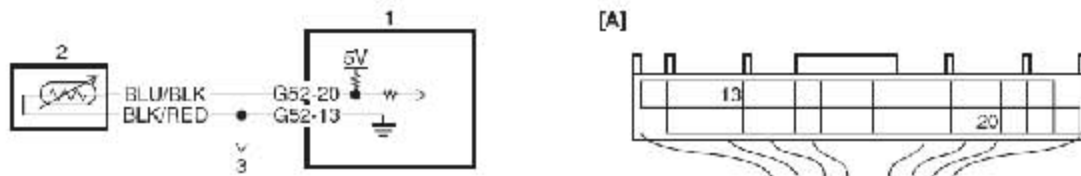


B1502: Inside Air Temperature Sensor and Its Circuit Malfunction

Wiring Diagram



[A]: HVAC control module connector "G52" (harness side view)	2. Inside air temperature sensor
1. HVAC control module	3. To other sensors

DTC Detecting Condition and Trouble Area

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

DTC Confirmation Procedure

- 1) Connect scan tool to DLC with ignition switch turned OFF.
- 2) Turn ON ignition switch and clear DTC using scan tool.
- 3) Check DTC.

DTC Troubleshooting

NOTE

When DTC B1503, B1511, B1512 and B1530 are indicated together, it is possible that "BLK/RED" wire/circuit open.

Step	Action	Yes	No
1	<p>Inside air temperature sensor signal circuit check</p> <p>1) Disconnect inside air temperature sensor connector with ignition switch turned OFF.</p> <p>2) Check for proper connection to inside air temperature sensor at "BLU/BLK" and "BLK/RED" wire terminals.</p> <p>3) If OK, measure voltage between "BLU/BLK" wire terminal of inside air temperature sensor connector and vehicle body ground with ignition switch turned ON.</p> <p>Is voltage 4 – 6 V?</p>	Go to Step 5.	Go to Step 2.
2	<p>Inside air temperature sensor signal circuit check</p> <p>1) Disconnect connector from HVAC control module with ignition switch turned OFF.</p> <p>2) Check for proper connection to HVAC control module connector at "G52-20" and "G52-13" terminals.</p> <p>3) If OK, measure resistance between "BLU/BLK" wire terminal of inside air temperature sensor connector and "G52-20" terminal of HVAC control module connector.</p> <p>Is resistance below 5 Ω?</p>	Go to Step 3.	"BLU/BLK" wire open or high resistance circuit.
3	<p>Inside air temperature sensor signal circuit check</p> <p>1) Measure resistance between "BLU/BLK" wire terminal of inside air temperature sensor connector and vehicle body ground.</p> <p>Is resistance infinity?</p>	Go to Step 4.	"BLU/BLK" wire shorted to ground circuit.

Step	Action	Yes	No
4	Inside air temperature sensor signal circuit check 1) Measure voltage between "BLU/BLK" wire terminal of inside air temperature sensor connector and vehicle body ground with ignition switch turned ON. Is voltage 0 V?	Go to Step 5.	"BLU/BLK" wire shorted to other circuit.
5	Inside air temperature sensor ground circuit check 1) Connect HVAC control module connector with ignition switch turned OFF. 2) Measure resistance between "BLK/RED" wire terminal of inside air temperature sensor connector and vehicle body ground. Is resistance below 5 Ω ?	Go to Step 7.	Go to Step 6.
6	Inside air temperature sensor ground circuit check 1) Measure resistance between "G52-13" terminal of HVAC control module connector and vehicle body ground. Is resistance below 5 Ω ?	"BLK/RED" wire open or high resistance circuit.	HVAC control module Faulty.
7	Inside air temperature sensor check 1) Check inside air temperature sensor referring to "Inside Air Temperature Sensor Inspection: ". Is it in good condition?	HVAC control module faulty.	Inside air temperature sensor faulty.