

FUEL TANK

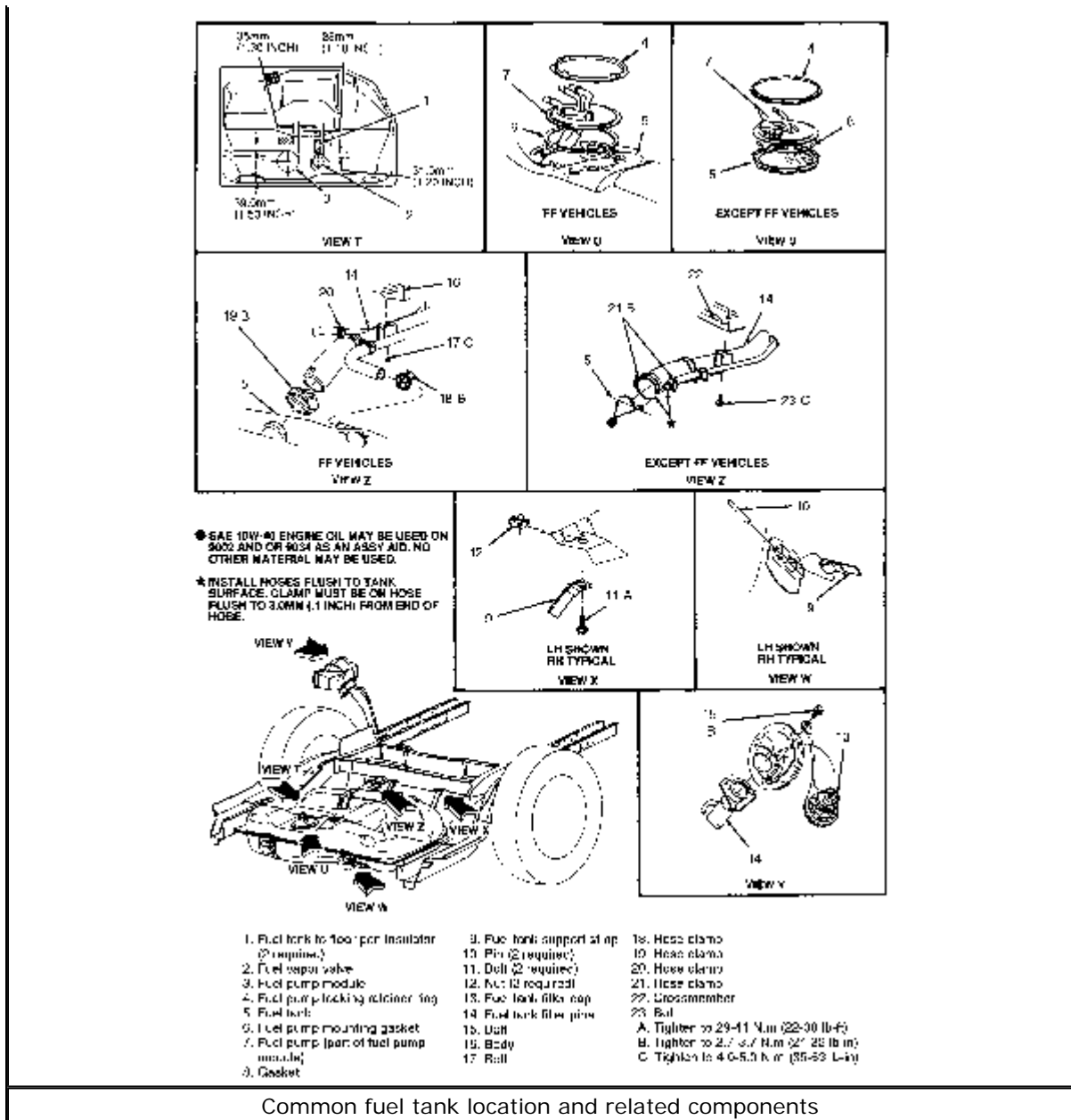
REMOVAL & INSTALLATION

1. Disconnect the negative battery cable.
2. Relieve the fuel system pressure.
3. Siphon or pump the fuel from the fuel tank, through the filler neck, into a suitable container.

There are reservoirs inside the fuel tank to maintain fuel near the fuel pickup during cornering and under low fuel operating conditions. These reservoirs could block siphon tubes or hoses from reaching the bottom of the tank. A few repeated attempts using different hose orientations can overcome this situation.

4. Raise and safely support the vehicle.
5. Loosen the filler pipe and vent hose clamps at the tank and remove the hoses from the tank.
6. Place a safety support under the fuel tank and remove the bolts from the rear of the fuel tank straps. The straps are hinged at the front and will swing aside.
7. Partially remove the tank. Remove the hairpin clips from the push connect fitting and disconnect the fuel lines. Disconnect the electrical connector from the fuel sender/pump assembly.
8. Remove the fuel tank from the vehicle.





[Click to enlarge](#)

To install:

If the fuel pump has been removed, the O-ring seal on unleaded gasoline vehicles, or gasket on flexible fuel vehicles must be replaced.

9. Before installing the fuel tank, check the following:

1. Check the fuel pump for leaks.
2. Make sure the evaporative emission valve is installed completely on the fuel tank top.
3. Make all of the required fuel line, fuel return line, vapor vent and electrical connections which will be inaccessible after the fuel tank is installed. Route lines through the clip on the fuel tank.

10. Raise the fuel tank into proper position in the vehicle.

11. Bring the fuel tank straps around the tank and start the retaining bolt. Align the

tank as far forward in the vehicle as possible while securing the retaining bolts.

If equipped with a heat shield, make sure it is installed with the straps and positioned correctly on the tank.

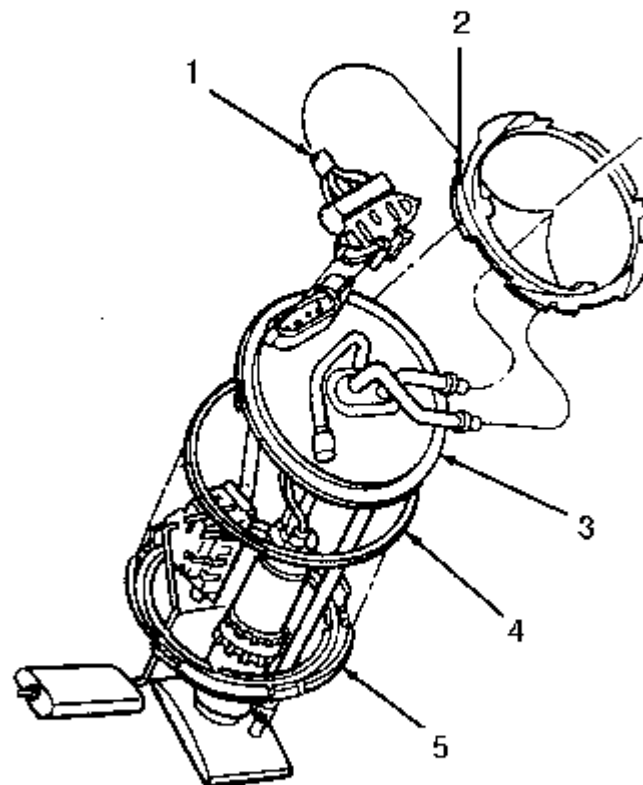
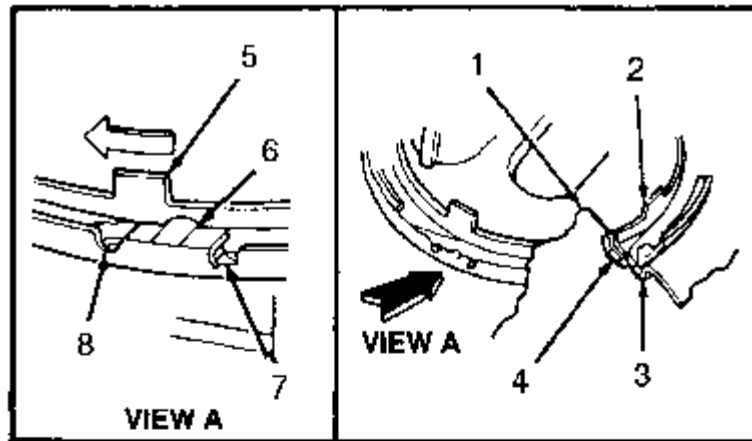
12. Check the hoses and wiring mounted on the tank top, to make sure they are correctly routed and will not be pinched between the tank and the body.
13. Tighten the fuel tank strap retaining bolts to 22-30 ft. lbs. (29-41 Nm).
14. Install the fuel filler hoses which connect the fuel tank to the fuel tank filler pipe. Install the hose pipes, then tighten the clamps to 24-32 inch lbs. (2.7-3.7 Nm). Refill the fuel tank.
15. Check all connections for leaks, then connect the negative battery cable.
16. Start the engine, then recheck all of the connections for leaks.

SENDING UNIT REPLACEMENT

Except 3.0L Flexible Fuel (FF) Vehicles

1. Disconnect the negative battery cable.
2. Relieve the fuel system pressure. For details, please refer to the procedure located earlier in this section.
3. Drain the fuel from the fuel tank by inserting Rotunda Fuel Tanker Adapter Hose 034-00012 or equivalent into the fuel tank through the fuel tank filler pipe, then remove the fuel tank with Rotunda Fuel Storage Tanker 034-00002 or equivalent.
4. Remove the fuel tank filler pipe:
 1. Open the filler door to remove the three screws securing the fuel tank filler pipe to the pocket. Mark the fuel tank filler cap tether location.
 2. Raise and safely support the vehicle.
 3. Loosen the filler and vent hose on the fuel tank filler pipe.
 4. Remove the bolt securing the fuel tank filler pipe assembly to the underbody of the vehicle, then remove the fuel tank filler pipe.
5. Support the fuel tank, then remove the fuel tank straps. Partially lower the tank, then remove the fuel lines, electrical connectors and vent lines from the tank. Remove the fuel tank and place it on a work bench.
6. Remove any accumulated dirt from around the fuel pump retaining flange so that it will not enter the fuel tank during removal and installation.
7. Turn the fuel pump locking ring counterclockwise using Fuel Tank Sender Wrench D84P-9275-A or equivalent, then remove the lock ring.
8. Remove the fuel tank sending unit/pump assembly from the fuel tank, then discard the flange gasket.





1. Fuel pump
2. Fuel pump locking retainer ring
3. Retainer ring (part of 9C385)
4. O-ring
5. Locating tabs (part of 9C385)
6. Tab (part of 9C385)
7. Stop (part of 9C385)
8. Detent (part of 9C385)

View of the fuel tank sending unit and pump assembly-except 3.0L FF vehicles

[Click to enlarge](#)

To install:

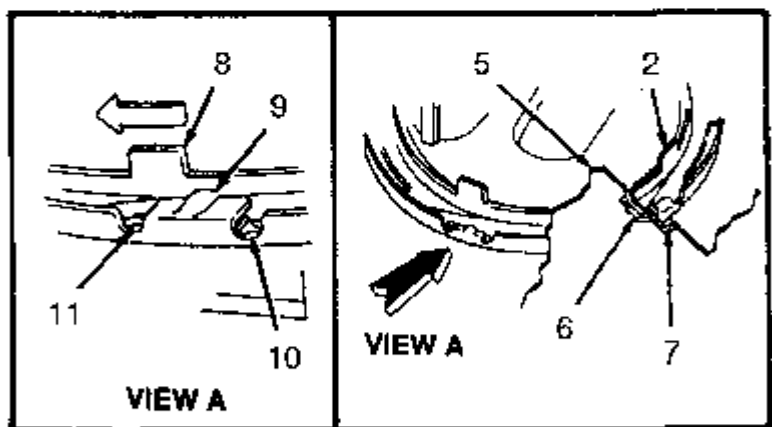
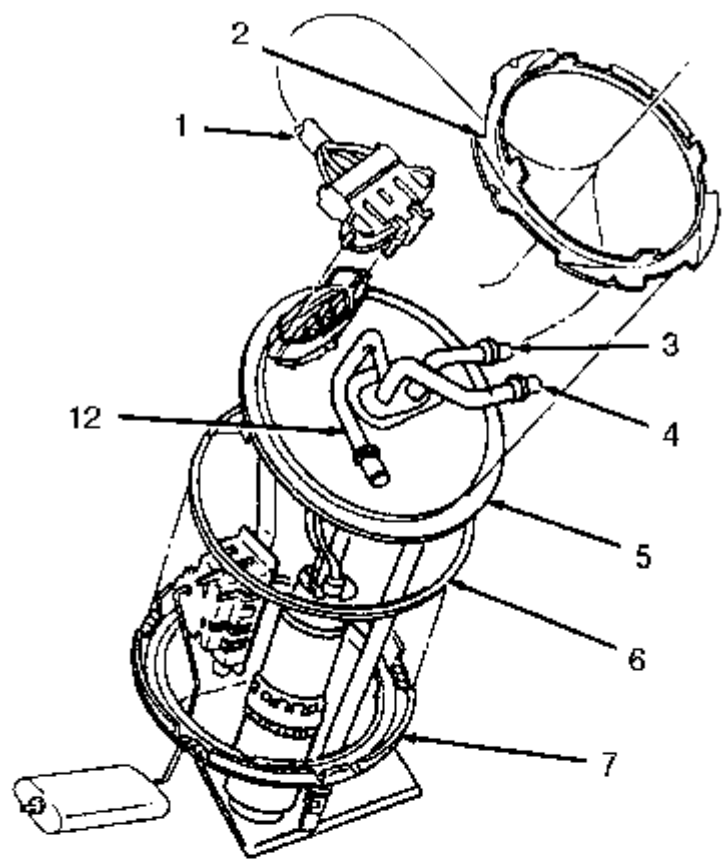
9. Clean the sending unit/pump mounting flange and fuel tank mating surfaces and seal ring groove.

10. Put a light coating of grease on the new seal gasket to hold it in place during assembly and install it in the fuel ring groove.
11. Install the fuel pump and sender assembly carefully to be sure that the filter is not damaged. Make sure the locating keys are in the keyways and the seal gasket remains in place.
12. Hold the assembly in place and install the lock ring making sure all locking tabs are under the tank lock ring tabs. Tighten the lock ring by turning it clockwise using Fuel Tank Sender Wrench D84P-9275-A or equivalent until it is up against the stops.
13. Remove the fuel tank from the bench and to the vehicle, then support the fuel tank while connecting the fuel lines, vent line and electrical connectors to the appropriate places. Install the fuel tank and secure it with the tank support straps.
14. Lower the vehicle.
15. Install the fuel tank filler pipe:
 1. Position the fuel tank filler pipe in the body location.
 2. Connect the hoses with clamps to the fuel tank filler pipe.
 3. Install the underbody fuel tank filler pipe assembly bolt, then tighten the bolt to 36-53 inch lbs. (4-6 Nm), then lower the vehicle.
 4. Install the fuel tank filler cap to the tether location, then install the three retaining screws.
16. Fill the tank with a minimum of 10 gallons of fuel, then check for leaks.
17. Connect the negative battery cable.
18. Connect a suitable fuel pressure gauge. Turn the ignition switch to the ON position 5-10 times, leaving it on for 3 seconds at a time, until the pressure gauge reads at least 30 psi (207 kPa). Check for leaks at the fittings.
19. Remove the pressure gauge, start the engine and recheck for leaks.

3.0L Flexible Fuel (FF) Engine

1. Disconnect the negative battery cable.
2. Depressurize the fuel system. For details, please refer to the procedure located earlier in this section.





1. Electrical connector
2. Fuel pump locking retainer ring
3. Fuel return
4. Fuel supply
5. Fuel pump
6. Fuel pump mounting gasket
7. Retainer ring
8. Locating tabs
9. Tab
10. Stop
11. Detent
12. Fuel tank drain tube

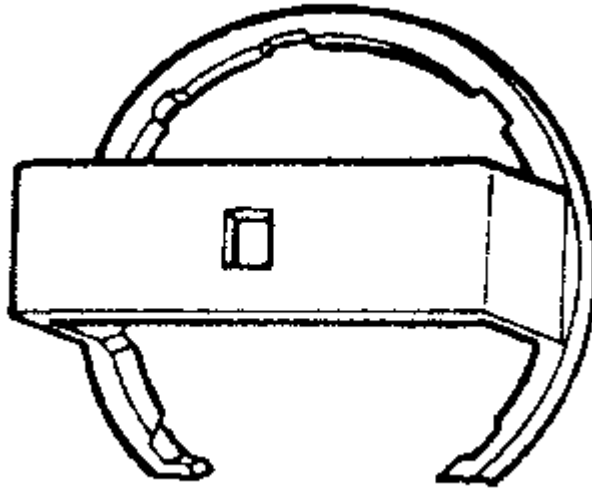
Exploded view of the fuel tank sending unit/pump and related components-3.0L Flexible

Fuel (FF) engine

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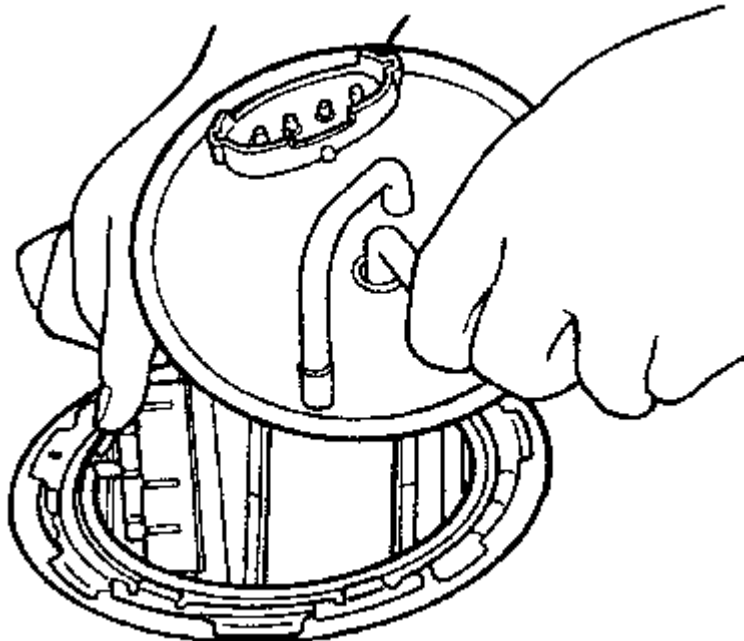
The FF fuel tank cannot be drained through the fuel tank filler pipe because a special screen is installed in the fuel tank filler pipe to prevent siphoning of fuel through the pipe. The fuel tank on this vehicle is equipped with a drain tube connected to the fuel pump module on the right-hand side of the vehicle, which had a quick disconnect for this purpose. It is not necessary to lower the fuel tank to drain the system.

3. Drain the fuel tank:
 1. Remove the foam cover and protective rubber cover from the drain tube.
 2. Connect the drain tube quick disconnect fitting to the Rotunda Fuel Storage Tanker and Adapter Hose 034-00020, then drain the fuel from the tank into a suitable container.
4. Raise and safely support the vehicle.
5. Disconnect and remove the fuel filler pipe:
 1. Open the filler door to remove the three screws securing the fuel tank filler pipe to the pocket. Mark the fuel tank filler cap tether location.
 2. If not done already, raise and safely support the vehicle.
 3. Loosen the filler and vent hose on the fuel tank filler pipe.
 4. Remove the bolt securing the fuel tank filler pipe assembly to the underbody of the vehicle, then remove the fuel tank filler pipe.
6. Support the fuel tank, then remove the fuel tank support straps. Partially lower the tank, then disconnect the fuel lines, electrical connectors and fuel vapor and vent lines from the fuel tank.
7. Remove the fuel tank and place it on a work bench. Remove any dirt that has accumulated around the fuel pump so that dirt does not enter the fuel tank during pump removal.
8. Remove the fuel pump locking retainer ring using Fuel Tank Locking Wrench D90P-9275-A, or equivalent.



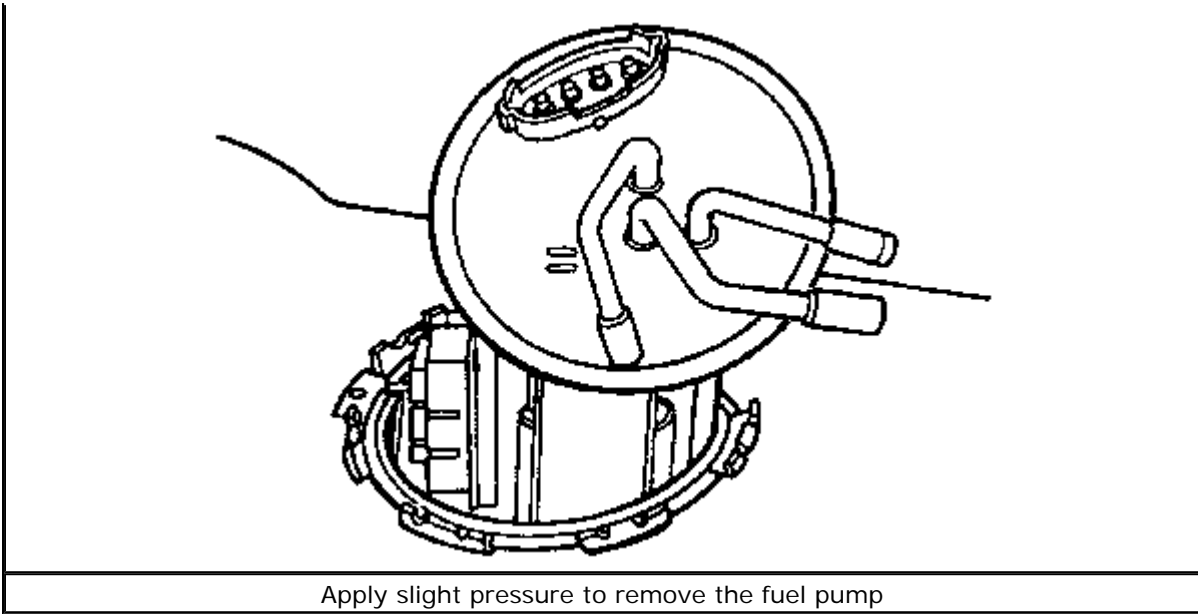
Fuel pump locking retainer ring

9. Lift the fuel pump locating tabs from the fuel tank location slots.
10. Lift the fuel pump upward rotating left, while aligning the float wiper arm retainer and return line into the fuel tank location slots.

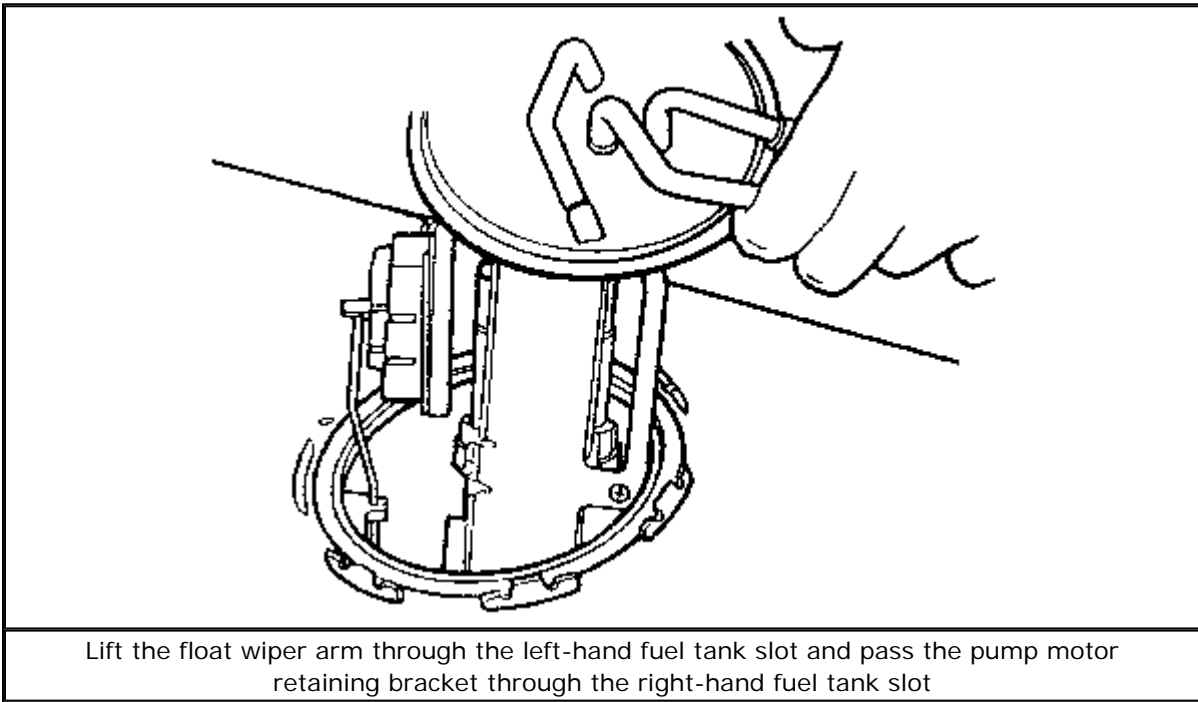


Lift the fuel pump upward and rotate to the left, while aligning the float wiper arm retainer and return line with the fuel tank location slots

11. Apply light pressure to remove the fuel pump.

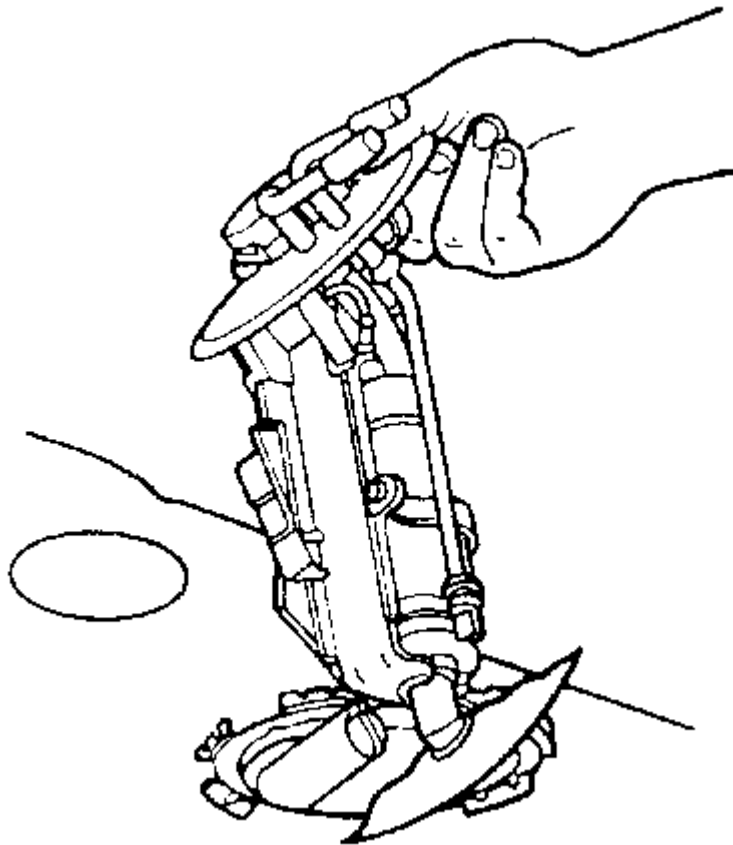


12. Lift the float wiper arm through the left-hand fuel tank slot, then pass the pump motor retaining bracket through the right-hand fuel tank slot.



13. Remove the fuel pump keeping return line in the fuel tank slot. Lift the fuel pump inlet filter then sender arm float through the fuel tank opening.





Remove the fuel pump while keeping the return line in the fuel tank slot. Lift the fuel pump inlet filter and then the sender arm float through the fuel tank opening

14. Remove and discard the fuel pump mounting gasket.

To install:

15. Position a new methanol compatible pump gasket on the fuel pump.
16. Install the fuel tank sending unit/pump assembly carefully to be sure that it is not damaged.
17. Hold the assembly in place and install the the fuel pump locking retainer finger tight. Make sure that all of the locking tabs are are under the fuel tank lock ring tabs.
18. Secure the unit with the fuel pump locking retainer ring using Fuel Tank Locking Wrench D90P-9275-A, or equivalent.
19. Remove the fuel tank from the bench to the vehicle, then support the fuel tank while connecting the fuel vapor and vent lines, electrical connectors and the fuel lines.
20. Install the fuel tank in the vehicle, then connect the support straps.
21. Install the fuel filler pipe:
 1. Position the fuel tank filler pipe in the body location.
 2. Connect the hoses with clamps to the fuel tank filler pipe.
 3. Install the underbody fuel tank filler pipe assembly bolt, then tighten the bolt to 36-53 inch lbs. (4-6 Nm), then lower the vehicle.

- 4. Install the fuel tank filler cap to the tether location, then install the three retaining screws.**
 - 22. Insert Rotunda Fuel Tanker Adapter Hose 034-00020 or equivalent into the fuel tank through the fuel tank filler pipe.**
 - 23. Transfer the fuel from the Rotunda Fuel Storage Tanker 034-00002 or equivalent to the fuel tank.**
 - 24. Connect the negative battery cable, then check for fuel leaks.**
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