

P0009 Engine Position System Performance Bank 2

Description

The engine control module (ECM) tests for a mis-alignment between both camshafts on one bank of the engine and the crankshaft. The mis-alignment would be at an idler sprocket for bank 2 or at the crankshaft. Once the ECM learns the position of both camshafts on one bank of the engine, the ECM compares the learned values to a reference value. If the ECM detects both learned values for one bank of the engine is exceeding a calibrated threshold in the same direction, this DTC sets.

DTC Descriptor

This diagnostic procedure supports the following DTC: DTC P0009 Engine Position System Performance Bank 2

Conditions for Running the DTC

- DTCs P0010, P0011, P0013, P0014, P0020,P0021, P0023, P0024, P0341, P0342, P0343,P0346, P0347, P0348, P0366, P0367, P0368,P0391, P0392, P0393, P2088, P2089, P2090,P2091, P2092, P2093, P2094, and P2095 are not set.
- The engine is operating.
- The ECM has learned the camshaft positions.
- DTC P0009 run continuously once the aboveconditions are met.

Conditions for Setting the DTC

The ECM detects that both camshafts on bank 2 ofthe engine are mis-aligned with the crankshaft.

Action Taken When the DTC Sets

- The control module illuminates the malfunction indicator lamp (MIL) on the second consecutive ignition cycle that the diagnostic runs and fails.
- The control module records the operating conditions at the time the diagnostic fails. The first time the diagnostic fails, the control module stores this information in the Failure Records. If the diagnostic reports a failure on the second consecutive ignition cycle, the control module records the

operating conditions at the time of the failure. The control module writes the operating conditions to the Freeze Frame and updates the Failure Records.

Conditions for Clearing the MIL/DTC

- The control module turns OFF the malfunction indicator lamp (MIL) after 4 consecutive ignition cycles that the diagnostic runs and does not fail.
- A current DTC, Last Test Failed, clears when the diagnostic runs and passes.
- A history DTC clears after 40 consecutive warm-up cycles, if no failures are reported by this or any other emission related diagnostic.
- Clear the MIL and the DTC with a scan tool.

Diagnostic Aids

- Inspect the engine for any recent engine mechanical repairs. An incorrectly installed timing chain can cause this DTC to set.
- For an intermittent condition, refer to IntermittentConditions on page 6-1587.

DTC P0009

Step	Action	Yes	No
1	Did you perform the Diagnostic System Check – Engine Controls?	Go to Camshaft Timing Drive Chain Alignment Diagram and Camshaft Timing Drive Components Cleaning and Inspection in Engine Mechanical – 3.6L (LY7)	Go to Diagnostic System Check - Engine Controls