DTC B1C1C:12, B1C1C:13 [FULL-AUTO AIR CONDITIONER]

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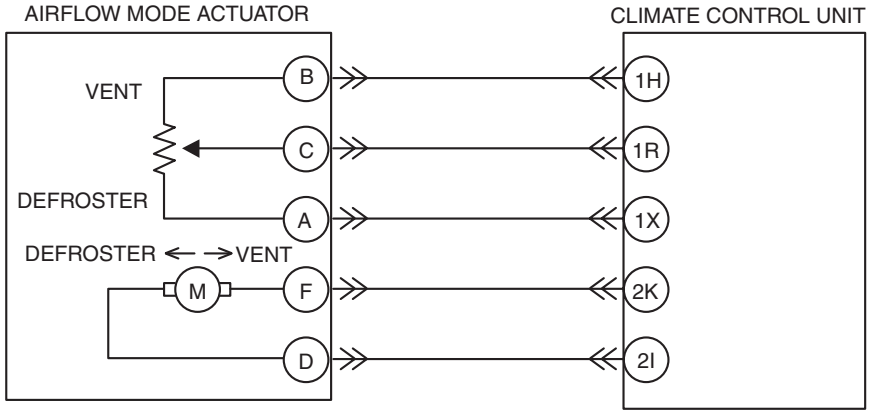
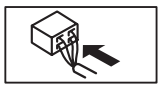
System malfunction location	• B1C1C:12: Airflow mode actuator (potentiometer) circuit short to power supply • B1C1C:13: Airflow mode actuator (potentiometer) circuit open
Detection condition	• Malfunction in wiring harness between airflow mode actuator and climate control unit
Fail-safe	**Malfunction determined when IG SW at ON** • Airflow mode actuator drive signal is stopped right when the malfunction is determined. **Malfunction already exists when IG SW turned to ON** • Control based on ambient temperature.
Possible cause	• Connector or terminal malfunction • Airflow mode actuator malfunction • Open circuit in wiring harness between climate control unit and airflow mode actuator • Short to power supply in wiring harness between climate control unit and airflow mode actuator • Climate control unit malfunction



AIRFLOW MODE ACTUATOR WIRING HARNESS SIDE CONNECTOR

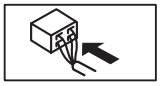
F	E	D	C	B	A



CLIMATE CONTROL UNIT WIRING HARNESS SIDE CONNECTOR

2K	2I	2G	2E	2C	2A
2L	2J	2H	2F	2D	2B

1W	1U	1S	1Q	1O	1M	1K	1I	1G	1E	1C	1A
1X	1V	1T	1R	1P	1N	1L	1J	1H	1F	1D	1B



Diagnostic Procedure

STEP	INSPECTION		ACTION
1	**INSPECT AIRFLOW MODE ACTUATOR 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 airflow mode actuator connector. (See AIRFLOW MODE ACTUATOR REMOVAL/ INSTALLATION [FULL-AUTO AIR CONDITIONER].) • 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 AIRFLOW MODE ACTUATOR** • Inspect the airflow mode actuator. (See AIRFLOW MODE ACTUATOR INSPECTION [FULL-AUTO AIR CONDITIONER].) • Is it normal?	Yes	Go to the next step.
		No	Replace the airflow mode actuator. (See AIRFLOW MODE ACTUATOR REMOVAL/ INSTALLATION [FULL-AUTO AIR CONDITIONER].) Go to the next step.
3	**INSPECT AIRFLOW MODE ACTUATOR (POTENTIOMETER) CIRCUIT FOR OPEN CIRCUIT** • Disconnect the climate control unit connector and the airflow mode actuator connector. • Inspect for continuity between the following terminals (wiring harness-side): — Climate control unit terminal 1H—airflow mode actuator terminal B — Climate control unit terminal 1R—airflow mode actuator terminal C — Climate control unit terminal 1X—airflow mode actuator terminal A • Is there continuity?	Yes	Go to the next step.
		No	Repair the wiring harness. Go to the next step.
4	**INSPECT AIRFLOW MODE ACTUATOR (POTENTIOMETER) SHORT TO POWER SUPPLY** • 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). • Measure the voltage at the following terminals (wiring harness-side): — Climate control unit terminal 1R • Is the voltage **0V**?	Yes	The system is normal at present. Go to the next step.
		No	Repair/replace the malfunctioning vehicle wiring harness. After repair procedure, go to the next step.

STEP	INSPECTION		ACTION
5	**VERIFY CLIMATE CONTROL UNIT CONNECTOR CONDITION** • 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].) • 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	**VERIFY THAT SAME DTC IS NOT OUTPUT AGAIN** • 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 B1C1C:12, B1C1C: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.
7	**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.