

<b>DTC</b>	<b>P2119</b>	<b>THROTTLE ACTUATOR CONTROL THROTTLE BODY RANGE/PERFORMANCE</b>
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## CIRCUIT DESCRIPTION

The Electric Throttle Control System (ETCS) is composed of a throttle motor that operates the throttle valve, a throttle position sensor that detects the opening angle of the throttle valve, an accelerator pedal position sensor that detects the accelerator pedal position, and the ECM that controls the ETCS system.

The ECM operates the throttle motor to position the throttle valve for proper response to driver inputs. The throttle position sensor, mounted on the throttle body, provides this signal to the ECM so that the ECM can regulate the throttle motor.

DTC No.	DTC Detection Condition	Trouble Area
P2119	Throttle opening angle continues to vary greatly from its target angle	<ul style="list-style-type: none"> <li>• Electric throttle control system</li> <li>• ECM</li> </ul>

## MONITOR DESCRIPTION

The ECM determines the "actual" throttle valve angle based on the throttle position sensor signal. The "actual" throttle valve position is compared to the "target" throttle valve position commanded by the ECM. If the difference of these two values exceeds a specified limit, the ECM interprets this as a fault in the ETCS system. The ECM turns on the MIL and a DTC is set.

## FAIL SAFE

If the Electronic Throttle Control System (ETCS) has malfunction, the ECM cuts off current to the throttle control motor. The throttle control valve returns to a predetermined opening angle (approximately 16°) by the force of 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 enable the vehicle to continue to drive.

If the accelerator pedal is depressed firmly and slowly, the vehicle can be driven slowly.

If a "pass" condition is detected and then the power switch is turned OFF, the fail-safe operation will stop and the system will return to normal condition.

## MONITOR STRATEGY

Related DTCs	P2119: Electronic throttle control system failure
Required sensors/components	Main: Throttle actuator motor Related: Throttle position sensor
Frequency of operation	Continuous
Duration	Within 1 second
MIL operation	Immediately
Sequence of operation	None

## TYPICAL ENABLING CONDITIONS

The monitor will run whenever the following DTCs are not present	See page <a href="#">05-20</a>
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## TYPICAL MALFUNCTION THRESHOLDS

Difference between commanded throttle valve position and current throttle valve position	0.3 V or more
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## COMPONENT OPERATING RANGE

Commanded throttle valve position	Same as current throttle valve position
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## WIRING DIAGRAM

Refer to DTC P2102 on page [05-301](#) .

## INSPECTION PROCEDURE

### HINT:

Read freeze frame data using the hand-held tester or the OBD II scan tool. Freeze frame data records the engine condition when malfunction is detected. When troubleshooting, freeze frame data can help determine if the vehicle was running or stopped, 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 OTHER DTC OUTPUT(IN ADDITION TO DTC P2119)

- (a) Connect the hand-held tester or the OBD II scan tool to the DLC3.
- (b) Turn the power switch ON (IG).
- (c) Turn the hand-held tester or the OBD II scan tool ON.
- (d) On the hand-held tester, select the item: DIAGNOSIS / ENHANCED OBD II / DTC INFO / CURRENT CODES.
- (e) Read DTCs using the hand-held tester or the OBD II scan tool.

#### Result:

Display (DTC Output)	Proceed to
P2119	A
P2119 and other DTCs	B

### HINT:

If any other codes besides P2119 are output, perform troubleshooting for those DTCs first.

**B**

**GO TO RELEVANT DTC CHART**  
(See page [05-55](#) )

**A**

### 2 CHECK IF DTC OUTPUT RECURS

- (a) Clear the DTCs (see page [05-41](#) ).
- (b) Allow the engine to idle for 15 seconds.
- (c) Securely apply the parking brake, and place the shift position in D.
- (d) Depress the brake pedal securely and the accelerator pedal fully for 5 seconds.
- (e) Read DTCs.

### HINT:

Actual throttle position (TP) sensor voltage can be confirmed using the hand-held tester [DATA LIST / USER DATA / THROTTLE POS #1].

**Standard: No DTC output.**

**OK**

**SYSTEM OK**

**NG**

**REPLACE THROTTLE W/MOTOR BODY ASSY (See page [10-13](#) )**