

1997 MY EGR Flow Excessive Monitor (P0402)

To return to monitor description, see page [Eg-25](#).

MONITOR STRATEGY

Required sensors/Components	Main	EGR gas temperature sensor
	Sub	EGR valve, IAT sensor, ECT sensor, Crankshaft position sensor, Throttle position sensor and Vehicle speed sensor
Frequency of operation	Once per driving cycle	
Duration	10 sec.	EGR valve stuck open
	10 sec.	EGR gas temperature sensor is open circuit
	20 sec.	VSV for EGR-cut malfunction
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	–
IAT	–10° C (14° F)	50 (122° F)
Case 1: EGR valve does not close		
Case 2: EGR gas temperature sensor is open circuit		
ECT	Equal to Engine–warmed–up temperature	–
Vehicle speed	–	0 km/h (0 mph)
EGR gas temperature at EGR start	105° C (221° F) (varies with ECT)	
Engine RPM	Idle speed	
Throttle position	Closed (idle switch ON)	
Engine condition	Warmed up	
Case 3: VSV for EGR cut malfunction		
ECT	30° C (86° F)	50° C (122° F)
Time after engine start	–	4 min.
Throttle position	Open (idle switch OFF)	

TYPICAL MALFUNCTION THRESHOLDS

Case 1: EGR valve dose not close

Engine Family	Detection Criteria	Threshold
1FZ-FE	Drop in EGR gas temperature Misfire count	6°C (11°F) or less 20 times or more
2JZ-GE	Drop in EGR gas temperature Misfire count	6.25°C (11.3°F) or less 20 times or more
2JZ-GTE (A/T)	Drop in EGR gas temperature Misfire count	5°C (9°F) or less 16 times or more
2JZ-GTE (M/T)	Drop in EGR gas temperature Misfire count	7°C (13°F) or less 16 times or more
2RZ-FE and 3RZ-FE	Drop in EGR gas temperature Misfire count	7°C (13°F) or less 20 times or more
2TZ-FE	Drop in EGR gas temperature Misfire count	7.5°C (14°F) or less 20 times or more
5VZ-FE	Drop in EGR gas temperature Misfire count	10°C (18°F) or less 13 times or more

Case 2: EGR gas temperature sensor is open circuit

Detection Criteria	Threshold
EGR gas temperature	158.7°C (318°F) or more

Case 3: VSV for EGR-cut malfunction

Thresholds vary with ECT at engine start and time after engine start.

Engine Family	Detection Criteria	Threshold
1FZ-FE	EGR gas temperature	+20°C (36°F) at EGR start
2JZ-GE		+20°C (36°F) at EGR start
2JZ-GTE		+35°C (63°F) at EGR start
2RZ-FE		+10°C (18°F) at EGR start
3RZ-FE Tacoma (M/T), 4Runner (M/T)		+6.25°C (11.3°F) at EGR start
3RZ-FE others		+10°C (18°F) at EGR start
2TZ-FZE		+15°C (27°F) at EGR start
5VZ-FE		+12°C (22°F) at EGR start

OBD MONITOR DRIVE PATTERNS

See page [In-13](#)

MODE 06 DATA (MONITOR RESULT)

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