DIAGNOSIS AND TESTING

Refer to the Powertrain Control / Emissions Diagnosis Manual[1] for diagnosis of Engine Evaporative Emission System.

Fuel Tank Evaporative Emission System

The following is a diagnostic guide for check and / or servicing concerns of internal fuel tank pressure buildup or fuel odor. A typical concern may be a rush of air as the fuel cap is removed.

The fuel evaporative emission system allows for controlled release of fuel tank vapor to a carbon vapor storage canister. Under normal operating conditions, this system will allow sufficient venting to prevent a buildup of internal fuel tank pressure.

Some operating conditions may cause temporary internal fuel tank pressure. In a normally functioning system, pressure will be relieved through vapor venting. Some of these conditions are:

- On warm or hot days, parking the vehicle after filling the fuel tank, the fuel is cool from underground storage and vaporizes rapidly when warmed.
- Parking after driving over rough roads, washboard, etc., after filling the fuel tank. Agitation of fuel increases vaporization.
- Parking after driving long distances in high temperature conditions with low fuel level.
- Climbing long grades, especially while towing a trailer, or while fully loaded.

No service is required if these conditions caused the customer concern.

A normally functioning evaporative emission system will relieve the pressure buildup.

A blocked fuel evaporative emission system can cause abnormal fuel tank pressure and must be serviced. Refer to the following charts for diagnosis and flow test.

PINPOINT TEST A: EVAPORATIVE EMISSIONS DIAGNOSIS (UNLEADED GASOLINE ONLY)

TEST STEP		RESULT ▶	ACTION TO TAKE
A1	FUNCTIONAL TEST ● Test canister hose and inlet nipple for blockage. ● **Are hoses or inlet blocked?**	Yes ▶ No ▶	REMOVE blockage. GO to **B1.**
A2	FUNCTIONAL TEST ● Test fuel evaporative emission system for blockage. ● **Are all system passages open?**	Yes ▶ No ▶	REMOVE blockage or REPLACE component. GO to **B2.**
A3	VISUAL INSPECTION ● Inspect vapor tube and hoses for kinks or pinched areas. ● **Are tube or hoses kinked or pinched?**	Yes ▶ No ▶	SERVICE or REPLACE tube or hoses. VERIFY service. GO to **A4.**
A4	VISUAL INSPECTION ● Inspect vapor hose routing between fuel tank and body for pinch. ● **Is vapor hose pinched?**	Yes ▶ No ▶	LOOSEN fuel tank and reroute hose. VERIFY service. GO to **A5.**
A5	VISUAL INSPECTION ● Remove fuel tank. ● Remove vapor separator valve. ● Inspect valve for open air passage through orifice. ● **Is air passage open?**	Yes ▶ No ▶	INSTALL valve in tank. INSTALL tank system test complete. REPLACE valve. VERIFY service.

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1 Can be purchased as a separate item.