If the vehicle was refueled and the filler cap was not properly installed, the *"Check Filler Cap"* message will be displayed in the instrument cluster for 20 seconds.
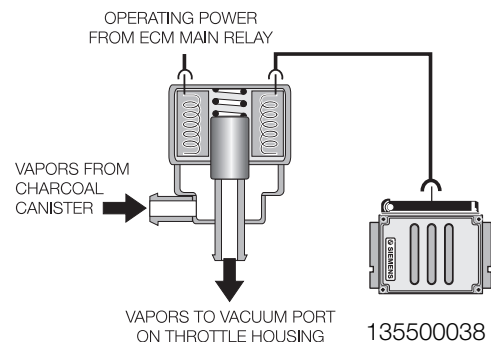
CHECK FILLER CAP

If the filler cap is installed and there is no leakage present the next time the leakage test is performed, the "Malfunction Indicator Light" will not be illuminated (additional detailed information on page 82 of Workshop Hints).

Evaporative Emission Purging is regulated by the ECM controlling the Evaporative Emission Valve. The Evaporative Emission Valve is a solenoid that regulates purge flow from the Active Carbon Canister into the intake manifold. The ECM Relay provides operating voltage, and the ECM controls the valve by regulating the ground circuit. The valve is powered open and closed by an internal spring.

The "purging" process takes place when:

• Oxygen Sensor Control is active

• Engine Coolant Temperature is >67° C

• Engine Load is present

OPERATING POWER FROM ECM MAIN RELAY

VAPORS FROM CHARCOAL CANISTER

VAPORS TO VACUUM PORT ON THROTTLE HOUSING

135500038

The Evaporative Emission Valve is opened in stages to moderate the purging.

• Stage 1 opens the valve for 10 ms (milli-seconds) and then closes for 150 ms.

• The stages continue with increasing opening times (up to 16 stages) until the valve is completely open.

• The valve now starts to close in 16 stages in reverse order

• This staged process takes 6 minutes to complete. The function is inactive for 1 minute then starts the process all over again.

• During the purging process the valve is completely opened during full throttle operation and is completely closed during deceleration fuel cutoff.

Evaporative Purge System Flow Check is performed by the ECM when the oxygen sensor control and purging is active. When the Evaporative Emission Valve is open the ECM detects a rich/lean shift as monitored by the oxygen sensors indicating the valve is functioning properly.

If the ECM does not detect a rich/lean shift, a second step is performed when the vehicle is stationary and the engine is at idle speed. The ECM opens and close the valve (abruptly) several times and monitors the engine rpm for changes. If there are no changes, a fault code will be set.