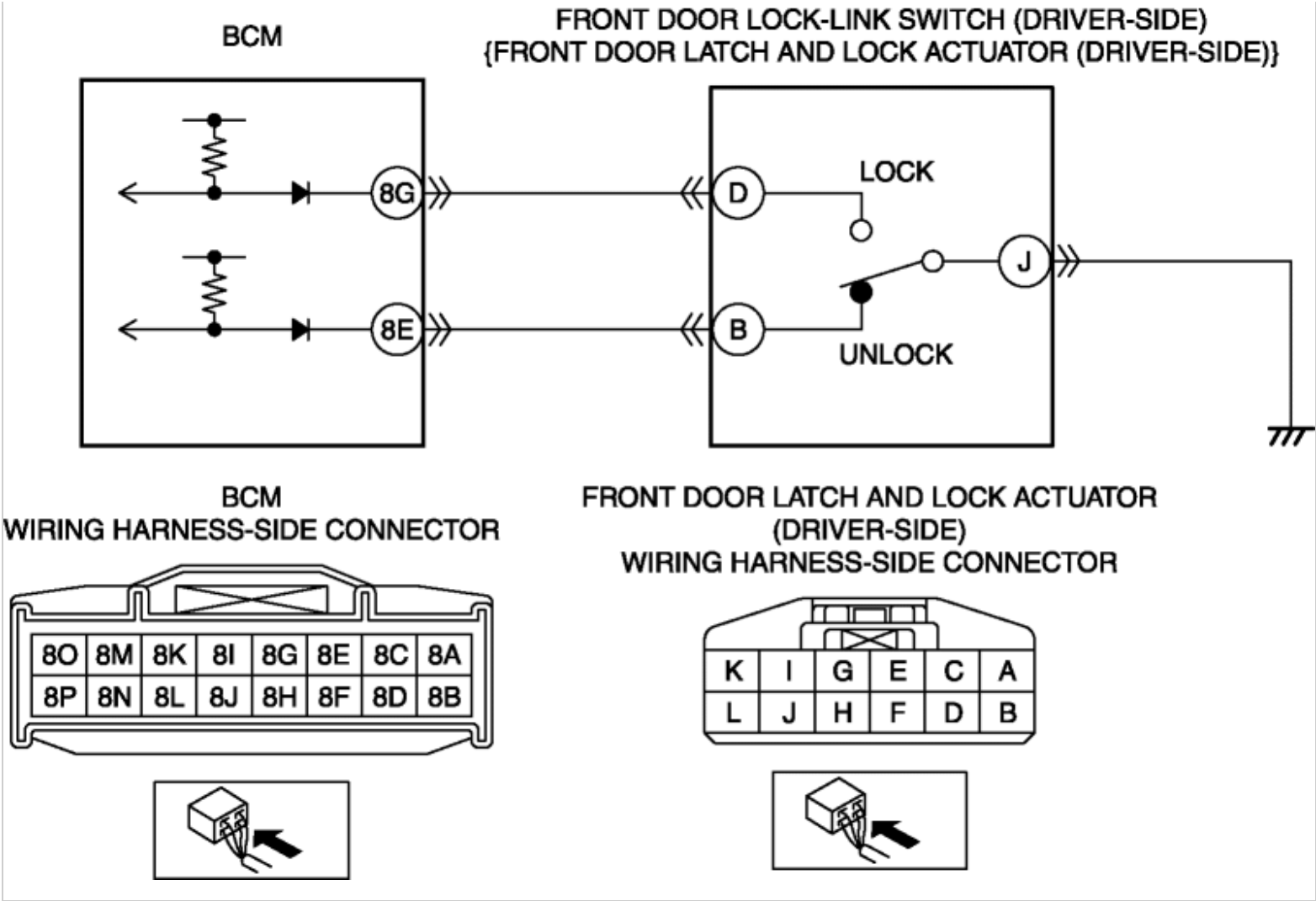


2012 - Mazda6 - Body and Accessories

DTC B1172:13 [BCM]

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DESCRIPTION              | Front door lock-link switch (driver-side) circuit malfunction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DETECTI ON<br>CONDI TION | <ul style="list-style-type: none"><li>• Open circuit detected in front door lock-link switch (driver-side) unlock-side circuit with the front door lock-link switch (driver-side) unlocked.</li></ul>                                                                                                                                                                                                                                                                                                                                          |
| POSSI BLE<br>CAUSE       | <ul style="list-style-type: none"><li>• Front door latch and lock actuator (driver-side) connector or terminals malfunction</li><li>• Open circuit in wiring harness between front door latch and lock actuator (driver-side) terminal J and body ground</li><li>• Front door lock-link switch (driver-side) malfunction</li><li>• BCM connector or terminals malfunction</li><li>• Open circuit in wiring harness between front door latch and lock actuator (driver-side) terminal B and BCM terminal 8E</li><li>• BCM malfunction</li></ul> |
|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |



Diagnostic Procedure

| Step | Inspection                                                                                                                                                                                                                                                                                                                                                                              | Action                                                              |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| 1    | <b>PERFORM DTC INSPECTION</b> <ul style="list-style-type: none"> <li>Clear the DTC from the BCM memory using the M-MDS.<br/>(See <a href="#">CLEARING DTC [BCM]</a>.)</li> <li>Perform the BCM DTC inspection using the M-MDS with the front door lock-link switch (driver-side) unlocked.<br/>(See <a href="#">DTC INSPECTION [BCM]</a>.)</li> <li>Is the same DTC present?</li> </ul> | YesGo to the next step.                                             |
|      |                                                                                                                                                                                                                                                                                                                                                                                         | NoGo to Step 9.                                                     |
| 2    | <b>INSPECT FRONT DOOR LATCH AND LOCK ACTUATOR (DRIVER-SIDE) CONNECTOR CONDITION</b> <ul style="list-style-type: none"> <li>Switch the ignition to off.</li> </ul>                                                                                                                                                                                                                       | YesRepair or replace the connector or terminals, then go to Step 8. |
|      |                                                                                                                                                                                                                                                                                                                                                                                         | NoGo to the next step.                                              |

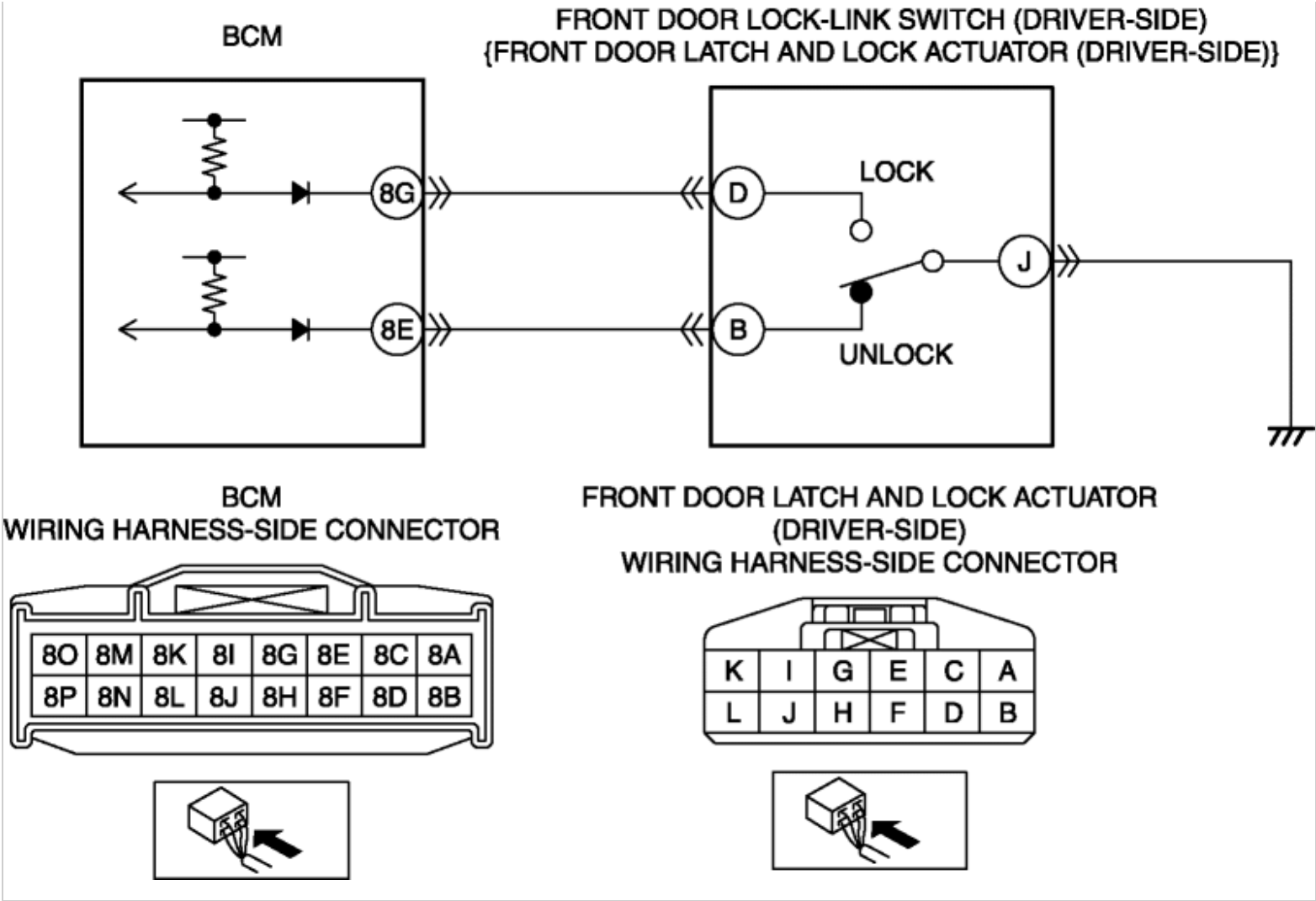
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |     |                                                                                                                                                                 |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <ul style="list-style-type: none"> <li>• Disconnect the negative battery cable.</li> <li>• Disconnect the front door latch and lock actuator (driver-side) connector.</li> <li>• Inspect for poor connection (damaged/pulled-out pins, corrosion).</li> <li>• Is there any malfunction?</li> </ul>                                                                                                                                               |     |                                                                                                                                                                 |
| 3 | <b>DETERMINE THE MALFUNCTION LOCATION</b> <ul style="list-style-type: none"> <li>• Front door latch and lock actuator (driver-side) connector is disconnected.</li> <li>• Reconnect the negative battery cable.</li> <li>• Measure the voltage between front door latch and lock actuator (driver-side) terminal B (wiring harness-side) and body ground.</li> <li>• Is there any voltage?</li> </ul>                                            | Yes | Go to the next step.                                                                                                                                            |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                  | No  | Go to Step 6                                                                                                                                                    |
| 4 | <b>INSPECT FRONT DOOR LOCK-LINK SWITCH (DRIVER-SIDE) CIRCUIT FOR OPEN CIRCUIT</b> <ul style="list-style-type: none"> <li>• Front door latch and lock actuator (driver-side) connector is disconnected.</li> <li>• Disconnect the negative battery cable.</li> <li>• Inspect for continuity between front door latch and lock actuator (driver-side) terminal J (wiring harness-side) and body ground.</li> <li>• Is there continuity?</li> </ul> | Yes | Go to the next step.                                                                                                                                            |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                  | No  | Repair or replace the wiring harness for a possible open circuit, then go to Step 8.                                                                            |
| 5 | <b>INSPECT FRONT DOOR LOCK-LINK SWITCH (DRIVER-SIDE)</b> <ul style="list-style-type: none"> <li>• Inspect the front door lock-link switch (driver-side).</li> <li>(See <b>DOOR LOCK-LINK SWITCH INSPECTION</b>.)</li> <li>• Is there any malfunction?</li> </ul>                                                                                                                                                                                 | Yes | Replace the front door latch and lock actuator (driver-side), then go to Step 8.<br><br>(See <b>FRONT DOOR LATCH AND LOCK ACTUATOR REMOVAL/ INSTALLATION</b> .) |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                  | No  | Go to Step 8.                                                                                                                                                   |
| 6 | <b>INSPECT BCM CONNECTOR CONDITION</b> <ul style="list-style-type: none"> <li>• Disconnect the negative battery cable.</li> <li>• Disconnect the BCM connector.</li> <li>• Inspect for poor connection (damaged/pulled-out pins, corrosion).</li> <li>• Is there any malfunction?</li> </ul>                                                                                                                                                     | Yes | Repair or replace the connector or terminals, then go to Step 8.                                                                                                |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                  | No  | Go to the next step.                                                                                                                                            |
| 7 | <b>CONCLUDE THE MALFUNCTION LOCATION</b>                                                                                                                                                                                                                                                                                                                                                                                                         | Yes | Repair or replace the wiring harness                                                                                                                            |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     |                                                                                                                                                                                                      |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <ul style="list-style-type: none"> <li>• Front door latch and lock actuator (driver-side) and BCM connectors are disconnected.</li> <li>• Reconnect all disconnected connectors.</li> <li>• Reconnect the negative battery cable.</li> <li>• Measure the voltage between BCM terminal 8E (wiring harness-side) and body ground.</li> <li>• Is there any voltage?</li> </ul>                                                                                                                                                                                                                                            |     | for a possible open circuit, then go to the next step.                                                                                                                                               |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | No  | Go to the next step.                                                                                                                                                                                 |
| 8 | <p><b>VERIFY TROUBLESHOOTING COMPLETED</b></p> <ul style="list-style-type: none"> <li>• Make sure to reconnect all disconnected connectors.</li> <li>• Reconnect the negative battery cable.</li> <li>• Clear the DTC from the BCM memory using the M-MDS.</li> </ul> <p>(See <a href="#">CLEARING DTC [BCM]</a>.)</p> <ul style="list-style-type: none"> <li>• Perform the BCM DTC inspection using the M-MDS with the front door lock-link switch (driver-side) unlocked.</li> </ul> <p>(See <a href="#">DTC INSPECTION [BCM]</a>.)</p> <ul style="list-style-type: none"> <li>• Is the same DTC present?</li> </ul> | Yes | <p>Repeat the inspection from Step 1.</p> <p>If the malfunction recurs, replace the BCM, then go to the next step.</p> <p>(See <a href="#">BODY CONTROL MODULE (BCM) REMOVAL/ INSTALLATION.</a>)</p> |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | No  | Go to the next step.                                                                                                                                                                                 |
| 9 | <p><b>VERIFY THAT NO OTHER DTCs ARE PRESENT</b></p> <ul style="list-style-type: none"> <li>• Are any DTCs present?</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Yes | <p>Go to the applicable DTC inspection.</p> <p>(See <a href="#">DTC TABLE [BCM]</a>.)</p>                                                                                                            |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | No  | DTC troubleshooting completed.                                                                                                                                                                       |

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DTC B1172:13 [BCM]

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DESCRIPTION              | Front door lock-link switch (driver-side) circuit malfunction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DETECTI ON<br>CONDI TION | <ul style="list-style-type: none"><li>• Open circuit detected in front door lock-link switch (driver-side) unlock-side circuit with the front door lock-link switch (driver-side) unlocked.</li></ul>                                                                                                                                                                                                                                                                                                                                          |
| POSSI BLE<br>CAUSE       | <ul style="list-style-type: none"><li>• Front door latch and lock actuator (driver-side) connector or terminals malfunction</li><li>• Open circuit in wiring harness between front door latch and lock actuator (driver-side) terminal J and body ground</li><li>• Front door lock-link switch (driver-side) malfunction</li><li>• BCM connector or terminals malfunction</li><li>• Open circuit in wiring harness between front door latch and lock actuator (driver-side) terminal B and BCM terminal 8E</li><li>• BCM malfunction</li></ul> |
|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |



Diagnostic Procedure

| Step | Inspection                                                                                                                                                                                                                                                                                                                                                                              | Action                                                              |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| 1    | <b>PERFORM DTC INSPECTION</b> <ul style="list-style-type: none"> <li>Clear the DTC from the BCM memory using the M-MDS.<br/>(See <a href="#">CLEARING DTC [BCM]</a>.)</li> <li>Perform the BCM DTC inspection using the M-MDS with the front door lock-link switch (driver-side) unlocked.<br/>(See <a href="#">DTC INSPECTION [BCM]</a>.)</li> <li>Is the same DTC present?</li> </ul> | YesGo to the next step.                                             |
|      |                                                                                                                                                                                                                                                                                                                                                                                         | NoGo to Step 9.                                                     |
| 2    | <b>INSPECT FRONT DOOR LATCH AND LOCK ACTUATOR (DRIVER-SIDE) CONNECTOR CONDITION</b> <ul style="list-style-type: none"> <li>Switch the ignition to off.</li> </ul>                                                                                                                                                                                                                       | YesRepair or replace the connector or terminals, then go to Step 8. |
|      |                                                                                                                                                                                                                                                                                                                                                                                         | NoGo to the next step.                                              |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |     |                                                                                                                                                                 |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <ul style="list-style-type: none"> <li>• Disconnect the negative battery cable.</li> <li>• Disconnect the front door latch and lock actuator (driver-side) connector.</li> <li>• Inspect for poor connection (damaged/pulled-out pins, corrosion).</li> <li>• Is there any malfunction?</li> </ul>                                                                                                                                               |     |                                                                                                                                                                 |
| 3 | <b>DETERMINE THE MALFUNCTION LOCATION</b> <ul style="list-style-type: none"> <li>• Front door latch and lock actuator (driver-side) connector is disconnected.</li> <li>• Reconnect the negative battery cable.</li> <li>• Measure the voltage between front door latch and lock actuator (driver-side) terminal B (wiring harness-side) and body ground.</li> <li>• Is there any voltage?</li> </ul>                                            | Yes | Go to the next step.                                                                                                                                            |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                  | No  | Go to Step 6                                                                                                                                                    |
| 4 | <b>INSPECT FRONT DOOR LOCK-LINK SWITCH (DRIVER-SIDE) CIRCUIT FOR OPEN CIRCUIT</b> <ul style="list-style-type: none"> <li>• Front door latch and lock actuator (driver-side) connector is disconnected.</li> <li>• Disconnect the negative battery cable.</li> <li>• Inspect for continuity between front door latch and lock actuator (driver-side) terminal J (wiring harness-side) and body ground.</li> <li>• Is there continuity?</li> </ul> | Yes | Go to the next step.                                                                                                                                            |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                  | No  | Repair or replace the wiring harness for a possible open circuit, then go to Step 8.                                                                            |
| 5 | <b>INSPECT FRONT DOOR LOCK-LINK SWITCH (DRIVER-SIDE)</b> <ul style="list-style-type: none"> <li>• Inspect the front door lock-link switch (driver-side).</li> <li>(See <b>DOOR LOCK-LINK SWITCH INSPECTION</b>.)</li> <li>• Is there any malfunction?</li> </ul>                                                                                                                                                                                 | Yes | Replace the front door latch and lock actuator (driver-side), then go to Step 8.<br><br>(See <b>FRONT DOOR LATCH AND LOCK ACTUATOR REMOVAL/ INSTALLATION</b> .) |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                  | No  | Go to Step 8.                                                                                                                                                   |
| 6 | <b>INSPECT BCM CONNECTOR CONDITION</b> <ul style="list-style-type: none"> <li>• Disconnect the negative battery cable.</li> <li>• Disconnect the BCM connector.</li> <li>• Inspect for poor connection (damaged/pulled-out pins, corrosion).</li> <li>• Is there any malfunction?</li> </ul>                                                                                                                                                     | Yes | Repair or replace the connector or terminals, then go to Step 8.                                                                                                |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                  | No  | Go to the next step.                                                                                                                                            |
| 7 | <b>CONCLUDE THE MALFUNCTION LOCATION</b>                                                                                                                                                                                                                                                                                                                                                                                                         | Yes | Repair or replace the wiring harness                                                                                                                            |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     |                                                                                                                                                                                                      |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <ul style="list-style-type: none"> <li>• Front door latch and lock actuator (driver-side) and BCM connectors are disconnected.</li> <li>• Reconnect all disconnected connectors.</li> <li>• Reconnect the negative battery cable.</li> <li>• Measure the voltage between BCM terminal 8E (wiring harness-side) and body ground.</li> <li>• Is there any voltage?</li> </ul>                                                                                                                                                                                                                                            |     | for a possible open circuit, then go to the next step.                                                                                                                                               |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | No  | Go to the next step.                                                                                                                                                                                 |
| 8 | <p><b>VERIFY TROUBLESHOOTING COMPLETED</b></p> <ul style="list-style-type: none"> <li>• Make sure to reconnect all disconnected connectors.</li> <li>• Reconnect the negative battery cable.</li> <li>• Clear the DTC from the BCM memory using the M-MDS.</li> </ul> <p>(See <a href="#">CLEARING DTC [BCM]</a>.)</p> <ul style="list-style-type: none"> <li>• Perform the BCM DTC inspection using the M-MDS with the front door lock-link switch (driver-side) unlocked.</li> </ul> <p>(See <a href="#">DTC INSPECTION [BCM]</a>.)</p> <ul style="list-style-type: none"> <li>• Is the same DTC present?</li> </ul> | Yes | <p>Repeat the inspection from Step 1.</p> <p>If the malfunction recurs, replace the BCM, then go to the next step.</p> <p>(See <a href="#">BODY CONTROL MODULE (BCM) REMOVAL/ INSTALLATION.</a>)</p> |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | No  | Go to the next step.                                                                                                                                                                                 |
| 9 | <p><b>VERIFY THAT NO OTHER DTCs ARE PRESENT</b></p> <ul style="list-style-type: none"> <li>• Are any DTCs present?</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Yes | <p>Go to the applicable DTC inspection.</p> <p>(See <a href="#">DTC TABLE [BCM]</a>.)</p>                                                                                                            |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | No  | DTC troubleshooting completed.                                                                                                                                                                       |