

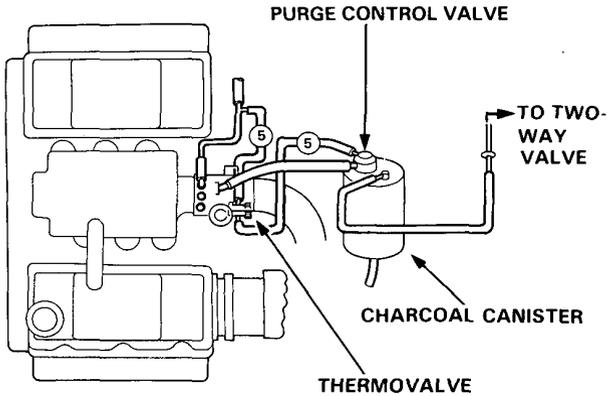
# Evaporative Emission Controls (Except KB, KE, KF)



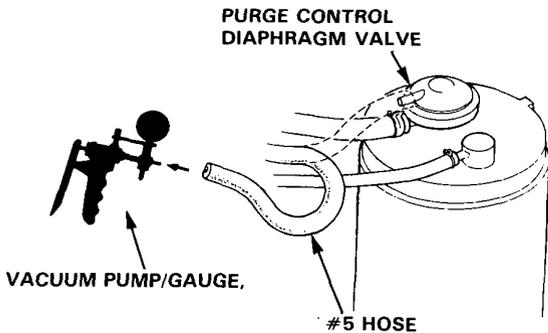
## Test

### COLD ENGINE

1. Check the vacuum line for proper connection, cracks, blockage or disconnected hose.



2. Disconnect #5 hose at the purge control diaphragm valve (on the charcoal canister) and connect a vacuum gauge to the hose.



3. Start the engine and allow to idle.

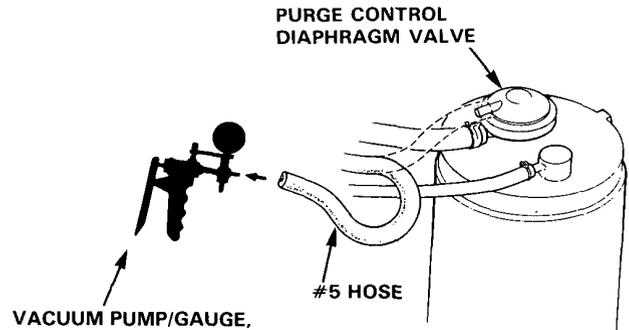
NOTE: Engine coolant temperature must be below 70°C (158°F).

Vacuum should not be available.

- If there is vacuum, replace the thermovalve and retest.

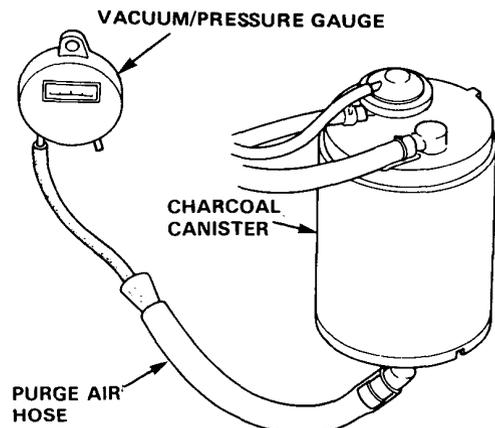
### HOT ENGINE

1. Disconnect the #5 hose at the purge control diaphragm valve (on the charcoal canister) and connect a vacuum gauge to the hose.
2. Warm up the engine to normal operating temperature (cooling fan comes on).



There should be vacuum at idle, once the engine is warm.

- If there is no vacuum, replace the thermovalve and retest.
3. Disconnect vacuum gauge and reconnect the hose.
  4. Remove fuel filler cap.
  5. Remove canister purge air hose from frame and connect hose to vacuum gauge as shown.



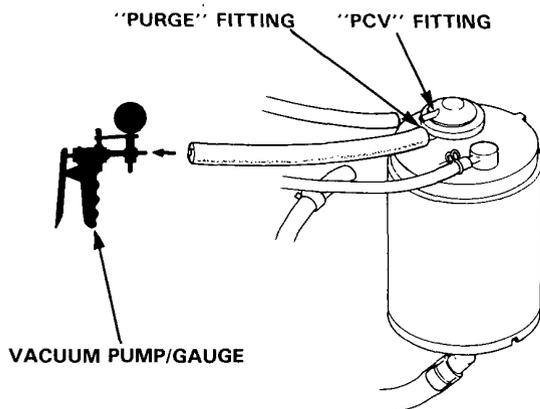
(cont'd)

# Evaporative Emission Controls

## Test (cont'd)

6. Raise engine speed to 3,500 rpm.  
Vacuum should appear on gauge within 1 minute.
  - If vacuum appears on gauge in 1 minute, remove gauge, test is complete.
  - If no vacuum, disconnect vacuum gauge and re-install fuel filler cap.
7. Remove charcoal canister and check for signs of damage or defects.
  - If defective, replace canister.
8. Stop engine. Disconnect upper vacuum hose from canister "PCV" fitting.  
Connect a vacuum pump to canister "purge" fitting as shown, and apply vacuum.

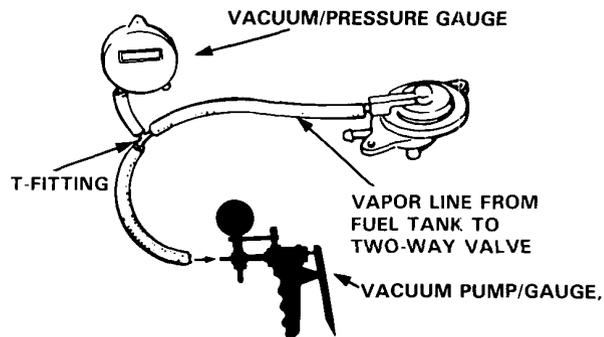
Vacuum should remain steady.



- If vacuum drops, replace canister and retest.
9. Restart engine. Reconnect hose to canister "PCV" fitting.  
"PURGE" side vacuum should drop to zero.
    - If "PURGE" side vacuum does not drop to zero, replace the canister and retest.

## Two-Way Valve

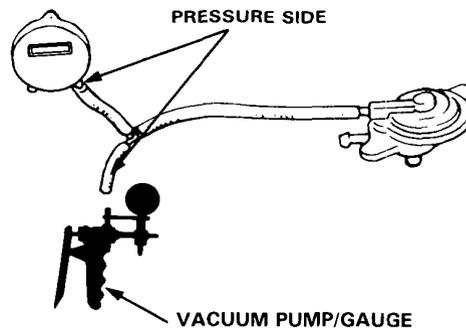
1. Remove the fuel filler cap.
2. Remove vapor line from the fuel tank and connect to T-fitting from vacuum gauge and vacuum pump as shown.



3. Slowly apply vacuum while watching the gauge.

Vacuum should stabilize momentarily at 5 to 15 mmHg (0.2 to 0.6 in. Hg).

- If vacuum stabilizes (valve opens) below 5 mmHg (0.2 in. Hg) or above 15 mmHg (0.6 in. Hg), install new valve and retest.
4. Move vacuum pump hose from vacuum to pressure fitting, and move vacuum gauge hose from vacuum to pressure side as shown.



5. Slowly pressurize the vapor line while watching the gauge.

Pressure should stabilize at 25 to 55 mmHg (1.0 to 2.2 in. Hg).

- If pressure momentarily stabilizes (valve opens) at 25 to 55 mmHg (1.0 to 2.2 in. Hg), the valve is OK.
- If pressure stabilizes below 25 mmHg (1.0 in. Hg) or above 55 mmHg (2.2 in. Hg), install a new valve and retest.