

## 2012 - Mazda6 - Engine

### DTC P0068:00 [MZI 3.7 V6]

|                                |                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DTC<br>P0068:00                | MAP/MAF-throttle position correlation                                                                                                                                                                                                                                                                                                                                  |
| <b>DETECTION<br/>CONDITION</b> | <ul style="list-style-type: none"> <li>The PCM monitors a vehicle operation rationality check by comparing sensed throttle position to mass air flow readings. If during a KOER self-test, the comparison of the TP sensor and MAF sensor readings are not consistent with the calibrated load values, test fails and a DTC is stored in continuous memory.</li> </ul> |
| <b>POSSIBLE<br/>CAUSE</b>      | <ul style="list-style-type: none"> <li>Air leak between MAF sensor and throttle body</li> <li>TP sensor or MAF sensor malfunction</li> <li>TP sensor not seated correctly</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 FREEZE FRAME DATA been recorded?</li> </ul>                                                                    | Yes Go to the next step.                                                                                                                                                     |
|      |                                                                                                                                                                                                             | No Record 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 availability.</li> <li>Is any related Service Bulletins available?</li> </ul> | Yes Perform repair or diagnosis according to available Service Bulletins. <ul style="list-style-type: none"> <li>If vehicle is not repaired, go to the next step.</li> </ul> |
|      |                                                                                                                                                                                                             | No Go to the next step.                                                                                                                                                      |
| 3    | <b>VERIFY RELATED PENDING CODE OR STORED DTC</b> <ul style="list-style-type: none"> <li>Verify the related PENDING CODE or stored DTCs.</li> <li>Are other DTCs present?</li> </ul>                         | Yes Go to appropriate DTC inspection.<br>(See <a href="#">DTC TABLE [MZI 3.7 V6]</a> .)                                                                                      |
|      |                                                                                                                                                                                                             | No Go to the next step.                                                                                                                                                      |

|   |                                                                                                                                                                                                                                                                                                                                    |     |                                                                                                                                                                          |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4 | <b>INSPECT FOR INLET AIR LEAKS</b> <ul style="list-style-type: none"> <li>Listen for air noise around the MAF sensor and throttle body while the engine is running.</li> <li>Is a concern present?</li> </ul>                                                                                                                      | Yes | Repair as necessary. Go to Step 8.                                                                                                                                       |
|   |                                                                                                                                                                                                                                                                                                                                    | No  | Go to the next step.                                                                                                                                                     |
| 5 | <b>INSPECT FOR TP2 SIGNAL HIGH VERSUS LOAD WHILE DRIVING THE VEHICLE</b> <ul style="list-style-type: none"> <li>Switch the ignition to ON (Engine running).</li> <li>Access the TP2 and LOAD PIDs using the M-MDS.</li> <li>Is the TP2 PID more than 2.44 V and the LOAD PID less than 30%?</li> </ul>                             | Yes | Replace the malfunctioning part, then go to Step 8.                                                                                                                      |
|   |                                                                                                                                                                                                                                                                                                                                    | No  | Go to the next step.                                                                                                                                                     |
| 6 | <b>INSPECT FOR TP2 SIGNAL LOW VERSUS LOAD WHILE DRIVING THE VEHICLE</b> <ul style="list-style-type: none"> <li>Switch the ignition to ON (Engine running).</li> <li>Access the PCM and monitor the TP2 and LOAD PIDs</li> <li>Is the TP2 PID less than 0.24 V and the LOAD PID more than 55%?</li> </ul>                           | Yes | Repair or replace the malfunctioning part, then go to Step 8.                                                                                                            |
|   |                                                                                                                                                                                                                                                                                                                                    | No  | Go to the next step.                                                                                                                                                     |
| 7 | <b>INSPECT FOR SELF-TEST DTCS</b> <ul style="list-style-type: none"> <li>Switch the ignition to ON (Engine running).</li> <li>Clear the DTC from the PCM memory using the M-MDS.</li> <li>Drive the vehicle while exercising the throttle.</li> <li>Retrieve the continuous memory DTCs.</li> <li>Are any DTCs present?</li> </ul> | Yes | Replace the malfunctioning part, then go to the next step.                                                                                                               |
|   |                                                                                                                                                                                                                                                                                                                                    | No  | Perform the "INTERMITTENT CONCERN TROUBLESHOOTING". Then go to the next step.                                                                                            |
| 8 | <b>VERIFY TROUBLESHOOTING OF DTC P0068:00 HAS BEEN COMPLETED</b> <ul style="list-style-type: none"> <li>Verify that all disconnected connectors reconnected.</li> </ul>                                                                                                                                                            | Yes | Repeat the inspection from Step 1. <ul style="list-style-type: none"> <li>If the malfunction recurs, replace the PCM.</li> </ul> (See <b>PCM REMOVAL/ INSTALLATION</b> ) |

|   |                                                                                                                                                                                                                                                                            |                                                                                                                                                         |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <ul style="list-style-type: none"><li>• Clear the DTC from the PCM memory using the M-MDS.</li><li>• Start the engine.</li><li>• Perform the KOEO or KOER self-test.<br/>(See <a href="#">KOEO/ KOER SELF TEST [MZI 3.7 V6]</a>.)</li><li>• Is same DTC present?</li></ul> | <div><div>[MZI 3.7 V6] .)</div><div>Go to the next step.</div></div> <div>NoGo to the next step.</div>                                                  |
| 9 | <div><div><b>VERIFY AFTER REPAIR PROCEDURE</b></div><div><ul style="list-style-type: none"><li>• Perform the "AFTER REPAIR PROCEDURE".<br/>(See <a href="#">AFTER REPAIR PROCEDURE [MZI 3.7 V6]</a>.)</li><li>• Are any DTCs present?</li></ul></div></div>                | <div><div>YesGo to the applicable DTC inspection.<br/>(See <a href="#">DTC TABLE [MZI 3.7 V6]</a> .)</div><div>NoTroubleshooting completed.</div></div> |

## 2012 - Mazda6 - Engine

### DTC P0068:00 [MZI 3.7 V6]

|                                |                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DTC<br>P0068:00                | MAP/MAF-throttle position correlation                                                                                                                                                                                                                                                                                                                                  |
| <b>DETECTION<br/>CONDITION</b> | <ul style="list-style-type: none"> <li>The PCM monitors a vehicle operation rationality check by comparing sensed throttle position to mass air flow readings. If during a KOER self-test, the comparison of the TP sensor and MAF sensor readings are not consistent with the calibrated load values, test fails and a DTC is stored in continuous memory.</li> </ul> |
| <b>POSSIBLE<br/>CAUSE</b>      | <ul style="list-style-type: none"> <li>Air leak between MAF sensor and throttle body</li> <li>TP sensor or MAF sensor malfunction</li> <li>TP sensor not seated correctly</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 FREEZE FRAME DATA been recorded?</li> </ul>                                                                    | Yes Go to the next step.                                                                                                                                                     |
|      |                                                                                                                                                                                                             | No Record 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 availability.</li> <li>Is any related Service Bulletins available?</li> </ul> | Yes Perform repair or diagnosis according to available Service Bulletins. <ul style="list-style-type: none"> <li>If vehicle is not repaired, go to the next step.</li> </ul> |
|      |                                                                                                                                                                                                             | No Go to the next step.                                                                                                                                                      |
| 3    | <b>VERIFY RELATED PENDING CODE OR STORED DTC</b> <ul style="list-style-type: none"> <li>Verify the related PENDING CODE or stored DTCs.</li> <li>Are other DTCs present?</li> </ul>                         | Yes Go to appropriate DTC inspection.<br>(See <a href="#">DTC TABLE [MZI 3.7 V6]</a> .)                                                                                      |
|      |                                                                                                                                                                                                             | No Go to the next step.                                                                                                                                                      |

|   |                                                                                                                                                                                                                                                                                                                                    |     |                                                                                                                                                                          |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4 | <b>INSPECT FOR INLET AIR LEAKS</b> <ul style="list-style-type: none"> <li>Listen for air noise around the MAF sensor and throttle body while the engine is running.</li> <li>Is a concern present?</li> </ul>                                                                                                                      | Yes | Repair as necessary. Go to Step 8.                                                                                                                                       |
|   |                                                                                                                                                                                                                                                                                                                                    | No  | Go to the next step.                                                                                                                                                     |
| 5 | <b>INSPECT FOR TP2 SIGNAL HIGH VERSUS LOAD WHILE DRIVING THE VEHICLE</b> <ul style="list-style-type: none"> <li>Switch the ignition to ON (Engine running).</li> <li>Access the TP2 and LOAD PIDs using the M-MDS.</li> <li>Is the TP2 PID more than 2.44 V and the LOAD PID less than 30%?</li> </ul>                             | Yes | Replace the malfunctioning part, then go to Step 8.                                                                                                                      |
|   |                                                                                                                                                                                                                                                                                                                                    | No  | Go to the next step.                                                                                                                                                     |
| 6 | <b>INSPECT FOR TP2 SIGNAL LOW VERSUS LOAD WHILE DRIVING THE VEHICLE</b> <ul style="list-style-type: none"> <li>Switch the ignition to ON (Engine running).</li> <li>Access the PCM and monitor the TP2 and LOAD PIDs</li> <li>Is the TP2 PID less than 0.24 V and the LOAD PID more than 55%?</li> </ul>                           | Yes | Repair or replace the malfunctioning part, then go to Step 8.                                                                                                            |
|   |                                                                                                                                                                                                                                                                                                                                    | No  | Go to the next step.                                                                                                                                                     |
| 7 | <b>INSPECT FOR SELF-TEST DTCS</b> <ul style="list-style-type: none"> <li>Switch the ignition to ON (Engine running).</li> <li>Clear the DTC from the PCM memory using the M-MDS.</li> <li>Drive the vehicle while exercising the throttle.</li> <li>Retrieve the continuous memory DTCs.</li> <li>Are any DTCs present?</li> </ul> | Yes | Replace the malfunctioning part, then go to the next step.                                                                                                               |
|   |                                                                                                                                                                                                                                                                                                                                    | No  | Perform the "INTERMITTENT CONCERN TROUBLESHOOTING". Then go to the next step.                                                                                            |
| 8 | <b>VERIFY TROUBLESHOOTING OF DTC P0068:00 HAS BEEN COMPLETED</b> <ul style="list-style-type: none"> <li>Verify that all disconnected connectors reconnected.</li> </ul>                                                                                                                                                            | Yes | Repeat the inspection from Step 1. <ul style="list-style-type: none"> <li>If the malfunction recurs, replace the PCM.</li> </ul> (See <b>PCM REMOVAL/ INSTALLATION</b> ) |

|   |                                                                                                                                                                                                                                                                            |                                                                                                                                                        |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <ul style="list-style-type: none"><li>• Clear the DTC from the PCM memory using the M-MDS.</li><li>• Start the engine.</li><li>• Perform the KOEO or KOER self-test.<br/>(See <a href="#">KOEO/ KOER SELF TEST [MZI 3.7 V6]</a>.)</li><li>• Is same DTC present?</li></ul> | <div><div><a href="#">[MZI 3.7 V6]</a>.)</div><div>Go to the next step.</div></div> <div>NoGo to the next step.</div>                                  |
| 9 | <p><b>VERIFY AFTER REPAIR PROCEDURE</b></p> <ul style="list-style-type: none"><li>• Perform the “AFTER REPAIR PROCEDURE”.</li><li>(See <a href="#">AFTER REPAIR PROCEDURE [MZI 3.7 V6]</a>.)</li><li>• Are any DTCs present?</li></ul>                                     | <div><div>YesGo to the applicable DTC inspection.<br/>(See <a href="#">DTC TABLE [MZI 3.7 V6]</a>.)</div><div>NoTroubleshooting completed.</div></div> |