



# Service Bulletin

File in Section: 06 - Engine  
Bulletin No.: 13-06-01-002  
Date: July, 2013

## TECHNICAL

**Subject:** Conversion of Engine RPO LZG with Active Fuel Management to Non AFM

**Models:** 2007 Chevrolet Impala VIN Code R (RPO LZ8)  
2008 Chevrolet Impala VIN Code 3 (RPO LZG)  
Equipped with 3.9L Engine

### Condition

Some customers with the 3.9L AFM engine (RPO LZ8 or LZG) may experience a condition that requires the camshaft and/or lifters to be replaced.

### Cause

The AFM lifter is no longer being manufactured and the engine has to be converted to a non AFM engine. This conversion kit contains camshaft lifters and a block off plate for the oil flow to the Lifter Oil Manifold Assembly (LOMA). The kit also contains the necessary seals and gaskets required to replace the camshaft.

### Important Disclosure of Conversion Impact

This conversion is being offered to customers who are out of warranty and want the option of deactivating AFM instead of incurring the cost of a replacement engine.

Deactivation of AFM will reduce the vehicle's fuel economy. The negative impact might be 1 mpg or more during highway driving. The actual impact will depend upon a variety of factors, including vehicle speed, vehicle load, road conditions and driver behavior. The engine may also run quieter or idle smoother after the conversion.

Before installing this conversion kit, you must inform the customer of the conversion impact, include the above information on the repair order, and have the customer sign the repair order.

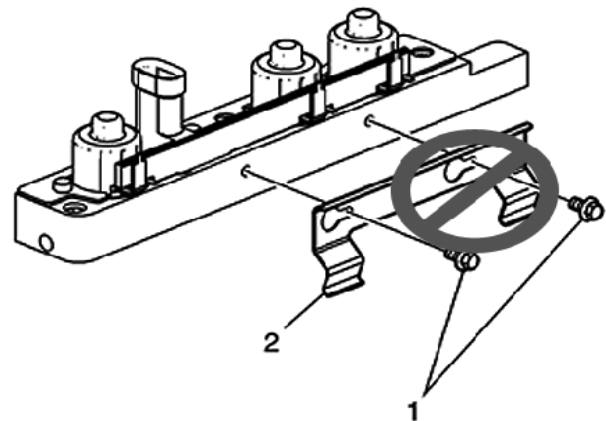
### Correction

1. Remove the engine from the vehicle. Refer to Engine Replacement in SI.
2. Remove the lifters from the engine. Refer to Valve Lifter Removal in SI. Discard the 6 AFM valve lifters and the valve lifter guide. Retain the 6 non-AFM lifters in the order they were removed for re-assembly.

3. Remove the camshaft from the engine. Refer to Camshaft Removal in SI.

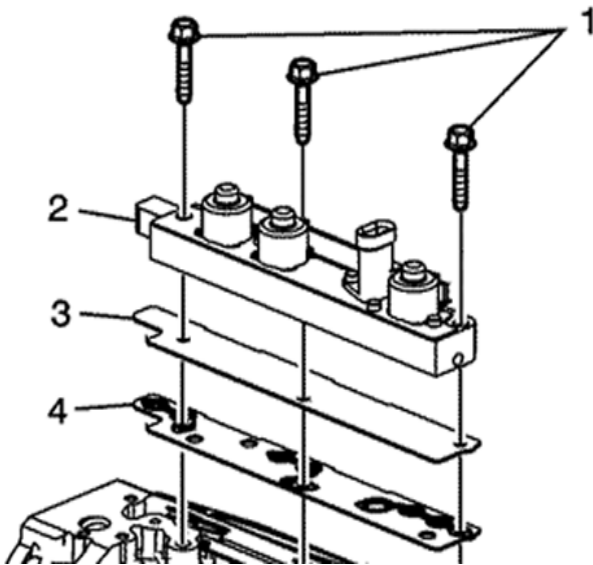
**Note:** When removing the camshaft, inspect the timing chain tensioner for excessive wear or damage. Replace as necessary.

4. Install the new camshaft. Refer to Camshaft Installation in SI.
5. Install the lifters into the engine. Refer to Valve Lifter Installation in SI. Install the 6 non-AFM lifters and lifter guide removed during disassembly into the same lifter bores they were removed from. Install the 6 NEW lifters and lifterguide included in the conversion kit into the AFM lifter bores.



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**Important:** Discard the valve lifter guide retainer (2) and bolts (1). They are not used during assembly.



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6. Install the LOMA oil block off plate (3) between the LOMA gasket assembly (4) and LOMA unit (2) and install LOMA on the engine with LOMA bolts (1). Tighten the bolts (1) to specifications contained within SI.
7. Finish the engine assembly.
8. Install the engine to the vehicle. Refer to Engine Replacement in SI.
9. Install the altered/modified vehicle label included with the conversion kit. The label should be placed on the RH passenger side top of strut tower. The surface should be clean and free of grease/dirt before applying label.

10. Disable and tape the 12V supply wire to the LOMA unit:
  - Reference Inline Harness Connector End Views electrical connector end view for 16 way engine harness to fuel injector harness electrical connector C102 (2007 MY) or X102 (2008 MY).
  - Cut the pink/black wire, circuit 5294, located at terminal "M." Use electrical tape to seal the end of the cut wire. Tuck the cut end of the wire back into the plastic wiring loom and secure with electrical tape.
11. Reprogram the ECM with the calibration for converting from AFM to Non-AFM operation by contacting the Techline Customer Support Center (TCSC) at 1-800-828-6860 (English) or 1-800-503-3222 (French) to obtain a VCI number. After the update, the technician can select ECM from the Supported Controllers screen in SPS and program as Normal.

**Note:** After the conversion calibration has been installed, the AFM data will read "0" and any circuit tests will read "FAULT" and the DIC cylinder mode monitoring will stay in "6" cylinder mode at all times after the new calibration is programmed into the vehicle. This is considered normal with this conversion calibration.

**Parts Information**

Part Number	Description
19299225	Conversion Kit

**Warranty Information**

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time
4064698*	Camshaft Replacement (Conversion Calibrations Included)	9.5 hrs

\*This is a unique labor operation for bulletin use only. It will not be published in the Labor Time Guide.

