

2003 and 2004 MY EVAP VSV Monitor (P0441)

To return to monitor description, see page [Ev-88](#).

MONITOR STRATEGY

Required sensors/Components	Main	Vapor pressure sensor, EVAP VSV and CCV
	Sub	ECT sensor, IAT sensor, Vehicle speed sensor and MAF meter
Frequency of operation	Once per driving cycle	
Duration	Within 90 sec.	
MIL operation	2 driving cycles	
Sequence of operation	None	

TYPICAL ENABLING CONDITIONS

Item	Specification	
	Minimum	Maximum
The monitor will run whenever the following DTCs are not present	See page In-39	
Altitude	–	2,400 m (7,870 ft.)
Battery voltage	11 V	–
(a) IAT at engine start	10°C (50°F)	35°C (95°F)
(b) ECT at engine start	10°C (50°F)	35°C (95°F)
Difference between (a) and (b)	–	7°C (45°F)
IAT	10°C (50°F)	–
Time after engine start	–	50 min.
Vehicle speed	–	130 km/h (80 mph)
Time that vehicle speed is fixed at 64 km/h (40 mph) or more	15 sec.	–
Time that vehicle speed is fixed at less than 64 km/h (40 mph)	60 sec.	–
Fuel level	–	90 %
Fuel slosh	No slosh	
Change value of fuel tank pressure	Little	
Time after vehicle stop	110 sec.	–
Time after vehicle start	20 sec.	–
Number of vacuum introduction	–	8 times

TYPICAL MALFUNCTION THRESHOLDS

Engine Family	Detection Criteria	Threshold
Case 1: EVAP VSV stuck closed		
3MZ-FE	Difference between fuel tank pressure when vacuum introduction starts and fuel tank pressure when it stops	Less than 7 mmHg (0.93 kPa)
Others	Difference between fuel tank pressure when vacuum introduction starts and fuel tank pressure when it stops	Less than 5.25 mmHg (0.7 kPa)
Case 2: EVAP VSV stuck open		
–	Fuel tank pressure (before vacuum introduction)	Less than –10 mmHg (–1.33 kPa) for 4 to 9 sec.

OBD MONITOR DRIVE PATTERNS

See page [In-13](#)

MODE 06 DATA (MONITOR RESULT)

- (a) Checking monitor status (See page [In-43](#))
- (b) Detecting Mode 06 data (See page [In-44](#))