Bulletin No.: PIP5062A
Date: Dec-2012

Service Bulletin

PRELIMINARY INFORMATION

Subject: Diagnostic Tips for Single Cylinder Misfire

Models: 2013 Cadillac ATS
2013 Cadillac XTS
2012-2013 Chevrolet Impala
2012-2013 Chevrolet Equinox
2012-2013 GMC Terrain
With direct injection engines 2.4 LEA, LAF, 3.0 LF1, LFW and 3.6 LFX

This PI was superseded to update models and model years. Please discard PIP5062.

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

Condition/Concern

The customer may complain of a check engine light and a misfire.

Upon inspection you may find a single cylinder misfiring and a P0300 set.

If the misfiring cylinder is creating NO or very low power, the diagnostics below may be helpful.

Recommendation/Instructions

Once you determine there is a cylinder creating no power:

1. Swap the ignition coil and spark plug with another cylinder.
2. Inspect the plug when out for wet or dry condition.
3. Perform an injector test with the Tech2 or GDS.
4. If the plug is wet then check for a leaking or stuck open injector.
5. If the plug is dry then enrich the intake air with propane. (If the severity of the misfire is less with enrichment, suspect a weak or inoperative injector driver in the ECM and replace as needed.)
6. Perform a cylinder leakage test to determine if there is a valve sealing concern. (If there is a valve sealing concern see the latest version of PIP5029 for recommendations.)

Warranty Information

The correction for this concern may be one of several repairs described in the diagnostic tips above. For vehicles repaired under warranty, please use the appropriate warranty labor operation based on the actual cause and 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.