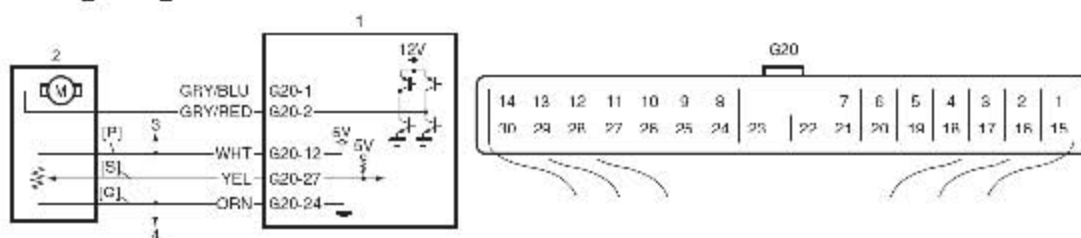


B1511: Temperature Control Actuator (Position Sensor) and/or Its Circuit Malfunction

Wiring Diagram



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

DTC Detecting Condition and Trouble Area

DTC Detecting Condition	Trouble Area
Temperature control actuator position sensor signal voltage is higher than or lower than specified value for specified time continuously.	<ul style="list-style-type: none"> • Temperature control actuator circuit • Temperature 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 Type".
2	<p>Wire harness check</p> <p>1) Turn ignition switch to OFF position. 2) Disconnect connectors from temperature control actuator and HVAC control module.</p> <p>3) Check for proper connection to position sensor power supply, signal and ground circuit terminals of temperature control actuator and HVAC control module connectors.</p> <p>4) If OK, check that position sensor of temperature 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 temperature 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	Position sensor of temperature control actuator power supply voltage check 1) Connect connector to HVAC control module. 2) Turn ignition switch to ON position. 3) Measure voltage between. • Position sensor power supply terminal and position sensor ground terminal of temperature control actuator connector • Position sensor signal terminal and position sensor ground terminal of temperature control actuator connector Is voltage 4.5 – 5.5 V?	Go to Step 4.	Go to Step 5. Replace temperature control actuator.
4	Temperature control actuator check 1) Check position sensor of temperature control actuator for performance referring to "Temperature Control Actuator and Its Circuit Inspection: Automatic Type". Is it in good condition?	Substitute a known-good HVAC control module and recheck.	
5	Position sensor of temperature control actuator power supply voltage check 1) Turn ignition switch to OFF position. 2) Disconnect connector from air flow control actuator. 3) Turn ignition switch to ON position. 4) Measure voltage between. • Position sensor power supply terminal and position sensor ground terminal of temperature control actuator connector • Position sensor signal terminal and position sensor ground terminal of temperature control actuator connector Is voltage 4.5 – 5.5 V?	Check air flow control actuator and its circuit.	Substitute a known-good HVAC control module and recheck.