2012 - Mazda6 - Engine

DTC P2097:00, P2099:00 [MZI 3.7 V6]

DTC P2097:00 DTC P2099:00	Post catalyst fuel trim system too rich (RH) Post catalyst fuel trim system too rich (LH)
DETECTION CONDITION	• P2097:00: indicates that post catalyst fuel trim system too rich (RH) • P2099:00: indicates that post catalyst fuel trim system too rich (LH) • The PCM monitors the correction value from HO2S as part of the fore-aft oxygen sensor control routine. The test fails when the fuel decrease correction value is greater than the calibrated limit.
POSSIBLE CAUSE	• A/F sensor connector or terminal malfunction • HO2S connector or terminal malfunction • Contaminated A/F sensor and/or HO2S • PCM malfunction

Diagnostic procedure

STEP	INSPECTION		ACTION
1	**VERIFY FREEZE FRAME DATA HAS BEEN RECORDED** • Has FREEZE FRAME DATA been recorded?	Yes	Go to the next step.
		No	Record FREEZE FRAME DATA on the repair order, then go to the next step.
2	**VERIFY RELATED REPAIR INFORMATION AVAILABILITY** • Verify related Service Bulletins and/or on-line repair information availability. • Is any related Service Bulletins available?	Yes	Perform repair or diagnosis according to the available Service Bulletins. • If the vehicle is not repaired, go to the next step.
		No	Go to the next step.
	VISUALLY INSPECT A/F SENSOR AND		

3	**HO2S CONNECTORS** • Switch the ignition switch off. • Disconnect A/F sensor and HO2S connector for suspect bank. • Visually inspect for a loose connection, and damaged or corroded terminals • Is a concern present?	Yes	Repair or replace suspect part then go to Step 5.
		No	Go to the next step.
4	**INSPECT FOR POTENTIAL SENSOR CONTAMINATION CONCERNS** • Investigate the following items as potential sources of A/F sensor contamination: ▪ Use of unapproved silicon sealers ▪ Fuel contaminated by silicon additives ▪ Excessive oil consumption ▪ Glycol leaking internally in the engine ▪ Lead-contaminated fuel ▪ Short drive cycles in cold weather ▪ Use of unapproved cleaning agents • Is a concern present?	Yes	Repair or replace the source of the contamination. Replace the engine oil and oil filter. Go to the next step.
		No	Go to the next step. (The system is operating normally at this time. The concern may have been caused by a loose or corroded connector.).
5	**VERIFY TROUBLESHOOTING OF DTC P2097:00, P2099:00 HAVE BEEN COMPLETED** • Verify that all disconnected connectors are reconnected.	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See **PCM REMOVAL/ INSTALLATION**

	• Switch the ignition ON (Engine off). • Clear the DTC from the PCM memory using the M-MDS. • Perform the OBD-II DRIVE MODE up to Misfire, Fuel and HO2S Monitors (Step 11). (See **OBD-II DRIVE MODE [MZI 3.7 V6]**.) • Is the PENDING CODE for this DTC present?		**[MZI 3.7 V6]**.) Go to the next step.
		No	Go to the next step.
6	**VERIFY AFTER REPAIR PROCEDURE** • Perform the "AFTER REPAIR PROCEDURE". (See **AFTER REPAIR PROCEDURE [MZI 3.7 V6]**.) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See **DTC TABLE [MZI 3.7 V6]**.)
		No	Troubleshooting completed.

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2012 - Mazda6 - Engine

DTC P2097:00, P2099:00 [MZI 3.7 V6]

DTC P2097:00 DTC P2099:00	Post catalyst fuel trim system too rich (RH) Post catalyst fuel trim system too rich (LH)
DETECTION CONDITION	• P2097:00: indicates that post catalyst fuel trim system too rich (RH) • P2099:00: indicates that post catalyst fuel trim system too rich (LH) • The PCM monitors the correction value from HO2S as part of the fore-aft oxygen sensor control routine. The test fails when the fuel decrease correction value is greater than the calibrated limit.
POSSIBLE CAUSE	• A/F sensor connector or terminal malfunction • HO2S connector or terminal malfunction • Contaminated A/F sensor and/or HO2S • PCM malfunction

Diagnostic procedure

STEP	INSPECTION		ACTION
1	**VERIFY FREEZE FRAME DATA HAS BEEN RECORDED** • Has FREEZE FRAME DATA been recorded?	Yes	Go to the next step.
		No	Record FREEZE FRAME DATA on the repair order, then go to the next step.
2	**VERIFY RELATED REPAIR INFORMATION AVAILABILITY** • Verify related Service Bulletins and/or on-line repair information availability. • Is any related Service Bulletins available?	Yes	Perform repair or diagnosis according to the available Service Bulletins. • If the vehicle is not repaired, go to the next step.
		No	Go to the next step.
	VISUALLY INSPECT A/F SENSOR AND		

3	**HO2S CONNECTORS** • Switch the ignition switch off. • Disconnect A/F sensor and HO2S connector for suspect bank. • Visually inspect for a loose connection, and damaged or corroded terminals • Is a concern present?	Yes	Repair or replace suspect part then go to Step 5.
		No	Go to the next step.
4	**INSPECT FOR POTENTIAL SENSOR CONTAMINATION CONCERNS** • Investigate the following items as potential sources of A/F sensor contamination: ▪ Use of unapproved silicon sealers ▪ Fuel contaminated by silicon additives ▪ Excessive oil consumption ▪ Glycol leaking internally in the engine ▪ Lead-contaminated fuel ▪ Short drive cycles in cold weather ▪ Use of unapproved cleaning agents • Is a concern present?	Yes	Repair or replace the source of the contamination. Replace the engine oil and oil filter. Go to the next step.
		No	Go to the next step. (The system is operating normally at this time. The concern may have been caused by a loose or corroded connector.).
5	**VERIFY TROUBLESHOOTING OF DTC P2097:00, P2099:00 HAVE BEEN COMPLETED** • Verify that all disconnected connectors are reconnected.	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See **PCM REMOVAL/ INSTALLATION**

	• Switch the ignition ON (Engine off). • Clear the DTC from the PCM memory using the M-MDS. • Perform the OBD-II DRIVE MODE up to Misfire, Fuel and HO2S Monitors (Step 11). (See **OBD-II DRIVE MODE [MZI 3.7 V6]**.) • Is the PENDING CODE for this DTC present?		**[MZI 3.7 V6]**.) Go to the next step.
		No	Go to the next step.
6	**VERIFY AFTER REPAIR PROCEDURE** • Perform the "AFTER REPAIR PROCEDURE". (See **AFTER REPAIR PROCEDURE [MZI 3.7 V6]**.) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See **DTC TABLE [MZI 3.7 V6]**.)
		No	Troubleshooting completed.

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