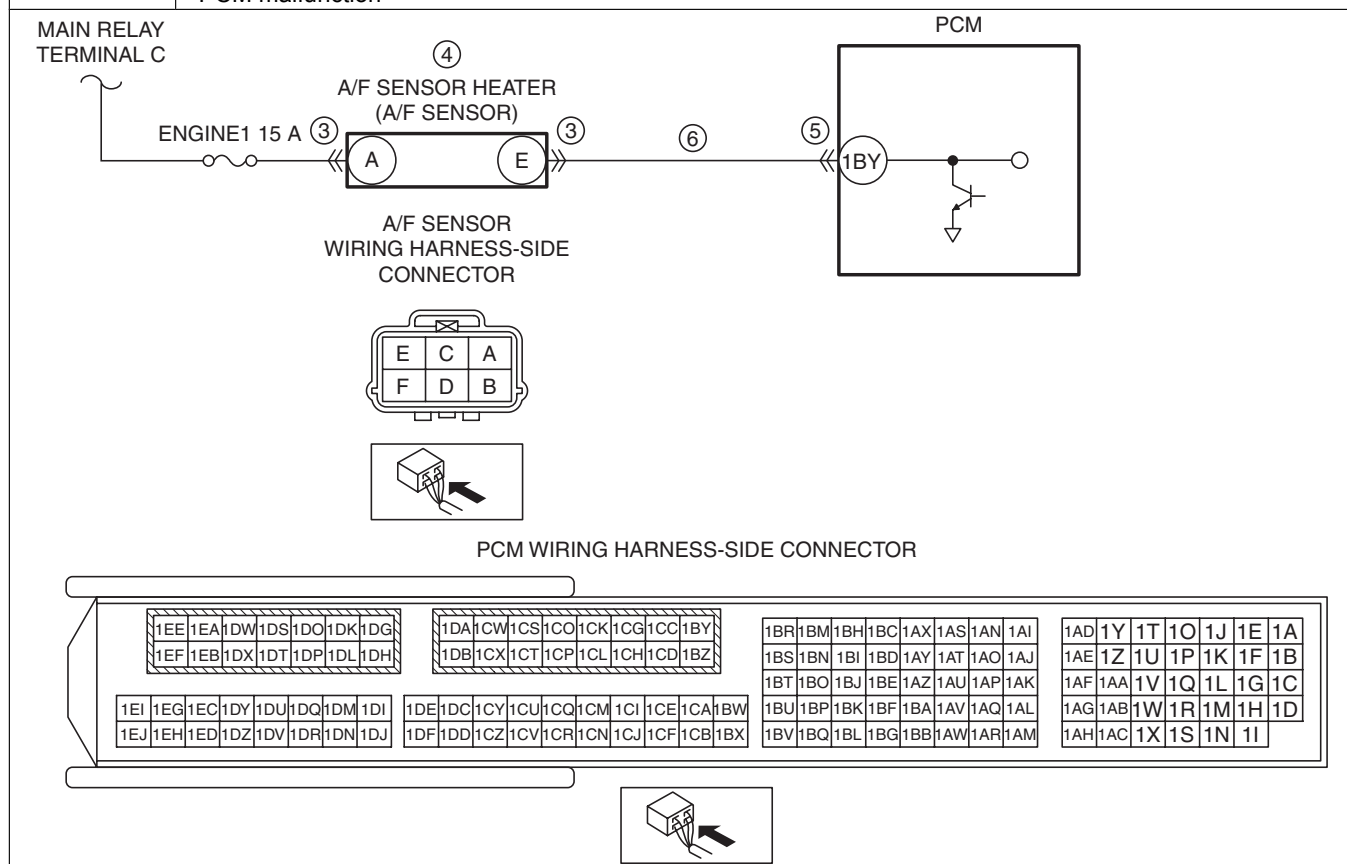


# DTC P0032:00 [SKYACTIV-G 2.0]

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<b>DTC P0032:00</b>	<b>A/F sensor heater control circuit high input</b>
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>The PCM monitors the A/F sensor heater output voltage. If the PCM turns the A/F sensor heater on but the A/F sensor heater circuit remains high voltage, the PCM determines that the A/F sensor heater circuit has a malfunction.</li> </ul> <p><b>Diagnostic support note</b></p> <ul style="list-style-type: none"> <li>This is a continuous monitor (A/F sensor heater, HO2S heater).</li> <li>The check engine light illuminates if the PCM detects the above malfunction condition in two consecutive drive cycles or in one drive cycle while the DTC for the same malfunction has been stored in the PCM.</li> <li>PENDING CODE is available if the PCM detects the above malfunction condition during first drive cycle.</li> <li>FREEZE FRAME DATA (Mode 2)/Snapshot data is available.</li> <li>The DTC is stored in the PCM memory.</li> </ul>
<b>FAIL-SAFE FUNCTION</b>	<ul style="list-style-type: none"> <li>Stops the fuel feedback control.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>A/F sensor connector or terminals malfunction</li> <li>A/F sensor heater malfunction</li> <li>PCM connector or terminals malfunction</li> <li>Short to power supply in wiring harness between A/F sensor terminal E and PCM terminal 1BY</li> <li>PCM malfunction</li> </ul>



## Diagnostic Procedure

STEP	INSPECTION	ACTION
1	<p><b>VERIFY FREEZE FRAME DATA (MODE 2)/SNAPSHOT DATA AND DIAGNOSTIC MONITORING TEST RESULTS HAVE BEEN RECORDED</b></p> <ul style="list-style-type: none"> <li>Have the FREEZE FRAME DATA (Mode 2)/snapshot data and DIAGNOSTIC MONITORING TEST RESULTS (A/F sensor heater, HO2S heater related) been recorded?</li> </ul>	<p>Yes: Go to the next step.</p> <p>No: Record the FREEZE FRAME DATA (Mode 2)/snapshot data and DIAGNOSTIC MONITORING TEST RESULTS on the repair order, then go to the next step.</p>

STEP	INSPECTION		ACTION
2	<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.
		No	Go to the next step.
3	<b>INSPECT A/F SENSOR CONNECTOR CONDITION</b> <ul style="list-style-type: none"> <li>• Switch the ignition to off.</li> <li>• Disconnect the A/F 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 7.
		No	Go to the next step.
4	<b>INSPECT A/F SENSOR HEATER</b> <ul style="list-style-type: none"> <li>• Inspect the A/F sensor heater.</li> <li>(See AIR FUEL RATIO (A/F) SENSOR INSPECTION [SKYACTIV-G 2.0].)</li> <li>• Is there any malfunction?</li> </ul>	Yes	Replace the A/F sensor, then go to Step 7.
		No	Go to the next step.
5	<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 7.
		No	Go to the next step.
6	<b>INSPECT A/F SENSOR HEATER CONTROL CIRCUIT FOR SHORT TO POWER SUPPLY</b> <ul style="list-style-type: none"> <li>• Verify that the A/F sensor and PCM connectors are disconnected.</li> <li>• Switch the ignition ON (engine off or on).</li> <li>• Measure the voltage at the A/F sensor terminal E (wiring harness-side).</li> <li>• Is the voltage 0 V?</li> </ul>	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible short to power supply, then go to the next step.
7	<b>VERIFY DTC TROUBLESHOOTING COMPLETED</b> <ul style="list-style-type: none"> <li>• Make sure to reconnect all disconnected connectors.</li> <li>• Clear the DTC from the PCM memory using the M-MDS.</li> <li>(See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0].)</li> <li>• Perform the KOER self test.</li> <li>(See KOEO/KOER SELF TEST [SKYACTIV-G 2.0].)</li> <li>• Is the PENDING CODE for this DTC present?</li> </ul>	Yes	Repeat the inspection from Step 1.
		No	Go to the next step.
8	<b>VERIFY AFTER REPAIR PROCEDURE</b> <ul style="list-style-type: none"> <li>• Perform the "AFTER REPAIR PROCEDURE".</li> <li>(See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0].)</li> <li>• Are any DTCs present?</li> </ul>	Yes	Go to the applicable DTC inspection.
		No	DTC troubleshooting completed.