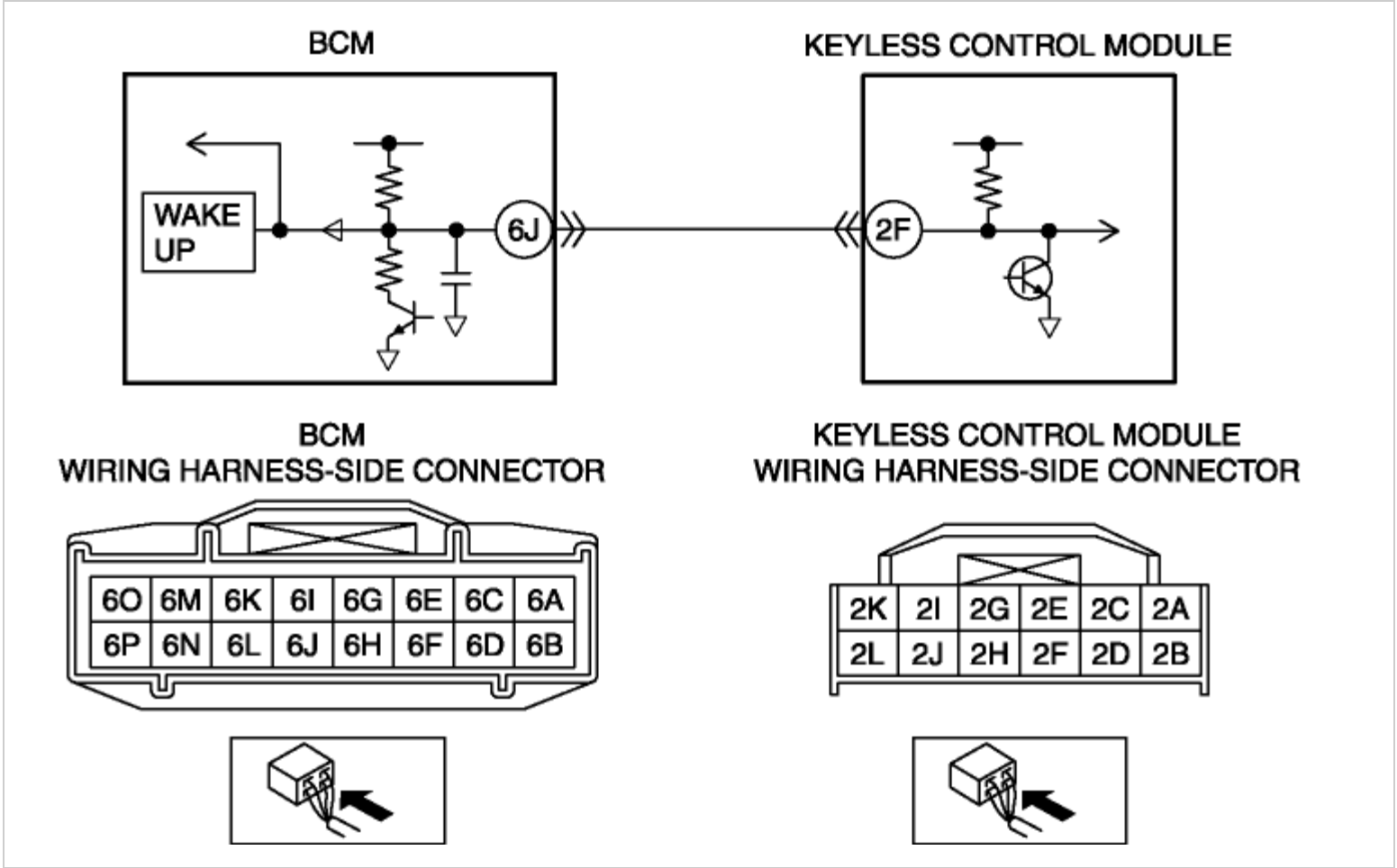


2012 - Mazda6 - Body and Accessories

DTC U0028:87 [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM]

DETECTION CONDITION	No communication with BCM
POSSIBLE CAUSE	• Connector or terminal malfunction • Short to ground in wiring harness between BCM terminal 6J and keyless control module terminal 2F • Open circuit in wiring harness between BCM terminal 6J and keyless control module terminal 2F • BCM malfunction • Keyless control module malfunction



Diagnostic Procedure

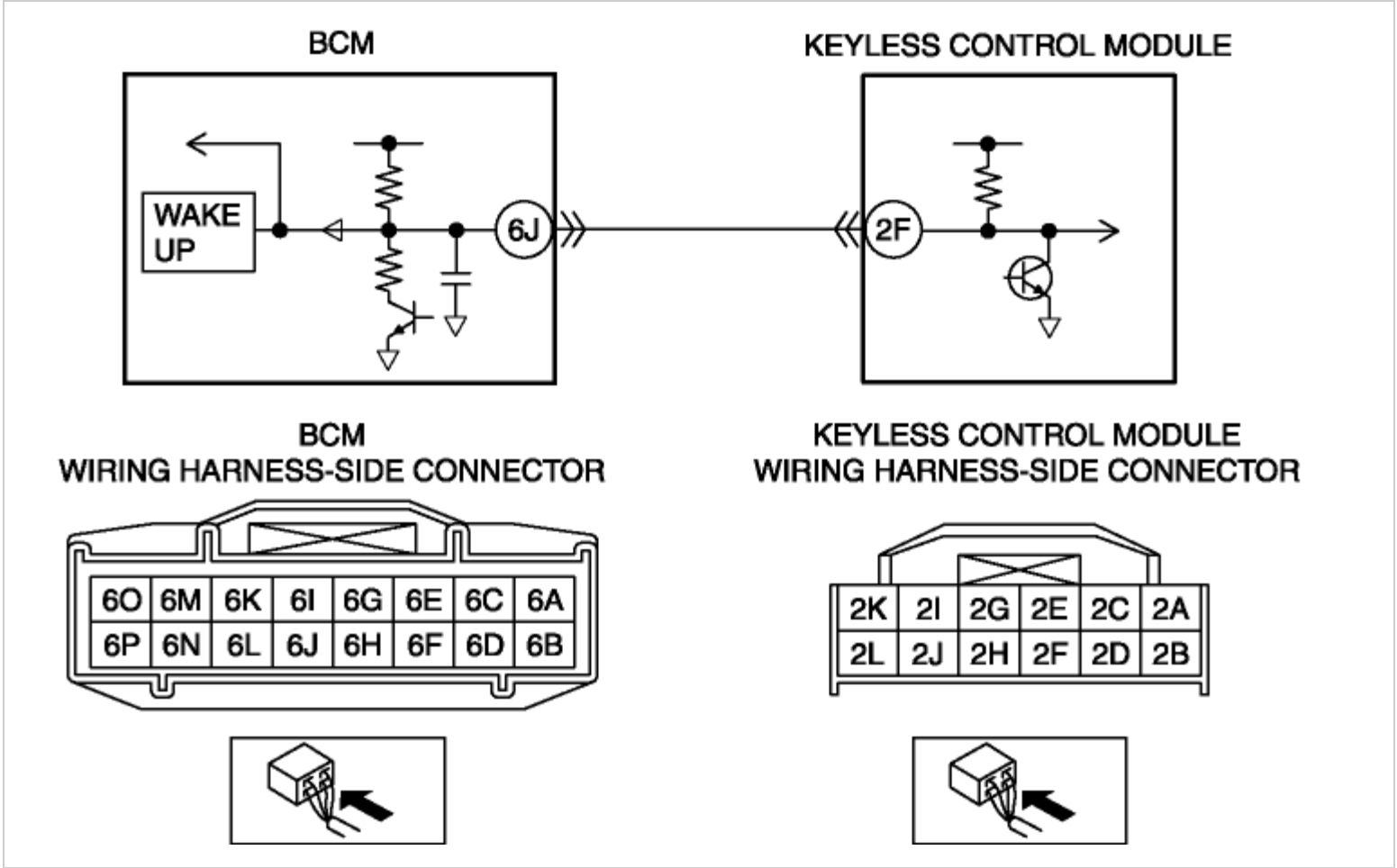
Step	Inspection	Action
1	INSPECT BCM CONNECTOR CONDITION - Switch the ignition to off. - Disconnect the negative battery cable. - Disconnect the BCM connector. - Inspect the connector and terminals (corrosion, damage, pin disconnection). - Is there any malfunction?	Yes Repair or replace the connector or terminals, then go to Step 6.
		No Go to the next step.
2	INSPECT KEYLESS CONTROL MODULE CONNECTOR CONDITION - Disconnect the keyless control module connector. - Inspect the connector and terminals (corrosion, damage, pin disconnection). - Is there any malfunction?	Yes Repair or replace the connector or terminals, then go to Step 6.
		No Go to the next step.
3	INSPECT COMMUNICATION CIRCUIT FOR SHORT TO GROUND - Inspect for continuity between BCM terminal 6J (wiring harness-side) and body ground. - Is there continuity?	Yes Repair or replace the wiring harness for a possible short to ground, then go to Step 6.
		No Go to the next step.
4	INSPECT COMMUNICATION CIRCUIT FOR OPEN CIRCUIT - Inspect for continuity between BCM terminal 6J (wiring harness-side) and keyless control module terminal 2F (wiring harness-side). - Is there continuity?	Yes Go to the next step.
		No Repair or replace the wiring harness for a possible open circuit, then go to Step 6.
5	INSPECT BCM - Reconnect the disconnected connectors. - Reconnect the negative battery cable.	Yes Replace the BCM, then go to the next step. (See BODY CONTROL MODULE (BCM) REMOVAL/ INSTALLATION.)

	- Switch the ignition to ON. - Measure the voltage between BCM terminal 6J (wiring harness-side) and body ground. - Is the voltage normal? (See BODY CONTROL MODULE (BCM) INSPECTION.)	No	Go to the next step.
6	VERIFY TROUBLESHOOTING COMPLETED - Make sure to reconnect the disconnected connectors. - Reconnect the negative battery cable. - Clear the DTC from keyless control module memory using the M-MDS. (See CLEARING DTC [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].) - Perform the advanced keyless entry and push button start system DTC inspection using the M-MDS. (See DTC INSPECTION [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].) - Is the same DTC present?	Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the keyless control module, then go to the next step. (See KEYLESS CONTROL MODULE REMOVAL/ INSTALLATION [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].)
		No	Go to the next step.
7	VERIFY THAT NO OTHER DTCs ARE PRESENT Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].)
		No	DTC troubleshooting completed.

2012 - Mazda6 - Body and Accessories

DTC U0028:87 [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM]

DETECTION CONDITION	No communication with BCM
POSSIBLE CAUSE	• Connector or terminal malfunction • Short to ground in wiring harness between BCM terminal 6J and keyless control module terminal 2F • Open circuit in wiring harness between BCM terminal 6J and keyless control module terminal 2F • BCM malfunction • Keyless control module malfunction



Diagnostic Procedure

Step	Inspection	Action
1	INSPECT BCM CONNECTOR CONDITION - Switch the ignition to off. - Disconnect the negative battery cable. - Disconnect the BCM connector. - Inspect the connector and terminals (corrosion, damage, pin disconnection). - Is there any malfunction?	Yes Repair or replace the connector or terminals, then go to Step 6.
		No Go to the next step.
2	INSPECT KEYLESS CONTROL MODULE CONNECTOR CONDITION - Disconnect the keyless control module connector. - Inspect the connector and terminals (corrosion, damage, pin disconnection). - Is there any malfunction?	Yes Repair or replace the connector or terminals, then go to Step 6.
		No Go to the next step.
3	INSPECT COMMUNICATION CIRCUIT FOR SHORT TO GROUND - Inspect for continuity between BCM terminal 6J (wiring harness-side) and body ground. - Is there continuity?	Yes Repair or replace the wiring harness for a possible short to ground, then go to Step 6.
		No Go to the next step.
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		No Repair or replace the wiring harness for a possible open circuit, then go to Step 6.
5	INSPECT BCM - Reconnect the disconnected connectors. - Reconnect the negative battery cable.	Yes Replace the BCM, then go to the next step. (See BODY CONTROL MODULE (BCM) REMOVAL/ INSTALLATION.)

	- Switch the ignition to ON. - Measure the voltage between BCM terminal 6J (wiring harness-side) and body ground. - Is the voltage normal? (See BODY CONTROL MODULE (BCM) INSPECTION.)	No	Go to the next step.
6	VERIFY TROUBLESHOOTING COMPLETED - Make sure to reconnect the disconnected connectors. - Reconnect the negative battery cable. - Clear the DTC from keyless control module memory using the M-MDS. (See CLEARING DTC [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].) - Perform the advanced keyless entry and push button start system DTC inspection using the M-MDS. (See DTC INSPECTION [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].) - Is the same DTC present?	Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the keyless control module, then go to the next step. (See KEYLESS CONTROL MODULE REMOVAL/ INSTALLATION [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].)
		No	Go to the next step.
7	VERIFY THAT NO OTHER DTCs ARE PRESENT Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].)
		No	DTC troubleshooting completed.