



Evaporative Emission System Monitoring – 0.040" (1.0mm) Diameter

Component/ System	Fault Codes	Monitoring Strategy Description	Malfunction Criteria	Threshold value	Secondary Parameter	Enable Conditions	Time Required	MIL Illumination
Evaporative Emission Canister Purge Valve	P0443	Circuit continuity - short to battery positive	voltage - drive on	voltage > 1/2 * Battery positive	engine speed	> 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	battery voltage			
	P0444	circuit continuity - open circuit	voltage - drive off	1/3 * B+ < voltage < 2/3 * Battery positive				
	P0440	Functional check – valve open or Leaking	fuel tank pressure during pressure compensation measurement for the EVAP Purge system check	< - 1.464 hPa	see evaporative emission system purge check		up to 24.5 sec/once per driving cycle	two driving cycles
Evaporative Emission Purge System	P0455	vacuum check uses the EVAP canister vent solenoid valve & the fuel tank pressure sensor	large system leak (e.g. missing filler cap)	vacuum build up gradient < 0.305 hPa/sec	EVAP canister purge vapour factor fuel tank pressure lambda control engine state battery voltage vehicle speed altitude factor intake air temperature engine load fuel tank level	< 5.0 • 15.13 hPa active idle • 41.0V Zero • 0.73 • 12.0 °C • 2.80 msec not empty	up to 36.5 sec/once per driving cycle	two driving cycles
	P0442		small system leak (• 4mm)	vacuum decay grad. - (pressure comp. grad. * comp. factor) > Threshold			up to 41.5 sec/once per driving cycle	