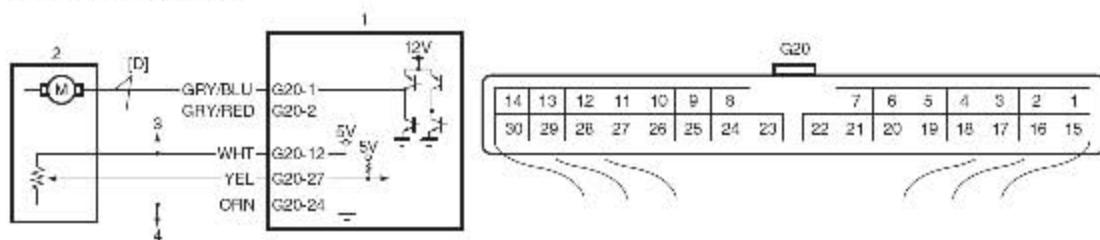


B1513: Temperature Control Actuator (Motor) and/or Its Circuit Malfunction

Wiring Diagram



[D]: Temperature control actuator motor drive circuit	2. Temperature control actuator	4. To other sensors
1. HVAC control module	3. To air flow control actuator	

DTC Detecting Condition and Trouble Area

DTC Detecting Condition	Trouble Area
Motor of temperature control actuator does not move longer than specified time.	<ul style="list-style-type: none"> ● Temperature control actuator circuit ● Temperature control linkage ● Temperature control actuator ● HVAC unit ● 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".

Step	Action	Yes	No
2	<p>DTC check</p> <p>1) Connect scan tool to DLC with ignition switch turned OFF. 2) Turn ignition switch to ON position and check DTC. Is DTC B1511 detected together?</p>	Go to "DTC B1511: Temperature Control Actuator (Position Sensor) and/or Its Circuit Malfunction: Automatic Type".	Go to Step 3.
3	<p>Visual Check</p> <p>Check if there is any obstruction in operating range of actuator linkage and if actuator linkage operates smoothly. Is it in good condition?</p>	Go to Step 4.	Obstruction in operating range of actuator linkage, actuator linkage faulty and/or internal fault of HVAC unit.
4	<p>Wire harness check</p> <p>1) Turn ignition switch to OFF position. 2) Disconnect connectors from temperature control actuator and HVAC control module. 3) Check for proper connection to actuator motor drive circuit terminals of temperature control actuator and HVAC control module connectors. 4) If OK, check that actuator motor drive circuit of temperature control actuator is as follows.</p> <ul style="list-style-type: none"> • Wiring harness resistance of each actuator motor drive circuit is less than 3 • Insulation resistance of each actuator motor drive circuit is infinity between temperature control actuator connector and vehicle body ground • Circuit voltage of each actuator motor drive circuit is 0 <p>– 1 V with ignition switch turned ON Are they in good condition?</p>	Go to Step 5.	Actuator motor drive circuit(s) is open, short or high resistance.

Step	Action	Yes	No
5	Wire harness check Check position sensor circuit of temperature control actuator for condition referring to Step 2 of "DTC B1511: Temperature Control Actuator (Position Sensor) and/or Its Circuit Malfunction: Automatic Type". Is it in good condition?	Go to Step 6.	Repair or replace.
6	Temperature control actuator check 1) Check 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.	Replace temperature control actuator.

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