

2012 - Mazda6 - Engine

DTC P2096:00, P2098:00 [MZI 3.7 V6]

DTC P2096:00 DTC P2098:00	Post catalyst fuel trim system too lean (RH) Post catalyst fuel trim system too lean (LH)
DETECTION CONDITION	• P2096:00 indicates that post catalyst fuel trim system too lean (RH) • P2098:00 indicates that post catalyst fuel trim system too lean (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 increase correction value is greater than the calibrated limit.
POSSIBLE CAUSE	• A/F sensor connector or terminal malfunction • HO2S connector or terminal malfunction • Exhaust gas leaks • A/F sensor installed improperly • HO2S installed improperly • Contaminated A/F sensor and/or HO2S • PCM malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED	YesGo to the next step.
	• Has FREEZE FRAME DATA been recorded?	NoRecord FREEZE FRAME DATA on the repair order, then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY	YesPerform repair or diagnosis according to the available Service Bulletins.
	• Verify related Service Bulletins and/or on-line repair	• If the vehicle is not repaired, go to the next step.

	information availability. • Is any related Service Bulletins available?		No	Go to the next step.
3	VISUALLY INSPECT A/ F SENSOR AND HO2S CONNECTORS • Switch the ignition switch off. • Disconnect A/F sensor and HO2S connector for suspected bank. • Visually inspect the exhaust system for the following suspected bank: • Is a concern present?	Yes	Repair or replace suspect part then go to Step 6.	
		No	Go to the next step.	
4	VERIFY FOR LEAKS IN EXHAUST SYSTEM • Visually inspect the exhaust system for the following suspect bank: ▪ Exhaust leaks at flanges and gaskets ▪ A/F sensor or HO2S not tightened to specification ▪ Physical exhaust system concerns ▪ Aftermarket exhaust ▪ Punctures or cracks in the catalytic converter • Is a concern present?	Yes	Repair the suspect part if necessary. Go to Step 6.	
		No	Go to the next step.	
5	INSPECT FOR POTENTIAL SENSOR CONTAMINATION CONCERNS • Investigate the following items as potential sources of A/F sensor contamination: ▪ Use of unapproved silicon	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.	

	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?		(The system is operating normally at this time. The concern may have been caused by a loose or corroded connector.).
6	VERIFY TROUBLESHOOTING OF DTC P2096:00, P2098:00 HAS BEEN COMPLETED • Verify that all disconnected connectors are reconnected. • 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?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See PCM REMOVAL/ INSTALLATION [MZI 3.7 V6].) Go to the next step.
		No	Go to the next step.
7	VERIFY AFTER REPAIR PROCEDURE • Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [MZI 3.7 V6].)	Yes	Go to the applicable DTC inspection. (See DTC TABLE [MZI 3.7 V6].)
		No	Troubleshooting completed.

- | | | |
|--|---|--|
| | <ul style="list-style-type: none">• Are any DTCs present? | |
|--|---|--|

[< Previous](#) [Next >](#)

[Back to Top](#)

© 2011 Mazda North American Operations, U.S.A.

2012 - Mazda6 - Engine

DTC P2096:00, P2098:00 [MZI 3.7 V6]

DTC P2096:00 DTC P2098:00	Post catalyst fuel trim system too lean (RH) Post catalyst fuel trim system too lean (LH)
DETECTION CONDITION	- P2096:00 indicates that post catalyst fuel trim system too lean (RH) - P2098:00 indicates that post catalyst fuel trim system too lean (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 increase correction value is greater than the calibrated limit.
POSSIBLE CAUSE	- A/F sensor connector or terminal malfunction - HO2S connector or terminal malfunction - Exhaust gas leaks - A/F sensor installed improperly - HO2S installed improperly - Contaminated A/F sensor and/or HO2S - PCM malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED	YesGo to the next step.
	Has FREEZE FRAME DATA been recorded?	NoRecord FREEZE FRAME DATA on the repair order, then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY	YesPerform repair or diagnosis according to the available Service Bulletins.
	Verify related Service Bulletins and/or on-line repair	If the vehicle is not repaired, go to the next step.

	information availability.		
	Is any related Service Bulletins available?	No	Go to the next step.
3	VISUALLY INSPECT A/ F SENSOR AND HO2S CONNECTORS - Switch the ignition switch off. - Disconnect A/F sensor and HO2S connector for suspected bank. - Visually inspect the exhaust system for the following suspected bank: - Is a concern present?	Yes	Repair or replace suspect part then go to Step 6.
		No	Go to the next step.
4	VERIFY FOR LEAKS IN EXHAUST SYSTEM - Visually inspect the exhaust system for the following suspect bank: - Exhaust leaks at flanges and gaskets - A/F sensor or HO2S not tightened to specification - Physical exhaust system concerns - Aftermarket exhaust - Punctures or cracks in the catalytic converter - Is a concern present?	Yes	Repair the suspect part if necessary. Go to Step 6.
		No	Go to the next step.
5	INSPECT FOR POTENTIAL SENSOR CONTAMINATION CONCERNS - Investigate the following items as potential sources of A/F sensor contamination: - Use of unapproved silicon	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.

	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?		(The system is operating normally at this time. The concern may have been caused by a loose or corroded connector.).
6	VERIFY TROUBLESHOOTING OF DTC P2096:00, P2098:00 HAS BEEN COMPLETED • Verify that all disconnected connectors are reconnected. • 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?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See PCM REMOVAL/ INSTALLATION [MZI 3.7 V6].) Go to the next step.
		No	Go to the next step.
7	VERIFY AFTER REPAIR PROCEDURE • Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [MZI 3.7 V6].)	Yes	Go to the applicable DTC inspection. (See DTC TABLE [MZI 3.7 V6].)
		No	Troubleshooting completed.

- | | | |
|--|---|--|
| | <ul style="list-style-type: none">• Are any DTCs present? | |
|--|---|--|

[< Previous](#) [Next >](#)

[Back to Top](#)

© 2011 Mazda North American Operations, U.S.A.