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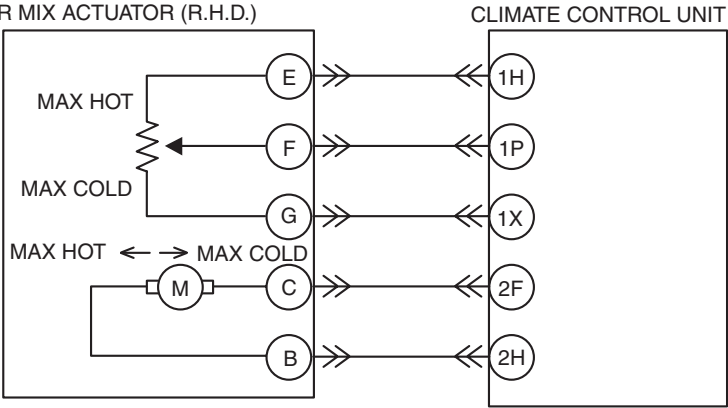
**DTC B1C1A:12, B1C1A:13, B1C1B:12, B1C1B:13 [FULL-AUTO AIR CONDITIONER]**

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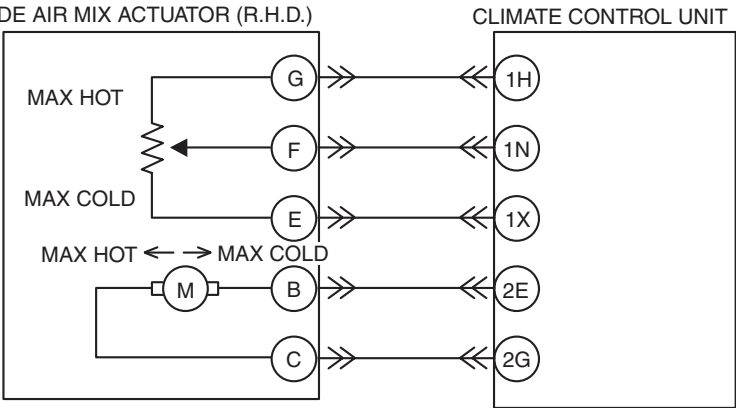
<b>System malfunction location (L.H.D)</b>	<ul style="list-style-type: none"><li>• B1C1A:12: Driver-side air mix actuator (potentiometer) circuit short to power supply</li><li>• B1C1A:13: Driver-side air mix actuator (potentiometer) circuit open</li><li>• B1C1B:12: Passenger-side air mix actuator (potentiometer) circuit short to power supply</li><li>• B1C1B:13: Passenger-side air mix actuator (potentiometer) circuit open</li></ul>
<b>System malfunction location (R.H.D)</b>	<ul style="list-style-type: none"><li>• B1C1A:12: Passenger-side air mix actuator (potentiometer) circuit short to power supply</li><li>• B1C1A:13: Passenger-side air mix actuator (potentiometer) circuit open</li><li>• B1C1B:12: Driver-side air mix actuator (potentiometer) circuit short to power supply</li><li>• B1C1B:13: Driver-side air mix actuator (potentiometer) circuit open</li></ul>
<b>Detection condition</b>	<ul style="list-style-type: none"><li>• Malfunction in wiring harness between air mix actuator and climate control unit</li></ul>
<b>Fail-safe</b>	<p><b>Malfunction determined when IG SW at ON</b></p> <ul style="list-style-type: none"><li>• Air mix actuator drive signal is stopped right when the malfunction is determined.</li></ul> <p><b>Malfunction already exists when IG SW turned to ON</b></p> <ul style="list-style-type: none"><li>• Control based on ambient temperature.</li></ul>
<b>Possible cause</b>	<ul style="list-style-type: none"><li>• Connector or terminal malfunction</li><li>• Air mix actuator malfunction</li><li>• Open circuit in wiring harness between climate control unit and air mix actuator</li><li>• Short to power supply in wiring harness between climate control unit and air mix actuator</li><li>• Climate control unit malfunction</li></ul>

<b>System malfunction location (L.H.D)</b>	<ul style="list-style-type: none"> <li>• B1C1A:12: Driver-side air mix actuator (potentiometer) circuit short to power supply</li> <li>• B1C1A:13: Driver-side air mix actuator (potentiometer) circuit open</li> <li>• B1C1B:12: Passenger-side air mix actuator (potentiometer) circuit short to power supply</li> <li>• B1C1B:13: Passenger-side air mix actuator (potentiometer) circuit open</li> </ul>
<b>System malfunction location (R.H.D)</b>	<ul style="list-style-type: none"> <li>• B1C1A:12: Passenger-side air mix actuator (potentiometer) circuit short to power supply</li> <li>• B1C1A:13: Passenger-side air mix actuator (potentiometer) circuit open</li> <li>• B1C1B:12: Driver-side air mix actuator (potentiometer) circuit short to power supply</li> <li>• B1C1B:13: Driver-side air mix actuator (potentiometer) circuit open</li> </ul>

- PASSENGER-SIDE AIR MIX ACTUATOR (L.H.D.)
- DRIVER-SIDE AIR MIX ACTUATOR (R.H.D.)



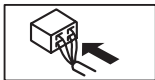
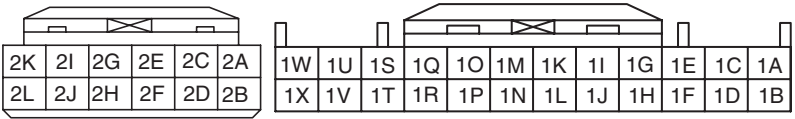
- DRIVER-SIDE AIR MIX ACTUATOR (L.H.D.)
- PASSENGER-SIDE AIR MIX ACTUATOR (R.H.D.)



AIR MIX ACTUATOR WIRING HARNESS SIDE CONNECTOR



CLIMATE CONTROL UNIT WIRING HARNESS SIDE CONNECTOR



## Diagnostic Procedure

STEP	INSPECTION	ACTION	
1	<b>INSPECT AIR MIX ACTUATOR CONNECTOR</b> <ul style="list-style-type: none"> <li>Switch the ignition off.</li> <li>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].)</li> <li>Disconnect the air mix actuator connector. (See AIR MIX ACTUATOR REMOVAL/INSTALLATION [FULL-AUTO AIR CONDITIONER].)</li> <li>Inspect the connector and terminals (corrosion, damage, pin disconnection).</li> <li>Are the connector and terminals normal?</li> </ul>	Yes	Go to the next step.
		No	Repair/replace the connector or terminal. After repair procedure, go to the next step.
2	<b>INSPECT AIR MIX ACTUATOR</b> <ul style="list-style-type: none"> <li>Inspect the air mix actuator. (See AIR MIX ACTUATOR INSPECTION [FULL-AUTO AIR CONDITIONER].)</li> <li>Is it normal?</li> </ul>	Yes	Go to the next step.
		No	Replace the air mix actuator. (See AIR MIX ACTUATOR REMOVAL/INSTALLATION [FULL-AUTO AIR CONDITIONER].) Go to the next step.
3	<b>INSPECT AIR MIX ACTUATOR (POTENTIOMETER) CIRCUIT FOR OPEN</b> <ul style="list-style-type: none"> <li>Disconnect the climate control unit connector and the air mix actuator connector.</li> <li>Inspect for continuity between the following terminals (wiring harness-side):  <b>Driver-side (L.H.D.), Passenger-side (R.H.D.)</b> <ul style="list-style-type: none"> <li>Climate control unit terminal 1H—air mix actuator terminal G</li> <li>Climate control unit terminal 1N—air mix actuator terminal F</li> <li>Climate control unit terminal 1X—air mix actuator terminal E</li> </ul> <b>Passenger-side (L.H.D.), Driver-side (R.H.D.)</b> <ul style="list-style-type: none"> <li>Climate control unit terminal 1H—air mix actuator terminal E</li> <li>Climate control unit terminal 1P—air mix actuator terminal F</li> <li>Climate control unit terminal 1X—air mix actuator terminal G</li> </ul> </li> <li>Is there continuity?</li> </ul>	Yes	Go to the next step.
		No	Repair the wiring harness. Go to the next step.

STEP	INSPECTION	ACTION	
4	<b>INSPECT AIR MIX ACTUATOR (POTENTIOMETER) SHORT TO POWER SUPPLY</b> <ul style="list-style-type: none"> <li>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].)</li> <li>Switch the ignition ON (engine off or on).</li> <li>Measure the voltage at the following terminals (wiring harness-side):  <b>Driver-side (L.H.D.), Passenger-side (R.H.D.)</b>  — Climate control unit 1N  <b>Passenger-side (L.H.D.), Driver-side (R.H.D.)</b>  — Climate control unit 1P</li> <li>Is the voltage <b>0V</b>?</li> </ul>	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.
5	<b>VERIFY CLIMATE CONTROL UNIT CONNECTOR CONDITION</b> <ul style="list-style-type: none"> <li>Switch the ignition off.</li> <li>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].)</li> <li>Inspect the connector and terminals (corrosion, damage, pin disconnection).</li> <li>Are the connector and terminals normal?</li> </ul>	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	<b>VERIFY THAT SAME DTC IS NOT OUTPUT AGAIN</b> <ul style="list-style-type: none"> <li>Reconnect the disconnected connectors.</li> <li>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].)</li> <li>Clear the past malfunction from memory.</li> <li>Verify DTCs.</li> <li>Is DTC B1C1A:12, B1C1A:13, B1C1B:12, B1C1B:13 output?</li> </ul>	Yes	Repeat the inspection from Step 1. <ul style="list-style-type: none"> <li>If the malfunction does not recur, go to the next step.</li> <li>If the malfunction recurs, replace the climate control unit. (See CLIMATE CONTROL UNIT REMOVAL/ INSTALLATION [FULL-AUTO AIR CONDITIONER].)</li> </ul> Go to the next step.
		No	Go to the next step.
7	<b>VERIFY THAT NO OTHER DTCs ARE PRESENT</b> <ul style="list-style-type: none"> <li>Verify other DTCs displayed.</li> <li>Are any other DTCs output?</li> </ul>	Yes	Perform the corresponding DTC inspection.
		No	DTC troubleshooting completed.