DESCRIPTION
The Electronic Throttle Control System (ETCS) is composed of the throttle actuator, Throttle Position (TP) sensor, Accelerator Pedal Position (APP) sensor, and ECM. The ECM operates the throttle actuator to regulate the throttle valve in response to driver inputs. The TP sensor detects the opening angle of the throttle valve, and provides the ECM with feedback so that the throttle valve can be appropriately controlled by the ECM.

MONITOR DESCRIPTION
The ECM determines the actual opening angle of the throttle valve from the TP sensor signal. The actual opening angle is compared to the target opening angle commanded by the ECM. If the difference between these two values is outside the standard range, the ECM interprets this as a malfunction in the ETCS. The ECM then illuminates the MIL and sets the DTC. If the malfunction is not repaired successfully, the DTC is set when the accelerator pedal is quickly released (to close the throttle valve) after the engine speed reaches 5,000 rpm by the accelerator pedal being fully depressed (fully open the throttle valve).

MONITOR STRATEGY

| Related DTCs | P2119: ETCS malfunction |
| Required Sensors/Components (Main) | Throttle actuator |
| Required Sensors/Components (Related) | - |
| Frequency of Operation | Continuous |
| Duration | 1 second |
| MIL Operation | Immediate |
| Sequence of Operation | None |

TYPICAL ENABLING CONDITIONS
Monitor runs whenever following DTCs not present None
System guard* ON
*System guard set when following conditions met -
Throttle motor ON
Motor duty calculation Executing
TPS fail determination Fail determined
Motor current-cut operation Not executing
Actuator power supply 4 V or more
Motor fail determination Fail determined

TYPICAL MALFUNCTION THRESHOLDS
Either of following conditions A or B met -
A. Commanded closed TP - current closed TP 0.3 V or more for 1 second
B. Commanded open TP - current open TP 0.3 V or more for 0.6 seconds
FAIL-SAFE
When this DTC, as well as other DTCs relating to ETCS (Electronic Throttle Control System) malfunctions, is set, the ECM enters fail-safe mode. During fail-safe mode, the ECM cuts the current to the throttle actuator off, and the throttle valve is returned to a 6° throttle angle by the return spring. The ECM then adjusts the engine output by controlling the fuel injection (intermittent fuel-cut) and ignition timing, in accordance with the accelerator pedal opening angle, to allow the vehicle to continue at a minimal speed. If the accelerator pedal is depressed firmly and gently, the vehicle can be driven slowly. Fail-safe mode continues until a pass condition is detected, and the ignition switch is then turned OFF.

WIRING DIAGRAM
Refer to DTC P2102 (See page ES-283).

INSPECTION PROCEDURE
HINT:
Read freeze frame data using an intelligent tester. Freeze frame data record the engine condition when malfunctions are detected. When troubleshooting, freeze frame data can help determine if the vehicle was moving or stationary, if the engine was warmed up or not, if the air-fuel ratio was lean or rich, and other data, from the time the malfunction occurred.

1 CHECK ANY OTHER DTCS OUTPUT (IN ADDITION TO DTC P2119)
(a) Connect an intelligent tester to the DLC3.
(b) Turn the ignition switch ON.
(c) Turn the tester ON.
(d) Select the following menu items: DIAGNOSIS / ENHANCED OBD II / DTC INFO / CURRENT CODES.
(e) Read DTCs.

Result

<table>
<thead>
<tr>
<th>Display (DTC Output)</th>
<th>Proceed To</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2119</td>
<td>A</td>
</tr>
<tr>
<td>P2119 and other DTCs</td>
<td>B</td>
</tr>
</tbody>
</table>

HINT:
If any DTCs other than P2119 are output, troubleshoot those DTCs first.

2 CHECK WHETHER DTC OUTPUT RECURS (DTC P2119)
(a) Connect an intelligent tester to the DLC3.
(b) Turn the ignition switch ON.
(c) Turn the tester ON.
(d) Clear DTCs (See page ES-38).
(e) Allow the engine to idle for 15 seconds.

CAUTION:
Exercise extreme care and take precautions at steps (f) and (g) below. Failure to do so may result in the vehicle unexpectedly rolling away.
(f) Securely apply the parking brake and move the gear selector lever to the D position.
While depressing the brake pedal securely, fully depress the accelerator pedal for 5 seconds.

Select the following menu items: DIAGNOSIS / ENHANCED OBD II / DTC INFO / CURRENT CODES.

Read DTCs.

HINT:
The voltage output of the throttle position sensor can be checked during step (g) using an intelligent tester. Variations in the voltage output indicate that the throttle actuator is in operation. To check the voltage output using an intelligent tester, select the following menu items: DIAGNOSIS / ENHANCED OBD II / DATA LIST / PRIMARY / THROTTLE POS #1.

OK: No DTC output.

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REPLACE THROTTLE WITH MOTOR BODY ASSEMBLY (See page ES-428)

CHECK FOR INTERMITTENT PROBLEMS