

## 2001 to 2003 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 <a href="#">In-39</a>        |                     |
| Altitude                                                         | –                                     | 2,400 m (7,870 ft.) |
| Battery voltage                                                  | 11 V                                  | –                   |
| IAT                                                              | –10° C (14° F)                        | 50 (122° F)         |
| <b>Case 1: EGR valve does not close</b>                          |                                       |                     |
| <b>Case 2: EGR gas temperature sensor is open circuit</b>        |                                       |                     |
| 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                             |                     |
| <b>Case 3: VSV for EGR cut malfunction</b>                       |                                       |                     |
| 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                                  |
|---------------|----------------------------------------------|--------------------------------------------|
| 3RZ-FE        | Drop in EGR gas temperature<br>Misfire count | 9.375°C (17°F) or less<br>20 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                     |
|---------------|---------------------|-------------------------------|
| 3RZ-FE (M/T)  | EGR gas temperature | +6.25°C (11.3°F) at EGR start |
| 3RZ-FE (A/T)  |                     | +10°C (18°F) at EGR start     |

## 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](#))