

2012 - Mazda6 - Engine

DTC P013A:00 [MZI 3.7 V6]

DTC P013A:00	HO2S (RH) slow response-rich to lean
DETECTION CONDITION	During a deceleration fuel shut-off event, the PCM monitors how quickly the HO2S (RH) switches from rich to lean. The measured rate of the rich to lean switch is compared to a calibrated error threshold value. The threshold value takes into account the level of oxygen in the catalyst, which has an impact on how quickly the rich to lean switch occurs. The test fails if the measured value is slower than the threshold value.
POSSIBLE CAUSE	- Exhaust leaks before or near the HO2S (RH) - HO2S (RH) 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.
3	VERIFY RELATED PENDING CODE OR STORED DTCS - Switch the ignition to off, then to the ON (Engine off). - Verify related PENDING CODE or stored	Yes Go to the appropriate DTC troubleshooting procedures. (See DTC TABLE [MZI 3.7 V6] .)
		No Go to the next step.

	DTCs. - Are any DTCs present other than the following: - P013A:00, P013C:00, P013E:00 or P014A:00?		
4	INSPECT EXHAUST SYSTEM AND FUEL FOR SELECTION CONCERNS - Inspect the exhaust system (RH) for the following: - Leaks, cracks, or punctures - Aftermarket accessories and performance modifications - Exhaust leaks at the HO2S - Verify with the customer that flex fuel is not being used on a non-flex fuel vehicle. - Is a concern present?	Yes	Repair suspect part, if necessary. Go to the next step.
		No	Replace the HO2S (RH), then go to the next step. (See HEATED OXYGEN SENSOR (HO2S) REMOVAL/ INSTALLATION [MZI 3.7 V6] .)
5	VERIFY TROUBLESHOOTING OF DTC P013A:00 HAS BEEN COMPLETED - Verify that all disconnected connectors are reconnected. - Switch the ignition to ON (Engine off). - Clear the DTC from the PCM memory using the M-MDS. - Perform the KOER self-test. (See KOEO/ KOER SELF TEST [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.
6	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.

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| | <ul style="list-style-type: none">• Are any DTCs present? | | |
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POSSIBLE CAUSE	- Exhaust leaks before or near the HO2S (RH) - HO2S (RH) 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.
3	VERIFY RELATED PENDING CODE OR STORED DTCS - Switch the ignition to off, then to the ON (Engine off). - Verify related PENDING CODE or stored	Yes Go to the appropriate DTC troubleshooting procedures. (See DTC TABLE [MZI 3.7 V6] .)
		No Go to the next step.

	DTCs. - Are any DTCs present other than the following: - P013A:00, P013C:00, P013E:00 or P014A:00?		
4	INSPECT EXHAUST SYSTEM AND FUEL FOR SELECTION CONCERNS - Inspect the exhaust system (RH) for the following: - Leaks, cracks, or punctures - Aftermarket accessories and performance modifications - Exhaust leaks at the HO2S - Verify with the customer that flex fuel is not being used on a non-flex fuel vehicle. - Is a concern present?	Yes	Repair suspect part, if necessary. Go to the next step.
		No	Replace the HO2S (RH), then go to the next step. (See HEATED OXYGEN SENSOR (HO2S) REMOVAL/ INSTALLATION [MZI 3.7 V6] .)
5	VERIFY TROUBLESHOOTING OF DTC P013A:00 HAS BEEN COMPLETED - Verify that all disconnected connectors are reconnected. - Switch the ignition to ON (Engine off). - Clear the DTC from the PCM memory using the M-MDS. - Perform the KOER self-test. (See KOEO/ KOER SELF TEST [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.
6	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.

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