

## DTC P0113 [ZJ, Z6]

B3E010200100W05

DTC P0113	IAT sensor circuit high input
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>The PCM monitors the input voltage from the IAT sensor. If the input voltage at PCM terminal 2AQ is <b>more than 4.8 V</b>, the PCM determines that the IAT sensor 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 (CCM).</li> <li>The MIL illuminates if the PCM detects the above malfunction condition in the first drive cycle.</li> <li>PENDING CODE is available if the PCM detects the above malfunction condition.</li> <li>FREEZE FRAME DATA is available.</li> <li>The DTC is stored in the PCM memory.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>IAT sensor malfunction</li> <li>Connector or terminal malfunction</li> <li>Open circuit in wiring harness between MAF/IAT sensor terminal D and PCM terminal 2AQ</li> <li>Short to power supply in wiring harness between MAF/IAT sensor terminal D and PCM terminal 2AQ</li> <li>Open circuit in wiring harness between MAF/IAT sensor terminal E and PCM terminal 2AY</li> <li>PCM malfunction</li> </ul>

### Diagnostic procedure

STEP	INSPECTION		ACTION
1	<b>VERIFY FREEZE FRAME DATA HAS BEEN RECORDED</b> • Has FREEZE FRAME DATA been recorded?	Yes	Go to the next step.
		No	Record the FREEZE FRAME DATA on the repair order, then go to the next step.
2	<b>VERIFY RELATED REPAIR INFORMATION AVAILABILITY</b> • Verify related service repair information availability. • Is any related repair information available?	Yes	Perform repair or diagnosis according to the available repair information. • If the vehicle is not repaired, go to the next step.
		No	Go to the next step.
3	<b>INSPECT MAF/IAT SENSOR CONNECTOR FOR POOR CONNECTION</b> • Turn the ignition switch off. • Disconnect the MAF/IAT sensor connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the terminal, then go to Step 8.
		No	Go to the next step.
4	<b>INSPECT IAT SENSOR SIGNAL CIRCUIT FOR SHORT TO POWER SUPPLY</b> • Turn the ignition switch to the ON position (Engine off). • Measure the voltage between MAF/IAT sensor terminal D (wiring harness-side) and body GND. • Is the voltage <b>B+</b> ?	Yes	Repair or replace the wiring harness for a possible short to power supply, then go to Step 8.
		No	Go to the next step.
5	<b>INSPECT IAT SENSOR</b> • Inspect the IAT sensor. (See <a href="#">INTAKE AIR TEMPERATURE (IAT) SENSOR INSPECTION [ZJ, Z6].</a> ) • Is there any malfunction?	Yes	Replace the MAF/IAT sensor, then go to Step 8. (See <a href="#">MASS AIR FLOW (MAF)/INTAKE AIR TEMPERATURE (IAT) SENSOR REMOVAL/INSTALLATION [ZJ, Z6].</a> )
		No	Go to the next step.
6	<b>INSPECT PCM CONNECTOR FOR POOR CONNECTION</b> • Turn the ignition switch off. • Disconnect the PCM connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the terminal, then go to Step 8.
		No	Go to the next step.
7	<b>INSPECT IAT SENSOR CIRCUIT FOR OPEN CIRCUIT</b> • Turn the ignition switch off. • Inspect for continuity between the following terminals:  - MAF/IAT sensor terminal D (wiring harness-side) and PCM terminal 2AQ (wiring harness-side) - MAF/IAT sensor terminal E (wiring harness-side) and PCM terminal 2AY (wiring harness-side)  • Is there continuity?	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible open circuit, then go to the next step.
8	<b>VERIFY TROUBLESHOOTING OF DTC P0113 COMPLETED</b> • Make sure to reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the WDS or equivalent. • Start the engine. • Is the same DTC present?	Yes	Replace the PCM, then go to the next step. (See <a href="#">PCM REMOVAL/INSTALLATION [ZJ, Z6].</a> )
		No	Go to the next step.
	<b>VERIFY AFTER REPAIR PROCEDURE</b>		

9	<ul style="list-style-type: none"><li>• Perform the "AFTER REPAIR PROCEDURE". (See <a href="#">AFTER REPAIR PROCEDURE [ZJ, Z6]</a>.)</li><li>• Are any DTCs present?</li></ul>	Yes	Go to the applicable DTC inspection. (See <a href="#">DTC TABLE [ZJ, Z6]</a> .)
		No	DTC troubleshooting completed.