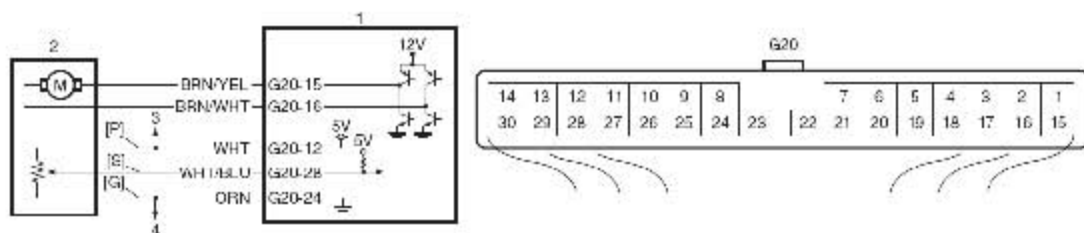


B1512: Air flow Control Actuator (Position Sensor) and/or Its Circuit Malfunction

Wiring Diagram



[P]: Position sensor power supply circuit	[G]: Position sensor ground circuit	2. Air flow control actuator	4. To other sensors
[S]: Position sensor signal circuit	1. HVAC control module	3. To temperature control actuator	

DTC Detecting Condition and Trouble Area

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

DTC Troubleshooting

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

Step	Action	Yes	No
2	<p>Wire harness check</p> <p>1) Turn ignition switch to OFF position. 2) Disconnect connectors from air flow control actuator and HVAC control module.</p> <p>3) Check for proper connection to position sensor power supply, signal and ground circuit terminals of air flow control actuator and HVAC control module connectors.</p> <p>4) If OK, check that position sensor of air flow control actuator circuit is as follows.</p> <ul style="list-style-type: none"> • Wiring harness resistance of each position sensor power supply, signal and ground circuit is less than 3 • Insulation resistance of each position sensor power supply, signal and ground circuit is infinity between air flow control actuator connector and vehicle body ground • Circuit voltage of each position sensor power supply, signal and ground circuit is 0 - 1 V with ignition switch turned ON <p>Are they in good condition?</p>	Go to Step 3.	Position sensor power supply, signal circuit and/or ground circuit are open, short or high resistance.

Step	Action	Yes	No
3	<p>Position sensor of air flow control actuator power supply 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.</p> <ul style="list-style-type: none"> • Position sensor power supply terminal and position sensor ground terminal of air flow control actuator connector • Position sensor signal terminal and position sensor ground terminal of air flow control actuator connector <p>Is voltage 4.5 – 5.5 V?</p>	Go to Step 4.	Go to Step 5.
4	<p>Air flow control actuator check</p> <p>1) Check position sensor of air flow control actuator for performance referring to "Air Flow Control Actuator and Its Circuit Inspection: Automatic Type".</p> <p>Is it in good condition?</p>	Substitute a known-good HVAC control module and recheck.	Replace air flow control actuator.
5	<p>Position sensor of temperature control actuator power supply voltage check</p> <p>1) Turn ignition switch to OFF position.</p> <p>2) Disconnect connector from temperature control actuator.</p> <p>3) Turn ignition switch to ON position.</p> <p>4) Measure voltage between.</p> <ul style="list-style-type: none"> • Position sensor power supply terminal and position sensor ground terminal of air flow control actuator connector • Position sensor signal terminal and position sensor ground terminal of air flow control actuator connector <p>Is voltage 4.5 – 5.5 V?</p>	Check temperature control actuator and its circuit.	Substitute a known-good HVAC control module and recheck.