

DT: Power Steering Pressure (PSP) Sensor

← DT: Introduction

DT1 CHECK FOR DIAGNOSTIC TROUBLE CODES (DTC)

Are DTCs P0552, P0553, or P1550 present?

Yes	No
For KOEO and KOER DTCs P0552 or P0553, GO to DT4 . For continuous memory DTCs P0552 or P0553, GO to DT8 . For KOEO and KOER DTC P1550, GO to DT2 .	For all others, GO to Section 4, Diagnostic Trouble Code (DTC) Charts and Descriptions .

DT2 DTC P1550: MAKE SURE THE STEERING WHEEL IS TURNED

Did you turn the steering wheel at least one half turn within 20 seconds of starting the KOER self-test?

Yes	No
If there are any symptoms with the power steering system (for example, lack of power assist), REFER to the Workshop Manual Section 211-00, Steering System, to DIAGNOSE the lack of assist or inconsistent assist of steering system. If no symptoms are present with the power steering system, GO to DT3 .	REPEAT the KOER self-test.

DT3 CHECK THE VOLTAGE BETWEEN VREF AND SIGRTN AT THE PSP SENSOR

- PSP Sensor connector disconnected.
- Ignition ON, engine OFF.
- Measure the voltage between:

(+) PSP Sensor Connector, Harness Side	(-) PSP Sensor Connector, Harness Side
VREF - Pin 2	SIGRTN - Pin 1

Is the voltage between 4 - 6 V?

Yes	No
GO to DT4 .	GO to Pinpoint Test C .

DT4 CHECK THE PSP CIRCUIT FOR AN OPEN IN THE HARNESS

- Ignition OFF.

- PCM connector disconnected.
- Measure the resistance between:

(+) PSP Sensor Connector, Harness Side	(-) PCM Connector, Harness Side
PSP - Pin 3	PSP

Is the resistance less than 5 ohms?

Yes	No
GO to DT5 .	REPAIR the open circuit. CLEAR the DTCs. REPEAT the self-test.

DT5 CHECK THE PSP CIRCUIT FOR A SHORT TO VOLTAGE IN THE HARNESS

- Ignition ON, engine OFF.
- Measure the voltage between:

(+) PSP Sensor Connector, Harness Side	(-)
PSP - Pin 3	Ground

Is the voltage less than 1 V?

Yes	No
GO to DT6 .	REPAIR the short circuit. CLEAR the DTCs. REPEAT the self-test.

DT6 CHECK THE PSP CIRCUIT FOR A SHORT TO VREF, SIGRTN AND GND IN THE HARNESS

- Ignition OFF.
- Measure the resistance between:

(+) PSP Sensor Connector, Harness Side	(-) PSP Sensor Connector, Harness Side
PSP - Pin 3	VREF - Pin 2
PSP - Pin 3	SIGRTN - Pin 1

- Measure the resistance between:

(+) PSP Sensor Connector, Harness Side	(-)
PSP - Pin 3	Ground

Is the resistance greater than 10K ohms?

Yes	No
GO to DT7 .	REPAIR the short circuit. CLEAR the DTCs. REPEAT the self-test.

DT7 CHECK THE SENSOR OPERATION

- Connect a 5 amp fused jumper wire between the following:

Point A PSP Sensor Connector, Harness Side	Point B PSP Sensor Connector, Component Side
VREF - Pin 2	VREF - Pin 2
SIGRTN - Pin 1	SIGRTN - Pin 1
PSP - Pin 3	PSP - Pin 3

- Start engine and allow to idle.
- Measure the voltage between:

(+) PSP Sensor Connector, Component Side	(-)
PSP - Pin 3	Ground

- Observe the voltage while turning the steering wheel at least 1/2 turn right and left.

Is the voltage reading between 0.3 and 4.7 volts and does the voltage change when the steering wheel is turned?

Yes	No
GO to DT9 .	INSTALL a new PSP sensor. CLEAR the DTCs. REPEAT the self-test.

DT8 CONTINUOUS MEMORY DTCS P0552 OR P0553: CHECK THE POWER STEERING PRESSURE SENSOR CIRCUIT(S) FOR INTERMITTENT CONCERNS

- Ignition ON, engine OFF.
- Access the PCM and monitor the PSP PID.
- Observe the PSP PID for an indication of a concern while carrying out the following. (a concern is indicated by a sudden change in the voltage):
 - Shake, wiggle, and bend the PSP, VREF, SIGRTN circuit(s).
 - Lightly tap on the power steering pressure sensor to simulate road shock.

Is a concern indicated?

Yes	No
ISOLATE the concern. REPAIR as necessary. CLEAR the DTCs. REPEAT the self-test.	Unable to duplicate or identify the concern at this time. GO to Pinpoint Test Z .

DT9 CHECK FOR CORRECT PCM OPERATION

- Disconnect all the PCM connectors.
- Visually inspect for:
 - pushed out pins
 - corrosion
- Connect all the PCM connectors and make sure they seat correctly.
- Carry out the PCM self-test and verify the concern is still present.

Is the concern still present?

Yes	No
INSTALL a new PCM. REFER to Section 2, Flash Electrically Erasable Programmable Read Only	The system is operating correctly at this time. The

[Memory \(EEPROM\)](#), Programming the VID Block
for a Replacement PCM.

concern may have been caused by a loose or
corroded connector.
