DTC P0555:00 [SKYACTIV-D 2.2]

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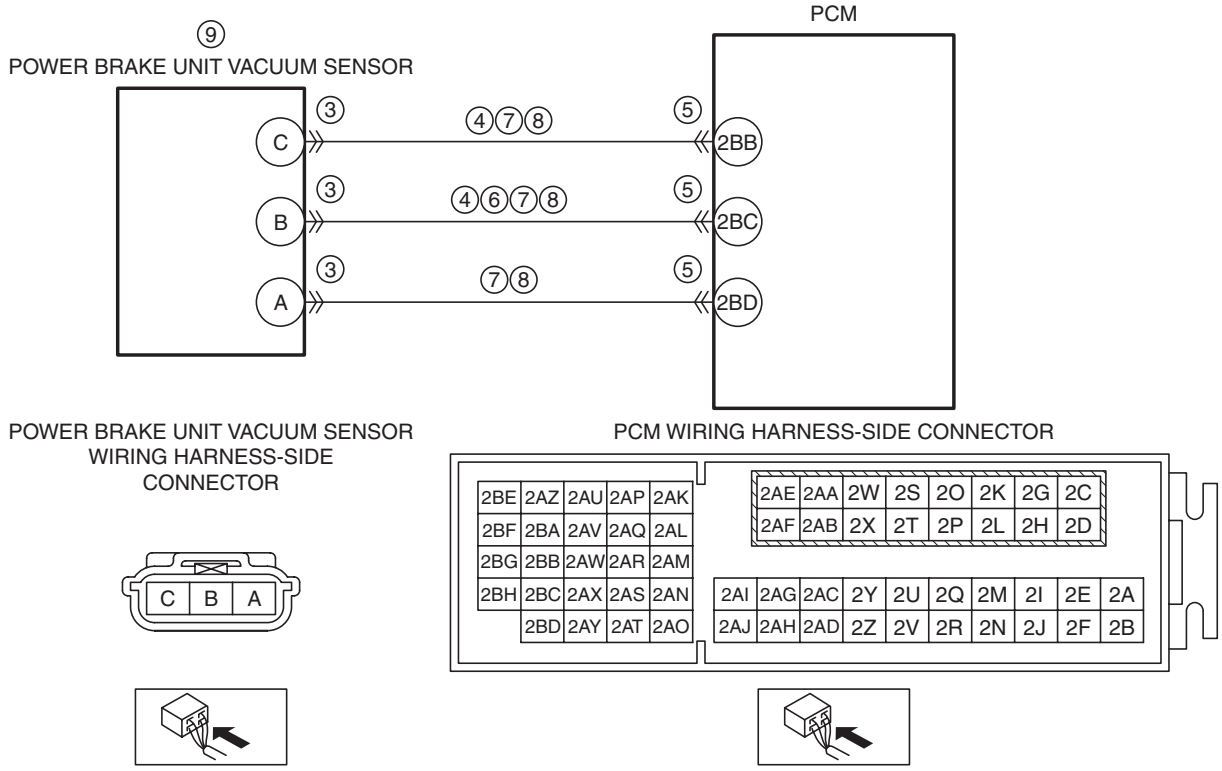
DTC P0555:00	**Power brake unit vacuum sensor circuit problem**
DETECTION CONDITION	• The PCM monitors the power brake unit vacuum sensor signal voltage while the ignition switch is ON. If the PCM detects the power brake unit vacuum sensor voltage is **below 0.15 V** or **above 4.8 V**, the PCM determines that the power brake unit vacuum sensor circuit has problem. **Diagnostic support note** • This is a continuous monitor (other). • The check engine light does not illuminate. • FREEZE FRAME DATA (Mode 2)/Snapshot data is not available. • DTC is stored in the PCM memory.
FAIL-SAFE FUNCTION	• Inhibits engine-stop by operating the i-stop function.
POSSIBLE CAUSE	• Power brake unit vacuum sensor connector or terminals malfunction • Short to ground in wiring harness between the following terminals: — Power brake unit vacuum sensor terminal C—PCM terminal 2BB — Power brake unit vacuum sensor terminal B—PCM terminal 2BC • PCM connector or terminals malfunction • Short to power supply in wiring harness between power brake unit vacuum sensor terminal B and PCM terminal 2BC • Power brake unit vacuum sensor circuits are shorted to each other • Open circuit in wiring harness between the following terminals: — Power brake unit vacuum sensor terminal C—PCM terminal 2BB — Power brake unit vacuum sensor terminal B—PCM terminal 2BC — Power brake unit vacuum sensor terminal A—PCM terminal 2BD • Power brake unit vacuum sensor malfunction • PCM malfunction



Diagnostic Procedure

STEP	INSPECTION		ACTION
1	**VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA HAS BEEN RECORDED** • Has the FREEZE FRAME DATA (Mode 2)/ snapshot data been recorded?	Yes	Go to the next step.
		No	Record the FREEZE FRAME DATA (Mode 2)/snapshot data on the repair order, then go to the next step.

STEP	INSPECTION		ACTION
2	**VERIFY RELATED SERVICE INFORMATION AVAILABILITY** • Verify related Service Information availability. • Is any related Service Information available?	Yes	Perform repair or diagnosis according to the available Service Information. • If the vehicle is not repaired, go to the next step.
		No	Go to the next step.
3	**INSPECT POWER BRAKE UNIT VACUUM SENSOR CONNECTOR CONDITION** • Switch the ignition off. • Disconnect the power brake unit vacuum sensor connector. • Inspect for poor connection (such as damaged/ pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the connector and/or terminals, then go to Step 10.
		No	Go to the next step.
4	**INSPECT POWER BRAKE UNIT VACUUM SENSOR CIRCUIT FOR SHORT TO GROUND** • Verify that the power brake unit vacuum sensor connector is disconnected. • Inspect for continuity between the following terminals (wiring harness-side) and body ground: — Power brake unit vacuum sensor terminal C — Power brake unit vacuum sensor terminal B • Is there continuity?	Yes	If the short to ground circuit could be detected in the wiring harness: • Repair or replace the wiring harness for a possible short to ground. If the short to ground circuit could not be detected in the wiring harness: • Replace the PCM (short to ground in the PCM internal circuit). (See PCM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) Go to Step 10.
		No	Go to the next step.
5	**INSPECT PCM CONNECTOR CONDITION** • Disconnect the PCM connector. • Inspect for poor connection (such as damaged/ pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the connector and/or terminals, then go to Step 10.
		No	Go to the next step.
6	**INSPECT POWER BRAKE UNIT VACUUM SENSOR SIGNAL CIRCUIT FOR SHORT TO POWER SUPPLY** • Verify that the power brake unit vacuum sensor and PCM connectors are disconnected. • Switch the ignition ON (engine off). • Measure the voltage at the power brake unit vacuum sensor terminal B (wiring harness-side). • Is the voltage **0 V**?	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible short to power supply, then go to Step 10.
7	**INSPECT POWER BRAKE UNIT VACUUM SENSOR CIRCUITS FOR SHORT TO EACH OTHER** • Verify that the power brake unit vacuum sensor and PCM connectors are disconnected. • Switch the ignition off. • Inspect for continuity between power brake unit vacuum sensor terminals C, B and A (wiring harness-side). • Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to each other, then go to Step 10.
		No	Go to the next step.
8	**INSPECT POWER BRAKE UNIT VACUUM SENSOR CIRCUIT FOR OPEN CIRCUIT** • Verify that the power brake unit vacuum sensor and PCM connectors are disconnected. • Inspect for continuity between the following terminals (wiring harness-side): — Power brake unit vacuum sensor terminal C —PCM terminal 2BB — Power brake unit vacuum sensor terminal B —PCM terminal 2BC — Power brake unit vacuum sensor terminal A —PCM terminal 2BD • Is there continuity?	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible open circuit, then go to Step 10.

STEP	INSPECTION		ACTION
9	**INSPECT POWER BRAKE UNIT VACUUM SENSOR** • Reconnect all disconnected connectors. • Inspect the power brake unit vacuum sensor. (See POWER BRAKE UNIT VACUUM SENSOR INSPECTION [SKYACTIV-D 2.2].) • Is there any malfunction?	Yes	Replace the power brake unit vacuum sensor, then go to the next step. (See POWER BRAKE UNIT VACUUM SENSOR REMOVAL/INSTALLATION.)
		No	Go to the next step.
10	**VERIFY DTC TROUBLESHOOTING COMPLETED** • Always reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the M-MDS. (See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].) • Perform the KOER self test. (See KOEO/KOER SELF TEST [SKYACTIV-D 2.2].) • Is the same DTC present?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See PCM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) Go to the next step.
		No	Go to the next step.
11	**VERIFY AFTER REPAIR PROCEDURE** • Perform the “AFTER REPAIR PROCEDURE”. (See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [SKYACTIV-D 2.2].)
		No	DTC troubleshooting completed.