

<b>DTC</b>	<b>P1125</b>	<b>Throttle Control Motor Circuit Malfunction</b>
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## CIRCUIT DESCRIPTION

Throttle motor is operated by the ECM and it opens and closes the throttle valve.

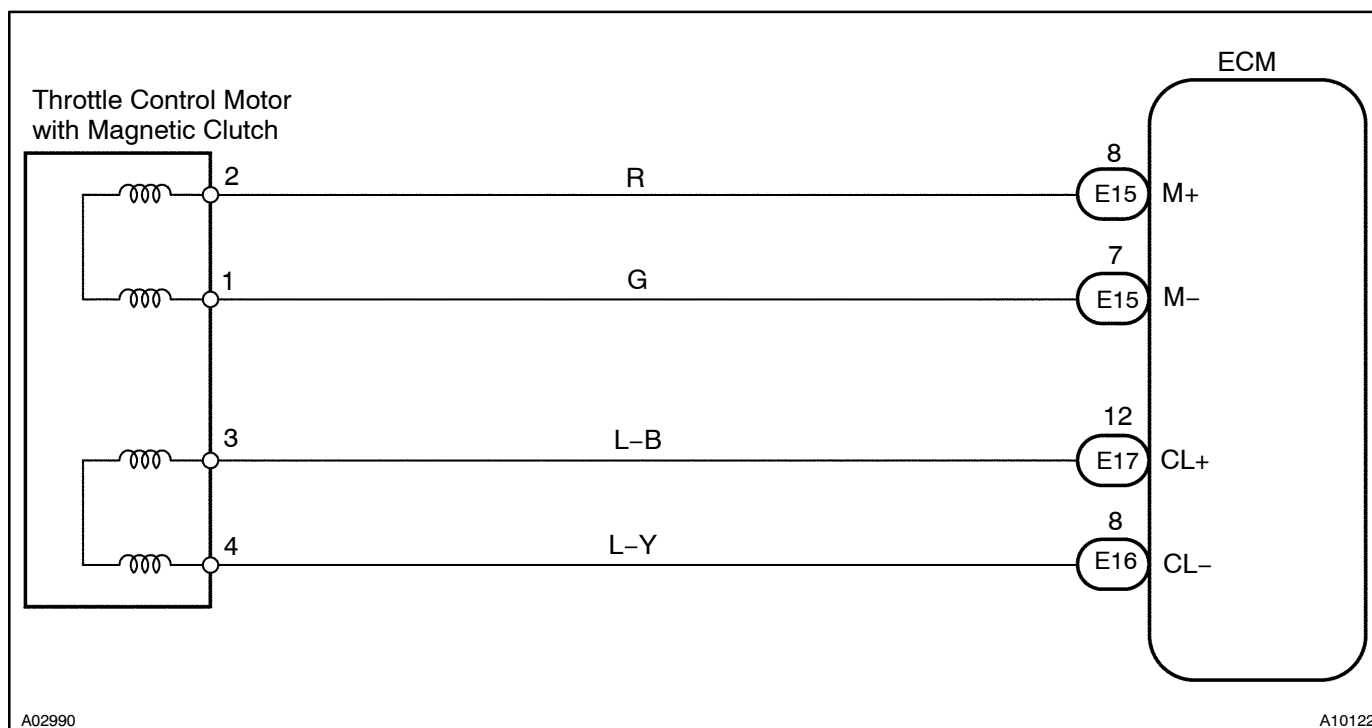
The opening angle of the throttle valve is detected by the throttle position sensor which is mounted on the throttle body and it provides feedback to the ECM to control the throttle motor in order to the throttle valve opening angle properly in response to driving condition.

If this DTC is stored, the ECM shuts down the power for the throttle motor and the magnetic clutch, and the throttle valve is fully closed by the return spring.

However, the opening angle of the throttle valve can be controlled by the accelerator pedal through the throttle cable.

DTC No.	DTC Detecting Condition	Trouble Area
P1125	Conditions (a) and (b) continue for 0.8 seconds: (a) Throttle control motor output duty $\geq 80\%$ (b) Throttle control motor current $< 0.3\text{ A}$	<ul style="list-style-type: none"> <li>• Open or short in throttle control motor circuit</li> <li>• Throttle control motor</li> <li>• ECM</li> </ul>
	Throttle control motor current $\geq 16\text{ A}$	
	Condition (a) continues for 0.6 seconds: (a) Throttle control motor current $\geq 7\text{ A}$	

## WIRING DIAGRAM



## INSPECTION PROCEDURE

### HINT:

Read freeze frame data using LEXUS hand-held tester or OBD II scan tool. Because freeze frame records the engine conditions when the malfunction is detected. When troubleshooting, it is useful for determining whether the vehicle was running or stopped, the engine was warmed up or not, the air-fuel ratio was lean or rich, etc. at the time of the malfunction.

1

**Check throttle control motor circuit.****PREPARATION:**

- (a) Connect the LEXUS hand-held tester to the DLC3.
- (b) Turn the ignition switch ON and LEXUS hand-held tester main switch ON.

**CHECK:**

Read the throttle motor current value on the LEXUS hand-held tester.

**OK:**

**Below 7 A at idle**

**When not using LEXUS hand-held tester:**

**PREPARATION:**

- (a) Connect the oscilloscope between terminals M+ or M- and E1 of the ECM connectors.
- (b) Start the engine.

**CHECK:**

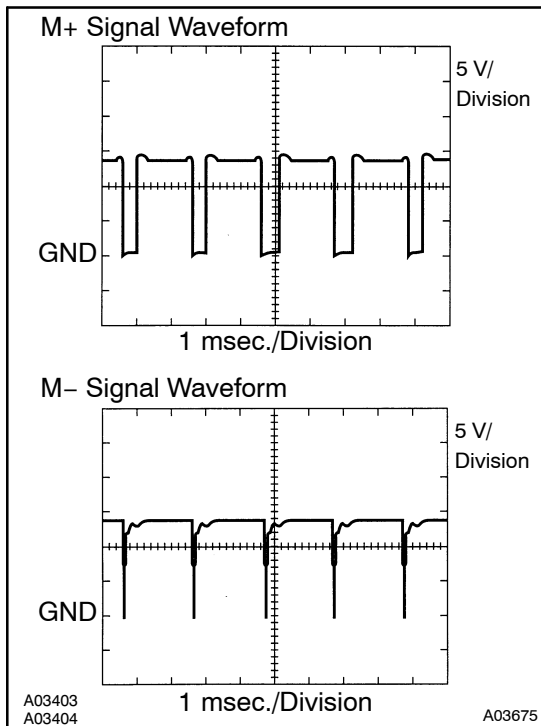
Check the waveform between terminals M+ or M- and E1 of the ECM connectors when the engine is idling.

**OK:**

**The correct waveforms are as shown.**

**HINT:**

The waveform frequency varies depending on the throttle opening.

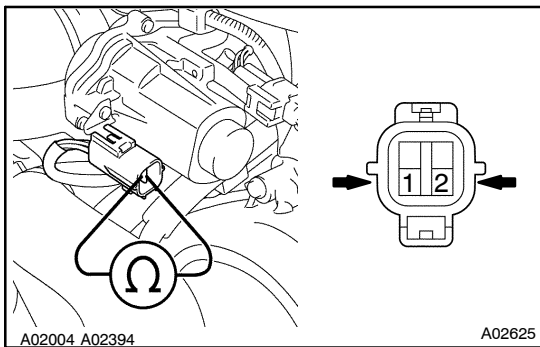


OK

**Check and replace ECM (See page [IN-30](#)).**

NG

2

**Check throttle control motor.****PREPARATION:**

Disconnect the throttle control motor with the magnetic clutch connector.

**CHECK:**

Measure the resistance between terminals 1 and 2 of the throttle control motor with the magnetic clutch.

**OK:**

**Resistance: 0.3 – 100  $\Omega$  at 20°C (68°F)**

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**Replace throttle control motor with magnetic clutch (See page [SF-44](#)).**



OK

3

Check for open and short in harness and connector between throttle control motor and ECM (See page [IN-30](#)).



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Repair or replace harness or connector.



OK

Check and replace ECM (See page [IN-30](#)).