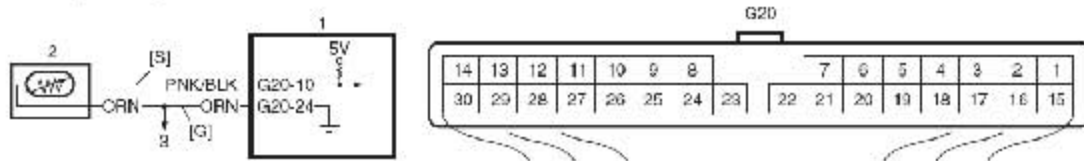


# B1502: Inside Air Temperature Sensor Circuit Malfunction

## Wiring Diagram



[S]: Inside air temperature sensor signal circuit	1. HVAC control module	3. To other sensors
[G]: Inside air temperature sensor ground circuit	2. Inside air temperature sensor	

## DTC Detecting Condition and Trouble Area

DTC Detecting Condition	Trouble Area
Inside air temperature sensor signal voltage is higher than or lower than specified value for specified time continuously.	<ul style="list-style-type: none"> <li>• Inside air temperature sensor circuit</li> <li>• Inside air temperature sensor</li> <li>• HVAC control module</li> </ul>

## DTC Troubleshooting

Step	Action	Yes	No
1	Was "Air Conditioning System Check" performed?	Go to Step 2.	Go to "Air Conditioning System Check: Automatic Type".

Step	Action	Yes	No
2	<p><b>Wire harness check</b></p> <p>1) Turn ignition switch to OFF position.</p> <p>2) Disconnect connectors from inside air temperature sensor and HVAC control module.</p> <p>3) Check for proper connection to each signal circuit terminal and ground circuit terminal of inside air temperature sensor and HVAC control module connectors.</p> <p>4) If OK, check that inside air temperature sensor circuit is as follows.</p> <ul style="list-style-type: none"> <li>• Wiring harness resistance of each inside air temperature sensor signal circuit and ground circuit is less than 3</li> <li>• Insulation resistance between inside air temperature sensor signal circuit and vehicle body ground is infinity</li> <li>• Circuit voltage of each inside air temperature sensor signal circuit and ground circuit is 0 – 1 V with ignition switch turned ON</li> </ul> <p>Are they in good condition?</p>	Go to Step 3.	Inside air temperature sensor signal circuit and/or ground circuit are open, short or high resistance.
3	<p>Inside air temperature sensor reference voltage check</p> <p>1) Connect connector to HVAC control module with ignition switch turned OFF.</p> <p>2) Turn ignition switch to ON position.</p> <p>3) Measure voltage between signal terminal and ground terminal of inside air temperature sensor connector. Is voltage 4.5 – 5.5 V?</p>	Go to Step 4.	Substitute a known-good HVAC control module and recheck.

Step	Action	Yes	No
4	Inside air temperature sensor check 1) Check inside air temperature sensor for performance referring to "Inside Air Temperature Sensor Inspection: Automatic Type". Is it in good condition?	Substitute a known-good HVAC control module and recheck.	Replace inside air temperature sensor.

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