

**Fuel Selector Valve
Installation Instruction**

Carefully read the following instructions to become familiar with the procedures on this sheet.

GENERAL INFORMATION

The fuel selector valve was designed to operate in vehicles with a 12 VDC electrical system that have one main and one auxiliary fuel tank and fuel return lines. The valve can operate in gasoline or diesel fuel systems between temperatures of -40°F and +175°F.

IMPORTANT: Maximum operating pressure is 60 PSI. Not for use in fuel systems operating over 60 PSI.

CAUTION: To reduce the risk of fire and personal injury, it is necessary to relieve the fuel system pressure before servicing fuel system components. Refer to your vehicle Service Manual for proper procedure.

PREPARATION FOR INSTALLATION

Obtain appropriate hardware to perform the job.

- Electrical wires — must be 18 gauge or heavier.
- A six-way wire connector harness for a conversion or new replacement.
- Fuel supply hoses — must be 3/8" I.D. gasoline or diesel approved.
- Fuel return hoses — must be 5/16" I.D. gasoline or diesel approved.
- Two proper length 5/16 - 18 thread selector valve mounting bolts.
- A rocker switch. Use this switch to replace the original rocker type. On conversions or new replacement modification of dash may be necessary. (Type 'B' on diagram)
- Face plate for universal applications.
- Proper size "worm" style fuel hose clamps.

INSTALLATION

Drain Main Fuel Tank

Select the best location for the selector valve. It should be near fuel lines, away from heat, splash and moving parts. On applications with a single external fuel pump, install the valve between the fuel tanks and the pump as illustrated. Using the two bolts, mount the valve on the frame or other firm surface with the four ports toward the fuel tanks.

Warning: Fuel spillage may occur. Place a container and shop towel when disconnecting fuel lines to collect the fuel. **DO NOT** smoke. Extinguish any open flame (including pilot lights) before commencing job.

Fuel Hose Connections:

1. After the auxiliary fuel tank is installed, route the fuel supply and return hoses to the selector valve. (See illustration). Be sure to install a good quality fuel filter in each supply line. Make sure all connections of hoses are properly secure and tighten hose clamps.
2. On vehicles with in-tank fuel pump, disconnect fuel supply hose from existing fuel filter outlet (engine side) and install onto valve. Add a new hose from selector valve to filter as necessary. Disconnect return fuel hose from

main tank and install onto valve. Add a new hose from selector valve to tank as necessary. Make sure all connections of hoses are properly secure and tighten hose clamps.

3. On vehicles with an external fuel pump, connect pump inlet hose to selector valve as shown. Connect return fuel hose as in step 2.

IMPORTANT NOTE: Be sure fuel hoses are not bent and fuel flow is not restricted. If necessary, use brackets to support fuel hoses.

Electrical Connections:

1. Disconnect negative battery cable.
2. Prepare the six-way connector as follows:
 - Slide the large green seal to position if not already in place.
 - Insert cavity plug into opening "F".
 - Insert five lead assemblies into opening "A-E". Make sure terminal snaps into place and small green seal is completely inside each cavity.

Fold up black bracket until it locks and hold wires in place. Insert the six-way connector into valve until it locks in place.

3. Select a location on the dashboard and install the switch (and face plate for toggle switch application).

4. If using a toggle switch, cross wire as shown. Connect one pair of terminals to a good ground and the other pair to a +12 VDC source (such as Accessory Terminal of fuse box) through a 10 amp. fuse. Connect the middle terminals on the switch to the six-way connector as shown.

5. Cut the existing electrical wire from the main tank sending unit to the fuel gauge in a convenient spot, and connect both wire ends to the six-way connector as shown in illustration.

NOTE: Make sure to single out the correct wire (before cutting), if it's connected to a main harness. Refer to the vehicle wiring diagram.

6. Connect the new sending unit wire from the auxiliary tank to the six-way connector as shown.

7. Connect the main and auxiliary fuel pumps as shown in illustration. (Applications with a single external fuel pump, do not require any change to the wiring connection.)

IMPORTANT NOTE: All electrical connections and splices must be secure, insulated, and sealed to prevent corrosion and malfunction.

Selector Valve Operation:

In the first switch position the fuel will flow and return to the main tank. In the second switch position the fuel will flow and return to the auxiliary tank. Before operating the new system, double check all electrical and fuel connections. Add a small amount of fuel to each tank, connect negative battery cable and start the engine. Operate the switch to ensure that the valve is operating correctly. Recheck fuel hose connections and fix any leak immediately. To test the system, add a different (known) amount of fuel to each tank. With engine running, operate the switch and observe the fuel gauge for proper fuel level indication of each tank. Correct readings indicate proper function of fuel gauge.

