

1995 Honda Passport EX

F - BASIC TESTING - 3.2L '1995 ENGINE PERFORMANCE Honda Basic Diagnostic Procedures - 3.2L

FUEL SYSTEM PRESSURE RELEASE

NOTE: Fuel pump relay is located in engine compartment fuse/relay box.

1. Loosen fuel tank filler cap to relieve tank pressure. Remove fuel pump relay from underhood fuse/relay box. Start and operate engine until it stalls. Crank engine an additional 30 seconds.
2. Loosen hose clamp of fuel line on side of pressure regulator, coming from fuel line inlet distributor pipe. Cover fuel hose with a shop towel, and slowly pull hose from pressure regulator to relieve fuel pressure. When fuel stops leaking, reinstall hose and clamp.

FUEL PRESSURE & FUEL PUMP RELAY TEST

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

Fuel Pressure

1. Relieve fuel pressure. See **FUEL SYSTEM PRESSURE RELEASE** . Attach Fuel Pressure Gauge Set (J-34730-1) and Adapter (J-35957-1) to Schrader fitting on fuel rail. Disconnect pressure regulator vacuum hose. Turn ignition on. Allow fuel pump to run for about 2 seconds.
2. Fuel system pressure should be about 41-46 psi (2.8-3.2 kg/cm²). See **FUEL PUMP PERFORMANCE** . Start engine and check for leaks. Connect pressure regulator vacuum hose. If engine will not start, the fuel pump relay can be by-passed. Also see appropriate **CHART A-3 - ENGINE CRANKS BUT WILL NOT RUN** under TROUBLE SHOOTING CHARTS. With engine idling, fuel pressure should be 25-30 psi (1.8-2.1 kg/cm²).

NOTE: To test the fuel pump relay circuit, proceed to **CHART A-5 - FUEL PUMP RELAY CIRCUIT** under TROUBLE SHOOTING CHARTS.

Fuel Pump Relay

1. ECM supplies power to relay as long as ECM receives ignition reference signals or starter crank signal. To run fuel pump without starting engine, remove relay and jumper terminals No. 2 and 4. See **Fig. 5** and **Fig. 6** .
2. To test relay, use jumper wires to ground terminal No. 4 of relay and apply battery voltage to terminal No. 2 of relay. Using ohmmeter, check for continuity between relay terminals No. 1 and 3. If continuity is not present, replace relay.

FUEL PUMP PERFORMANCE

Engine	At Idle W/O Vacuum psi (kg/cm ²)	At Idle W/ Vacuum psi (kg/cm ²)
3.2L	(1) 41-46 (2.8-3.2)	(2) 25-30 (1.8-2.1)

(1) With ignition on and vacuum hose disconnected from pressure regulator.

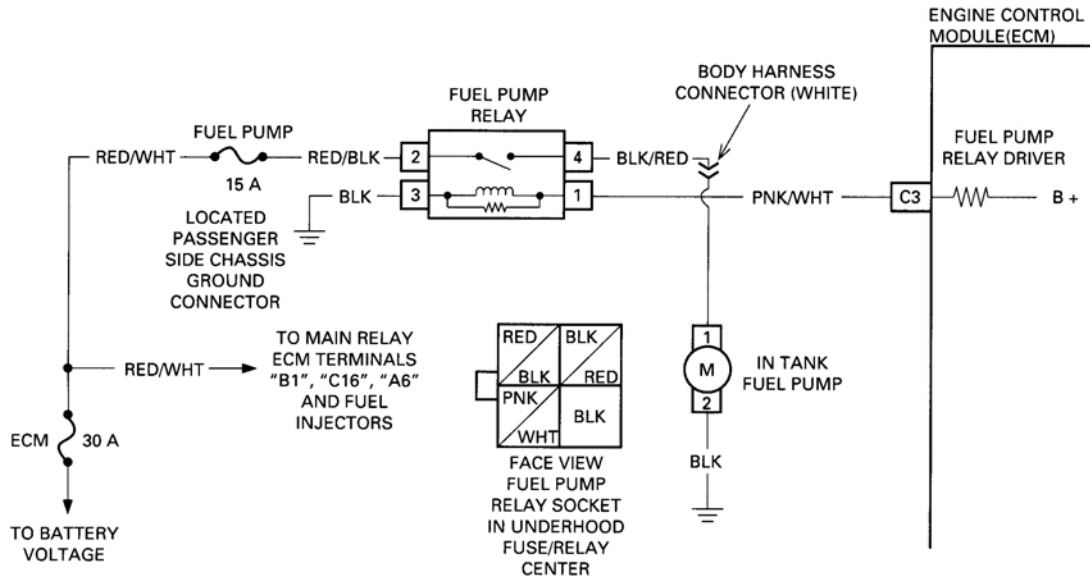
(2) With engine at idle or with 12-14 in. Hg vacuum manually applied to pressure regulator.

CHART A-5 - FUEL PUMP RELAY CIRCUIT

When ignition switch is turned to ON position, ECM activates fuel pump relay to run fuel pump. ECM activates relay as long as it receives ignition reference signals or starter crank signal. If no reference signals are received by ECM within 2 seconds after ignition is turned on, ECM cuts off power to relay.

NOTE: Test numbers refer to numbers on diagnostic chart.

1. This test checks for battery voltage at switching portion of fuel pump relay.
2. This determines if circuit between fuel pump relay (including fuel pump) and ground are okay.
3. This test will check relay circuit for availability of voltage to relay coil.

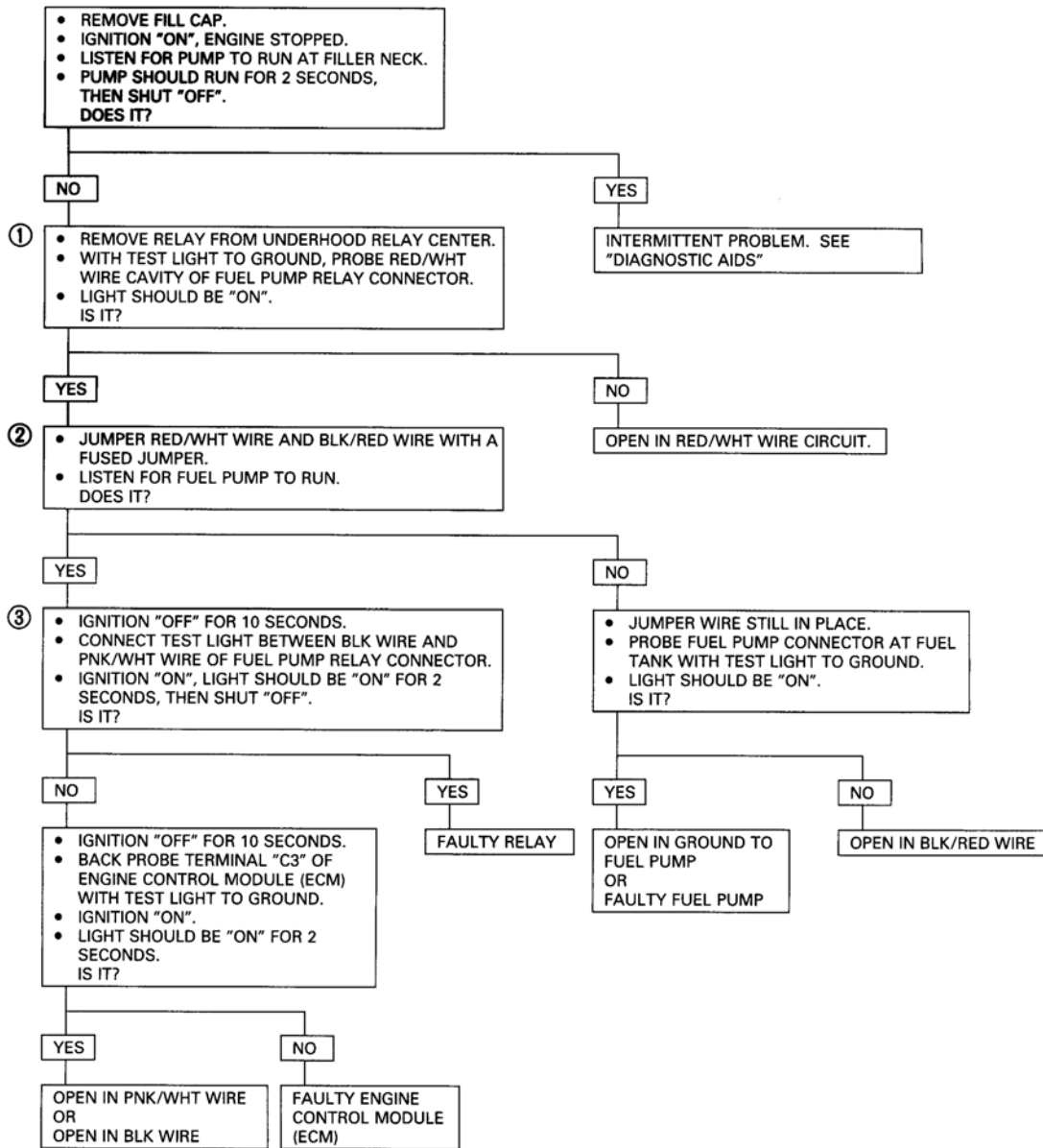


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Fig. 5: Chart A-5 - Schematic

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Fig. 6: Chart A-5 - Diagnostic Flowchart

Diagnostic Aids

If an intermittent problem exists, visually inspect wiring and connectors.

CHART A-7 - FUEL SYSTEM PRESSURE TEST

Fuel pressure control valve controls fuel pressure at 41-46 psi (2.8-3.2 kg/cm²). Excess fuel is returned to fuel tank. When engine is stopped, fuel pump can be energized by jumping fuel pump relay connector with fused

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jumper.

NOTE: Test numbers refer to numbers on diagnostic chart.

1. Connect Fuel Pressure Gauge (J-34730-1) or equivalent. Wrap shop towel around fuel pressure tap to absorb spilled fuel when installing gauge. On a correctly functioning fuel system, pressure will not leak down after fuel pump is stopped.
2. While engine is idling, manifold pressure is low (high vacuum). When vacuum is applied to fuel regulator diaphragm, vacuum will result in lower fuel pressure, at approximately 25-30 psi (1.7-2.1 kg/cm²).
3. Application of high vacuum to fuel pressure control valve should result in fuel pressure drop.
4. Fuel pressure leak down may be caused by one of the following:
 - Fuel Pump Check Valve Not Holding
 - Pump Coupling Hose Leaking
 - Fuel Pressure Control Valve Leaking
 - Injector Stuck Open Or Leaking
5. Pressure less than 41 psi (1.7 kg/cm²) may be caused by one of the following:
 - Regulated fuel pressure is too low. System will be running lean and may set diagnostic Code 44. Also, hard cold starting and overall poor performance may occur.
 - Restricted flow is causing a pressure drop. Normally a vehicle with a fuel pressure loss at idle will not be driveable. However, if pressure drop occurs only while driving, engine will surge and then stop as pressure begins to drop rapidly.
6. Restricting fuel return line allows fuel pump pressure to be greater than regulated pressure. When battery voltage is applied to fuel pump relay, pressure should be greater than 65 psi (4.5 kg/cm²).
7. This test determines if high fuel pressure is due to a restricted fuel return line or a fuel pressure control valve problem.

Diagnostic Aids

Improper fuel system pressure may contribute to one or all of the following symptoms:

- Engine Cranks, But Will Not Run
- Diagnostic Code 44 Or 45
- Cutting Out "Feels" Like Ignition Problem
- Hesitation, Loss Of Power Or Poor Fuel Economy

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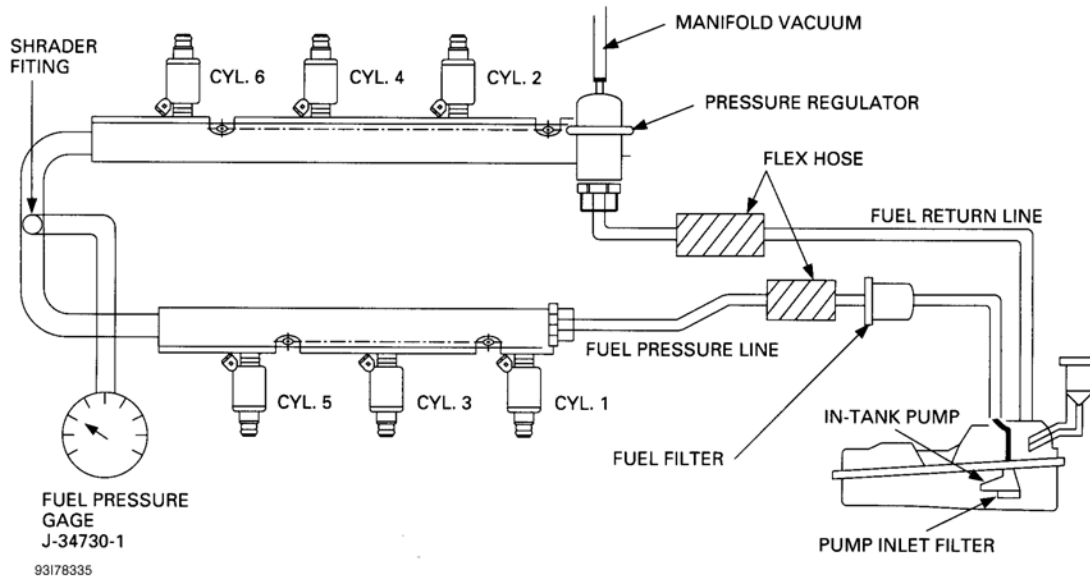


Fig. 7: Chart A-7 - Fuel System Diagram

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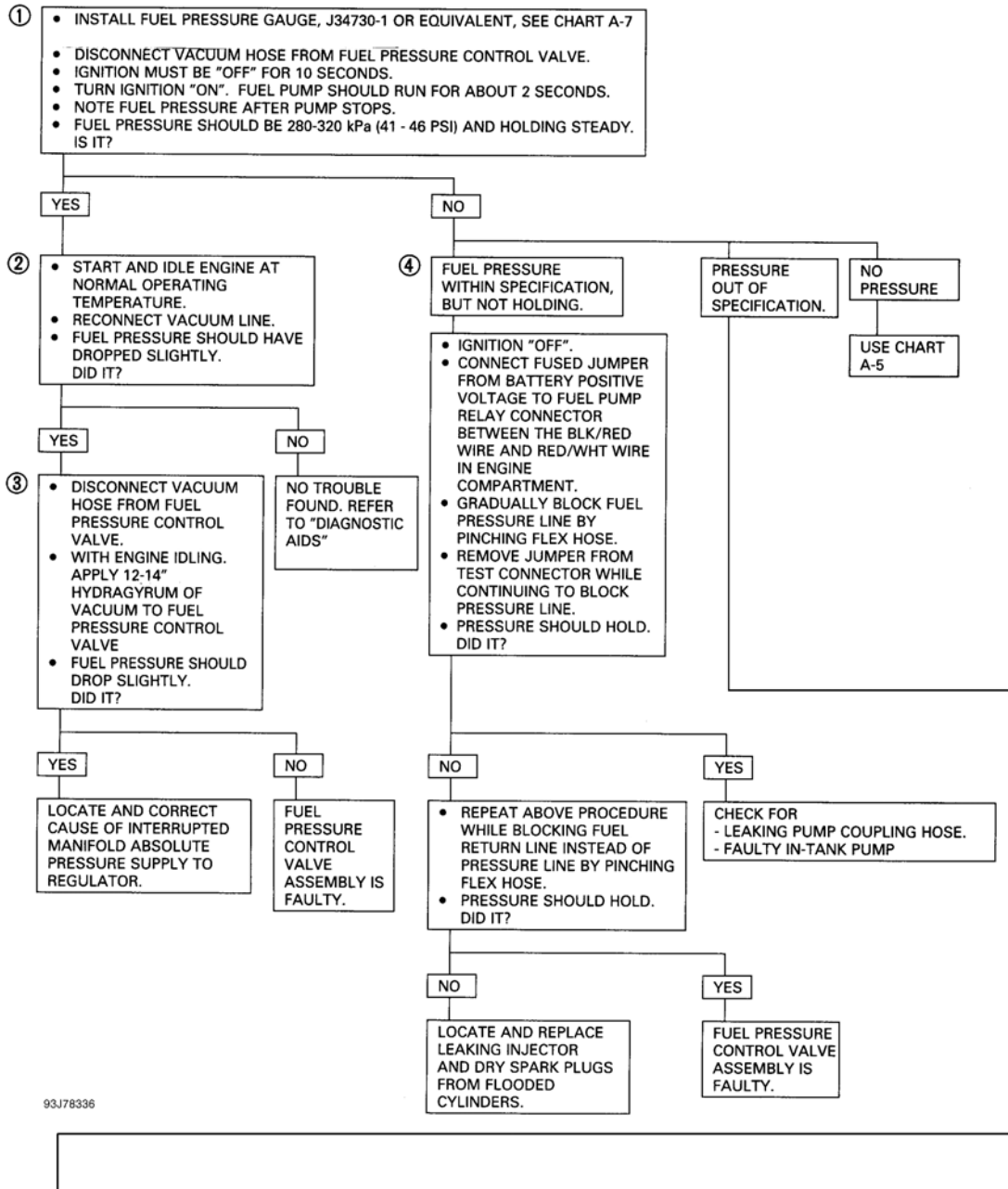


Fig. 8: Chart A-7 - Diagnostic Flowchart - 1 Of 2

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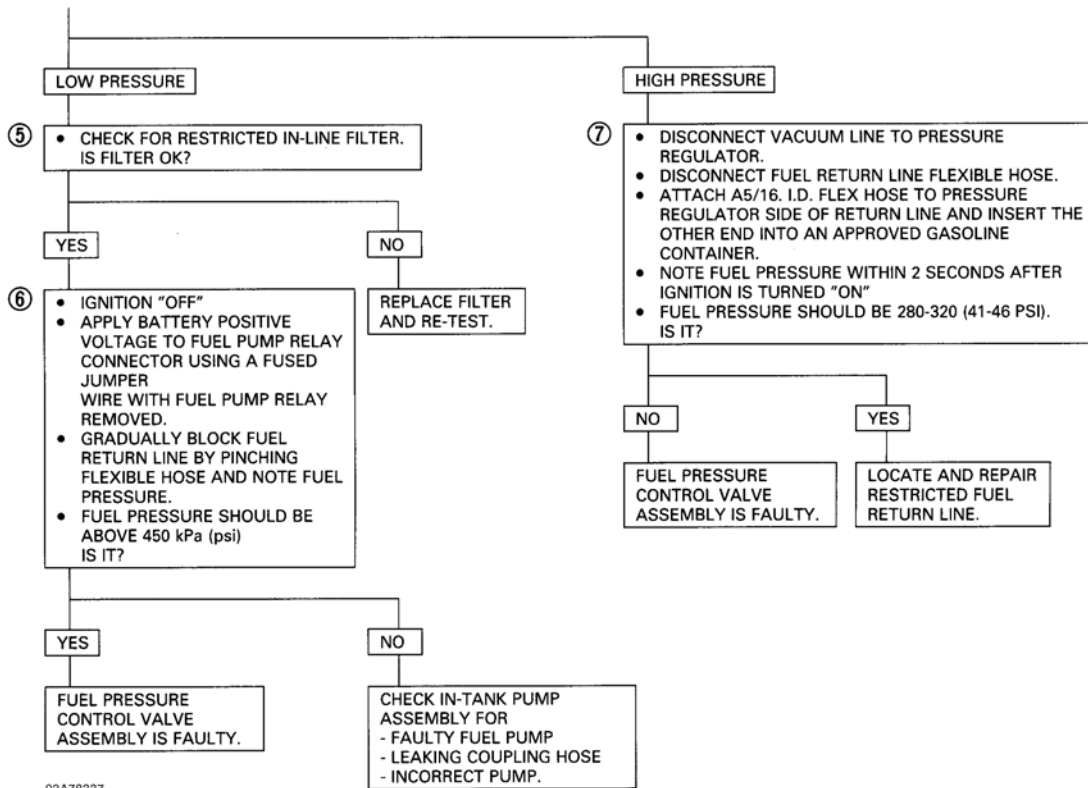


Fig. 9: Chart A-7 - Diagnostic Flowchart - 2 Of 2

FUEL PUMP PERFORMANCE

Engine	At Idle W/O Vacuum psi (kg/cm ²)	At Idle W/ Vacuum psi (kg/cm ²)
3.2L	(1) 41-46 (2.8-3.2)	(2) 25-30 (1.8-2.1)
(1) With ignition on and vacuum hose disconnected from pressure regulator. (2) With engine at idle or with 12-14 in. Hg vacuum manually applied to pressure regulator.		
