

2012 - Mazda6 - Body and Accessories

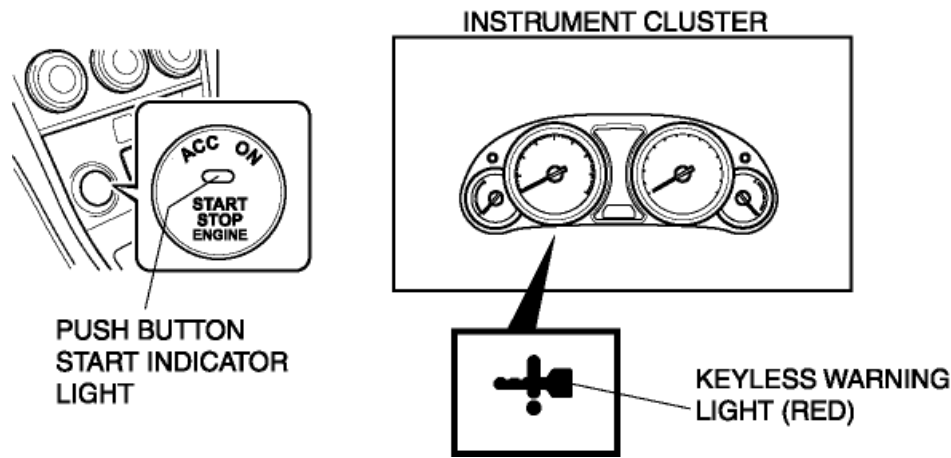
DTC B1026:62 [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM]

WARNING:

- If this DTC is detected, the system will enter the fail-safe function to ensure safety. If the vehicle is left as it is for a specified time limit or more, or the ignition is operated a specified number of times or more while the fail-safe function is operating, the ignition will remain stuck in off and it is possible that the engine cannot be started. Therefore, perform the malfunction diagnosis while the engine can be started. In addition, after having performed the malfunction diagnosis, verify that this DTC is not detected with the steering wheel locked. If the DTC is not detected, the system returns to normal from the fail-safe function.

NOTE:

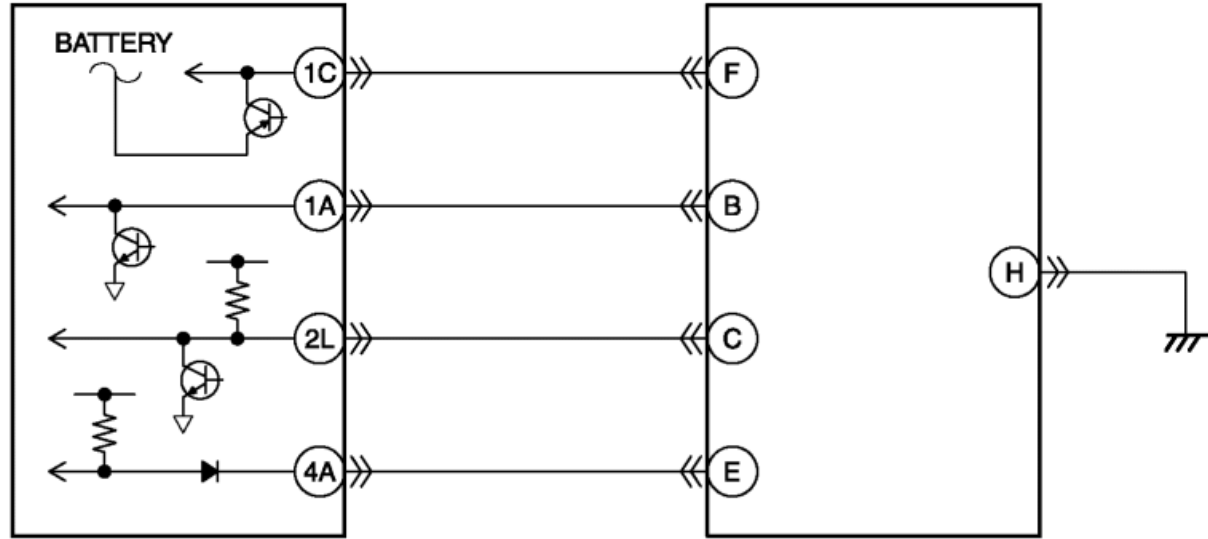
- When the system enters the fail-safe function, the keyless warning light and the push button start indicator light illuminate as follows:
 - When the clutch pedal (MTX) or the brake pedal (ATX) is depressed while the ignition is switched off, both lights illuminate (red).
 - When the ignition is switched to ACC or ON, both lights illuminate (red) constantly.



DETECTION CONDITION	Keyless control module receive mismatch signal between unlock signal and communication signal from steering lock unit
POSSIBLE CAUSE	• Connector or terminal malfunction • Short to ground in the wiring harness between steering lock unit terminal E and keyless control module terminal 4A • Short to power supply in the wiring harness between steering lock unit terminal E and keyless control module terminal 4A • Open circuit in the wiring harness between steering lock unit terminal E and keyless control module terminal 4A • Steering lock unit malfunction • Keyless control module malfunction

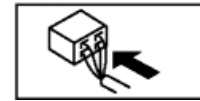
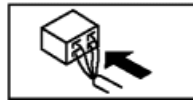
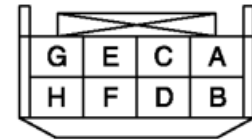
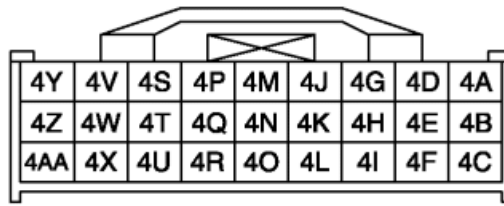
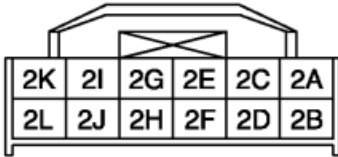
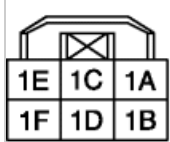
KEYLESS CONTROL MODULE

STEERING LOCK UNIT



KEYLESS CONTROL MODULE WIRING HARNESS-SIDE CONNECTOR

STEERING LOCK UNIT WIRING HARNESS-SIDE CONNECTOR



Diagnostic Procedure

Step	Inspection	Action
1	INSPECT STEERING LOCK UNIT CONNECTOR CONDITION - Switch the ignition to off. - Disconnect the negative battery cable. - Disconnect the steering lock unit 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 7. 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 7. No Go to the next step.
3	INSPECT STEERING LOCK UNIT COMMUNICATION CIRCUIT FOR SHORT TO GROUND	Yes Repair or replace the wiring harness for a possible short to ground, then go to Step 7. No Go to the next step.

	- Inspect for continuity between steering lock unit terminal E (wiring harness-side) and body ground. - Is there continuity?	No	Go to the next step.
4	INSPECT STEERING LOCK UNIT COMMUNICATION CIRCUIT FOR SHORT TO POWER SUPPLY - Reconnect the negative battery cable. - Switch the ignition to ON. - Measure the voltage between steering lock unit terminal E (wiring harness-side) and body ground. - Is there any voltage?	Yes	Repair or replace the wiring harness for a possible short to power supply, then go to Step 7.
		No	Go to the next step.
5	INSPECT STEERING LOCK UNIT COMMUNICATION CIRCUIT FOR OPEN CIRCUIT - Switch the ignition to off. - Disconnect the negative battery cable. - Inspect for continuity between steering lock unit terminal E (wiring harness-side) and keyless control module terminal 4A (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 7.
6	INSPECT STEERING LOCK UNIT - Inspect the steering lock unit. (See STEERING LOCK UNIT INSPECTION [WITH ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].) - Is there any malfunction?	Yes	Replace the steering lock unit and perform steering lock unit programming, then go to the next step. (See STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITHOUT ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].) (See STEERING LOCK UNIT ID CODE REGISTRATION [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].)
		No	Go to the next step.
7	VERIFY TROUBLESHOOTING COMPLETED - Make sure to reconnect the disconnected connectors. - Reconnect the negative battery cable. - Perform the following procedure within 5 min. - Clear the DTC from keyless control module memory using the M-MDS. (See CLEARING DTC [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].) - Switch the ignition to off, then open the door to lock the steering. - 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.

8	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

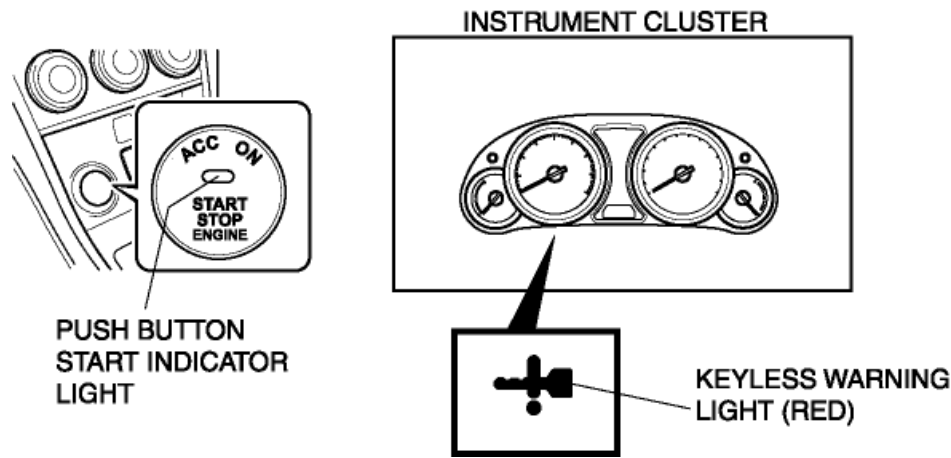
DTC B1026:62 [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM]

WARNING:

- If this DTC is detected, the system will enter the fail-safe function to ensure safety. If the vehicle is left as it is for a specified time limit or more, or the ignition is operated a specified number of times or more while the fail-safe function is operating, the ignition will remain stuck in off and it is possible that the engine cannot be started. Therefore, perform the malfunction diagnosis while the engine can be started. In addition, after having performed the malfunction diagnosis, verify that this DTC is not detected with the steering wheel locked. If the DTC is not detected, the system returns to normal from the fail-safe function.

NOTE:

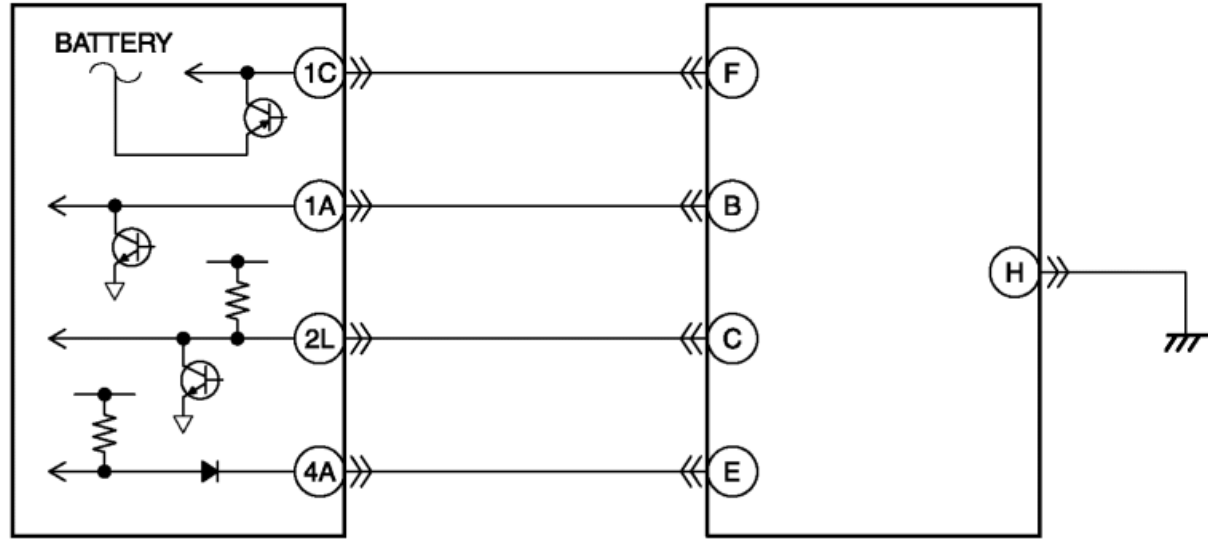
- When the system enters the fail-safe function, the keyless warning light and the push button start indicator light illuminate as follows:
 - When the clutch pedal (MTX) or the brake pedal (ATX) is depressed while the ignition is switched off, both lights illuminate (red).
 - When the ignition is switched to ACC or ON, both lights illuminate (red) constantly.



DETECTION CONDITION	Keyless control module receive mismatch signal between unlock signal and communication signal from steering lock unit
POSSIBLE CAUSE	• Connector or terminal malfunction • Short to ground in the wiring harness between steering lock unit terminal E and keyless control module terminal 4A • Short to power supply in the wiring harness between steering lock unit terminal E and keyless control module terminal 4A • Open circuit in the wiring harness between steering lock unit terminal E and keyless control module terminal 4A • Steering lock unit malfunction • Keyless control module malfunction

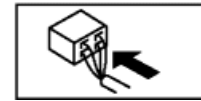
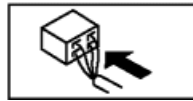
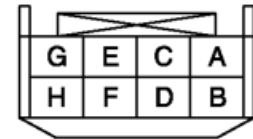
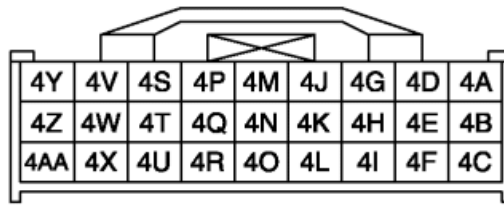
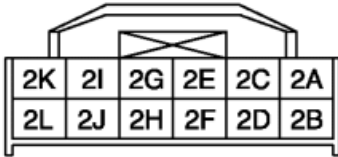
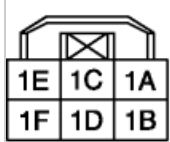
KEYLESS CONTROL MODULE

STEERING LOCK UNIT



KEYLESS CONTROL MODULE WIRING HARNESS-SIDE CONNECTOR

STEERING LOCK UNIT WIRING HARNESS-SIDE CONNECTOR



Diagnostic Procedure

Step	Inspection	Action
1	INSPECT STEERING LOCK UNIT CONNECTOR CONDITION - Switch the ignition to off. - Disconnect the negative battery cable. - Disconnect the steering lock unit 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 7. 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 7. No Go to the next step.
3	INSPECT STEERING LOCK UNIT COMMUNICATION CIRCUIT FOR SHORT TO GROUND	Yes Repair or replace the wiring harness for a possible short to ground, then go to Step 7. No Go to the next step.

	- Inspect for continuity between steering lock unit terminal E (wiring harness-side) and body ground. - Is there continuity?	No	Go to the next step.
4	INSPECT STEERING LOCK UNIT COMMUNICATION CIRCUIT FOR SHORT TO POWER SUPPLY - Reconnect the negative battery cable. - Switch the ignition to ON. - Measure the voltage between steering lock unit terminal E (wiring harness-side) and body ground. - Is there any voltage?	Yes	Repair or replace the wiring harness for a possible short to power supply, then go to Step 7.
		No	Go to the next step.
5	INSPECT STEERING LOCK UNIT COMMUNICATION CIRCUIT FOR OPEN CIRCUIT - Switch the ignition to off. - Disconnect the negative battery cable. - Inspect for continuity between steering lock unit terminal E (wiring harness-side) and keyless control module terminal 4A (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 7.
6	INSPECT STEERING LOCK UNIT - Inspect the steering lock unit. (See STEERING LOCK UNIT INSPECTION [WITH ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].) - Is there any malfunction?	Yes	Replace the steering lock unit and perform steering lock unit programming, then go to the next step. (See STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITHOUT ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].) (See STEERING LOCK UNIT ID CODE REGISTRATION [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].)
		No	Go to the next step.
7	VERIFY TROUBLESHOOTING COMPLETED - Make sure to reconnect the disconnected connectors. - Reconnect the negative battery cable. - Perform the following procedure within 5 min. - Clear the DTC from keyless control module memory using the M-MDS. (See CLEARING DTC [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].) - Switch the ignition to off, then open the door to lock the steering. - 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.

8	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.