



Service Bulletin

PRELIMINARY INFORMATION

Subject: DTCs P0011 P0014 P0016 Or P0017 After Cylinder Head Or Cam Actuator Removal

Models: 2009 - 2011 Chevrolet Aveo
2009 - 2010 Pontiac G3
2009 - 2010 Pontiac Wave (Canada Only)
2008 - 2009 Saturn Astra
2012 - 2016 Chevrolet Sonic
2011 - 2015 Chevrolet Cruze
2016 Chevrolet Cruze Limited
With 1.6L or 1.8L Engine RPO LXV, 2HO, LUW LWE

This PI was superseded to update Model Years. Please discard PIP4543C.

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

Condition/Concern

A technician may comment that "ONE" or more of the following DTCS set in the ECM after a repair that involved the removal of one or both of the camshaft actuators: P0011 Intake Camshaft Position (CMP) System Performance P0014 Exhaust Camshaft Position (CMP) System Performance P0016 Crankshaft Position (CKP) Intake Camshaft Position (CMP) Correlation P0017 Crankshaft Position (CKP) Exhaust Camshaft Position (CMP) Correlation.

The typical cause of these DTCs are missing actuator oil sleeves.

The DTC's may set after the technician has removed or replaced a camshaft actuator.

If normal GSI diagnostics do not reveal the cause of the concern and the engine timing is correct when checked, the following may help.

Recommendation/Instructions

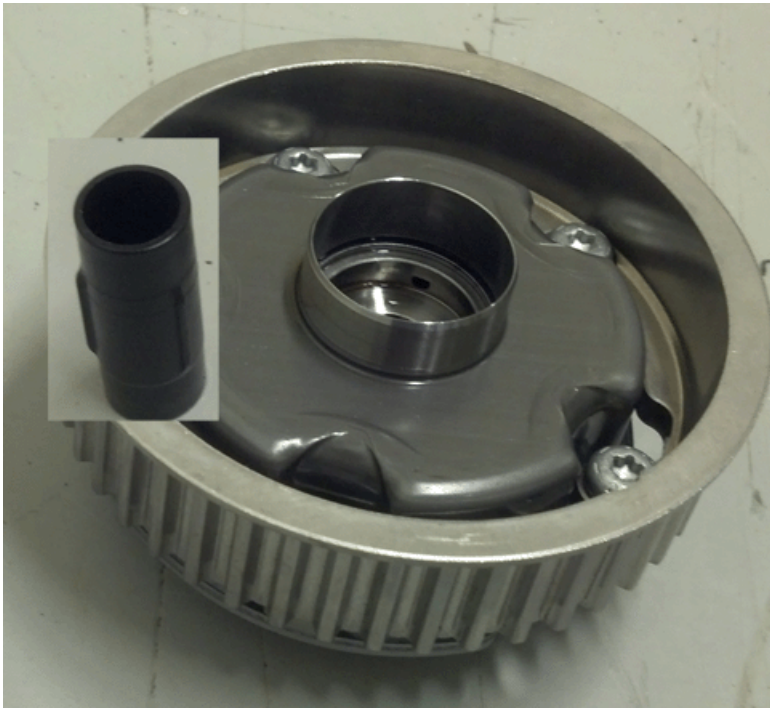
Remove the cam actuators and inspect for a missing actuator oil sleeve.

These engines have a unique black plastic oil sleeve that is between the end of the cam actuator and camshaft.

This sleeve directs oil to the actuator to advance or retard the cam timing.

If a sleeve is missing or damaged, the ECM cannot control the actuator movement, which may result in one or more timing DTCs.

See Photos below.



Note: When removal of the actuator is required, insure installation of these sleeve's during the reassembly of the engine. These sleeves are not shown in the parts imager and are only available as part of the camshaft actuator assembly.

Warranty Information

There is no labor time or labor operation associated with this PI because the labor time is considered part of the original repair.

Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.



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