

DTC	P0550	Power Steering Pressure Sensor Circuit Malfunction
DTC	P0552	Power Steering Pressure Sensor Circuit Low Input
DTC	P0553	Power Steering Pressure Sensor Circuit High Input

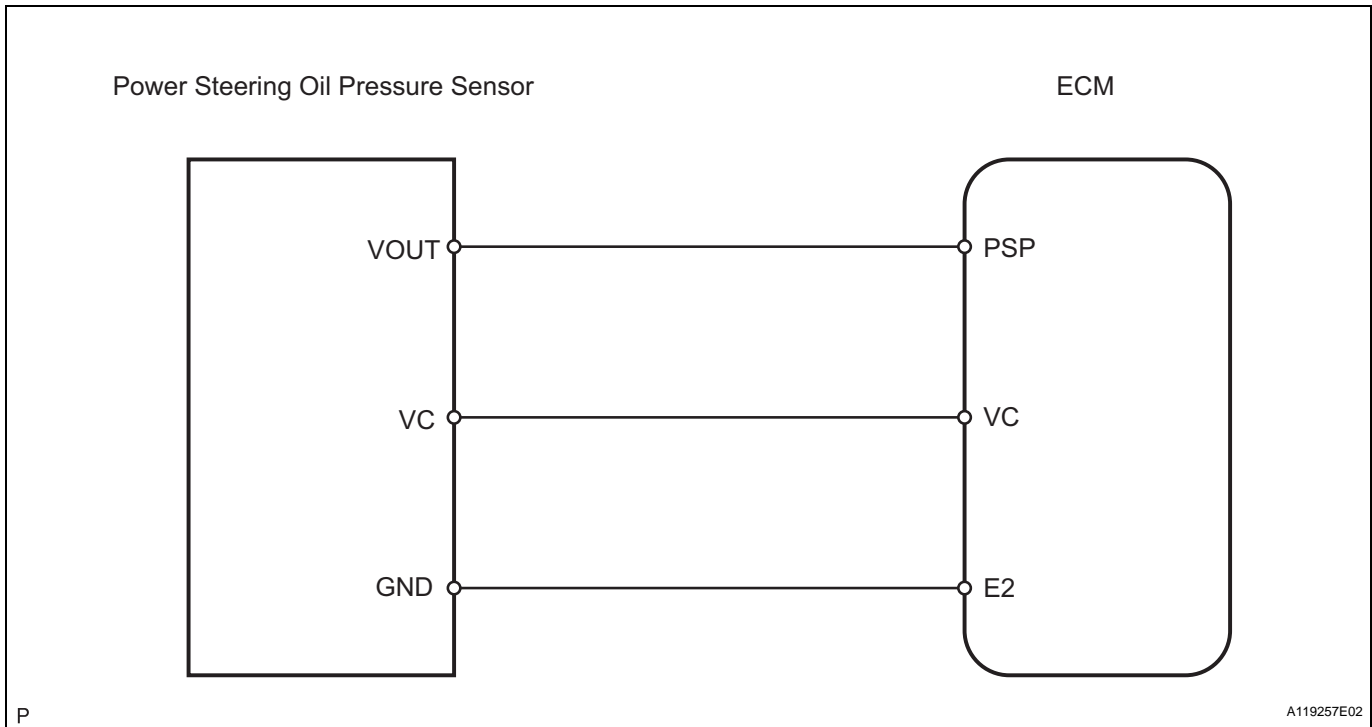
DESCRIPTION

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The power steering oil pressure sensor is turned ON when a power steering wheel load occurs by turning the steering wheel. The ECM regulates the engine idling RPM according to the voltage output of the sensor.

DTC No.	DTC Detection Condition	Trouble Area
P0550	Open or short in power steering oil pressure sensor circuit detected for more than 3 seconds after ignition switch turned ON. (1 trip detection logic)	<ul style="list-style-type: none"> Open or short in power steering oil pressure sensor circuit Power steering oil pressure sensor ECM
P0552	Open in power steering oil pressure sensor circuit detected for more than 3 seconds after ignition switch turned ON.	<ul style="list-style-type: none"> Open in power steering oil pressure sensor circuit Power steering oil pressure sensor ECM
P0553	Short in power steering oil pressure sensor circuit detected for more than 3 seconds after ignition switch turned ON.	<ul style="list-style-type: none"> Short in power steering oil pressure sensor circuit Power steering oil pressure sensor ECM

WIRING DIAGRAM



MONITOR DESCRIPTION

The ECM monitors the sensor voltage and uses this value to regulate the engine idling speed. When the sensor output voltage deviates from the normal operating range, the ECM determines that there is a malfunction in the power steering oil pressure sensor and sets a DTC.

MONITOR STRATEGY

Related DTCs	P0550: Power steering pressure sensor range check (Chattering) P0552: Power steering pressure sensor range check (Low Resistance) P0553: Power steering pressure sensor range check (High Resistance)
Required sensors/components (Main)	Power steering pressure sensor
Frequency of operation	Continuous
Duration	0.5 seconds
MIL operation	Immediate
Sequence of operation	None

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TYPICAL ENABLING CONDITIONS

Monitor runs whenever following DTCs not present	None
Time after starter signal ON to OFF	2 seconds or more

TYPICAL MALFUNCTION THRESHOLDS

P0550:

Power steering pressure sensor voltage	Less than 0.28 V, or more than 4.9 V
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P0552:

Power steering pressure sensor voltage	Less than 0.28 V
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P0553:

Power steering pressure sensor voltage	More than 4.9 V
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HINT:

- If other DTCs relating to different systems that have terminal E2 as the ground terminal are output simultaneously, terminal E2 may have an open circuit.
- Read freeze frame data using the intelligent tester. Freeze frame data records the engine condition when malfunctions are detected. When troubleshooting, freeze frame data can help determine if the vehicle was moving or stationary, 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 POWER STEERING OIL PRESSURE SENSOR

- Connect the intelligent tester to the DLC3.
- Turn the ignition switch ON and turn the tester ON.
- Start the engine.
- Enter the following menus: DIAGNOSIS / ENHANCED OBD II / DATA LIST / PRIMARY / PS SIGNAL.
- Read the value displayed on the tester.

OK

Condition	Power steering oil pressure sensor
Steering wheel locked	ON
Engine is idling	OFF

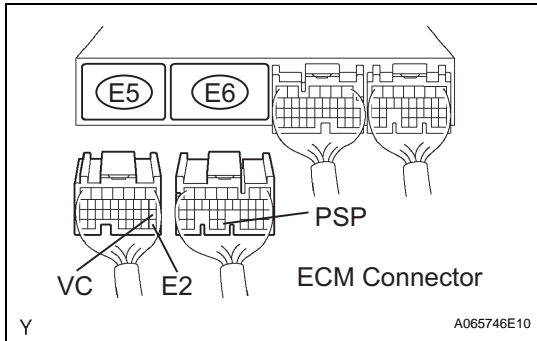
OK

CHECK FOR INTERMITTENT PROBLEMS

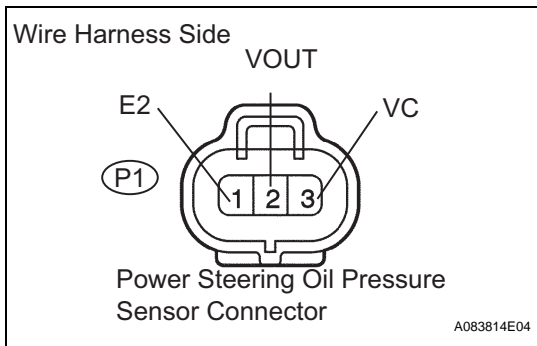
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2 CHECK HARNESS AND CONNECTOR (ECM - POWER STEERING OIL PRESSURE SENSOR)

ES



(a) Disconnect the E5 and E6 ECM connectors.



(b) Disconnect the P1 power steering oil pressure sensor connector.

(c) Measure the resistance of the wire harness side connectors.

Standard resistance (Check for open)

Tester Connection	Specified Condition
DUTY (P1-2) - PSP (E6-32)	Below 1 Ω
VC (P1-3) - VC (E5-18)	
E2 (P1-1) - E2 (E5-28)	

Standard resistance (Check for short)

Tester Connection	Specified Condition
DUTY (P1-2) or PSP (E6-32) - Body ground	10 kΩ or higher
E2 (P1-1) or E2 (E5-28) - Body ground	

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REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPLACE POWER STEERING OIL PRESSURE SENSOR