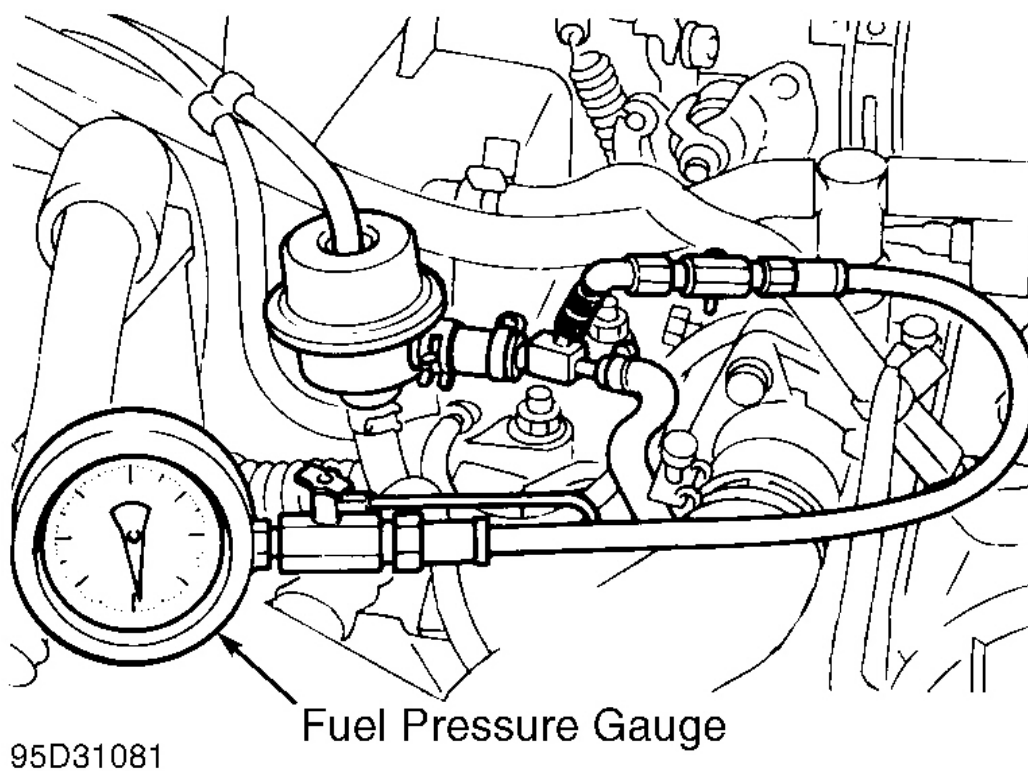


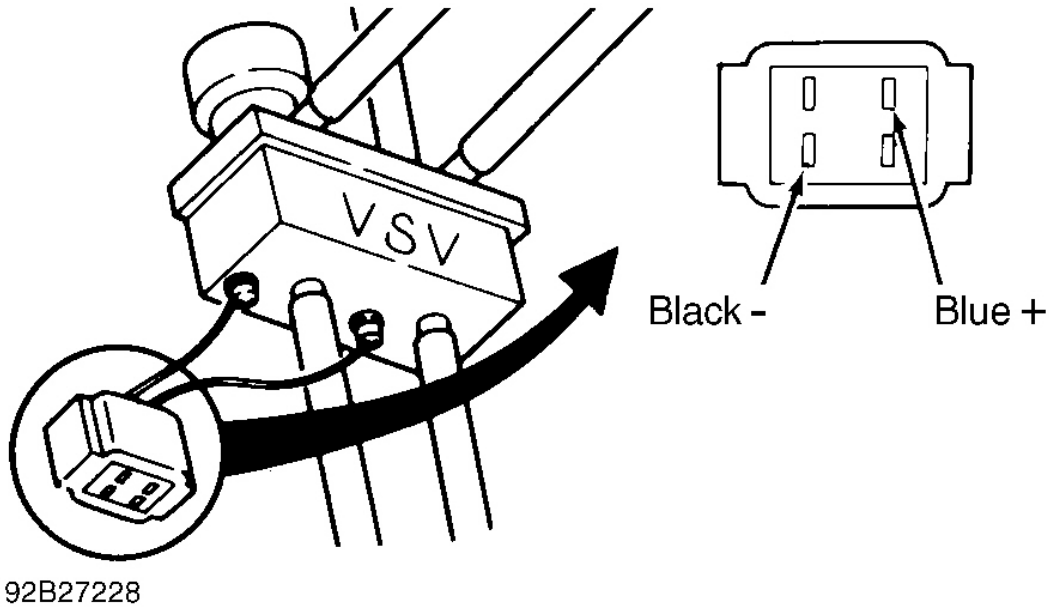
**FUEL PUMP PRESSURE TEST**

**NOTE:**        **Begin basic fuel system diagnosis with testing fuel pressure.**

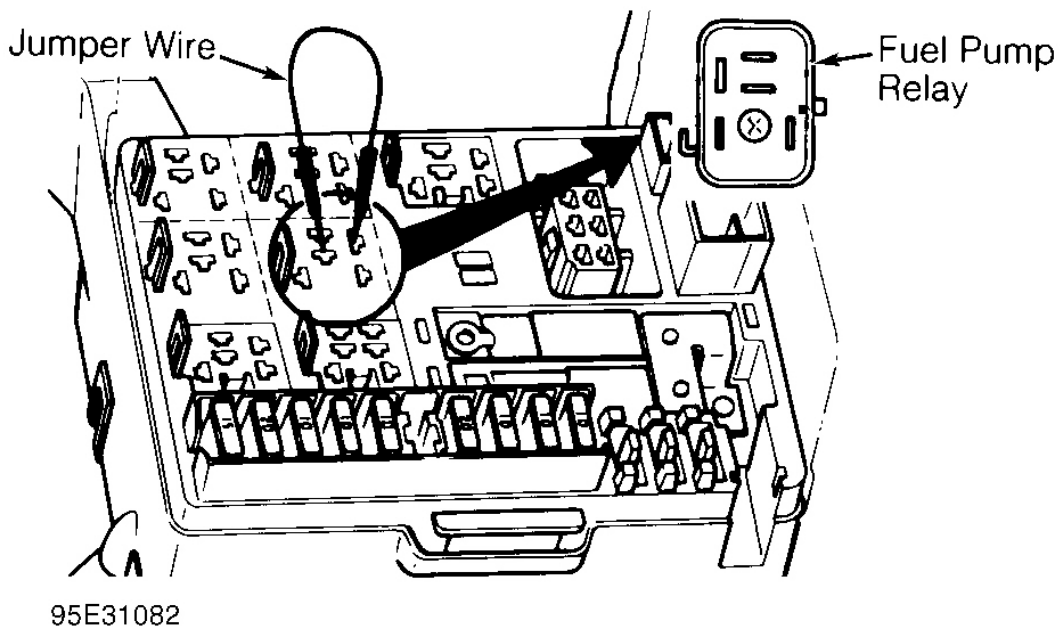
1. Release fuel pressure. See **FUEL SYSTEM PRESSURE RELEASE** . Install a fuel pressure gauge between fuel pressure regulator and fuel distributor pipe. See **Fig. 1** . Bleed air from fuel line going to pressure gauge.
2. Unplug fuel pressure regulator Vacuum Switching Valve (VSV) connector on right side fender skirt. This is a 4-wire connector with Black and Blue wires in harness. PCM controls VSV to cut vacuum to fuel pressure regulator during hot engine starts.
3. Start engine and measure fuel pressure at idle. Disconnect fuel pressure regulator vacuum hose. Note fuel pressure at idle with vacuum hose disconnected (no vacuum). Fuel pressure should be 42 psi (3.0 kg/cm<sup>2</sup> ). See **FUEL PUMP PERFORMANCE** .
4. If fuel pump pressure is low, check for fuel leaks, restrictions in intake side of fuel pump, leaking injectors, faulty pressure regulator or faulty fuel pump. If fuel pressure is high, check for restrictions in return line to tank or faulty pressure regulator. If pressure does not change when pressure regulator is disconnected, replace pressure regulator.
5. Reconnect pressure regulator vacuum hose and check fuel pressure (with vacuum). Fuel pressure should be 35 psi (2.4 kg/cm<sup>2</sup> ). Apply battery voltage to VSV connector Blue wire terminal, and ground Black wire terminal (with vacuum). See **Fig. 2** . Fuel pressure gauge should read about 42 psi (3.0 kg/cm<sup>2</sup> ). If fuel pressure is not within specification, check for defective VSV.
6. Disconnect and plug vacuum hose from fuel pressure regulator. Stop engine and ensure fuel pressure remains greater than 35 psi (2.4 kg/cm<sup>2</sup> ) for 4 minutes after engine stops.
7. If pressure drops, check for leaking injectors, faulty pressure regulator or bad check valve in fuel pump. If engine does not start, by-pass fuel pump relay to check for fuel pressure. Remove fuel pump relay from underhood fuse/relay box. Connect a fused jumper wire between terminals No. 1 and 3 of fuel pump relay connector in fuse block. See **Fig. 3** and **Fig. 4** .
8. If fuel pump does not operate, check for battery voltage to terminal No. 3. If battery voltage is present, check for open in fuel pump circuit. If fuel pump operates with jumper wire installed, check fuel pump relay and relay energizing circuit. Repair as necessary.



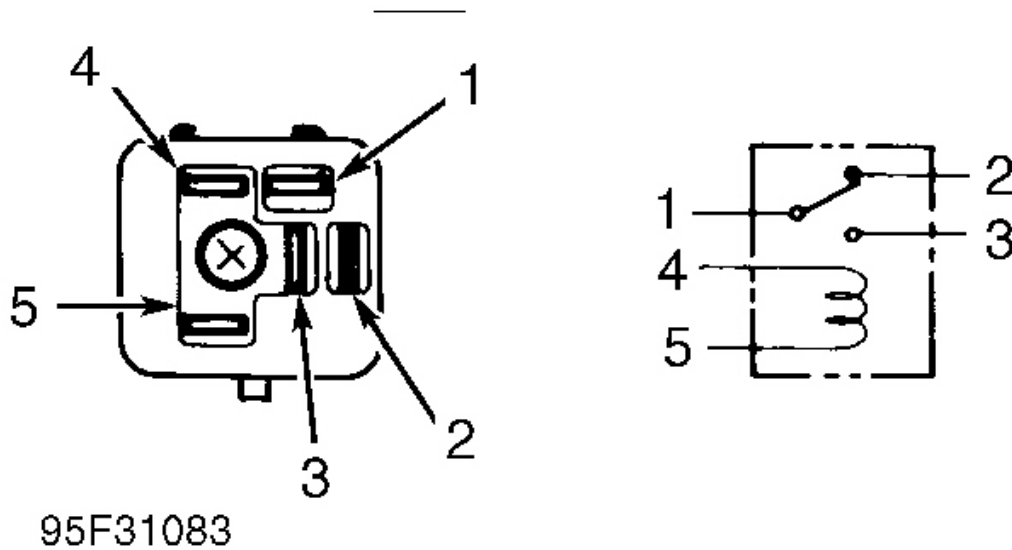
**Fig. 1: Installing Fuel Pressure Gauge**  
Courtesy of ISUZU MOTOR CO.



**Fig. 2: Identifying Pressure Regulator VSV Terminals**  
Courtesy of ISUZU MOTOR CO.



**Fig. 3: By-Passing Fuel Pump Relay**  
 Courtesy of ISUZU MOTOR CO.



**Fig. 4: Identifying Fuel Pump Relay Terminals**  
 Courtesy of ISUZU MOTOR CO.

**FUEL PUMP PERFORMANCE**

Model Application	Unregulated Pressure psi (kg/cm <sup>2</sup> )	Regulated Pressure psi (kg/cm <sup>2</sup> )
Rodeo/Passport 2.6L	(1)(2) 42 (2.9)	(3) 35 (2.4)
(1) With Vacuum Switching Valve (VSV) connector unplugged and pressure regulator vacuum hose disconnected. (2) With pressure regulator vacuum hose connected, 12 volts applied to VSV Blue wire terminal and Black wire terminal grounded. (3) With pressure regulator vacuum hose connected and VSV disconnected.		