

2012 - Mazda6 - Engine

DTC P0016:00, P0018:00 [MZI 3.7 V6]

DTC P0016:00 DTC P0018:00	P0016:00: CKP-CMP sensor (RH) correlation P0018:00: CKP-CMP sensor (LH) correlation
DETECTION CONDITION	The PCM monitors the variable valve timing position for a misalignment between the camshaft and crankshaft. The test fails when the misalignment is more than 1 tooth.
POSSIBLE CAUSE	- OCV malfunction - Camshaft advanced mechanism binding - Improper valve timing

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 AND STORED DTC Switch the ignition to off, then to the ON position (Engine off)	Yes Go to the appropriate DTC troubleshooting. (See DTC TABLE [MZI 3.7 V6] .)

	- Verify pending and stored DTCs using M-MDS. - Is other DTC present?	No	Go to the next step.
4	VERIFY CURRENT INPUT SIGNAL STATUS - Start the engine and warm up completely. - Access VT ACT1 (P0016:00) or VT ACT2 (P0018:00) PID using the M-MDS. - Is PID reading normal? -14—46 °	Yes	Go to the next step.
		No	Replace the OCV, then go to Step 6. (See OIL CONTROL VALVE (OCV) REMOVAL/ INSTALLATION [MZI 3.7 V6] .)
5	VERIFY TIMING CHAIN INSTALLATION - Stop the engine. - Remove the front cover. - Is the camshaft timing mark at the correct point? (See TIMING CHAIN REMOVAL/ INSTALLATION [MZI 3.7 V6].)	Yes	Go to the next step.
		No	Reinstall the timing chain, then go to the next step.
6	VERIFY TROUBLESHOOTING OF DTC P0016:00, P0018:00 HAS BEEN COMPLETED - Make sure to reconnect all disconnected connectors. - Switch the ignition to ON. - Clear the DTC from the PCM memory using the M-MDS. - Start the engine. - Is the same 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].) - 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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