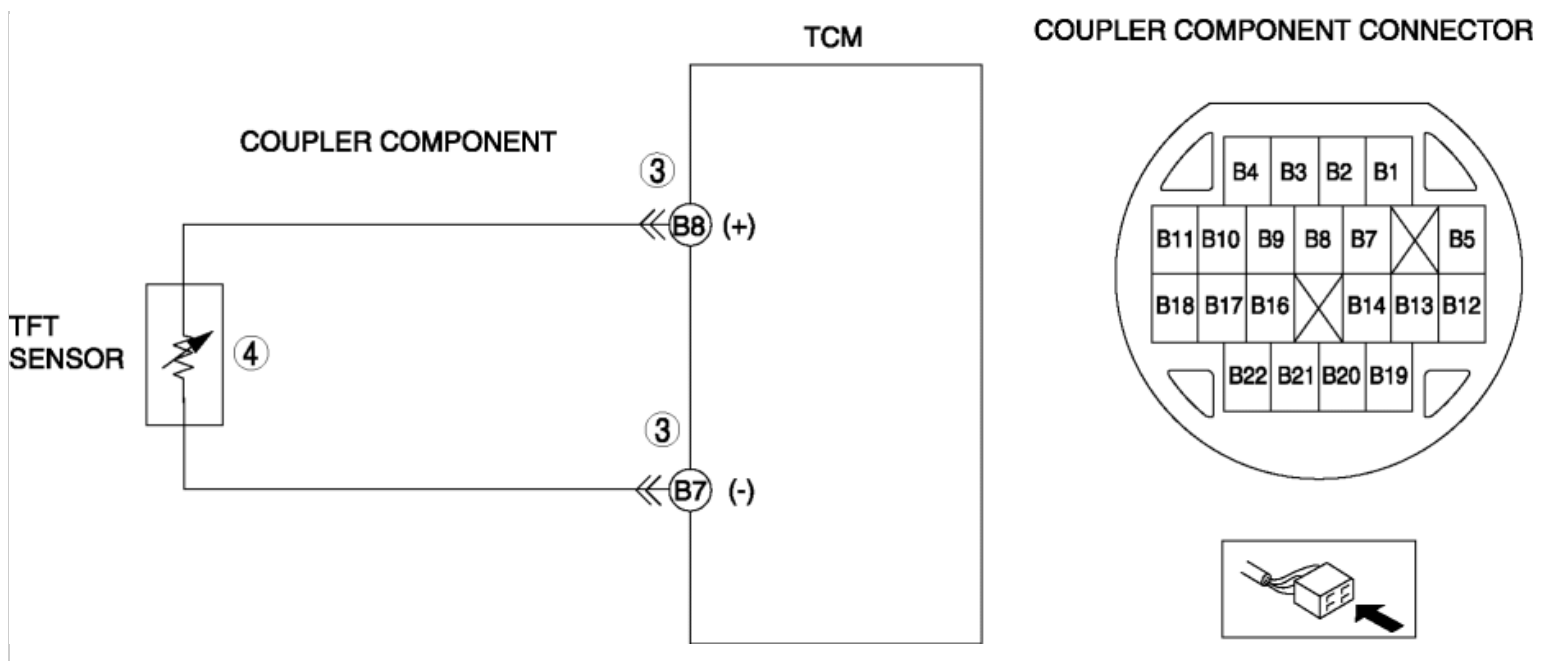


2012 - Mazda6 - Transmission/ Transaxle

DTC P0711:00 [AY6A-EL]

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DTC P0711:00            | TFT sensor circuit range/performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DETECTION<br>CONDI TION | <ul style="list-style-type: none"><li>• Stuck low temperature<ul style="list-style-type: none"><li>▪ Conditions: Engine running, driving in D position</li><li>▪ Circumstances: ATF temperature does not change</li><li>▪ Time period: Determined after 1 time lasting 10 minutes</li></ul></li><li>• Stuck high temperature<ul style="list-style-type: none"><li>▪ Conditions: After 6 hours or more from Engine Off, TCM communication normal</li><li>▪ Circumstances: ATF temperature of 125 °C {257 °F} or above detected</li><li>▪ Time period: Determined after 1 time</li></ul></li></ul> <p><b>Diagnostic support note:</b></p> <ul style="list-style-type: none"><li>• The MIL illuminates if the TCM detects the above malfunction condition during the first drive cycle.</li><li>• The AT warning light illuminates.</li><li>• PENDING CODE is not available.</li><li>• FREEZE FRAME DATA is available.</li><li>• The DTC is stored in the TCM memory.</li></ul> |
| FAIL-SAFE FUNCTION      | <ul style="list-style-type: none"><li>• Inhibits learning control</li><li>• Inhibits slip control</li><li>• Fixes ATF temperature value at 80 °C {176 °F}</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| POSSI BLE CAUSE         | <ul style="list-style-type: none"><li>• Coupler component connector or terminal malfunction</li><li>• TFT sensor malfunction</li><li>• TCM malfunction</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |



### Diagnostic procedure

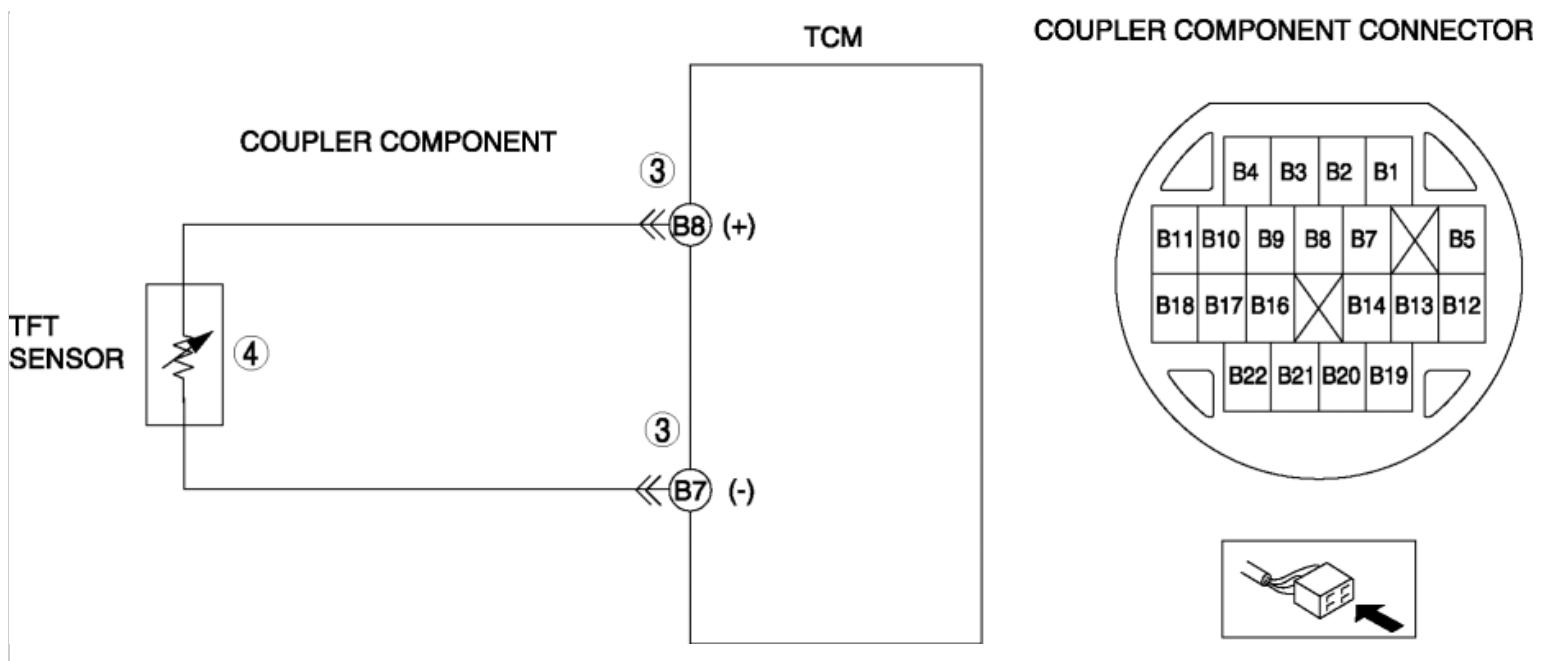
| STEP | INSPECTION                                                                                                                                                                                                                                                                                                                                                     | ACTION                                                                                                                                                                                                        |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | <b>VERIFY FREEZE FRAME DATA HAS BEEN RECORDED</b> <ul style="list-style-type: none"> <li>Has the FREEZE FRAME DATA been recorded on the repair order?</li> </ul>                                                                                                                                                                                               | Yes Go to the next step.<br>No Record the FREEZE FRAME DATA on the repair order, then go to the next step.                                                                                                    |
| 2    | <b>VERIFY RELATED REPAIR INFORMATION AVAILABILITY</b> <ul style="list-style-type: none"> <li>Verify related Service Bulletins and/or on-line repair information availability.</li> <li>Is any related repair information available?</li> </ul>                                                                                                                 | Yes Perform repair or diagnosis according to the available repair information. <ul style="list-style-type: none"> <li>If the vehicle is not repaired, go to the next step.</li> </ul> No Go to the next step. |
| 3    | <b>INSPECT COUPLER COMPONENT CONNECTOR FOR POOR CONNECTION</b> <ul style="list-style-type: none"> <li>Switch the ignition OFF (LOCK).</li> <li>Remove the TCM.<br/>(See <a href="#">TCM REMOVAL/ INSTALLATION [AY6A-EL]</a>.)</li> <li>Inspect for poor connection (such as damaged/pulled-out pins, corrosion).</li> <li>Is there any malfunction?</li> </ul> | Yes Repair or replace the terminal, then go to Step 5.<br>No Go to the next step.                                                                                                                             |
| 4    | <b>INSPECT TFT SENSOR</b> <ul style="list-style-type: none"> <li>Inspect the TFT sensor.<br/>(See <a href="#">TRANSAXLE FLUID TEMPERATURE (TFT) SENSOR INSPECTION [AY6A-EL]</a>.)</li> <li>Is there any malfunction?</li> </ul>                                                                                                                                | Yes Replace the TFT sensor, then go to the next step.<br>(See <a href="#">TRANSAXLE FLUID TEMPERATURE (TFT) SENSOR REMOVAL/ INSTALLATION [AY6A-EL]</a> .)<br>No Go to the next step.                          |
| 5    | <b>VERIFY DTC TROUBLESHOOTING COMPLETED</b> <ul style="list-style-type: none"> <li>Make sure to reconnect all the disconnected connectors.</li> </ul>                                                                                                                                                                                                          | Yes Replace the TCM, then go to the next step.<br>(See <a href="#">TCM REMOVAL/ INSTALLATION [AY6A-EL]</a> .)                                                                                                 |

|   |                                                                                                                                                                                                                                                                                                                                                                                                        |     |                                                                                                            |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------------------------|
|   | <ul style="list-style-type: none"><li>• Clear the DTC using the M-MDS.</li><li>• Perform the following procedure to ensure that the DTC has been resolved:<ul style="list-style-type: none"><li>◦ Start the engine.</li><li>◦ Warm up the engine to normal operating temperature.</li><li>◦ Drive the vehicle in D position for 15 min or more.</li></ul></li><li>• Is the same DTC present?</li></ul> | No  | Go to the next step.                                                                                       |
| 6 | <b>VERI FY NO DTCs ARE PRESENT</b> <ul style="list-style-type: none"><li>• Perform the “Reading DTCs Procedure”.<br/>(See <b>ON-BOARD DIAGNOSTIC SYSTEM DTC INSPECTION [AY6A-EL] .</b>)</li><li>• Are any DTCs present?</li></ul>                                                                                                                                                                      | Yes | Go to the applicable DTC inspection.<br><br>(See <b>ON-BOARD DIAGNOSTIC SYSTEM DTC TABLE [AY6A-EL] .</b> ) |
|   |                                                                                                                                                                                                                                                                                                                                                                                                        | No  | DTC troubleshooting completed.                                                                             |

2012 - Mazda6 - Transmission/ Transaxle

DTC P0711:00 [AY6A-EL]

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DTC P0711:00            | TFT sensor circuit range/performance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DETECTION<br>CONDI TION | <ul style="list-style-type: none"><li>• Stuck low temperature<ul style="list-style-type: none"><li>▪ Conditions: Engine running, driving in D position</li><li>▪ Circumstances: ATF temperature does not change</li><li>▪ Time period: Determined after 1 time lasting 10 minutes</li></ul></li><li>• Stuck high temperature<ul style="list-style-type: none"><li>▪ Conditions: After 6 hours or more from Engine Off, TCM communication normal</li><li>▪ Circumstances: ATF temperature of 125 °C {257 °F} or above detected</li><li>▪ Time period: Determined after 1 time</li></ul></li></ul> <p><b>Diagnostic support note:</b></p> <ul style="list-style-type: none"><li>• The MIL illuminates if the TCM detects the above malfunction condition during the first drive cycle.</li><li>• The AT warning light illuminates.</li><li>• PENDING CODE is not available.</li><li>• FREEZE FRAME DATA is available.</li><li>• The DTC is stored in the TCM memory.</li></ul> |
| FAIL-SAFE FUNCTION      | <ul style="list-style-type: none"><li>• Inhibits learning control</li><li>• Inhibits slip control</li><li>• Fixes ATF temperature value at 80 °C {176 °F}</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| POSSI BLE CAUSE         | <ul style="list-style-type: none"><li>• Coupler component connector or terminal malfunction</li><li>• TFT sensor malfunction</li><li>• TCM malfunction</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |



### Diagnostic procedure

| STEP | INSPECTION                                                                                                                                                                                                                                                                                                                                                     | ACTION                                                                                                                                                                                                        |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | <b>VERIFY FREEZE FRAME DATA HAS BEEN RECORDED</b> <ul style="list-style-type: none"> <li>Has the FREEZE FRAME DATA been recorded on the repair order?</li> </ul>                                                                                                                                                                                               | Yes Go to the next step.<br>No Record the FREEZE FRAME DATA on the repair order, then go to the next step.                                                                                                    |
| 2    | <b>VERIFY RELATED REPAIR INFORMATION AVAILABILITY</b> <ul style="list-style-type: none"> <li>Verify related Service Bulletins and/or on-line repair information availability.</li> <li>Is any related repair information available?</li> </ul>                                                                                                                 | Yes Perform repair or diagnosis according to the available repair information. <ul style="list-style-type: none"> <li>If the vehicle is not repaired, go to the next step.</li> </ul> No Go to the next step. |
| 3    | <b>INSPECT COUPLER COMPONENT CONNECTOR FOR POOR CONNECTION</b> <ul style="list-style-type: none"> <li>Switch the ignition OFF (LOCK).</li> <li>Remove the TCM.<br/>(See <a href="#">TCM REMOVAL/ INSTALLATION [AY6A-EL]</a>.)</li> <li>Inspect for poor connection (such as damaged/pulled-out pins, corrosion).</li> <li>Is there any malfunction?</li> </ul> | Yes Repair or replace the terminal, then go to Step 5.<br>No Go to the next step.                                                                                                                             |
| 4    | <b>INSPECT TFT SENSOR</b> <ul style="list-style-type: none"> <li>Inspect the TFT sensor.<br/>(See <a href="#">TRANSAXLE FLUID TEMPERATURE (TFT) SENSOR INSPECTION [AY6A-EL]</a>.)</li> <li>Is there any malfunction?</li> </ul>                                                                                                                                | Yes Replace the TFT sensor, then go to the next step.<br>(See <a href="#">TRANSAXLE FLUID TEMPERATURE (TFT) SENSOR REMOVAL/ INSTALLATION [AY6A-EL]</a> .)<br>No Go to the next step.                          |
| 5    | <b>VERIFY DTC TROUBLESHOOTING COMPLETED</b> <ul style="list-style-type: none"> <li>Make sure to reconnect all the disconnected connectors.</li> </ul>                                                                                                                                                                                                          | Yes Replace the TCM, then go to the next step.<br>(See <a href="#">TCM REMOVAL/ INSTALLATION [AY6A-EL]</a> .)                                                                                                 |

|   |                                                                                                                                                                                                                                                                                                                                                                                                        |     |                                                                                                            |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------------------------|
|   | <ul style="list-style-type: none"><li>• Clear the DTC using the M-MDS.</li><li>• Perform the following procedure to ensure that the DTC has been resolved:<ul style="list-style-type: none"><li>◦ Start the engine.</li><li>◦ Warm up the engine to normal operating temperature.</li><li>◦ Drive the vehicle in D position for 15 min or more.</li></ul></li><li>• Is the same DTC present?</li></ul> | No  | Go to the next step.                                                                                       |
| 6 | <b>VERI FY NO DTCs ARE PRESENT</b> <ul style="list-style-type: none"><li>• Perform the “Reading DTCs Procedure”.<br/>(See <b>ON-BOARD DIAGNOSTIC SYSTEM DTC INSPECTION [AY6A-EL] .</b>)</li><li>• Are any DTCs present?</li></ul>                                                                                                                                                                      | Yes | Go to the applicable DTC inspection.<br><br>(See <b>ON-BOARD DIAGNOSTIC SYSTEM DTC TABLE [AY6A-EL] .</b> ) |
|   |                                                                                                                                                                                                                                                                                                                                                                                                        | No  | DTC troubleshooting completed.                                                                             |