

## DTC P0138 [ZJ, Z6]

B3E010200100W15

DTC P0138	Rear HO2S circuit high voltage
<b>DETECTION CONDITION</b> <ul style="list-style-type: none"> <li>The PCM monitors the input voltage from the rear HO2S when the engine is running. If the input voltage is <b>more than 1.2 V</b>, the PCM determines that the rear HO2S circuit voltage is high.</li> <li><b>Diagnostic support note</b></li> <li>This is a continuous monitor (HO2S).</li> <li>The MIL 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 the first drive cycle.</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>Rear HO2S malfunction</li> <li>Connector or terminal malfunction</li> <li>Short to power supply in wiring harness between rear HO2S terminal A and PCM terminal 2K</li> <li>PCM malfunction</li> </ul>	
<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>REAR HO2S</p> <p>REAR HO2S WIRING HARNESS-SIDE CONNECTOR</p> </div> <div style="text-align: center;"> <p>PCM</p> <p>PCM WIRING HARNESS-SIDE CONNECTOR</p> </div> </div>	

### Diagnostic procedure

STEP	INSPECTION	ACTION
1	<b>VERIFY FREEZE FRAME DATA HAS BEEN RECORDED</b> <ul style="list-style-type: none"> <li>Has FREEZE FRAME DATA been recorded?</li> </ul>	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> <ul style="list-style-type: none"> <li>Verify related service repair information</li> </ul>	Yes Perform repair or diagnosis according to the available repair information.

	availability. • Is any related repair information available?		• If the vehicle is not repaired, go to the next step.
		No	Go to the next step.
3	<b>INSPECT REAR HO2S CONNECTOR FOR POOR CONNECTION</b> • Turn the ignition switch off. • Disconnect the rear HO2S 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 7.
		No	Go to the next step.
4	<b>INSPECT REAR HO2S CIRCUIT FOR SHORT TO POWER SUPPLY</b> • Turn the ignition switch to the ON position (Engine off). • Measure the voltage between rear HO2S terminal A (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 7.
		No	Go to the next step.
5	<b>INSPECT REAR HO2S</b> • Inspect the rear HO2S. (See <a href="#">REAR HEATED OXYGEN SENSOR (HO2S) INSPECTION [ZJ, Z6].</a> ) • Is there any malfunction?	Yes	Replace the rear HO2S, then go to Step 7. (See <a href="#">REAR HEATED OXYGEN SENSOR (HO2S) 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 the next step.
		No	Go to the next step.
7	<b>VERIFY TROUBLESHOOTING OF DTC P0138 COMPLETED</b> • Make sure to reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the WDS or equivalent. • Perform the "HO2S heater, HO2S, and TWC Repair Verification Drive Mode". (See <a href="#">OBD DRIVE MODE [ZJ, Z6].</a> ) • Is the PENDING CODE for this 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.
8	<b>VERIFY AFTER REPAIR PROCEDURE</b> • Perform the "AFTER REPAIR PROCEDURE". (See <a href="#">AFTER REPAIR PROCEDURE [ZJ, Z6].</a> ) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See <a href="#">DTC TABLE [ZJ, Z6].</a> )
		No	DTC troubleshooting completed.