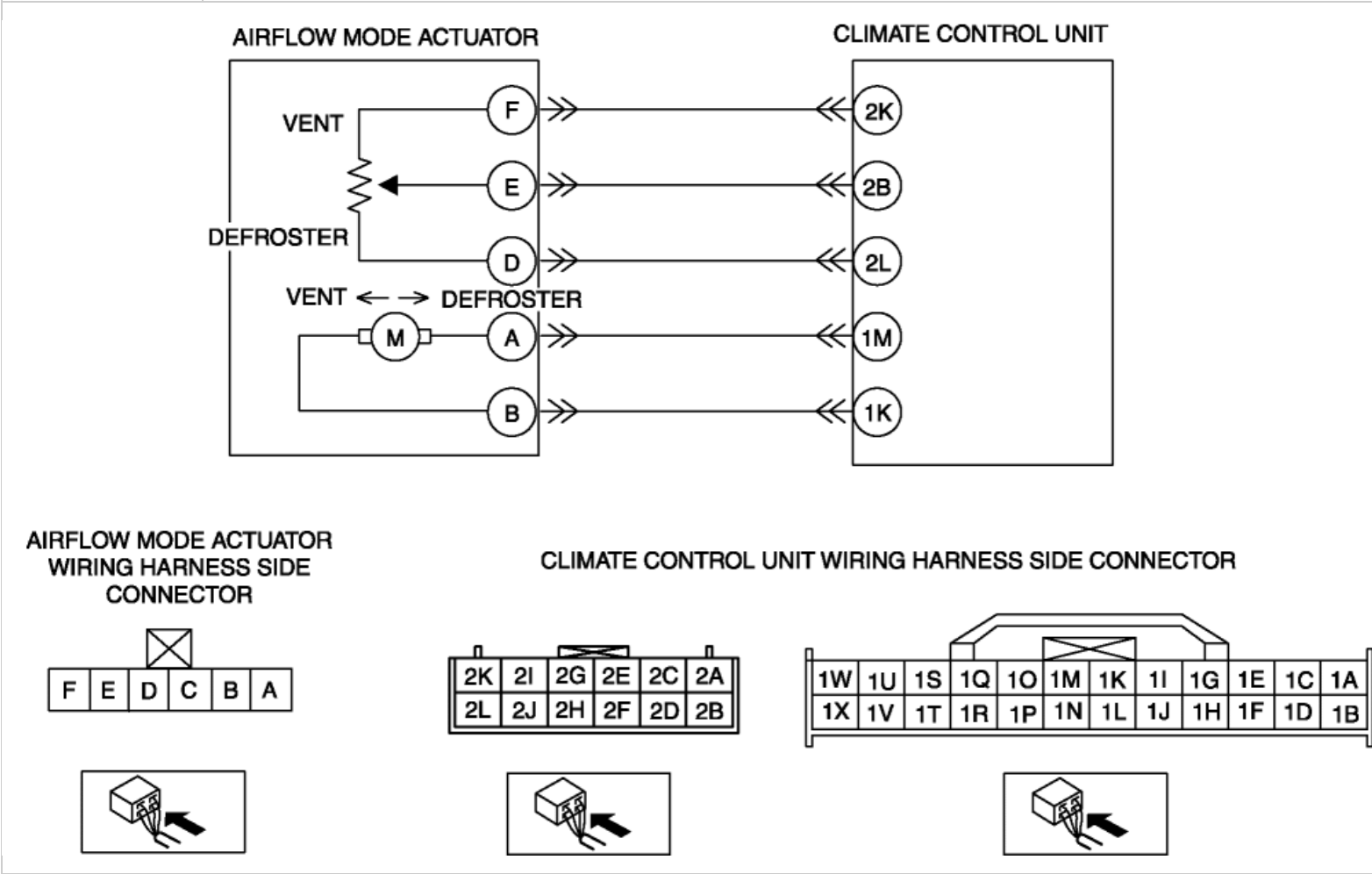


2012 - Mazda6 - HVAC

DTC B1C1C:11, B1C1C:13

DTC B1C1C:11	Airflow mode actuator (potentiometer) circuit short to ground
DTC B1C1C:13	Airflow mode actuator (potentiometer) circuit open
POSSIBLE CAUSE	• Airflow mode actuator connector malfunction • Airflow mode actuator malfunction • Open or short circuit in wiring harness between climate control unit and airflow mode actuator • Climate control unit connector malfunction • Climate control unit malfunction



Diagnostic procedure

STEP	INSPECTION	ACTION
1	INSPECT AIRFLOW MODE ACTUATOR CONNECTOR	YesGo to the next step.

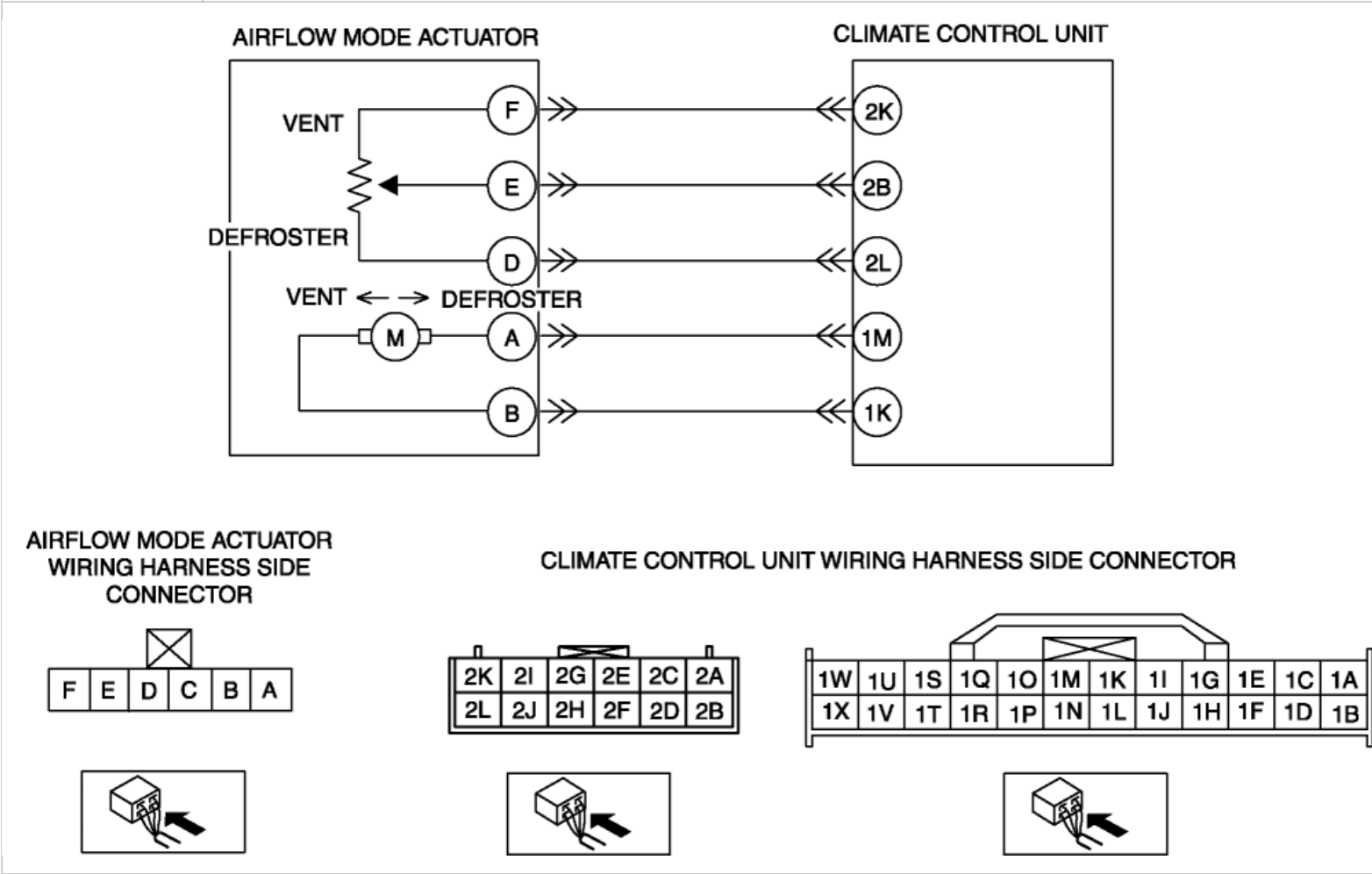
	• Switch the ignition to off. • Disconnect the negative battery cable. • Disconnect the airflow mode actuator connector. • Inspect the connector and terminals (corrosion, damage, pin disconnection). • Are the connector and terminals normal?	No Repair/replace the connector or terminal. After repair procedure, 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. • Is there an open circuit in the wiring harness between the following terminals of the climate control unit and the airflow mode actuator? ▪ 2K—F ▪ 2B—E ▪ 2L—D	Yes Repair the wiring harness. Go to the next step. No Go to the next step.
4	INSPECT AIRFLOW MODE ACTUATOR (POTENTIOMETER) SHORT TO GROUND • Is there a short circuit to ground in the wiring harness between climate control unit terminal 2B and airflow mode actuator terminal E?	Yes Repair/replace the malfunctioning vehicle wiring harness. After repair procedure, go to the next step. No The system is normal at present. 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	VERIFY THAT SAME DTC IS NOT OUTPUT AGAIN • Reconnect the disconnected connectors. • Clear the past malfunction from memory. • Verify DTCs. • Is DTC B1C1C:11, 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].) then go to the next step. No Go to the next step.
7	VERIFY THAT NO OTHER DTCs ARE PRESENT	Yes Perform the corresponding DTC inspection.

	• Verify other DTCs displayed. • Are any other DTCs output?		No DTC troubleshooting completed.
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2012 - Mazda6 - HVAC

DTC B1C1C:11, B1C1C:13

DTC B1C1C:11	Airflow mode actuator (potentiometer) circuit short to ground
DTC B1C1C:13	Airflow mode actuator (potentiometer) circuit open
POSSIBLE CAUSE	• Airflow mode actuator connector malfunction • Airflow mode actuator malfunction • Open or short circuit in wiring harness between climate control unit and airflow mode actuator • Climate control unit connector malfunction • Climate control unit malfunction



Diagnostic procedure

STEP	INSPECTION	ACTION
1	INSPECT AIRFLOW MODE ACTUATOR CONNECTOR	YesGo to the next step.

	• Switch the ignition to off. • Disconnect the negative battery cable. • Disconnect the airflow mode actuator connector. • Inspect the connector and terminals (corrosion, damage, pin disconnection). • Are the connector and terminals normal?	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. • Is there an open circuit in the wiring harness between the following terminals of the climate control unit and the airflow mode actuator? ▪ 2K—F ▪ 2B—E ▪ 2L—D	Yes Repair the wiring harness. Go to the next step. No Go to the next step.
4	INSPECT AIRFLOW MODE ACTUATOR (POTENTIOMETER) SHORT TO GROUND • Is there a short circuit to ground in the wiring harness between climate control unit terminal 2B and airflow mode actuator terminal E?	Yes Repair/replace the malfunctioning vehicle wiring harness. After repair procedure, go to the next step. No The system is normal at present. 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	VERIFY THAT SAME DTC IS NOT OUTPUT AGAIN • Reconnect the disconnected connectors. • Clear the past malfunction from memory. • Verify DTCs. • Is DTC B1C1C:11, 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].) then go to the next step. No Go to the next step.
7	VERIFY THAT NO OTHER DTCs ARE PRESENT	Yes Perform the corresponding DTC inspection.

	• Verify other DTCs displayed. • Are any other DTCs output?		No DTC troubleshooting completed.
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