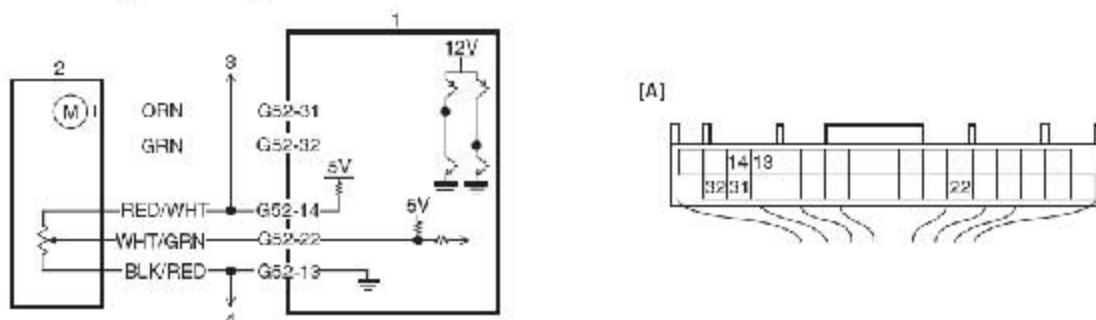


B1530: Air Intake Control Actuator (Position Sensor) and Its Circuit Malfunction

Wiring Diagram



[A]: HVAC control module connector "G52" (harness side view)	3. To other actuators
1. HVAC control module	4. To other sensors
2. Air intake control actuator	

NOTE

When DTC B1502, B1503, B1511 and B1512 are indicated together, it is that "BLK/RED" wire circuit open.

DTC Detecting Condition	Trouble Area
Air intake control actuator position sensor signal voltage is more than or less than specified value for specified time continuously.	<ul style="list-style-type: none"> Air intake control actuator circuit Air intake control actuator 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

Step	Action	Yes	No
1	<p>Position sensor power supply circuit check</p> <p>1) Disconnect air intake control actuator connector with ignition switch turned OFF.</p> <p>2) Check for proper connection to air intake control actuator at "RED/WHT", "WHT/GRN" and "BLK/RED" wire terminals.</p> <p>3) If OK, measure voltage between "RED/WHT" wire terminal of air flow control actuator connector and vehicle body ground with ignition switch turned ON. Is voltage 4 – 6 V?</p>	Go to Step 6.	Go to Step 2.
2	<p>Position sensor power supply circuit check</p> <p>1) Disconnect temperature control actuator connector with ignition switch turned OFF.</p> <p>2) Measure voltage between "RED/WHT" wire terminal of air intake control actuator connector and vehicle body ground with ignition switch turned ON. Is voltage 4 – 6 V?</p>	Temperature control actuator faulty.	Go to Step 3.
3	<p>Position sensor power supply circuit check</p> <p>1) Disconnect air flow control actuator connector with ignition switch turned OFF.</p> <p>2) Measure voltage between "RED/WHT" wire terminal of air intake control actuator connector and vehicle body ground with ignition switch turned ON. Is voltage 4 – 6 V?</p>	Air flow control actuator faulty.	Go to Step 4.

Step	Action	Yes	No
4	<p>Position sensor power supply 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 "G52-14", "G52-22" and "G52-13" terminals.</p> <p>3) If OK, measure resistance between "RED/WHT" wire terminal of air intake control actuator connector and "G52-14" terminal of HVAC control module connector.</p> <p>Is resistance below 5 Ω?</p>	Go to Step 5.	"RED/WHT" wire open or high resistance circuit.
5	<p>Position sensor power supply circuit check</p> <p>1) Measure resistance between "RED/WHT" wire terminal of air intake control actuator connector and vehicle body ground.</p> <p>Is resistance infinity?</p>	Go to Step 6.	"RED/WHT" wire shorted to ground circuit.
6	<p>Position sensor power supply circuit check</p> <p>1) Measure voltage between "RED/WHT" wire terminal of air flow control actuator connector and vehicle body ground with ignition switch turned ON.</p> <p>Is voltage 0 V?</p>	Go to Step 7.	"RED/WHT" wire shorted to other circuit.

Step	Action	Yes	No
7	Position sensor signal circuit check 1) Connect HVAC control module connector with ignition switch turned OFF. 2) Measure voltage between "WHT/GRN" wire terminal of air intake control actuator connector and vehicle body ground with ignition switch turned ON. Is voltage 4 – 6 V?	Go to Step 11.	Go to Step 8.
8	Position sensor signal circuit check 1) Disconnect connector from HVAC control module with ignition switch turned OFF. 2) Measure resistance between "WHT/GRN" wire terminal of air intake control actuator connector and "G52-22" terminal of HVAC control module connector. Is resistance below 5 Ω?	Go to Step 9.	"WHT/GRN" wire open or high resistance circuit.
9	Position sensor signal circuit check 1) Measure resistance between "WHT/GRN" wire terminal of air intake control actuator connector and vehicle body ground. Is resistance infinity?	Go to Step 10.	"WHT/GRN" wire shorted to ground circuit.
10	Position sensor signal circuit check 1) Measure voltage between "WHT/GRN" wire terminal of air intake control actuator connector and vehicle body ground with ignition switch turned ON. Is voltage 0 V?	Go to Step 11.	"WHT/GRN" wire shorted to other circuit.

Step	Action	Yes	No
11	Position sensor ground circuit check 1) Connect HVAC control module connector with ignition switch turned OFF. 2) Measure resistance between "BLK/RED" wire terminal of air intake control actuator connector and vehicle body ground. Is resistance below 5 Ω ?	Go to Step 12.	Go to Step 13.
12	Position 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.
13	Air intake control actuator check 1) Check air intake control actuator referring to "Air Intake Control Actuator Inspection: ". Is it in good condition?	HVAC control module faulty.	Air intake control actuator faulty.