

# DTC P0533:00 [SKYACTIV-G 2.0, SKYACTIV-G 2.5]

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<b>DTC P0533:00</b>	<b>Refrigerant pressure sensor circuit high input</b>
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>The PCM monitors input voltage from the refrigerant pressure sensor. If the input voltage at the PCM terminal 2AX is <b>above 4.9 V</b> for <b>5 s</b>, the PCM determines that the refrigerant pressure sensor circuit has a malfunction.</li> </ul> <b>Diagnostic support note</b> <ul style="list-style-type: none"> <li>This is a continuous monitor (other).</li> <li>The check engine light does not illuminate.</li> <li>FREEZE FRAME DATA (Mode 2)/Snapshot data is not available.</li> <li>DTC is stored in the PCM memory.</li> </ul>
<b>FAIL-SAFE FUNCTION</b>	Not applicable
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Refrigerant pressure sensor connector or terminals malfunction</li> <li>PCM connector or terminals malfunction</li> <li>Refrigerant pressure sensor malfunction</li> <li>Short to power supply in wiring harness between refrigerant pressure sensor terminal B and PCM terminal 2AX</li> <li>Open circuit in wiring harness between the following terminals: <ul style="list-style-type: none"> <li>Refrigerant pressure sensor terminal B—PCM terminal 2AX</li> <li>Refrigerant pressure sensor terminal C—PCM terminal 2AJ</li> </ul> </li> <li>PCM malfunction</li> </ul>
<div> <div> <div> ⑤⑧ REFRIGERANT PRESSURE SENSOR </div> </div> <div> <div>PCM</div> </div> <div> <div>REFRIGERANT PRESSURE SENSOR WIRING HARNESS-SIDE CONNECTOR</div> </div> <div> <div>PCM WIRING HARNESS-SIDE CONNECTOR</div> </div> </div>	

## Diagnostic Procedure

STEP	INSPECTION	ACTION
1	<b>VERIFY RELATED SERVICE INFORMATION AVAILABILITY</b> <ul style="list-style-type: none"> <li>Verify related Service Information availability.</li> <li>Is any related Service Information available?</li> </ul>	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.
2	<b>DETERMINE IF REFRIGERANT PRESSURE SENSOR OR WIRING HARNESS MALFUNCTION</b> <ul style="list-style-type: none"> <li>Access the AC_PRES PID using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)</li> <li>Verify the AC_PRES PID value.</li> <li>Is the AC_PRES PID value <b>5 V</b> or <b>B+</b>?</li> </ul>	Yes Go to Step 6.
		No Go to the next step.

STEP	INSPECTION	ACTION	
3	<b>INSPECT REFRIGERANT PRESSURE SENSOR CONNECTOR CONDITION</b> <ul style="list-style-type: none"> <li>Switch the ignition off.</li> <li>Disconnect the refrigerant pressure sensor connector.</li> <li>Inspect for poor connection (such as damaged/pulled-out pins, corrosion).</li> <li>Is there any malfunction?</li> </ul>	Yes	Repair or replace the connector and/or terminals, then go to Step 9.
		No	Go to the next step.
4	<b>INSPECT PCM CONNECTOR CONDITION</b> <ul style="list-style-type: none"> <li>Disconnect the PCM connector.</li> <li>Inspect for poor connection (such as damaged/pulled-out pins, corrosion).</li> <li>Is there any malfunction?</li> </ul>	Yes	Repair or replace the connector and/or terminals, then go to Step 9.
		No	Go to the next step.
5	<b>INSPECT REFRIGERANT PRESSURE SENSOR</b> <ul style="list-style-type: none"> <li>Inspect the refrigerant pressure sensor. (See REFRIGERANT PRESSURE SENSOR INSPECTION [MANUAL AIR CONDITIONER].) (See REFRIGERANT PRESSURE SENSOR INSPECTION [FULL-AUTO AIR CONDITIONER].)</li> <li>Is there any malfunction?</li> </ul>	Yes	Replace the refrigerant pressure sensor, then go to Step 9. (See REFRIGERANT PRESSURE SENSOR REMOVAL/INSTALLATION [MANUAL AIR CONDITIONER].) (See REFRIGERANT PRESSURE SENSOR REMOVAL/INSTALLATION [FULL-AUTO AIR CONDITIONER].)
		No	Go to Step 9.
6	<b>DETERMINE IF REFRIGERANT PRESSURE SENSOR SIGNAL CIRCUIT OR REFRIGERANT PRESSURE SENSOR GROUND CIRCUIT MALFUNCTION</b> <ul style="list-style-type: none"> <li>Switch the ignition off.</li> <li>Disconnect the refrigerant pressure sensor connector.</li> <li>Access the AC_PRES PID using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)</li> <li>Verify the AC_PRES PID value.</li> <li>Is the AC_PRES PID value <b>5 V</b> or <b>B+</b>?</li> </ul>	Yes	Go to the next step.
		No	Go to Step 8.
7	<b>INSPECT REFRIGERANT PRESSURE SENSOR SIGNAL CIRCUIT FOR OPEN CIRCUIT</b> <ul style="list-style-type: none"> <li>Verify that the refrigerant pressure sensor connector is disconnected.</li> <li>Switch the ignition off.</li> <li>Disconnect the PCM connector.</li> <li>Inspect for continuity between refrigerant pressure sensor terminal B (wiring harness-side) and PCM terminal 2AX (wiring harness-side).</li> <li>Is there continuity?</li> </ul>	Yes	Repair or replace the wiring harness for a possible short to power supply, then go to Step 9.
		No	Repair or replace the wiring harness for a possible open circuit, then go to Step 9.
8	<b>INSPECT REFRIGERANT PRESSURE SENSOR GROUND CIRCUIT FOR OPEN CIRCUIT</b> <ul style="list-style-type: none"> <li>Verify that the refrigerant pressure sensor connector is disconnected.</li> <li>Switch the ignition off.</li> <li>Disconnect the PCM connector.</li> <li>Inspect for continuity between refrigerant pressure sensor terminal C (wiring harness-side) and PCM terminal 2AJ (wiring harness-side).</li> <li>Is there continuity?</li> </ul>	Yes	Replace the refrigerant pressure sensor, then go to the next step. (See REFRIGERANT PRESSURE SENSOR REMOVAL/INSTALLATION [MANUAL AIR CONDITIONER].) (See REFRIGERANT PRESSURE SENSOR REMOVAL/INSTALLATION [FULL-AUTO AIR CONDITIONER].)
		No	Repair or replace the wiring harness for a possible open circuit, then go to the next step.
9	<b>VERIFY DTC TROUBLESHOOTING COMPLETED</b> <ul style="list-style-type: none"> <li>Always reconnect all disconnected connectors.</li> <li>Clear the DTC from the PCM memory using the M-MDS. (See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)</li> <li>Perform the KOEO or KOER self test. (See KOEO/KOER SELF TEST [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)</li> <li>Is the same DTC present?</li> </ul>	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) Go to the next step.
		No	Go to the next step.

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STEP	INSPECTION	ACTION	
10	<b>VERIFY AFTER REPAIR PROCEDURE</b> • Perform the “AFTER REPAIR PROCEDURE”. (See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
		No	DTC troubleshooting completed.