

DTC	P2119	Throttle Actuator Control Throttle Body Range/Performance
------------	--------------	--

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, 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	• Electric throttle control system • Throttle body

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 of these two values exceeds a specified limit, the ECM interprets this as a fault in the ETCS (Electronic Throttle Control System). The ECM turns on the MIL and a DTC is set.

FAIL SAFE

If the ETCS (Electronic Throttle Control System) 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 minimum 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 condition.

MONITOR STRATEGY

Related DTCs	P2119	Electronic throttle control system failure
Required sensors/components	Main sensors	Throttle actuator motor
	Related sensors	Throttle position sensor
Frequency of operation	Continuous	
Duration	1 sec.	
MIL operation	Immediate	
Sequence of operation	None	

TYPICAL ENABLING CONDITIONS

The monitor will run whenever the following DTCs are not present	See "List of disable a monitor" (on page DI-3)
The typical enabling condition is not available	–

TYPICAL MALFUNCTION THRESHOLDS

Detection Criteria	Threshold
Difference between "target throttle position" and "actual throttle position"	0.3 V or more

COMPONENT OPERATING RANGE

Standard Value
Commanded throttle position and current throttle position are nearly same

WIRING DIAGRAM

Refer to DTC P2102 and P2103 on page [DI-302](#).

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, as well as other data from the time when a malfunction occurred.

1	Are there any other codes (besides DTC P2119) being output?
----------	--

PREPARATION:

- Connect the hand-held tester or the OBD II scan tool to the DLC3.
- Turn the ignition switch ON and push the hand-held tester or OBD II scan tool main switch ON.
- When using hand-held tester, enter the following menus: DIAGNOSIS / ENHANCED OBD II / DTC INFO / CURRENT CODES.

CHECK:

Read the DTC using the hand-held tester or the OBD II scan tool.

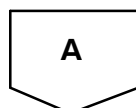
RESULT:

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

HINT:

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

B	Go to relevant DTC chart (See page DI-36).
----------	---

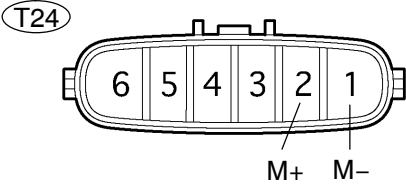


2

Check throttle control motor.

Component Side:

Throttle Control Motor and Sensor



A21034

PREPARATION:

Disconnect the T24 throttle control motor and sensor connector.

CHECK:

Measure the resistance between terminals of the throttle control motor.

OK:

Tester Connection	Specified Condition
M+ (T24-2) - M- (T24-1)	0.3 to 100 Ω (20°C (68°F))

NG

Replace throttle body (See page [SF-36](#)).

OK

3

Replace ECM and clear DTC (Check if DTC outputs reoccur).

PREPARATION:

- (a) Replace ECM.
- (b) Clear the DTC (See page [DI-3](#)).
- (c) Start and warm up the engine.
- (d) Run the engine at idle for 15 seconds or more.

CHECK:

Read the DTC using the hand-held tester or the OBD II scan tool.

OK:

No DTC output.

OK

System is normal.

NG

Replace throttle body.