

|            |              |                                                   |
|------------|--------------|---------------------------------------------------|
| <b>DTC</b> | <b>P1125</b> | <b>Throttle Control Motor Circuit Malfunction</b> |
|------------|--------------|---------------------------------------------------|

## CIRCUIT DESCRIPTION

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

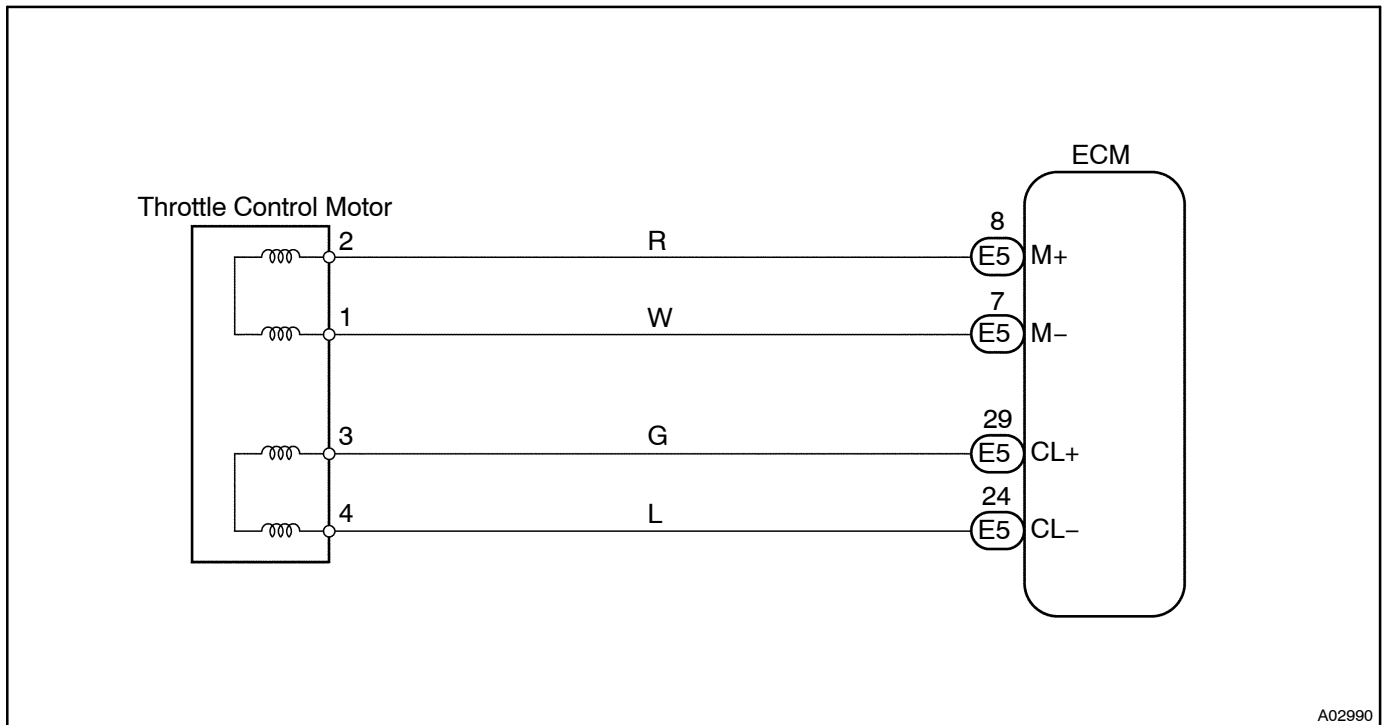
The opening angle of the throttle valve is detected by the throttle position sensor which is mounted on the throttle body and it provides feedback to the ECM to control the throttle motor in order to the throttle valve opening angle properly in response to driving condition.

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   | Condition (a) and (b) continues for 0.5 seconds:<br>(a) Throttle control motor output duty $\geq 80\%$<br>(b) Throttle control motor current $< 0.5\text{ A}$ | <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 $\geq 16\text{ A}$                                                                                                             |                                                                                                                                                      |
|         | Under condition continue for 0.6 seconds:<br>Throttle control motor current $\geq 7\text{ A}$                                                                 |                                                                                                                                                      |

## WIRING DIAGRAM

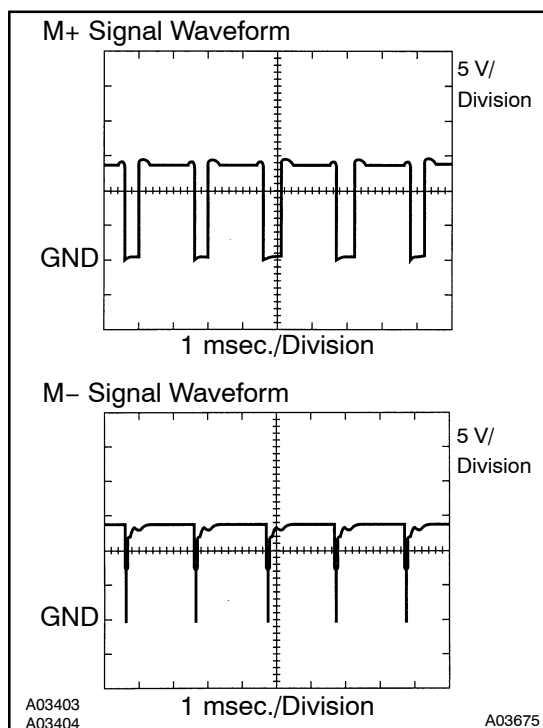


## INSPECTION PROCEDURE

### HINT:

Read freeze frame data using TOYOTA 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 warmed up or not, the air-fuel ratio lean or rich, etc. at the time of the malfunction.

### 1 Check throttle control motor circuit.



### When not using TOYOTA hand-held tester:

#### PREPARATION:

- Connect the oscilloscope between terminals M+ or M- and E1 of the ECM.
- Start the engine.

#### CHECK:

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

#### OK:

**The correct waveforms are as shown.**

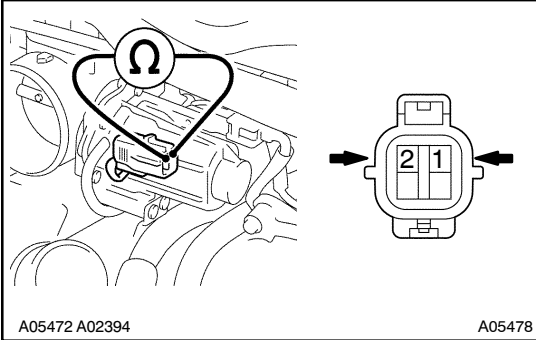
#### HINT:

The waveform frequency varies depending on the throttle opening.

**OK**

**Check and replace ECM (See page [IN-34](#)).**

**NG**

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

Disconnect the throttle control motor and magnetic clutch connector.

**CHECK:**

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

**OK:**

**Resistance: 0.3 ~ 100 Ω at 20°C (68°F)**

**NG**

**Replace throttle control motor**  
(See page [SF-40](#)).

**OK****3****Check for open and short in harness and connector between throttle control motor and ECM (See page [IN-34](#)).****NG**

**Repair or replace.**

**OK**

**Check and replace ECM (See page [IN-34](#)).**