DTC	P2119	THROTTLE ACTUATOR CONTROL THROTTLE BODY RANGE/PERFORMANCE

CIRCUIT DESCRIPTION

The Electronic 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, which is mounted on the throttle body, detects the opening angle of the throttle valve and 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 target throttle opening angle (1 trip detection logic)	• ETCS • ECM

MONITOR DESCRIPTION

The ECM determines the ”actual” throttle angle based on the throttle position sensor signal. The ”actual” throttle position is compared to the ”target” throttle position commanded by the ECM. If the difference between 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 ETCS has a 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 at a minimal speed. If the accelerator pedal is depressed firmly and slowly, the vehicle can be driven slowly.
If a ”pass” condition is detected and then the ignition switch is turned OFF, the fail-safe operation will stop and the system will return to normal.

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 operation	None

TYPICAL ENABLING CONDITIONS

The monitor will run whenever these DTCs are not present	See page 05-377

TYPICAL MALFUNCTION THRESHOLDS

Difference between ”target closed TP (Throttle position) ” and ”actual closed TP”	0.3 V or more for 1 seconds
Difference between ”target open TP” and ”actual open TP”	0.3 V or more for 0.6 seconds

WIRING DIAGRAM

Refer to DTC P2102 on page 05-603 .

INSPECTION PROCEDURE

HINT:

Read freeze frame data using the hand−held tester or the OBD II scan tool. Freeze frame data records the engine conditions when a 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)

Display (DTC output)	Proceed to
Only P2119 is output	A
P2119 and other codes are output	B

B → **GO TO RELEVANT DTC CHART (See page 05-412)**

A

2 CHECK IF DTC OUTPUT REOCCUR

(a) Clear the DTC (see page 05-400).
(b) Allow the engine to idle for 15 seconds.
(c) Pull the hand brake and shift the gear to D.
(d) Depress the brake pedal securely and the accelerator pedal fully for 5 seconds.
(e) Read the DTC.

HINT:

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

OK: No DTC output.

NG → **REPLACE THROTTLE BODY ASSY (See page 10-18)**

OK

NORMAL