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## 2016 MAZDA 6 / Atenza Wagon OEM Service and Repair Workshop Manual

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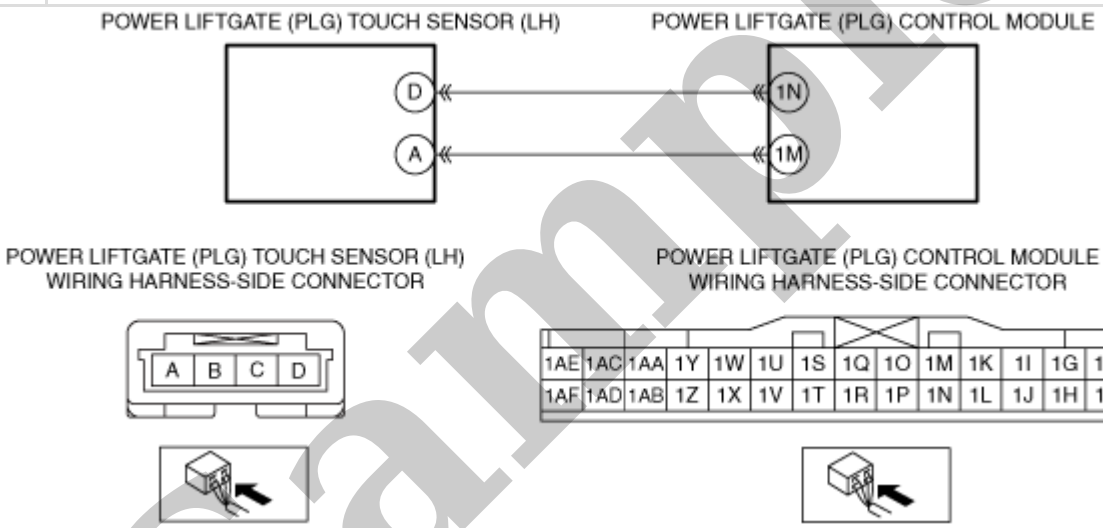
# DTC B1454:13 [POWER LIFTGATE (PLG) CONTROL MODULE]

SM2898929

id0902o804890

| Description | Power liftgate (PLG) touch sensor (LH) circuit malfunction |
|---|---|
| Detection condition | • Power liftgate (PLG) control module detected an open circuit in the power liftgate (PLG) touch sensor (LH) circuit for 0.1 s or more. |
| Fail-safe | • Stops the power liftgate (PLG) system operation. |
| Possible cause | • Power liftgate (PLG) touch sensor (LH) connector or terminal malfunction<br>• Power liftgate (PLG) control module connector or terminal malfunction<br>• Open circuit in wiring harness between the following terminals:<br>— Power liftgate (PLG) touch sensor (LH) terminal D—Power liftgate (PLG) control module terminal 1N<br>— Power liftgate (PLG) touch sensor (LH) terminal A—Power liftgate (PLG) control module terminal 1M<br>• Power liftgate (PLG) touch sensor (LH) malfunction<br>• Power liftgate (PLG) control module malfunction |






## Diagnostic Procedure

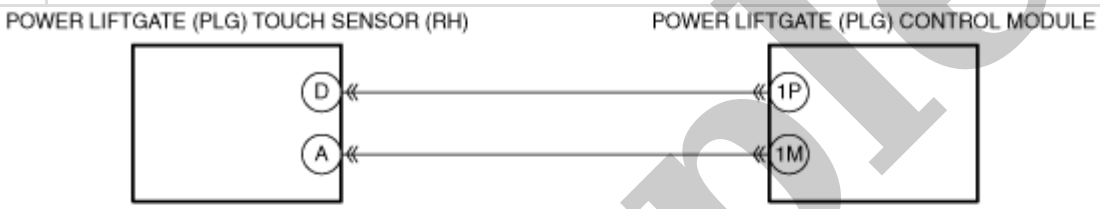
| STEP | INSPECTION | | ACTION |
|---|---|---|---|
| 1 | INSPECT POWER LIFTGATE (PLG) TOUCH SENSOR (LH) CONNECTOR CONDITION<br>• Switch the ignition off.<br>• Disconnect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.)<br>• Disconnect the power liftgate (PLG) touch sensor (LH) connector.<br>• Inspect the connector engagement and connection condition and inspect the terminals for damage, deformation, corrosion, or disconnection.<br>• Is the connector normal? | Yes | Go to the next step. |
| | | No | Repair or replace the connector, then go to Step 5. |

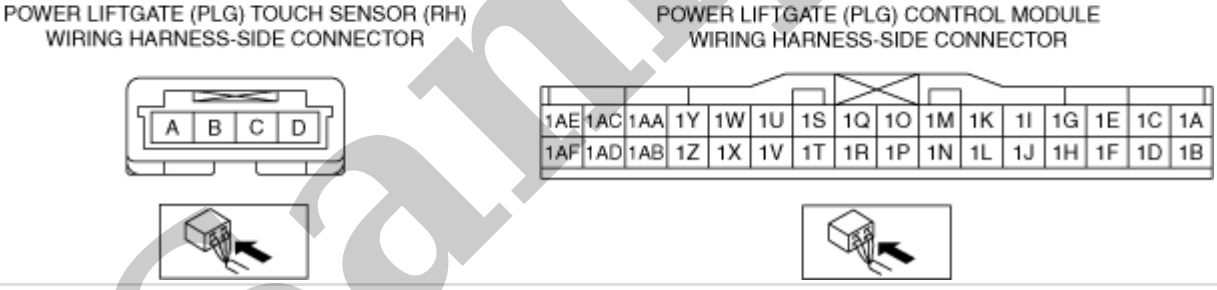
# DTC B1455:23 [POWER LIFTGATE (PLG) CONTROL MODULE]

SM2898932

id0902o804920

| | |
|---|---|
| **Description** | **Power liftgate (PLG) touch sensor (RH) circuit malfunction** |
| Detection condition | • Power liftgate (PLG) control module detected a short circuit to ground in the power liftgate (PLG) touch sensor (RH) circuit for 5 min or more. |
| Fail-safe | • Stops the power liftgate (PLG) system operation. |
| Possible cause | • Power liftgate (PLG) touch sensor (RH) connector or terminal malfunction<br>• Power liftgate (PLG) control module connector or terminal malfunction<br>• Short to ground in wiring harness between power liftgate (PLG) touch sensor (RH) terminal D and power liftgate (PLG) control module terminal 1P<br>• Power liftgate (PLG) touch sensor (RH) malfunction<br>• Power liftgate (PLG) control module malfunction |






## Diagnostic Procedure

| STEP | INSPECTION | | ACTION |
|---|---|---|---|
| 1 | **INSPECT POWER LIFTGATE (PLG) TOUCH SENSOR (RH) CONNECTOR CONDITION**<br>• Switch the ignition off.<br>• Disconnect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.)<br>• Disconnect the power liftgate (PLG) touch sensor (RH) connector.<br>• Inspect the connector engagement and connection condition and inspect the terminals for damage, deformation, corrosion, or disconnection.<br>• Is the connector normal? | Yes | Go to the next step. |
| | | No | Repair or replace the connector, then go to Step 5. |

| STEP | INSPECTION | | ACTION |
|---|---|---|---|
| 2 | **INSPECT POWER LIFTGATE (PLG) CONTROL MODULE CONNECTOR CONDITION**<br>• Disconnect the power liftgate (PLG) control module connector.<br>• Inspect the connector engagement and connection condition and inspect the terminals for damage, deformation, corrosion, or disconnection.<br>• Is the connector normal? | Yes | Go to the next step. |
| | | No | Repair or replace the connector, then go to Step 5. |
| 3 | **INSPECT TOUCH SENSOR CIRCUIT FOR SHORT TO GROUND**<br>• Verify that the power liftgate (PLG) touch sensor (LH) and power liftgate (PLG) control module connectors are disconnected.<br>• Inspect for continuity between power liftgate (PLG) touch sensor (LH) terminal D (wiring harness-side) and body ground.<br>• Is there continuity? | Yes | Refer to the wiring diagram and verify whether or not there is a common connector between power liftgate (PLG) touch sensor (LH) terminal D and power liftgate (PLG) control module terminal 1N.<br>**If there is a common connector:**<br>• Determine the malfunctioning part by inspecting the common connector and the terminal for corrosion, damage, or pin disconnection, and the common wiring harness for a short to ground.<br>• Repair or replace the malfunctioning part.<br>**If there is no common connector:**<br>• Repair or replace the wiring harness which has a short to ground.<br>Go to Step 5. |
| | | No | Go to the next step. |
| 4 | **INSPECT POWER LIFTGATE (PLG) TOUCH SENSOR (LH)**<br>• Measure the voltage at the following terminals (wiring harness-side):<br>— Power liftgate (PLG) control module terminal 1N<br>— Power liftgate (PLG) control module terminal 1M<br>• Is the voltage normal? (See POWER LIFTGATE (PLG) CONTROL MODULE INSPECTION.) | Yes | Go to the next step. |
| | | No | Replace the power liftgate (PLG) touch sensor (LH), then go to the next step.<br>(See POWER LIFTGATE (PLG) TOUCH SENSOR REMOVAL/INSTALLATION.) |
| 5 | **VERIFY THAT REPAIRS HAVE BEEN COMPLETED**<br>• Always reconnect all disconnected connectors.<br>• Connect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.)<br>• Clear the DTC for the power liftgate (PLG) control module using the M-MDS. (See CLEARING DTC [POWER LIFTGATE (PLG) CONTROL MODULE].)<br>• Switch the ignition off and wait for 5 min or more.<br>• Retrieve the power liftgate (PLG) control module DTCs using the M-MDS. (See DTC INSPECTION [POWER LIFTGATE (PLG) CONTROL MODULE].)<br>• Is the same DTC displayed? | Yes | Repeat the inspection from Step 1.<br>• If the malfunction recurs, replace the power liftgate (PLG) control module. (See POWER LIFTGATE (PLG) CONTROL MODULE REMOVAL/INSTALLATION.)<br>Go to the next step. |
| | | No | Go to the next step. |
| 6 | **VERIFY IF OTHER DTCs DISPLAYED**<br>• Are any other DTCs displayed? | Yes | Repair or replace the malfunctioning part according to the applicable DTC troubleshooting.<br>(See DTC TABLE [POWER LIFTGATE (PLG) CONTROL MODULE].) |
| | | No | DTC troubleshooting completed. |

# DTC U3003:16 [POWER LIFTGATE (PLG) CONTROL MODULE]

SM2898935

id0902o804960

| Description | Power liftgate (PLG) control module power supply voltage low input |
|---|---|
| Detection condition | • Power liftgate (PLG) control module detects that the power supply circuit voltage that is less than the specification. |
| Fail-safe | • Stops the power liftgate (PLG) system operation. |
| Possible cause | • DTCs are stored in the PCM<br>• DTCs are stored in the rear body control module (RBCM)<br>• Battery malfunction<br>• Generator malfunction<br>• Power liftgate (PLG) control module connector or terminal malfunction<br>• Power liftgate (PLG) control module power supply circuit malfunction<br>— Short to ground in the wiring harness between the following terminals:<br>• C/U IG1 15 A fuse—Power liftgate (PLG) control module terminal 1AD<br>• MAIN 200 A fuse—Power liftgate (PLG) control module terminal 2I<br>— C/U IG1 15 A fuse malfunction<br>— PLG 20 A fuse malfunction<br>— CABIN.+B 50 A fuse malfunction<br>— Open circuit in wiring harness between the following terminals:<br>• IG1 relay—Power liftgate (PLG) control module terminal 1AD<br>• Battery positive terminal—Power liftgate (PLG) control module terminal 2I<br>• Rear body control module (RBCM) connector or terminal malfunction<br>• Short to ground in the wiring harness between rear body control module (RBCM) terminal 4F and power liftgate (PLG) control module terminal 1AA<br>• Open circuit in wiring harness between rear body control module (RBCM) terminal 4F and power liftgate (PLG) control module terminal 1AA<br>• Power liftgate (PLG) control module malfunction |

| Step | Inspection | | Action |
|---|---|---|---|
| 6 | **VERIFY POWER LIFTGATE (PLG) CONTROL MODULE POWER SUPPLY VOLTAGE**<br>• Connect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.)<br>• Measure the voltage at the following terminals (wiring harness-side):<br>— Power liftgate (PLG) control module terminal 1AD<br>— Power liftgate (PLG) control module terminal 2I<br>• Is the voltage B+? | Yes | Go to the next step. |

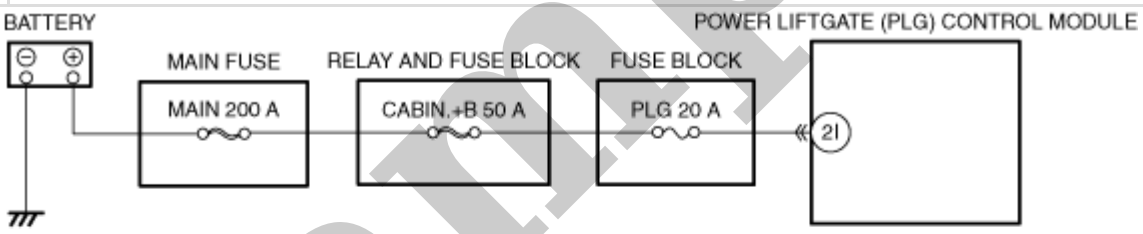
| Step | Inspection | | Action |
|---|---|---|---|
| 9 | INSPECT POWER LIFTGATE (PLG) CONTROL MODULE POWER SUPPLY CIRCUIT FOR OPEN CIRCUIT<br>• Verify that the rear body control module (RBCM) terminal and power liftgate (PLG) control module connectors are disconnected.<br>• Inspect for continuity between rear body control module (RBCM) terminal 4F (wiring harness-side) and power liftgate (PLG) control module terminal 1AA (wiring harness-side).<br>• Is there continuity? | Yes | Go to the next step. |
| | | No | Refer to the wiring diagram and verify whether or not there is a common connector between rear body control module (RBCM) terminal 4F and power liftgate (PLG) control module terminal 1AA.<br>**If there is a common connector:**<br>• Determine the malfunctioning part by inspecting the common connector and the terminal for corrosion, damage, or pin disconnection, and the common wiring harness for an open circuit.<br>• Repair or replace the malfunctioning part.<br>**If there is no common connector:**<br>• Repair or replace the wiring harness which has an open circuit.<br>Go to the next step. |
| 10 | VERIFY THAT REPAIRS HAVE BEEN COMPLETED<br>• Always reconnect all disconnected connectors.<br>• Connect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.)<br>• Clear the DTC for the power liftgate (PLG) control module using the M-MDS. (See CLEARING DTC [POWER LIFTGATE (PLG) CONTROL MODULE].)<br>• Retrieve the power liftgate (PLG) control module DTCs using the M-MDS. (See DTC INSPECTION [POWER LIFTGATE (PLG) CONTROL MODULE].)<br>• Is the same DTC displayed? | Yes | Repeat the inspection from Step 1.<br>• If the malfunction recurs, replace the power liftgate (PLG) control module. (See POWER LIFTGATE (PLG) CONTROL MODULE REMOVAL/INSTALLATION.)<br>Go to the next step. |
| | | No | Go to the next step. |
| 11 | VERIFY IF OTHER DTCs DISPLAYED<br>• Are any other DTCs displayed? | Yes | Repair or replace the malfunctioning part according to the applicable DTC troubleshooting. (See DTC TABLE [POWER LIFTGATE (PLG) CONTROL MODULE].) |
| | | No | DTC troubleshooting completed. |

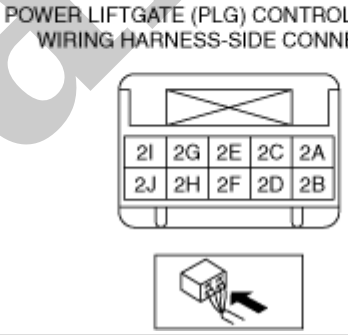
# DTC U3006:13 [POWER LIFTGATE (PLG) CONTROL MODULE]

SM2898937

id0902o804980

| Description | Power supply circuit malfunction |
|---|---|
| Detection condition | • Power liftgate (PLG) control module detects an open circuit in the power supply circuit for 1 s or more with the ignition switched off. |
| Fail-safe | • Stops the power liftgate (PLG) system operation. |
| Possible cause | • DTCs are stored in the PCM.<br>• Battery malfunction<br>• Generator malfunction<br>• Power liftgate (PLG) control module connector or terminal malfunction<br>• Power liftgate (PLG) control module power supply circuit malfunction<br>— Short to ground in wiring harness between MAIN 200 A fuse and power liftgate (PLG) control module terminal 2I<br>— PLG 20 A fuse malfunction<br>— CABIN.+B 50 A fuse malfunction<br>— Open circuit in wiring harness between battery positive terminal and power liftgate (PLG) control module terminal 2I<br>• Power liftgate (PLG) control module malfunction |






## Diagnostic Procedure

| STEP | INSPECTION | | ACTION |
|---|---|---|---|
| | | No | Inspect the PLG 20 A fuse and TAIL 20 A fuse.<br>• Any fuse is blown:<br>— Refer to the wiring diagram and verify whether or not there is a common connector between MAIN 200 A fuse and power liftgate (PLG) control module terminal 2I.<br>**If there is a common connector:**<br>• Determine the malfunctioning part by inspecting the common connector and the terminal for corrosion, damage, or pin disconnection, and the common wiring harness for a short to ground.<br>• Repair or replace the malfunctioning part.<br>**If there is no common connector:**<br>• Repair or replace the wiring harness which has a short to ground.<br>• Replace the fuse.<br>• Any fuse is damaged:<br>— Replace the fuse.<br>• All fuses are normal:<br>— Refer to the wiring diagram and verify whether or not there is a common connector between battery positive terminal and power liftgate (PLG) control module terminal 2I.<br>**If there is a common connector:**<br>• Determine the malfunctioning part by inspecting the common connector and the terminal for corrosion, damage, or pin disconnection, and the common wiring harness for an open circuit.<br>• Repair or replace the malfunctioning part. |