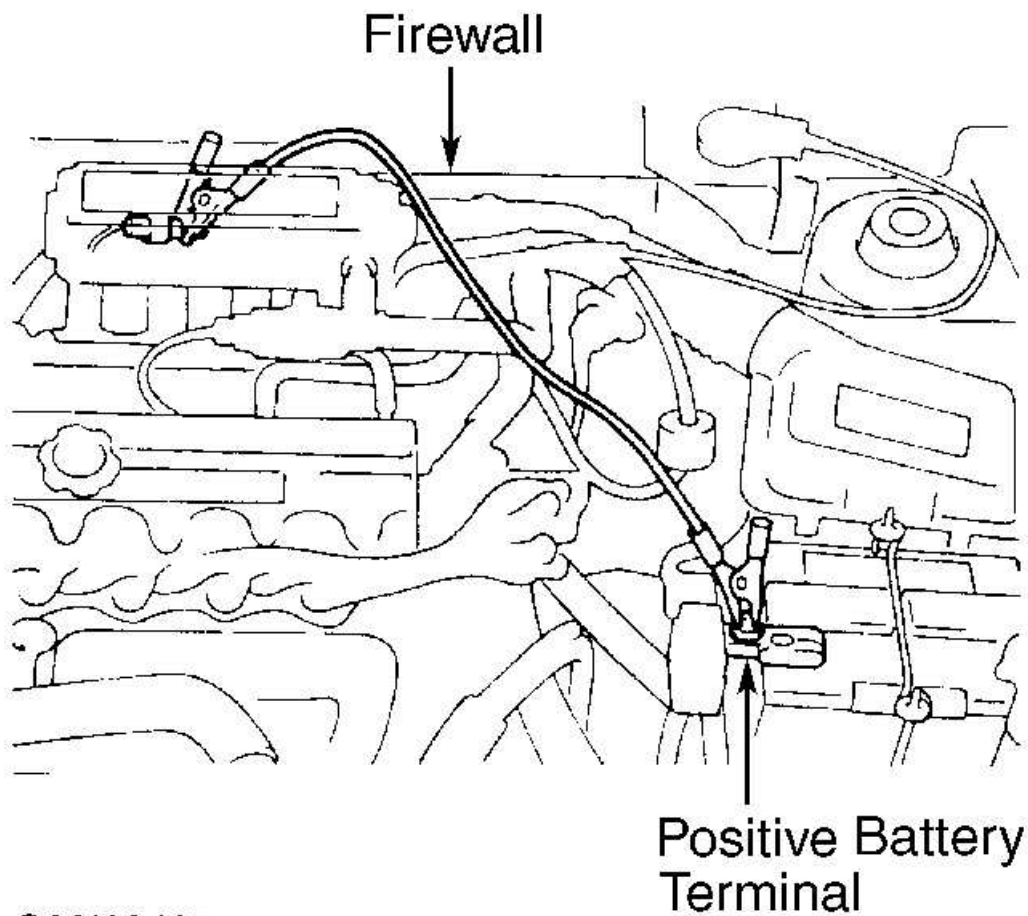


## FUEL PUMP TEST

Turn ignition off. Apply battery voltage to fuel pump check connector terminal. See **Fig. 1** . Remove fuel tank cap and listen for fuel pump operation. Pinch fuel hoses by hand, and ensure fuel pressure can be felt.



G99I03465

**Fig. 1: Locating Fuel Pump Check Terminal (Accent Shown; Other Models Are Similar)**

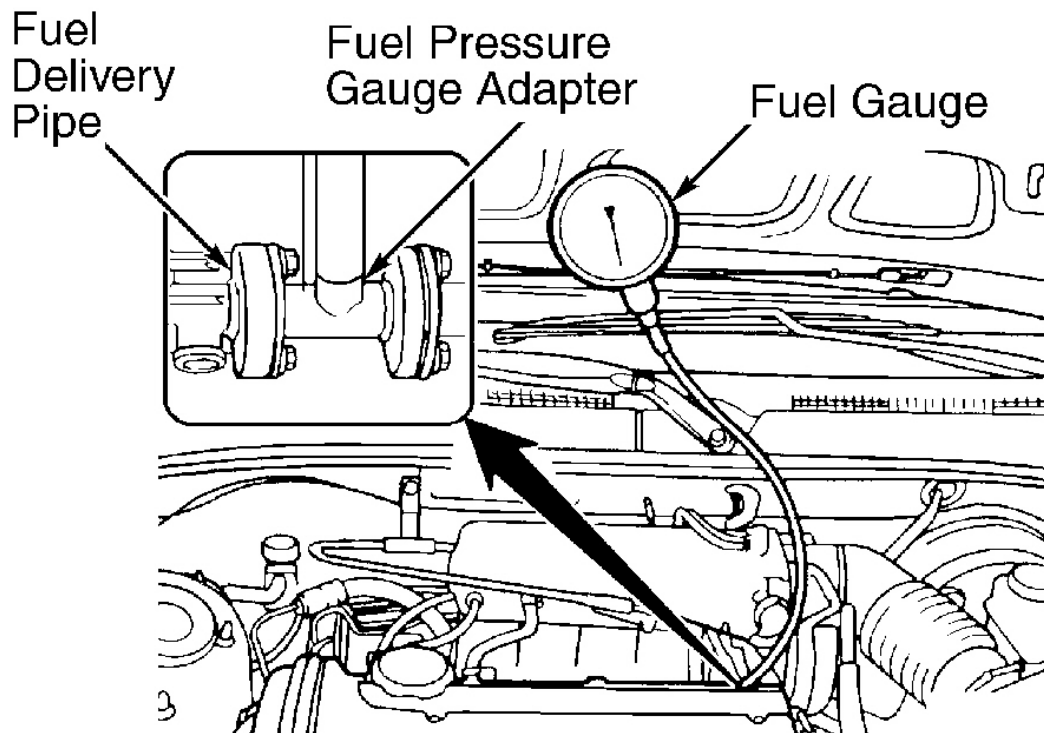
Courtesy of HYUNDAI MOTOR CO.

## FUEL PRESSURE TEST

Accent & Elantra

**NOTE:** Fuel pressure regulator is an integral part of fuel pump and is not serviced separately.

1. Release fuel pressure. See **FUEL PRESSURE RELEASE** . Disconnect high-pressure fuel hose from fuel delivery pipe. Cover hose connection using rags to avoid spraying of fuel.
2. Using Fuel Pressure Gauge Adapter (09353-38000), install fuel pressure gauge to fuel delivery pipe. See **Fig. 2** . Tighten fuel gauge adapter bolts to 18-26 ft. lbs. (24-35 N.m). Connect negative battery cable.
3. Using fuel pump check connector terminal, activate fuel pump and ensure no fuel leakage is present at pressure gauge or connection. See **FUEL PUMP TEST** . If no leaks are present, start engine and allow to idle.
4. Measure and record fuel pressure at idle. See **REGULATED FUEL PRESSURE (AT IDLE)** table. If measurements are not within specification, go to next step. If fuel pressure is as specified, go to step 7 .
5. If fuel pressure is less than specified, check for restricted fuel filter. Check for fuel leak on return side, caused by poor seating of fuel pressure regulator. Replace fuel filter or fuel pump assembly as necessary.
6. If fuel pressure is greater than specified, check for sticking fuel pressure regulator. Check for restricted or bent fuel return hose or pipe. Repair or replace fuel hose, pipe or fuel pump assembly as necessary.
7. If fuel pressures are as specified, stop engine and check gauge for decrease in fuel pressure. Fuel pressure should hold for approximately 5 minutes. If fuel pressure does not hold for approximately 5 minutes go to next step.
8. If fuel pressure decreases slowly after engine is stopped, check for leaking injector. If fuel pressure decreases immediately after engine is stopped, fuel pump check valve is not working. Replace fuel injector or fuel pump as necessary. After repairs are completed, recheck fuel pressure.
9. After testing is completed, release fuel pressure. See **FUEL PRESSURE RELEASE** . Disconnect fuel pressure gauge from adapter. Ensure hose connection is covered by shop towel to prevent fuel spray. Remove adapter bolts and adapter, install NEW "O" ring, and reinstall fuel line with original bolts. Apply battery voltage to fuel pump check connector terminal. See **Fig. 1** . Check for fuel leaks.



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**Fig. 2: Installing Fuel Pressure Gauge (Sonata 2.4L Shown; Sonata 2.5L Is Similar)**

Courtesy of HYUNDAI MOTOR CO.

**Santa Fe, Sonata & XG 300**

1. Release fuel pressure. See **FUEL PRESSURE RELEASE** . Disconnect high-pressure fuel hose from fuel delivery pipe. Cover hose connection using rags to avoid spraying of fuel.
2. Using Fuel Pressure Gauge Adapter (09353-38000), install fuel pressure gauge to fuel delivery pipe. See **Fig. 2** . Tighten fuel gauge adapter bolts to 18-26 ft. lbs. (24-35 N.m). Connect negative battery cable.
3. Using fuel pump check terminal connector, activate fuel pump and ensure no fuel leakage is present at pressure gauge or connection. See **FUEL PUMP TEST** . If no leaks are present, start engine and allow to idle.
4. Disconnect vacuum hose from fuel pressure regulator, and plug hose end. Measure and record fuel pressure at idle. Reconnect vacuum hose, and again measure and record fuel pressure. See **REGULATED FUEL PRESSURE (AT IDLE)** table. If measurements are not within specification, go to next step. If measurements are okay, go to step 8 .
5. If fuel pressure is less than specified, check following conditions:
  - Restricted fuel filter.
  - Fuel pressure regulator leaking fuel to fuel return side.

- Leaking in-tank fuel pick-up hose.
- Low fuel pump discharge pressure.

Repair or replace as necessary. Recheck fuel pressure.

6. If fuel pressure is greater than specified, check for sticking fuel pressure regulator or a restricted or bent fuel return hose or pipe. Repair or replace fuel hoses or pipe, or replace fuel pressure regulator.
7. If fuel pressure does not change when regulator vacuum hose is connected and disconnected, check for following conditions:
  - Restricted or damaged vacuum hose.
  - Restricted manifold vacuum port.
  - Sticking or poorly seated fuel pressure regulator valve.

Repair or replace as necessary. Recheck fuel pressure.

8. If fuel pressures are as specified, stop engine and check for decrease in fuel pressure gauge. Fuel pressure should hold for approximately 5 minutes. If fuel pressure decreases slowly after engine is stopped, check for leaking injector. Replace as necessary. If fuel pressure decreases immediately after engine is stopped, check valve inside fuel pump is not working. Replace fuel pump. After repairs are completed, recheck fuel pressure.
9. After testing is completed, release fuel pressure. See **FUEL PRESSURE RELEASE** . Disconnect fuel pressure gauge from adapter. Ensure hose connection is covered by shop towel to prevent fuel spray. Remove adapter bolts and adapter. Install NEW "O" ring, and reinstall fuel line with original bolts. Apply battery voltage to fuel pump drive connector terminal. See **Fig. 1** . Check for fuel leaks.

### Tiburon

1. Release fuel pressure. See **FUEL PRESSURE RELEASE** . Locate fuel filter in left rear corner of engine compartment, below brake master cylinder. Remove quick-tie securing fuel lines together and disconnect master cylinder reservoir connector. Disconnect high-pressure fuel hose from top of fuel filter. Cover hose connection using rags to avoid spraying of fuel.
2. Using Fuel Pressure Gauge Adapter, install fuel pressure gauge to fuel filter. See **Fig. 3** . Tighten fuel gauge adapter bolt to 18-26 ft. lbs. (24-35 N.m). Connect negative battery cable.
3. Using fuel pump check connector terminal, activate fuel pump and ensure no fuel leakage are present at pressure gauge or connection. See **FUEL PUMP TEST** . If no leaks are present, start engine and allow to idle.
4. Disconnect vacuum hose from fuel pressure regulator, and plug hose end. Measure and record fuel pressure at idle. Reconnect vacuum hose, and again measure and record fuel pressure. See **REGULATED FUEL PRESSURE (AT IDLE)** table. If measurements are not within specification, go to next step. If measurements are okay, go to step 8 .
5. If fuel pressure is less than specified, check following conditions:
  - Restricted fuel filter.
  - Fuel pressure regulator leaking fuel to fuel return side.

- Leaking in-tank fuel pick-up hose.
- Low fuel pump discharge pressure.

Repair or replace as necessary. Recheck fuel pressure.

6. If fuel pressure is greater than specified, check for sticking fuel pressure regulator. Check for a restricted or bent fuel return hose or pipe. Repair or replace fuel hose, pipe or fuel pressure regulator.
7. If fuel pressure does not change when regulator vacuum hose is connected and disconnected, check for following conditions:
  - Restricted or damaged vacuum hose.
  - Restricted manifold vacuum port.
  - Sticking or poorly seated fuel pressure regulator valve.

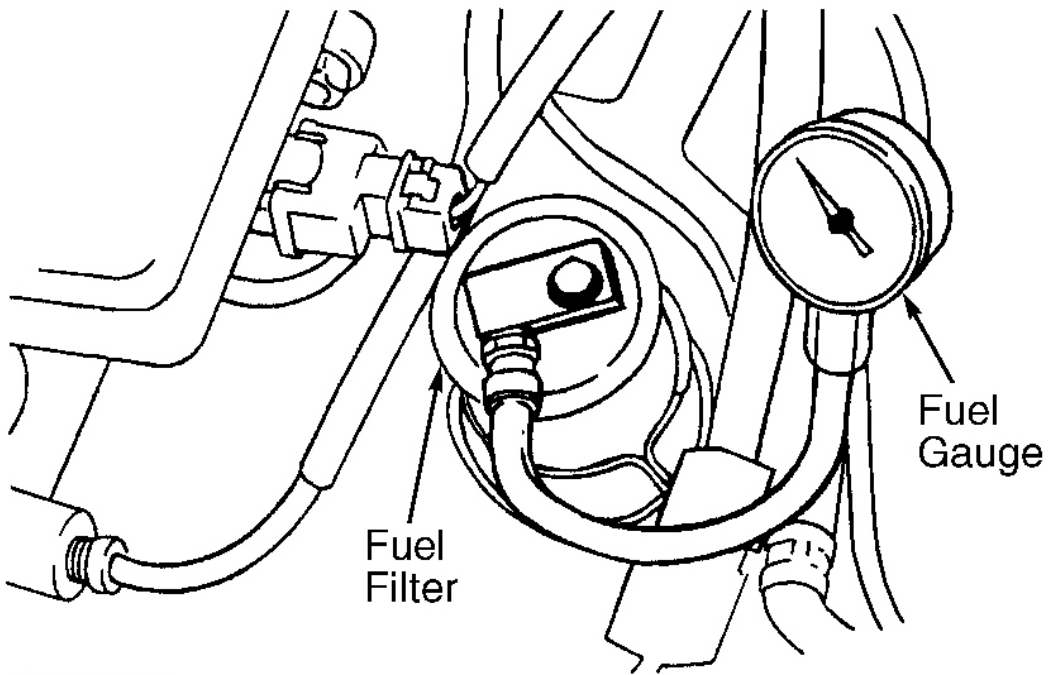
Repair or replace as necessary. Recheck fuel pressure.

8. If fuel pressures are as specified, stop engine and check gauge for a decrease in fuel pressure. Fuel pressure should hold for approximately 5 minutes. If fuel pressure decreases slowly after engine is stopped, check for leaking injector. Replace as necessary. If fuel pressure decreases immediately after engine is stopped, check valve inside fuel pump is not working. Replace fuel pump. After repairs are completed, recheck fuel pressure.
9. After testing is completed, release fuel pressure. See **FUEL PRESSURE RELEASE** . Disconnect fuel pressure gauge from adapter. Ensure hose connection is covered by shop towel to prevent fuel spray. Remove adapter bolts and adapter. Install NEW "O" ring, and reinstall fuel line with original bolts. Apply battery voltage to fuel pump check connector terminal. See **Fig. 1** . Check for fuel leaks.

**REGULATED FUEL PRESSURE (AT IDLE)**

Application	W/ Vacuum - psi (kg/cm <sup>2</sup> )	W/O Vacuum - psi (kg/cm <sup>2</sup> )
Accent (1.5L) & Elantra (2.0L)	(1)	(1)
Tiburon (2.0L)	37.0 (2.57)	44.0 (3.06)
Santa Fe (2.4L & 2.7L) Sonata (2.4L & 2.5L) & XG 300	37.0 (2.57)	46.0-49.0 (3.26-3.48)

(1) Fuel pressure regulator is mechanically controlled and is an integral part of fuel pump assembly. Regulated fuel pressure at idle should be 49.8 psi (3.5 kg/cm<sup>2</sup>).



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**Fig. 3: Testing Fuel Pressure at Fuel Filter (Tiburon)**

Courtesy of HYUNDAI MOTOR CO.