

2002 MY Fuel Trim Monitor (P0171, P0172, P0174, P0175)

To return to monitor description, see page [Fu-4](#).

MONITOR STRATEGY

Required sensors/Components	Main	Heated oxygen sensor or A/F sensor
	Sub	MAF sensor (or MAP sensor), ECT sensor, Crankshaft position sensor, VSV for EVAP
Frequency of operation	Continuous	
Duration	3 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	
Fuel system status	Closed Loop	
Engine	Warmed up	
EVAP system	OFF (Purge cut)	
Battery voltage	11 V	–
Either of following condition is met:		
Engine RPM	–	1,100 rpm
Intake air amount	0.14 – 0.26 g/rev.	–

TYPICAL MALFUNCTION THRESHOLDS

Engine family	Detection Criteria	Threshold
Case 1: Fuel trim is too LEAN		
1AZ-FE	Smoothed fuel-trim learned-value	35 % or more
2AZ-FE Camry and Solara		38 % or more
2AZ-FE Highlander		34 % or more
2JZ-GE		45 % or more
1MZ-FE		35 % or more
1NZ-FE		35 % or more
2RZ-FE and 3RZ-FE		35 % or more
2UZ-FE and 3UZ-FE		40 % or more
5VZ-FE		35 % or more
1ZZ-FE except MR2 and 2ZZ-GE		35 % or more
1ZZ-FE MR2		31.5 % or more
Case 2: Fuel trim is too RICH		
1AZ-FE	Smoothed fuel-trim learned-value	-35 % or less
2AZ-FE Camry and Solara		-32 % or less
2AZ-FE Highlander		-34 % or less
2JZ-GE		-35 % or less
1MZ-FE		-35 % or less
1NZ-FE		-35 % or less
2RZ-FE and 3RZ-FE		-35 % or less
2UZ-FE and 3UZ-FE		-35 % or less
5VZ-FE		-35 % or less
1ZZ-FE except MR2 and 2ZZ-GE		-35 % or less
1ZZ-FE MR2		-35 % or less