



# Service Bulletin

## PRELIMINARY INFORMATION

**Subject:** Engine Pop Knock Noise At Idle

**Models:** 2012 -2014 Chevrolet Captiva  
equipped with 2.4L Engine RPO LEA

*This PI was superseded to update Model Years and Recommendation/Instructions. Please discard PIP5206.*

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

### Condition/Concern

Engine pop / knock noise at idle that diminishes as the engine RPM is increased. Misfires on some cylinders may also be observed.

### Recommendation/Instructions

1. Remove accessory belt to verify noise is not accessory belt related.
2. Check G109 for sufficient clamp load, should not be able to twist the cable / wire and make the ground rings move
3. Remove G109 ground ring terminals and inspect for sticky glue substance covering the ground rings. Clean this or any other substance off and reinstall. This may correct the concern.
4. When popping / knocking noise is occurring see if the timing is being retarded and if there is knock sensor activity. Disconnect the knock sensor and see if the noise changes.
5. If timing retards and noise changes with knock sensor disconnected, reconnect knock sensor and disconnect MAP sensor and see if the knocking noise is affected.
6. If noise is not affected remove both camshaft actuators and inspect if the camshaft dowel pin is damaged, if so replace actuator and camshaft
7. If noise is affected or no problem found with the camshaft dowel pin, remove the piston / rod assemblies and check for excessive clearance in the piston pin bushing, replace as necessary.

### Warranty Information

The correction for this concern may be one of several repairs described above. For vehicles repaired under warranty, please use the appropriate warranty labor operation based on the original cause in addition to well documented straight time.

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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