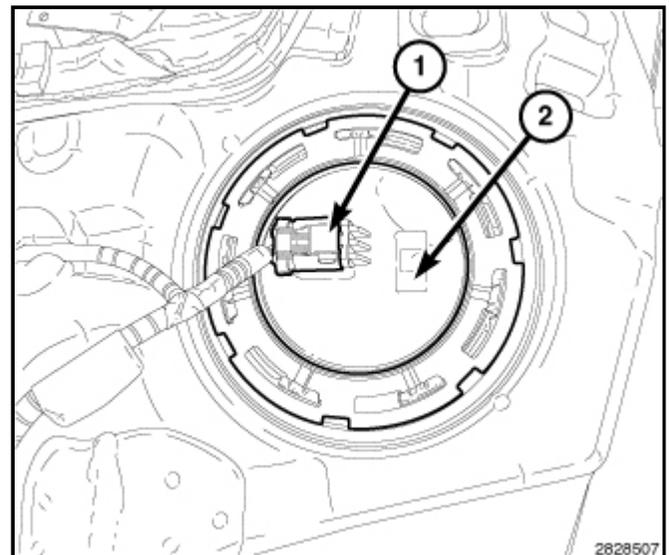
NOTE: If the electric fuel pump is not operating, the fuel tank must be removed and drained through the fuel pump module opening of the fuel tank.

1. Disconnect and isolate the negative battery cable (2).
2. Raise and support the vehicle.
3. Remove the fuel tank



CAUTION: Do not allow the float arm of the fuel pump module to come in contact with any part of the fuel tank during removal or installation, damage to the float arm and fuel level sending card may result.

4. Disconnect the fuel pump module electrical connector (1).
5. Remove the fuel pump module (2)
6. Position a 3/8" hose into the fuel pump module opening of the fuel tank.



7. Attach the opposite end of this hose to an OSHA approved fuel storage tank such as the JohnDow Gas Caddy 320-FC-P30-A or equivalent.
8. Using the gas caddy, evacuate the fuel tank.

REMOVAL

MAIN FUEL PUMP MODULE

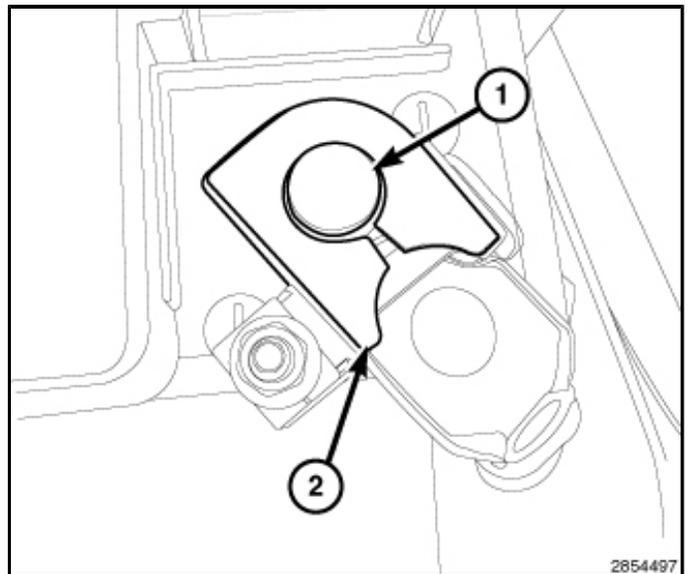
WARNING: The fuel system is under constant high pressure even with engine off. Until the fuel pressure has been properly released from the system, do not attempt to open the fuel system. Do not smoke or use open flames/sparks when servicing the fuel system. Wear protective clothing and eye protection. Make sure the area in which the vehicle is being serviced is in a well ventilated area and free of flames/sparks. Failure to comply may result in serious or fatal injury.

WARNING: No sparks, open flames or smoking. Risk of poisoning from inhaling and swallowing fuel. Pour fuel only into appropriately marked OSHA approved containers. Wear protective clothing. Risk of injury to eyes and skin from contact with fuel.

1. Perform the fuel system pressure release procedure (Refer to 14 - Fuel System/Fuel Delivery - Standard Procedure).

CAUTION: If the fuel pump module is not operating or the fuel level sending unit is not operating and the fuel level cannot be determined, the fuel tank must be removed prior to draining.

2. Perform the fuel tank draining procedure (Refer to 14 - Fuel System/Fuel Delivery - Standard Procedure).
3. Disconnect and isolate the negative battery cable (2).

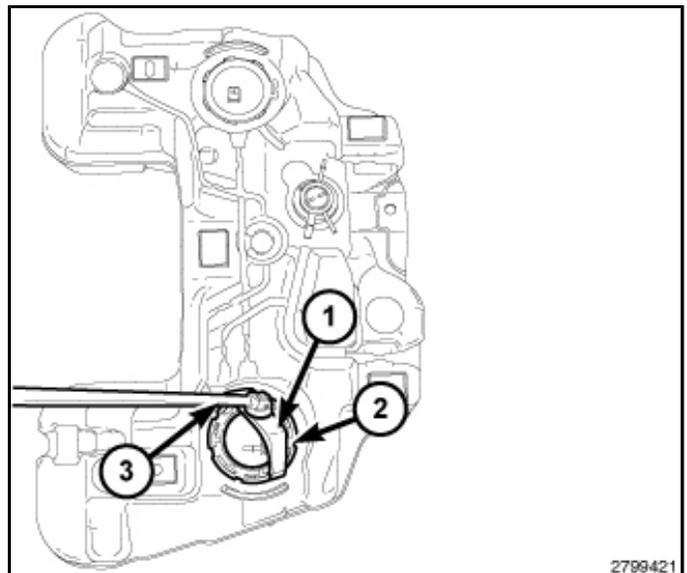


4. Remove the fuel tank (Refer to 14 - Fuel System/Fuel Delivery/TANK, Fuel - Removal).

NOTE: Prior to removing the main fuel pump module, use compressed air to remove any accumulated dirt and debris from around the fuel tank opening.

5. Position the SAE Fuel Pump Lock Ring Wrench 9340 (1) into the notches on the outside edge of the main fuel pump module lock ring (2).
6. Install a ½ inch drive breaker bar (3) onto the SAE Fuel Pump Lock Ring Wrench 9340 (1).

NOTE: The main fuel pump module will spring up slightly when lock ring is removed.



7. Rotate the breaker bar counterclockwise and remove the lock ring.

CAUTION: An indexing arrow is located on top of the main fuel pump module to clock it's position into the fuel tank, note it's location for reassembly.

NOTE: The main fuel pump module has to be properly located in the fuel tank for the fuel level gauge to work properly.

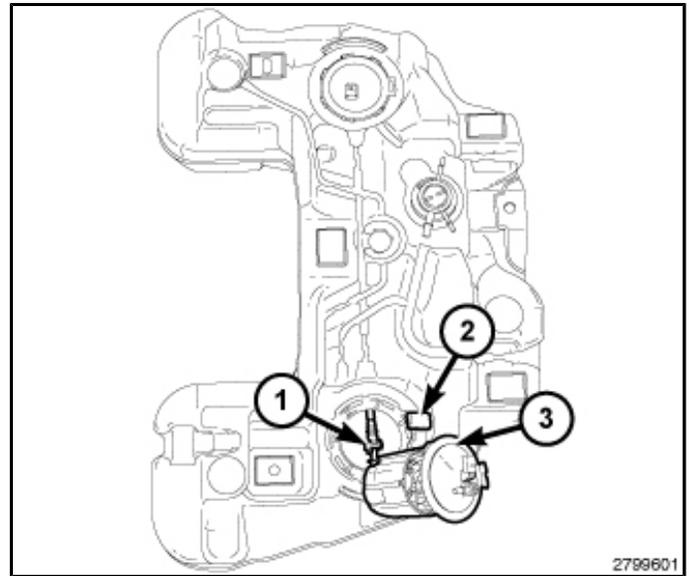
8. Mark the main fuel pump module orientation.

CAUTION: Do not allow the float arm of the main fuel pump module to come in contact with any part of the fuel tank during removal or installation, damage to the float arm and fuel level sending card may result.

9. Using caution not to bend the float arm (2), lift the main fuel pump module (3) out of the fuel tank enough to gain access to the auxiliary fuel pump module supply line connection (1) and disconnect the supply line.
10. Tip the main fuel pump module on its side to drain the remaining fuel from the reservoir and remove the main fuel pump module.

CAUTION: Whenever the fuel pump module is serviced, the rubber O-ring seal must be replaced.

11. Remove and discard the rubber O-ring seal.



AUXILIARY FUEL PUMP MODULE

WARNING: The fuel system is under constant high pressure even with engine off. Until the fuel pressure has been properly released from the system, do not attempt to open the fuel system. Do not smoke or use open flames/sparks when servicing the fuel system. Wear protective clothing and eye protection. Make sure the area in which the vehicle is being serviced is in a well ventilated area and free of flames/sparks. Failure to comply may result in serious or fatal injury.

WARNING: No sparks, open flames or smoking. Risk of poisoning from inhaling and swallowing fuel. Pour fuel only into appropriately marked OSHA approved containers. Wear protective clothing. Risk of injury to eyes and skin from contact with fuel.

1. Remove the main fuel pump module (Refer to 14 - Fuel System/Fuel Delivery/MODULE, Fuel Pump/Removal).

NOTE: Prior to removing the auxiliary fuel pump module, use compressed air to remove any accumulated dirt and debris from around fuel tank opening.

2. Position the SAE Fuel Pump Lock Ring Wrench 9340 (1) into the notches on the outside edge of the auxiliary fuel pump module lock ring (2).
3. Install a ½ inch drive breaker bar (3) onto the SAE Fuel Pump Lock Ring Wrench 9340 (1).

NOTE: The auxiliary fuel pump module will spring up slightly when the lock ring is removed.

4. Rotate the breaker bar counterclockwise and remove the lock ring.

CAUTION: An indexing arrow is located on top of the auxiliary fuel pump module to clock it's position into the fuel tank, note it's location for reassembly.

NOTE: The auxiliary fuel pump module has to be properly located in the fuel tank for the fuel level gauge to work properly.

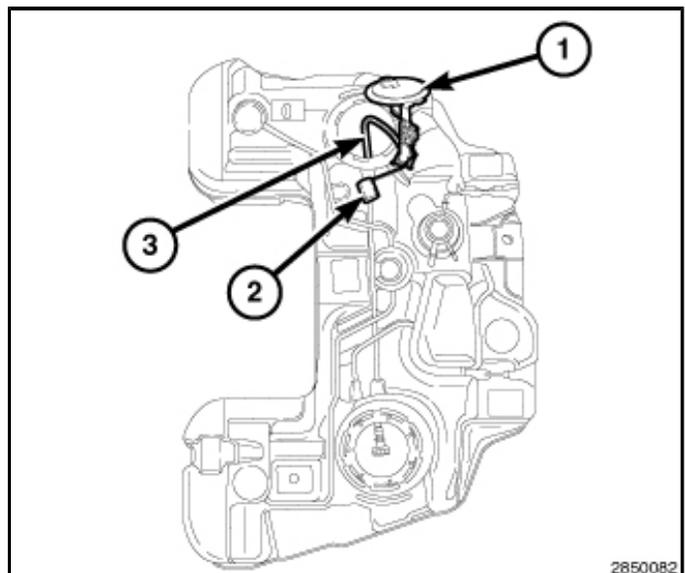
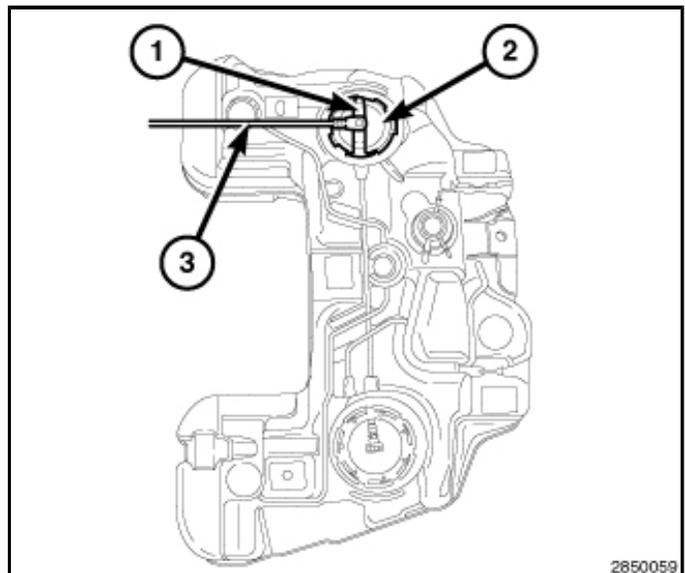
5. Mark the auxiliary fuel pump module orientation.

CAUTION: Do not allow the float arm of the auxiliary fuel pump module to come in contact with any part of the fuel tank during removal or installation, damage to the float arm and fuel level sending card may result.

6. Using caution not to bend the float arm (2), lift the auxiliary fuel pump module (1) and the auxiliary fuel pump module supply line (3) out of the fuel tank as an assembly.

CAUTION: Whenever the auxiliary fuel pump module is serviced, the rubber O-ring seal must be replaced.

7. Remove and discard the rubber O-ring seal.



INSTALLATION

AUXILIARY FUEL PUMP MODULE

CAUTION: Whenever the auxiliary fuel pump module is serviced, the rubber O-ring seal must be replaced.

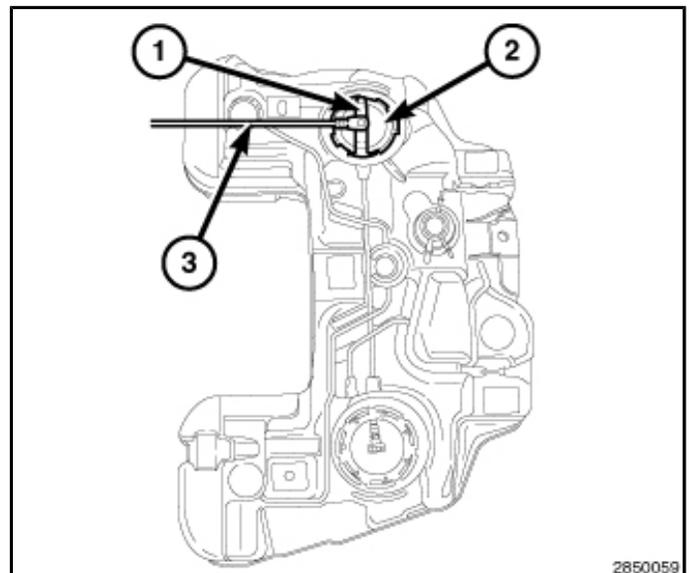
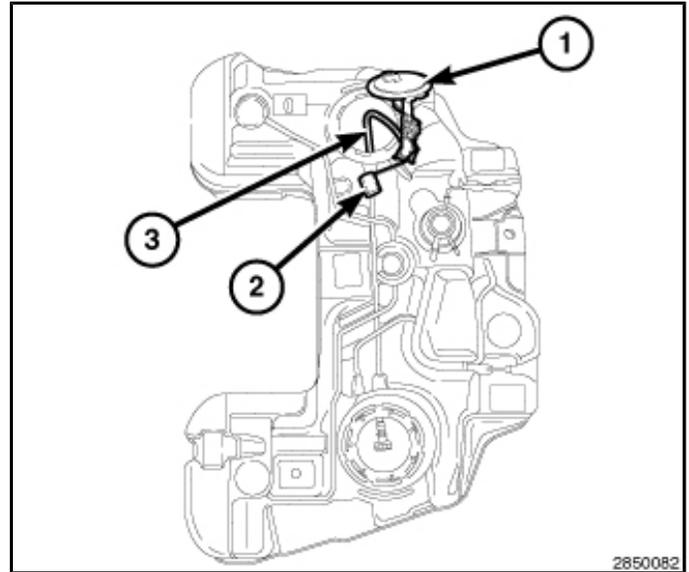
1. Position a new rubber O-ring seal onto the fuel tank flange.

CAUTION: Do not allow the float arm of the auxiliary fuel pump module to come in contact with any part of the fuel tank during removal or installation, damage to the float arm and fuel level sending card may result.

2. Using caution not to bend the float arm (2), lower the auxiliary fuel pump module (1) and the auxiliary fuel pump module supply line (3) into the fuel tank as an assembly.

NOTE: The auxiliary fuel pump module has to be properly located in the fuel tank for the fuel level gauge to work properly.

3. Rotate the auxiliary fuel pump module until the embossed alignment arrow points to the center alignment mark or the same position as noted during removal. This step must be performed to prevent the float from contacting the side of the fuel tank.
4. Position the lock ring (2) over top of the auxiliary fuel pump module.
5. Install the SAE Fuel Pump Lock Ring Wrench 9340 (1) into the notches on the outside edge of lock ring (2).
6. Install a ½ inch drive breaker bar (3) onto the SAE Fuel Pump Lock Ring Wrench 9340 (1).
7. Rotate the breaker bar clockwise until all seven notches have engaged.
8. Install the main fuel pump module. (Refer to 14 - Fuel System/Fuel Delivery/MODULE, Fuel Pump/Installation)



MAIN FUEL PUMP MODULE

CAUTION: Whenever the fuel pump module is serviced, the rubber O-ring seal must be replaced.

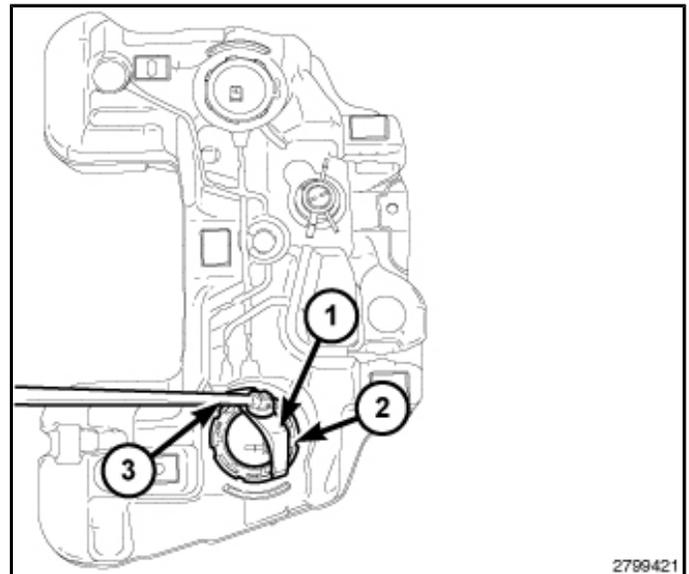
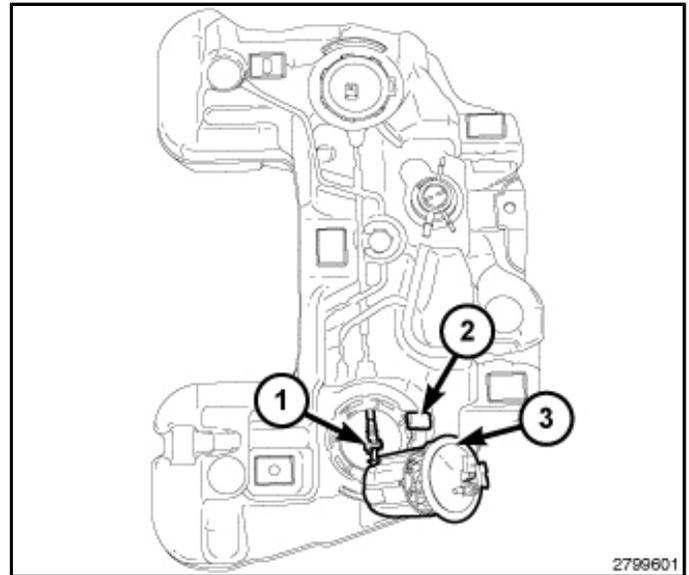
1. Position a new rubber O-ring seal onto the fuel tank flange.

CAUTION: Do not allow the float arm of the main fuel pump module to come in contact with any part of the fuel tank during removal or installation, damage to the float arm and fuel level sending card may result.

2. Using caution not to bend the float arm (2), lower the main fuel pump module (3) into the fuel tank enough to gain access to the auxiliary fuel pump module supply line connection (1) and connect the supply line.

CAUTION: An indexing arrow is located on top of the main fuel pump module to clock it's position into the fuel tank. The fuel pump module must be installed in the same position as removed.

3. Rotate the main fuel pump module until the embossed alignment arrow points to the center alignment mark or the same position as noted during removal. This step must be performed to prevent the float from contacting the side of the fuel tank.
4. Position the lock ring (2) over top of the main fuel pump module.
5. Install the SAE Fuel Pump Lock Ring Wrench 9340 (1) into the notches on the outside edge of lock ring (2).
6. Install a ½ inch drive breaker bar (3) onto the SAE Fuel Pump Lock Ring Wrench 9340 (1).
7. Rotate the breaker bar clockwise until all seven notches have engaged.



8. Install the fuel tank (Refer to 14 - Fuel System/Fuel Delivery/TANK, Fuel - Installation).
9. If removed, connect the fuel line quick-connect fitting at the fuel rail.
10. Connect the negative battery cable (2).
11. Start the engine and check for leaks at all fuel system connections.

