DTC B1B71:11, B1B71:13 [FULL-AUTO AIR CONDITIONER]

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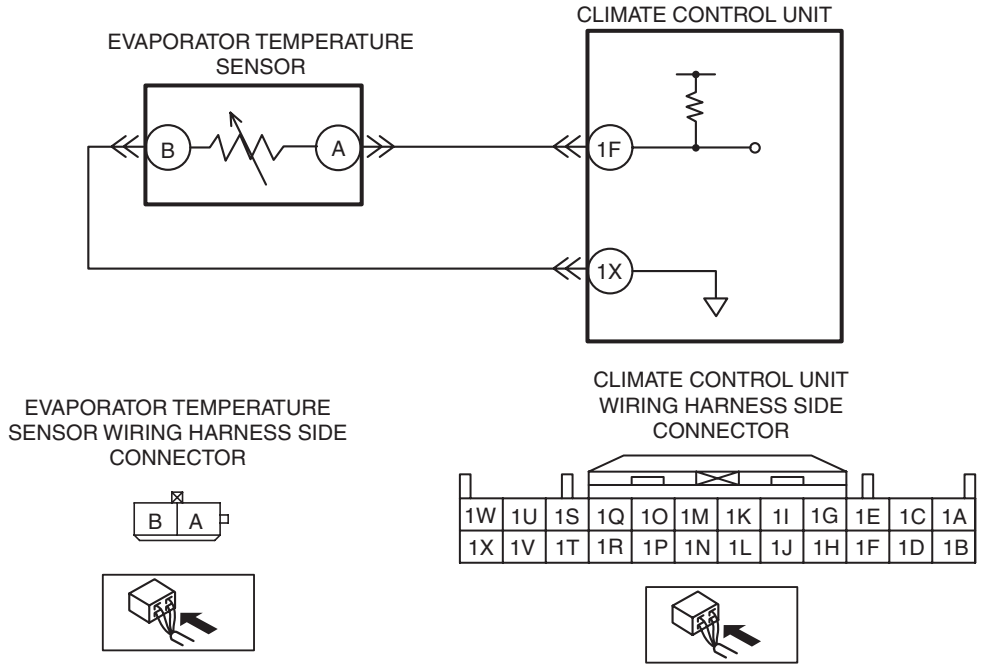
System malfunction location	• B1B71:11: Evaporator temperature sensor circuit short to ground • B1B71:13: Evaporator temperature sensor circuit open
Detection condition	• Malfunction in wiring harness between evaporator temperature sensor and climate control unit
Fail-safe	• A/C output OFF is controlled when the evaporator temperature sensor input value is at **0 °C {32 °F}**.
Possible cause	• Connector or terminal malfunction • Evaporator temperature sensor malfunction • Open circuit in wiring harness between climate control unit and evaporator temperature sensor • Short to ground in wiring harness between climate control unit and evaporator temperature sensor • Climate control unit malfunction



Diagnostic procedure

STEP	INSPECTION		ACTION
1	**INSPECT EVAPORATOR TEMPERATURE SENSOR CONNECTOR** • Switch the ignition off. • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) • Disconnect the evaporator temperature sensor connector. (See A/C UNIT DISASSEMBLY/ASSEMBLY.) • Inspect the connector and terminals (corrosion, damage, pin disconnection). • Are the connector and terminals normal?	Yes	Go to the next step.
		No	Repair/replace the connector or terminal. After repair procedure, go to the next step.
2	**INSPECT EVAPORATOR TEMPERATURE SENSOR** • Inspect the evaporator temperature sensor. (See EVAPORATOR TEMPERATURE SENSOR INSPECTION [FULL-AUTO AIR CONDITIONER].) • Is it normal?	Yes	Go to the next step.
		No	Replace the evaporator temperature sensor. (See A/C UNIT DISASSEMBLY/ASSEMBLY.) Go to the next step.

STEP	INSPECTION		ACTION
3	**INSPECT EVAPORATOR TEMPERATURE SENSOR CIRCUIT FOR OPEN CIRCUIT** • Disconnect the climate control unit connector and the evaporator temperature sensor connector. • Inspect for continuity between the following terminals (wiring harness-side): — Climate control unit terminal1F—evaporator temperature sensor terminal A — Climate control unit terminal 1X—evaporator temperature sensor terminal B • Is there continuity?	Yes	Go to the next step.
		No	Repair the wiring harness. Go to the next step.
4	**INSPECT EVAPORATOR TEMPERATURE SENSOR CIRCUIT FOR SHORT TO GROUND** • Inspect for continuity between the following terminals (wiring harness-side) and body ground: — Climate control unit 1F • Is there continuity?	Yes	Repair the wiring harness. Go to the next step.
		No	Connect the climate control unit connector, then go to the next step.
5	**VERIFY CLIMATE CONTROL UNIT CONNECTOR CONDITION** • Inspect the connector and terminals (corrosion, damage, pin disconnection). • Are the connector and terminals normal?	Yes	Go to the next step.
		No	Repair/replace the malfunctioning vehicle wiring harness, connector, or terminal. After repair procedure, go to the next step.
6	**INSPECT EVAPORATOR TEMPERATURE SENSOR CIRCUIT** • Connect the climate control unit connector. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) • Switch the ignition ON (engine off or on). • Inspect the voltage at the following climate control unit terminal (wiring harness-side). — Terminal 1F (evaporator temperature sensor input signal) • Is the voltage normal? (**Approx. 5 V**)	Yes	The system is normal at present. Go to the next step.
		No	Go to the next step.
7	**VERIFY THAT SAME DTC IS NOT OUTPUT AGAIN** • Switch the ignition off. • Disconnect the negative battery cable. • Reconnect the disconnected connectors. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) • Clear the past malfunction from memory. • Verify DTCs. • Is DTC B1B71:11 or B1B71:13 output?	Yes	Repeat the inspection from Step 1. • If the malfunction does not recur, go to the next step. • If the malfunction recurs, replace the climate control unit. (See CLIMATE CONTROL UNIT REMOVAL/INSTALLATION [FULL-AUTO AIR CONDITIONER].) Go to the next step.
		No	Go to the next step.
8	**VERIFY THAT NO OTHER DTCs ARE PRESENT** • Verify other DTCs displayed. • Are any other DTCs output?	Yes	Perform the corresponding DTC inspection.
		No	DTC troubleshooting completed.