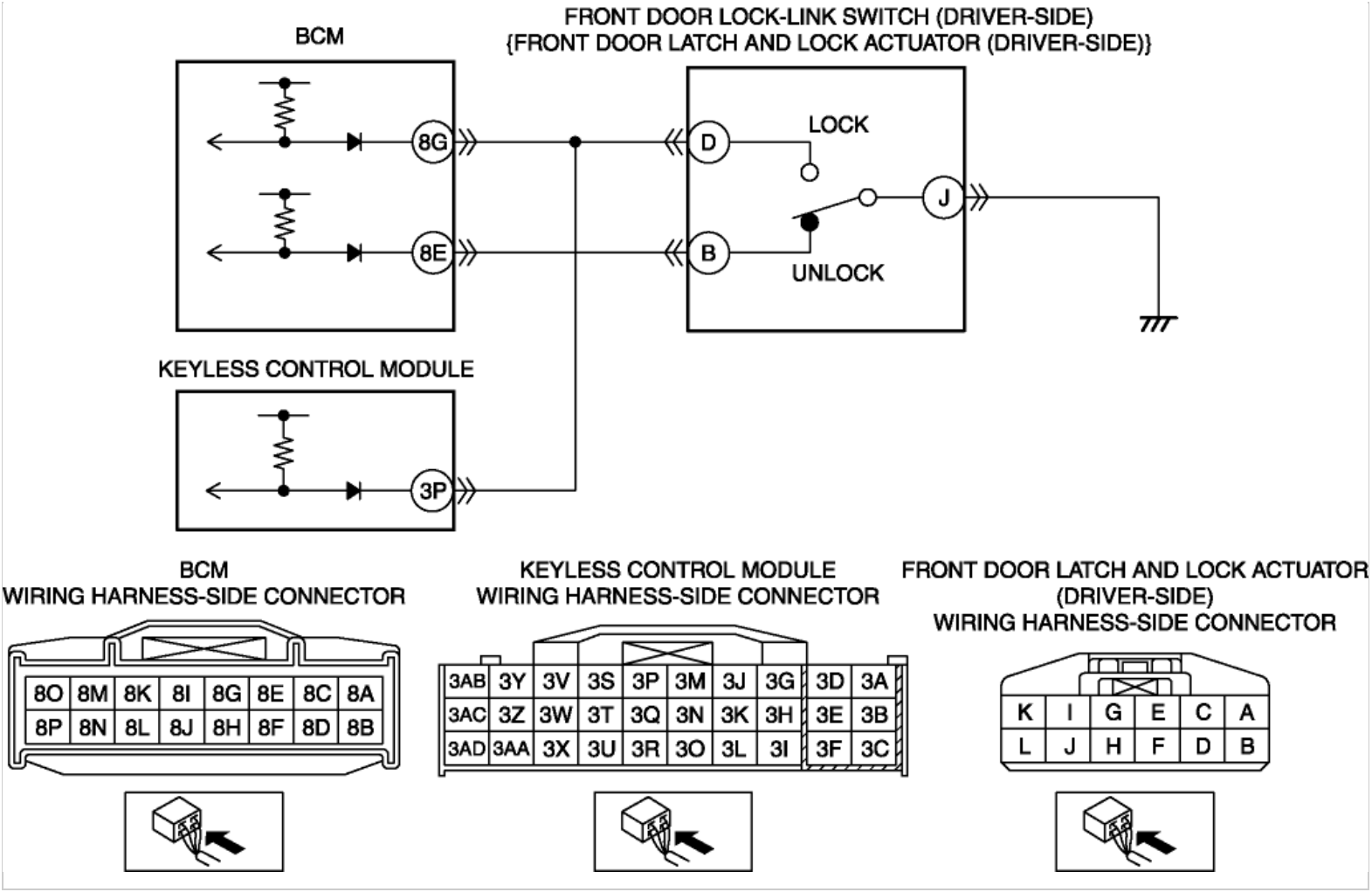
2012 - Mazda6 - Body and Accessories

DTC B126A:11 [BCM]

Vehicles With Advanced Keyless Entry And Push Button Start System

DESCRIPTION	Front door lock-link switch (driver-side) circuit malfunction
DETECTION CONDITION	• Short to ground detected in front door lock-link switch (driver-side) lock-side circuit with the front door lock-link switch (driver-side) unlocked.
POSSIBLE CAUSE	• Front door latch and lock actuator (driver-side) connector or terminals malfunction • Front door lock-link switch (driver-side) malfunction • Keyless control module connector or terminals malfunction • BCM connector or terminals malfunction • Short to ground in wiring harness between front door latch and lock actuator (driver-side) terminal D and BCM terminal 8G • Short to ground in wiring harness between front door latch and lock actuator (driver-side) terminal D and keyless control module terminal 3P • Keyless control module malfunction • BCM malfunction



Diagnostic Procedure

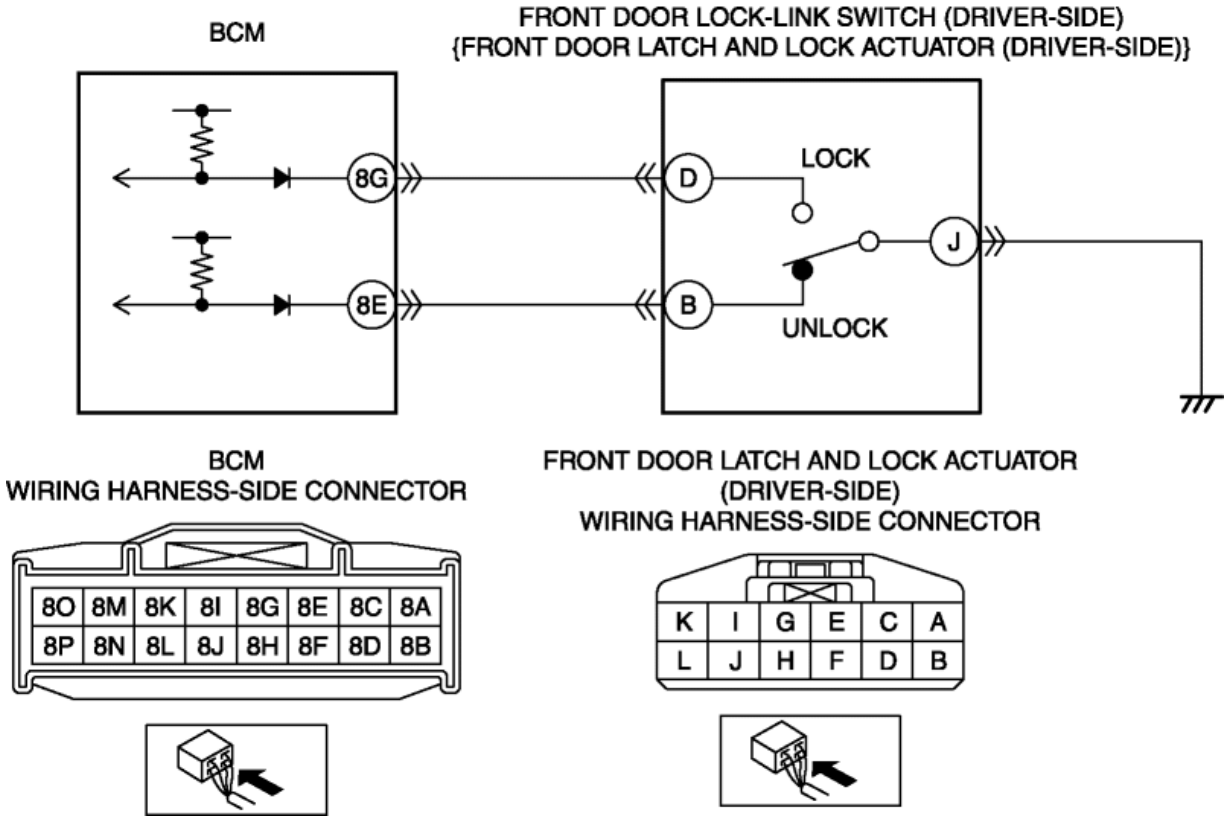
Step	Inspection		Action
1	**PERFORM DTC INSPECTION** • Clear the DTC from the BCM memory using the M-MDS. (See **CLEARING DTC [BCM]**.) • Perform the BCM DTC inspection using the M-MDS with the front door lock-link switch (driver-side) unlocked. (See **DTC INSPECTION [BCM]**.) • Is the same DTC present?	Yes	Go to the next step.
		No	Go to Step 9.
2	**INSPECT FRONT DOOR LATCH AND LOCK ACTUATOR (DRIVER-SIDE) CONNECTOR CONDITION** • Switch the ignition to off. • Disconnect the negative battery cable. • Disconnect the front door latch and lock actuator (driver-side) connector. • Inspect for poor connection (damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the connector or terminals, then go to Step 8.
		No	Go to the next step.
3	**INSPECT FRONT DOOR LOCK-LINK SWITCH**	Yes	Replace the front door latch and lock actuator (driver-side),

	(DRIVER-SIDE) • Inspect the front door lock-link switch (driver-side). (See **DOOR LOCK-LINK SWITCH INSPECTION**.) • Is there any malfunction?		then go to Step 8. (See **FRONT DOOR LATCH AND LOCK ACTUATOR REMOVAL/INSTALLATION**.)
		No	Go to the next step.
4	**INSPECT KEYLESS CONTROL MODULE CONNECTOR CONDITION** • Disconnect the keyless control module connector. • Inspect for poor connection (damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the connector or terminals, then go to Step 8.
		No	Go to the next step.
5	**INSPECT BCM CONNECTOR CONDITION** • Disconnect the BCM connector. • Inspect for poor connection (damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the connector or terminals, then go to Step 8.
		No	Go to the next step.
6	**INSPECT FRONT DOOR LOCK-LINK SWITCH (DRIVER-SIDE) CIRCUIT FOR SHORT TO GROUND** • Front door latch and lock actuator (driver-side), keyless control module and BCM connectors are disconnected. • Inspect for continuity between front door latch and lock actuator (driver-side) terminal D (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 8.
		No	Go to the next step.
7	**INSPECT KEYLESS CONTROL MODULE** • Front door latch and lock actuator (driver-side), keyless control module and BCM connectors are disconnected. • Reconnect all disconnected connectors. • Reconnect the negative battery cable. • Measure the voltage between keyless control module terminal 3P (wiring harness-side) and body ground. • Is the voltage normal? (See **KEYLESS CONTROL MODULE INSPECTION [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM]**.)	Yes	Go to the next step.
		No	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]**.)
8	**VERIFY TROUBLESHOOTING COMPLETED** • Make sure to reconnect all disconnected connectors. • Reconnect the negative battery cable. • Clear the DTC from the BCM memory using the M-MDS. (See **CLEARING DTC [BCM]**.) • Perform the BCM DTC inspection using the M-MDS with the front door lock-link switch (driver-side) unlocked. (See **DTC INSPECTION [BCM]**.) • Is the same DTC present?	Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the BCM, then go to the next step. (See **BODY CONTROL MODULE (BCM) REMOVAL/INSTALLATION**.)
		No	Go to the next step.
9	**VERIFY THAT NO OTHER DTCs ARE PRESENT** • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See **DTC TABLE [BCM]**.)

		No	DTC troubleshooting completed.

Vehicles Without Advanced Keyless Entry And Push Button Start System

DESCRIPTION	Front door lock-link switch (driver-side) circuit malfunction
DETECTION CONDITION	• Short to ground detected in front door lock-link switch (driver-side) lock-side circuit with the front door lock-link switch (driver-side) unlocked.
POSSIBLE CAUSE	• Front door latch and lock actuator (driver-side) connector or terminals malfunction • Front door lock-link switch (driver-side) malfunction • BCM connector or terminals malfunction • Short to ground in wiring harness between front door latch and lock actuator (driver-side) terminal D and BCM terminal 8G • BCM malfunction



Diagnostic Procedure

Step	Inspection		Action
1	**PERFORM DTC INSPECTION** • Clear the DTC from the BCM memory using the M-MDS. (See **CLEARING DTC [BCM]**.) • Perform the BCM DTC inspection using the M-MDS with the front door lock-link switch (driver-side) unlocked. (See **DTC INSPECTION [BCM]**.)	Yes	Go to the next step.
		No	Go to Step 7.

	• Is the same DTC present?		
2	**INSPECT FRONT DOOR LATCH AND LOCK ACTUATOR (DRIVER-SIDE) CONNECTOR CONDITION** • Switch the ignition to off. • Disconnect the negative battery cable. • Disconnect the front door latch and lock actuator (driver-side) connector. • Inspect for poor connection (damaged/pulled-out pins, corrosion). • 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 FRONT DOOR LOCK-LINK SWITCH (DRIVER-SIDE)** • Inspect the front door lock-link switch (driver-side). (See **DOOR LOCK-LINK SWITCH INSPECTION**.) • Is there any malfunction?	Yes	Replace the front door latch and lock actuator (driver-side), then go to Step 6. (See **FRONT DOOR LATCH AND LOCK ACTUATOR REMOVAL/INSTALLATION**.)
		No	Go to the next step.
4	**INSPECT BCM CONNECTOR CONDITION** • Disconnect the BCM connector. • Inspect for poor connection (damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the connector or terminals, then go to Step 6.
		No	Go to the next step.
5	**INSPECT FRONT DOOR LOCK-LINK SWITCH (DRIVER-SIDE) CIRCUIT FOR SHORT TO GROUND** • Front door latch and lock actuator (driver-side) and BCM connectors are disconnected. • Inspect for continuity between front door latch and lock actuator (driver-side) terminal D (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 the next step.
		No	Go to the next step.
6	**VERIFY TROUBLESHOOTING COMPLETED** • Make sure to reconnect all disconnected connectors. • Reconnect the negative battery cable. • Clear the DTC from the BCM memory using the M-MDS. (See **CLEARING DTC [BCM]**.) • Perform the BCM DTC inspection using the M-MDS with the front door lock-link switch (driver-side) unlocked. (See **DTC INSPECTION [BCM]**.) • Is the same DTC present?	Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the BCM, then go to the next step. (See **BODY CONTROL MODULE (BCM) REMOVAL/INSTALLATION**.)
		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 [BCM]**.)
		No	DTC troubleshooting completed.

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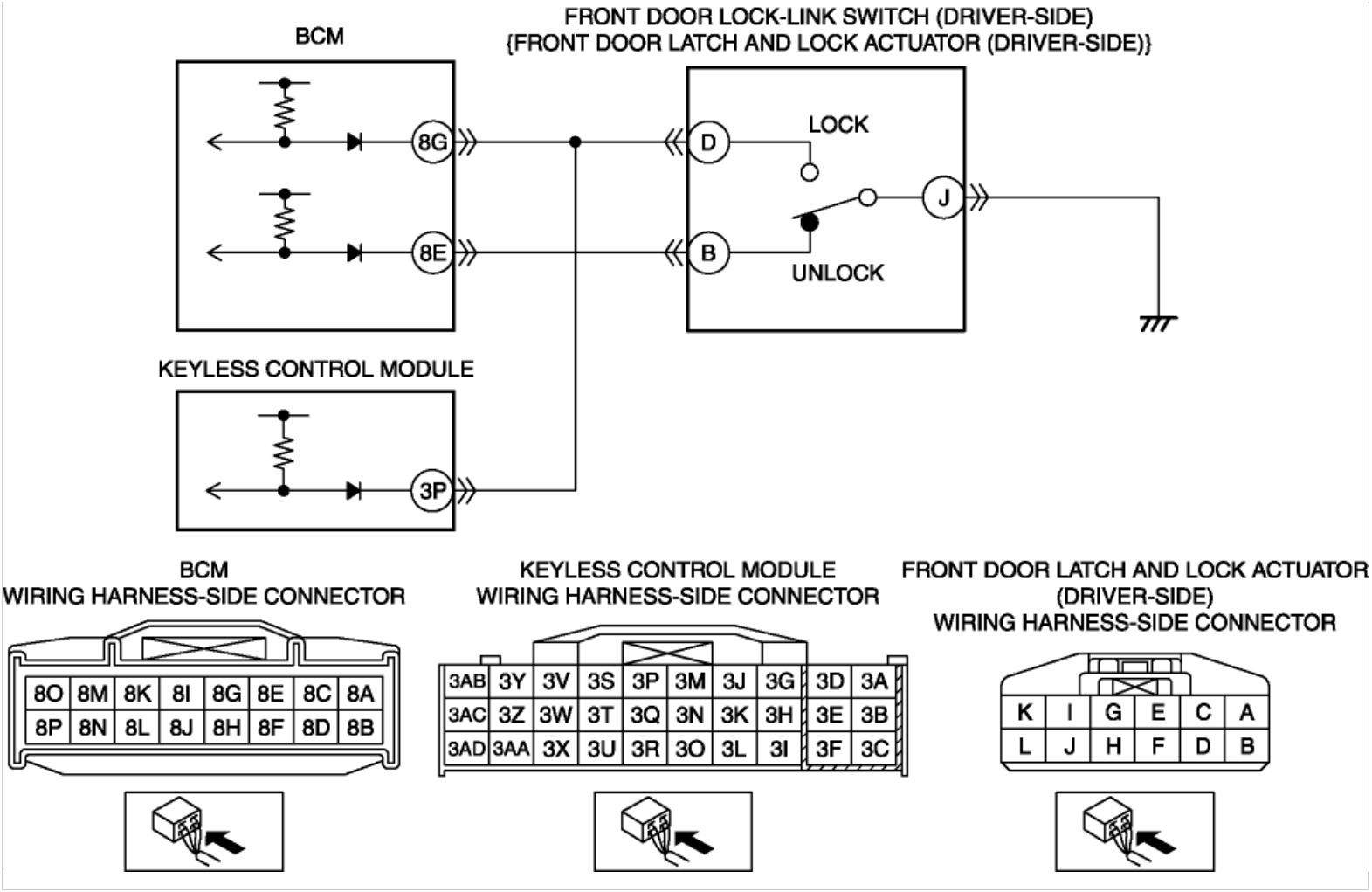
POSSIBLE CAUSE	• Front door latch and lock actuator (driver-side) connector or terminals malfunction • Front door lock-link switch (driver-side) malfunction • Keyless control module connector or terminals malfunction • BCM connector or terminals malfunction • Short to ground in wiring harness between front door latch and lock actuator (driver-side) terminal D and BCM terminal 8G • Short to ground in wiring harness between front door latch and lock actuator (driver-side) terminal D and keyless control module terminal 3P • Keyless control module malfunction • BCM malfunction



Diagnostic Procedure

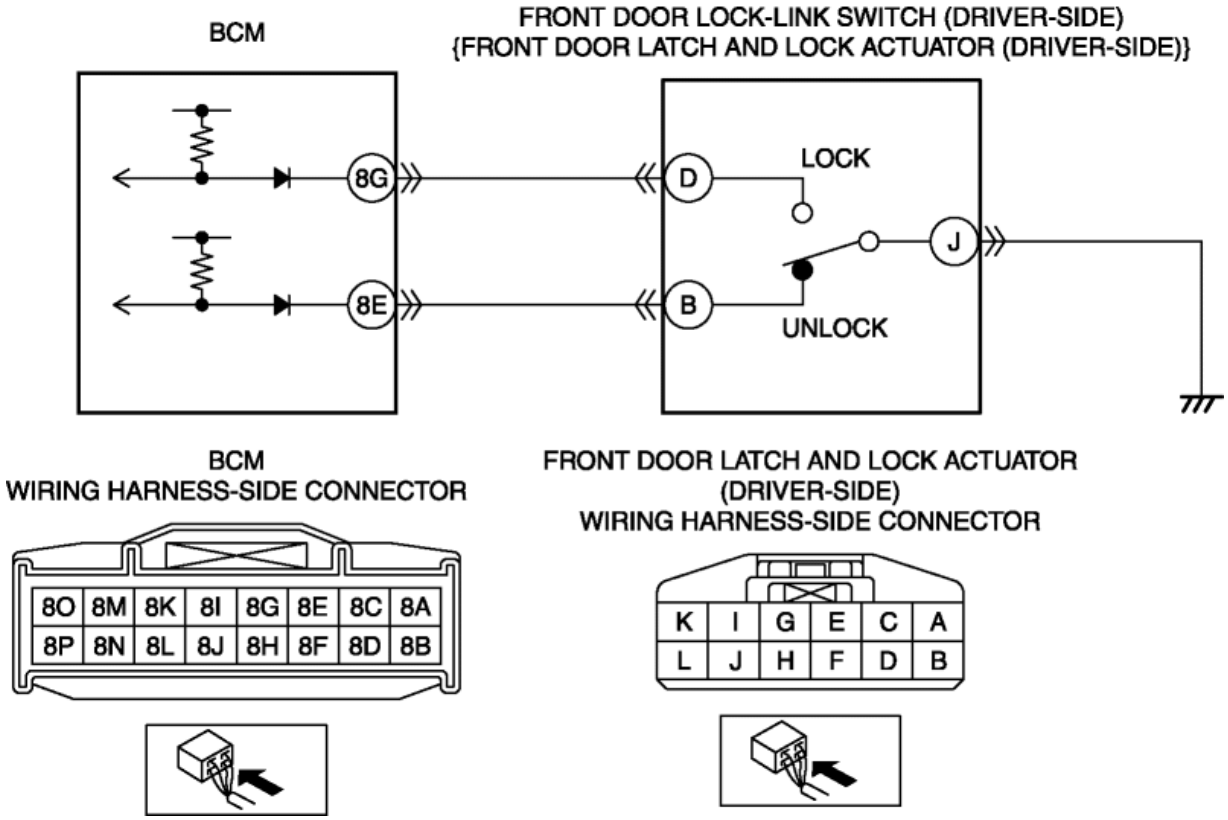
Step	Inspection		Action
1	**PERFORM DTC INSPECTION** • Clear the DTC from the BCM memory using the M-MDS. (See **CLEARING DTC [BCM]**.) • Perform the BCM DTC inspection using the M-MDS with the front door lock-link switch (driver-side) unlocked. (See **DTC INSPECTION [BCM]**.) • Is the same DTC present?	Yes	Go to the next step.
		No	Go to Step 9.
2	**INSPECT FRONT DOOR LATCH AND LOCK ACTUATOR (DRIVER-SIDE) CONNECTOR CONDITION** • Switch the ignition to off. • Disconnect the negative battery cable. • Disconnect the front door latch and lock actuator (driver-side) connector. • Inspect for poor connection (damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the connector or terminals, then go to Step 8.
		No	Go to the next step.
3	**INSPECT FRONT DOOR LOCK-LINK SWITCH**	Yes	Replace the front door latch and lock actuator (driver-side),

	(DRIVER-SIDE) • Inspect the front door lock-link switch (driver-side). (See **DOOR LOCK-LINK SWITCH INSPECTION**.) • Is there any malfunction?		then go to Step 8. (See **FRONT DOOR LATCH AND LOCK ACTUATOR REMOVAL/INSTALLATION**.)
		No	Go to the next step.
4	**INSPECT KEYLESS CONTROL MODULE CONNECTOR CONDITION** • Disconnect the keyless control module connector. • Inspect for poor connection (damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the connector or terminals, then go to Step 8.
		No	Go to the next step.
5	**INSPECT BCM CONNECTOR CONDITION** • Disconnect the BCM connector. • Inspect for poor connection (damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the connector or terminals, then go to Step 8.
		No	Go to the next step.
6	**INSPECT FRONT DOOR LOCK-LINK SWITCH (DRIVER-SIDE) CIRCUIT FOR SHORT TO GROUND** • Front door latch and lock actuator (driver-side), keyless control module and BCM connectors are disconnected. • Inspect for continuity between front door latch and lock actuator (driver-side) terminal D (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 8.
		No	Go to the next step.
7	**INSPECT KEYLESS CONTROL MODULE** • Front door latch and lock actuator (driver-side), keyless control module and BCM connectors are disconnected. • Reconnect all disconnected connectors. • Reconnect the negative battery cable. • Measure the voltage between keyless control module terminal 3P (wiring harness-side) and body ground. • Is the voltage normal? (See **KEYLESS CONTROL MODULE INSPECTION [ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM]**.)	Yes	Go to the next step.
		No	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]**.)
8	**VERIFY TROUBLESHOOTING COMPLETED** • Make sure to reconnect all disconnected connectors. • Reconnect the negative battery cable. • Clear the DTC from the BCM memory using the M-MDS. (See **CLEARING DTC [BCM]**.) • Perform the BCM DTC inspection using the M-MDS with the front door lock-link switch (driver-side) unlocked. (See **DTC INSPECTION [BCM]**.) • Is the same DTC present?	Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the BCM, then go to the next step. (See **BODY CONTROL MODULE (BCM) REMOVAL/INSTALLATION**.)
		No	Go to the next step.
9	**VERIFY THAT NO OTHER DTCs ARE PRESENT** • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See **DTC TABLE [BCM]**.)

		No	DTC troubleshooting completed.

Vehicles Without Advanced Keyless Entry And Push Button Start System

DESCRIPTION	Front door lock-link switch (driver-side) circuit malfunction
DETECTION CONDITION	• Short to ground detected in front door lock-link switch (driver-side) lock-side circuit with the front door lock-link switch (driver-side) unlocked.
POSSIBLE CAUSE	• Front door latch and lock actuator (driver-side) connector or terminals malfunction • Front door lock-link switch (driver-side) malfunction • BCM connector or terminals malfunction • Short to ground in wiring harness between front door latch and lock actuator (driver-side) terminal D and BCM terminal 8G • BCM malfunction



Diagnostic Procedure

Step	Inspection		Action
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		No	Go to Step 7.

	• Is the same DTC present?		
2	**INSPECT FRONT DOOR LATCH AND LOCK ACTUATOR (DRIVER-SIDE) CONNECTOR CONDITION** • Switch the ignition to off. • Disconnect the negative battery cable. • Disconnect the front door latch and lock actuator (driver-side) connector. • Inspect for poor connection (damaged/pulled-out pins, corrosion). • 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 FRONT DOOR LOCK-LINK SWITCH (DRIVER-SIDE)** • Inspect the front door lock-link switch (driver-side). (See **DOOR LOCK-LINK SWITCH INSPECTION**.) • Is there any malfunction?	Yes	Replace the front door latch and lock actuator (driver-side), then go to Step 6. (See **FRONT DOOR LATCH AND LOCK ACTUATOR REMOVAL/INSTALLATION**.)
		No	Go to the next step.
4	**INSPECT BCM CONNECTOR CONDITION** • Disconnect the BCM connector. • Inspect for poor connection (damaged/pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the connector or terminals, then go to Step 6.
		No	Go to the next step.
5	**INSPECT FRONT DOOR LOCK-LINK SWITCH (DRIVER-SIDE) CIRCUIT FOR SHORT TO GROUND** • Front door latch and lock actuator (driver-side) and BCM connectors are disconnected. • Inspect for continuity between front door latch and lock actuator (driver-side) terminal D (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 the next step.
		No	Go to the next step.
6	**VERIFY TROUBLESHOOTING COMPLETED** • Make sure to reconnect all disconnected connectors. • Reconnect the negative battery cable. • Clear the DTC from the BCM memory using the M-MDS. (See **CLEARING DTC [BCM]**.) • Perform the BCM DTC inspection using the M-MDS with the front door lock-link switch (driver-side) unlocked. (See **DTC INSPECTION [BCM]**.) • Is the same DTC present?	Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the BCM, then go to the next step. (See **BODY CONTROL MODULE (BCM) REMOVAL/INSTALLATION**.)
		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 [BCM]**.)
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