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## #13417: Service Update for Inventory and Customer Vehicles - Engine Protection Mode Activated During Aggressive Driving - Expires with Base Warranty - (Jan 24, 2014)

**Subject:** 13417 – Service Update for Inventory and Customer Vehicles – Engine Protection Mode Activated During Aggressive Driving – Expires with Base Warranty



**Models:** 2014 Chevrolet Corvette

Equipped with a 6.2L Engine (LT1), 7-Speed Manual Transmission (MEP), and Wet Sump Oiling System

This service update includes vehicles in dealer inventory and customer vehicles that return to the dealership for any reason. This bulletin will expire at the end of the involved vehicle's New Vehicle Limited Warranty period.

### Purpose

This bulletin provides a service procedure to reprogram the ECM, instrument cluster and on some vehicles, the BCM, HVAC, and radio modules, on **certain** 2014 model year Chevrolet Corvette vehicles, equipped a 6.2L engine (LT1), 7-speed manual transmission (MEP), and wet sump oiling system.

During very aggressive driving, such as right-hand turn maneuvers at high g forces, and when the driver stays in a low gear and forces high engine revs and high g forces for a sustained period of time, the engine protection mode (OSTER) will activate as designed. This mode will cause a reduction in engine power to prevent oil starvation and engine damage; however, there is no indication to the driver, in advance, that the mode has been activated.

In addition to the reprogramming, dealers will also provide the customer with an owner manual insert that describes a new DIC warning message that will appear when the engine protection mode is activated.

**This service procedure should be completed as soon as possible on involved vehicles currently in dealer inventory and customer vehicles that return to the dealer for any type of service during the New Vehicle Limited Warranty coverage period.**

### Vehicles Involved

All involved vehicles are identified by VIN in the Global Warranty Management System – Investigate Vehicle History Application. Dealership technicians should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

Additionally, a list of involved vehicles currently in dealer inventory is available on the "Service Update Bulletin Information" link under the "Service" tab in GM GlobalConnect (US) or attached to the GlobalConnect message (Canada) used to release this bulletin.

Customer vehicles that return for service, for any reason, and are still covered under the vehicle's base warranty should also be checked for vehicle eligibility.

### Parts Information

No parts are required for this update.

### Service Procedure

**Note:** Carefully read and follow the instructions below.

- Do NOT attempt to order the calibration number from GM Customer Care and Aftersales. The calibration numbers required for this service procedure are programmed into control modules via a Multiple Diagnostic Interface (MDI) with the calibration update. Use **TIS2WEB on or after January 24, 2014**, to obtain the calibration. If you cannot access the calibration, call the Techline Customer Support Center and it will be provided.
- DO NOT program a control module unless directed to by a service procedure or a service bulletin. If the control module is not properly configured with the correct calibration software, the control module will not control all of the vehicle features properly.
- Ensure the programming tool is equipped with the latest software and is securely connected to the data link connector. If there is an interruption during programming, programming failure or control module damage may occur.
- Stable battery voltage is critical during programming. Any fluctuation, spiking, over voltage or loss of voltage will interrupt programming. When required install the *EL-49642* SPS Programming Support Tool to maintain system voltage. If not available, connect a fully charged 12V jumper or booster pack disconnected from the AC voltage supply. DO NOT connect a battery charger.
- Turn OFF or disable systems that may put a load on the vehicles battery such as; interior lights, exterior lights (including daytime running lights), HVAC, radio, etc.
- During the programming procedure, follow the SPS prompts for the correct ignition switch position.
- Clear DTCs after programming is complete. Clearing powertrain DTCs will set the Inspection/Maintenance (I/M) system status indicators to NO.
- Note the engine oil life remaining percentage.

#### 1. Determine the VIN of vehicle.

- If the VIN is equal to or greater than VIN E5106341, reprogram the IPC and the ECM. Proceed to Step 2.
- If the VIN is less than E5106341, determine if PI1101 (labor operation code 2880178) has been performed.
  - If PI1101 HAS been performed on the vehicle, reprogram the IPC and the ECM. Proceed to Step 2.
  - If PI1101 has NOT been performed on the vehicle, perform the PI on the vehicle, and then reprogram the ECM only. Proceed to Step 9 after performing the PI. Submit a warranty transaction for the PI and one for this Service Update.

#### 2. Install *EL-49642* SPS programming support tool.

#### 3. Access the Service Programming System (SPS) and follow the on-screen instructions. Refer to Service Programming System (SPS) documentation in SI for programming instructions.

**Note:** This procedure requires the use of a USB memory stick to transfer files to the module.

4. On the SPS Supported Controller screen, select *Instrument Cluster - USB File Transfer* and follow the on-screen instructions.
5. Insert USB memory stick in the vehicle USB port. Follow on-screen instructions.
6. On the SPS Supported Controller screen, select *Instrument Cluster - Programming* and follow the on-screen instructions.
7. On the SPS Supported Controller screen, select *Instrument Cluster - Setup and Configuration* and follow the on-screen instructions.
8. Clear DTCs after completing the Setup & Configuration procedure.
9. On the SPS Supported Controllers screen, select *K20 Engine Control Module - Programming* and follow the on-screen instructions.
10. Clear DTCs after completing the programming procedure.
 

**Note:** If vehicle fails to start during Configuration and Setup, perform the SPS Function Immobilizer Learn and follow the on-screen instructions.
11. Perform the SPS function *K20 Engine Control Module - Configuration & Setup* and follow the on-screen instructions, if available.
12. Clear DTCs after completing the Configuration & Setup procedure.
13. Place a copy of the owner manual insert (located at the back of this bulletin) in the vehicle glove box.

### Warranty Transaction Information

Submit a transaction using the table below. All transactions should be submitted as a ZFAT transaction type, unless noted otherwise.

Labor Code	Description	Labor Time
9100348	Reprogram ECM and IPC	1.2

### Dealer Program Responsibility

Whenever a vehicle subject to this service update enters your vehicle inventory, or is in your facility for service in the future, and the vehicle is still covered under the New Vehicle Limited Warranty, you must take the steps necessary to be sure the service update correction has been made before selling or releasing the vehicle.

## Engine Oil Messages

### CHANGE ENGINE OIL SOON

This message displays when the engine oil needs to be changed. When you change the engine oil, be sure to reset the Oil Life System. See *Engine Oil Life System* on page 10-16, *Driver Information Center (DIC)* on page 5-24, *Engine Oil* on page 10-10, and *Maintenance Schedule* on page 11-2.

### ENGINE OIL HOT, IDLE ENGINE

This message displays when the engine oil temperature is too hot. Stop and allow the vehicle to idle until it cools down.

### ENGINE OIL LOW — ADD OIL

On some vehicles, this message displays when the engine oil level may be too low. Check the oil level before filling to the recommended level. If the oil is not low and this

message remains on, take the vehicle to your dealer for service. See *Engine Oil* on page 10-10.

### OIL PRESSURE LOW — STOP ENGINE

This message displays if low oil pressure levels occur. Stop the vehicle as soon as safety possible and do not operate it until the cause of the low oil pressure has been corrected. Check the oil as soon as possible and have the vehicle serviced by your dealer.

### UPSHIFT NOW, ENGINE PROTECTION ACTIVE

This message indicates the engine controls have taken action to prevent an oil starvation condition. This may reduce the available engine power, or on automatic transmission equipped vehicles force an upshift to a higher gear.

## Engine Power Messages

### ENGINE POWER IS REDUCED

This message displays when the vehicle's engine power is reduced. Reduced engine power can affect the vehicle's ability to accelerate. If this message is on, but there is no reduction in performance, proceed to your destination. The performance may be reduced the next time the vehicle is driven. The vehicle may be driven at a reduced speed while this message is on, but maximum acceleration and speed may be reduced. Anytime this message stays on, the vehicle should be taken to your dealer for service as soon as possible.

## Fuel System Messages

### FUEL LEVEL LOW

This message displays when the vehicle is low on fuel. Refuel as soon as possible.