



**Evaporative Emission System Monitoring – 0.020" (0.5mm) Diameter**

Component/ System	Fault Codes	Monitoring Strategy Description	Malfunction Criteria	Threshold value	Secondary Parameter	Enable Conditions	Time Required	MIL Illumination
<b>Evaporative Emission Canister Purge Valve</b>	P0443	circuit continuity - short to battery positive	voltage - drive on	voltage > 1/2 * Battery positive	engine speed  battery voltage	> 80 rpm  7.5V < Battery positive < 17V	immediately/  continuous	two driving  cycles
	P0445	circuit continuity - short to ground	voltage - drive off	voltage < 1/3 * Battery positive				
	P0444	circuit continuity - open circuit	voltage - drive off	1/3 * Battery positive < voltage < 2/3 * Battery positive				
<b>Evaporative Emission Canister Purge Valve</b>	P0441	functional check - no purge flow detected. Open EVAP canister purge valve and check for feed- back shift, if shift is within a window, check for stoichiometric purge by monitoring idle speed control. If air flow has not changed due to the purge flow then a fault exists	feedback correction factor  <u>OR</u>  <u>AND</u>  idle air flow change	••1.125 > 0.875  •0.17 g/sec	engine state ECT at start altitude factor engine load engine air flow vehicle speed speed fluctuation (time after start) <u>OR</u> (time after start & mixture adapt. & purge factor & ISC diagnostic)	Idle ••12.0 °C •0.7266 •2.80 msec •42.5 g/sec 0 mph •80 rpm > 1000 sec  > 590 sec complete •3.0 complete	15 sec/ once per driving cycle	two driving cycles
<b>Leak Detection</b>	P1451	circuit continuity - open circuit	voltage - drive off	1/3 * Battery positive < voltage < 2/3 * Battery positive	engine speed  battery voltage	> 80 rpm  7.5V < Battery	0.5 sec/ continuous	two driving cycles