



Service Bulletin

Bulletin No.: 18-NA-246

Date: March, 2022

TECHNICAL

Subject: Malfunction Indicator Lamp (MIL) Illuminated - DTC P0172, P06DE and/or P0521 Set (North America Vehicles Only)

Attention: This bulletin applies to the vehicles that have fuel enriched engine oil due to short driving intervals.

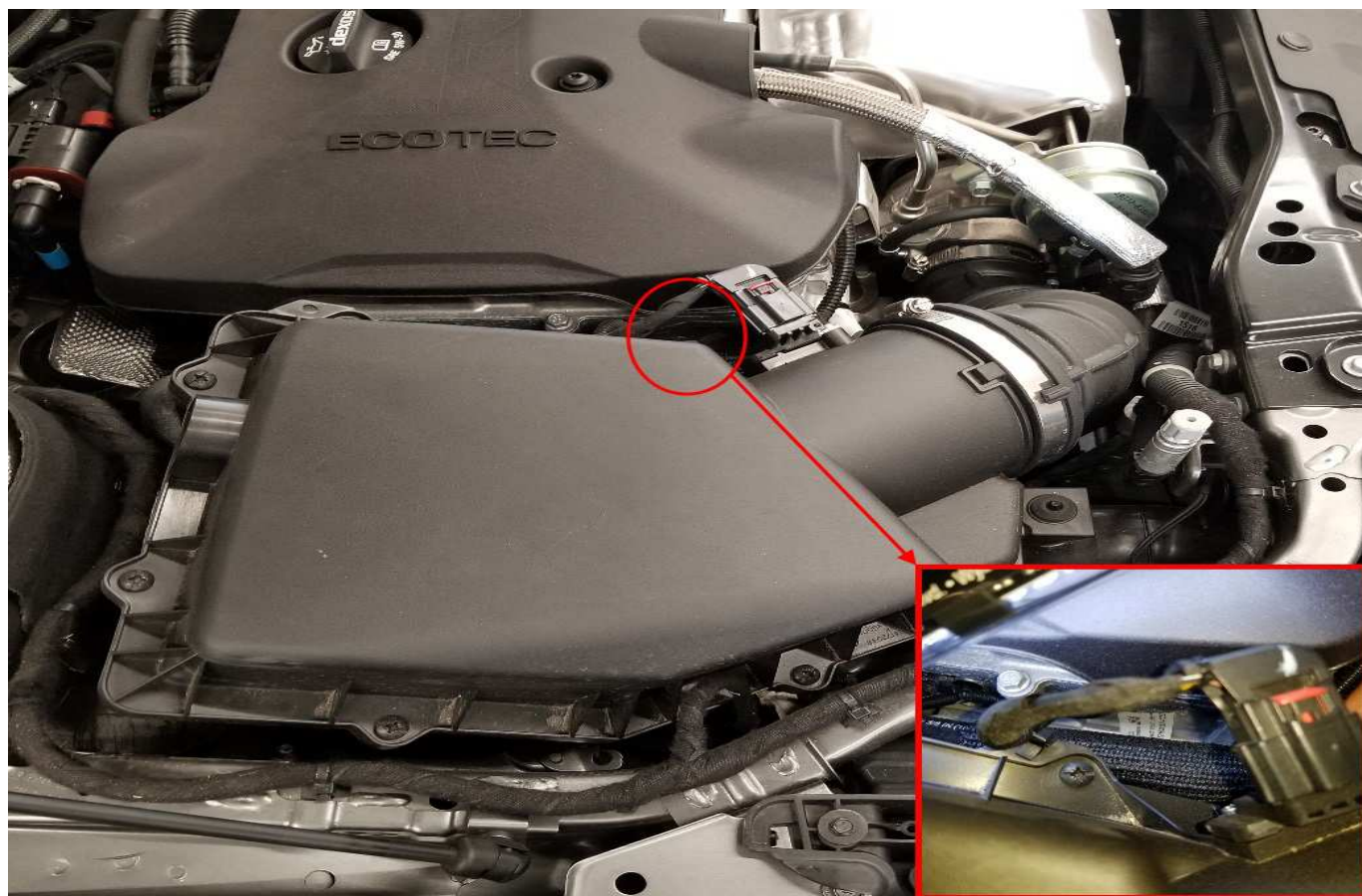
Brand:	Model:	Model Year:		VIN or Build Date:		Engine:	Transmission:
		from	to	from	to		
Buick	Envision	2016	2019	SOP	May 7, 2019 And Engine Unique Number (EUN) before T119127XHXTX0251	Equipped with 2.0L (LTG)	
	Regal	2014					
Cadillac	ATS	2013					
	CTS	2014					
Chevrolet	Camaro	2016					
	Equinox	2018					
	Malibu	2013					
	Traverse	2018					
GMC	Terrain	2018					

Involved Region or Country	North America
Condition	Some customers may comment that the MIL is illuminated. Technicians may find DTC P0172 (Fuel Trim System Rich) set in the Engine Control Module (ECM). Technicians may also find DTC P06DE and/or P0521 set.
Cause	This condition may be caused by driving the vehicle in short intervals, allowing excessive fuel to collect in the crankcase.
Correction	Important: This service procedure is for vehicles that have fuel enriched engine oil due to frequent short trip operation. Replacing fuel components such as the high pressure fuel pump or fuel injectors will not correct the setting of P0172 under the operating conditions described unless those components can be verified as causing a fuel rich condition. If fuel in the engine oil has been confirmed to be caused by frequent short trip operation, refer to the Service Procedure below.

Service Procedure

Important: Perform all of the procedures below that apply to the model year of the vehicle being worked on.

For 2019 Model Years:



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Vehicles built after May 7, 2019 may already have the updated PCV installed. Inspect the Engine Julian Date by reviewing the EUN on the front engine cover.



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Example Engine Unit Number:

- The first digit reflects the engine plant (in this case T = Tonawanda).
- The second digit reflects the shift (in this case 1 = First Shift).
- The third and fourth digits reflect the calendar year (in this case 18 = 2018).
- The fifth, sixth and seventh digits reflect the day of that calendar year (in this case 162 = 162nd day of 2018 calendar year (build date)).

If the engine you are working on was built on or after Julian Date 19127 (May 7, 2019), EUN# T119127 XHXTX0251, the PCV does not need to be replaced. The new revised PCV is already installed in the camshaft cover. Refer to SI for further diagnostics.

Engines built prior to Julian Date 19127 (May 7, 2019), EUN# T119127 XHXTX0251, have the old style primary PCV valve installed and will need to be replaced. Continue with service procedure below.

For 2016-2018 Model Years:

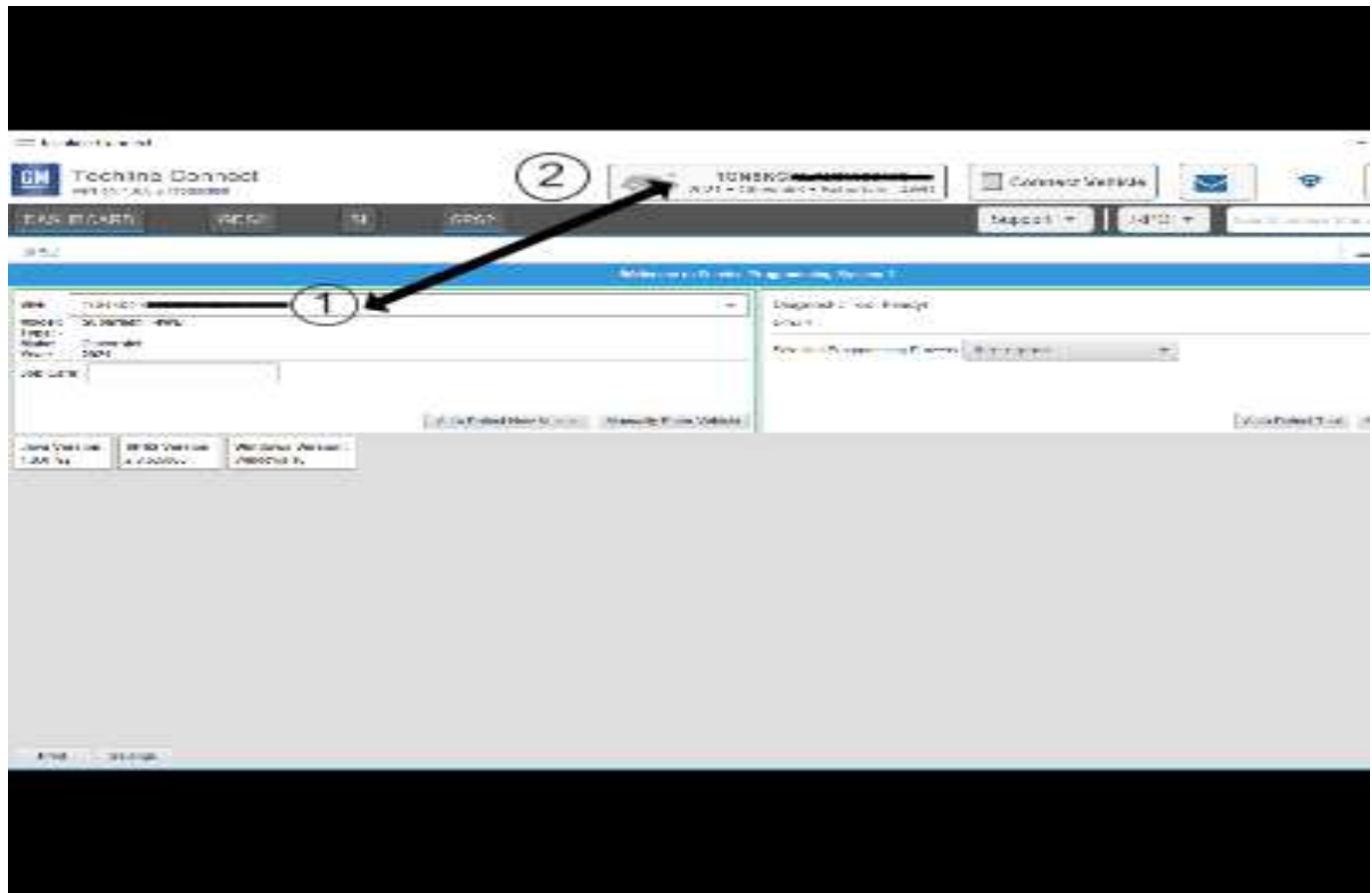
Caution: Before downloading the update files, be sure the computer is connected to the internet through a network cable (hardwired). DO NOT DOWNLOAD or install the files wirelessly. If there is an interruption during programming, programming failure or control module damage may occur.

- " 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. Install a GM Authorized Programming Support Tool to maintain system voltage. Refer to www.gmdesolutions.com for further information. If not available, connect a fully charged 12V jumper or booster pack disconnected from the AC voltage supply. DO NOT connect a battery charger.
- " Follow the on-screen prompts regarding ignition power mode, but ensure that anything that drains excessive power (exterior lights, HVAC blower motor, etc) is off.
- " Please verify that the radio time and date are set correctly before inserting USB drive into vehicle for programming, otherwise an error will result.
- " Clear DTCs after programming is complete. Clearing powertrain DTCs will set the Inspection/Maintenance (I/M) system status indicators to NO.

Important: The service technician always needs to verify that the VIN displayed in the TLC left side drop down menu and the top center window match the VIN plate of the vehicle to be programmed prior to using Service Programming System 2 (SPS2) for programming or reprogramming a module.

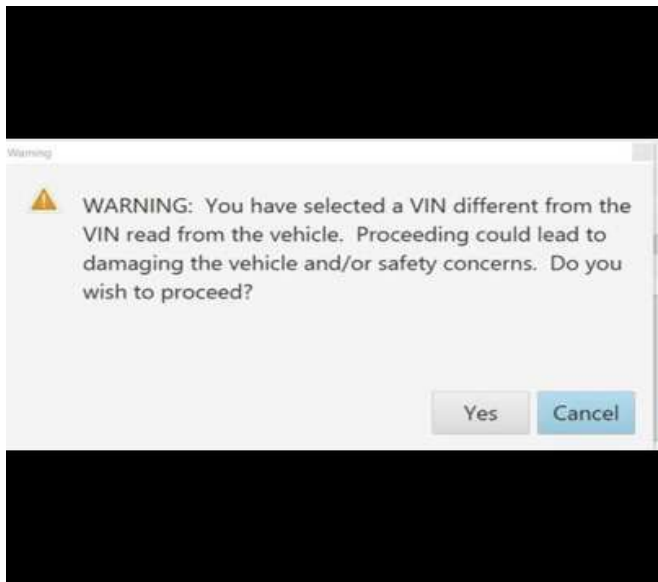
- " For the TLC application, service technicians need to always ensure that the power mode (ignition) is "ON" before reading the VIN from the vehicle's VIN master module and that they do not select a VIN that is already in the TLC application memory from a previous vehicle.
- " If the VIN that shows up in the TLC top center window after correctly reading the VIN from the vehicle does not match the VIN plate of the vehicle, manually type in the VIN characters from the vehicle VIN plate into the TLC top center window and use these for programming or reprogramming the subject module with the correct vehicle VIN and software and/or calibrations.
- " The Engine Control Module (ECM) is the master module (for VIP vehicles) that TLC reads to determine the VIN of the vehicle. If the VIN read from the vehicle by TLC does not match the VIN plate of the vehicle, the ECM also needs to be reprogrammed with the correct VIN, software and calibrations that match the vehicle's VIN plate.
- " The Body Control Module (BCM) is the master module (for GEM vehicles) that TLC reads to determine the VIN of the vehicle. If the VIN read from the vehicle by TLC does not match the VIN plate of the vehicle, the BCM also needs to be reprogrammed with the correct VIN, software and calibrations that match the vehicle's VIN plate.

Caution: Be sure the VIN selected in the drop down menu (1) is the same as the vehicle connected (2) before beginning programming.

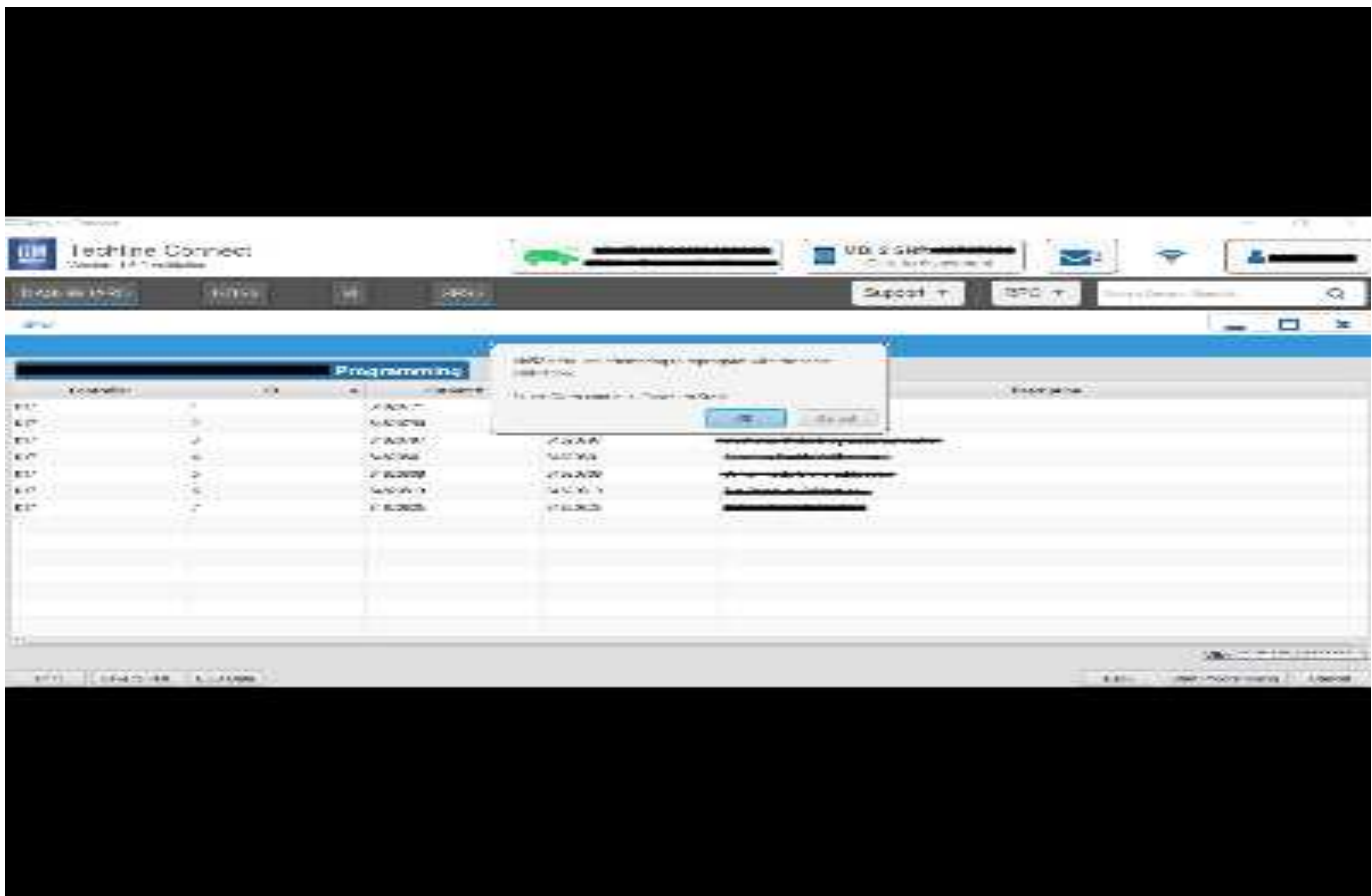


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Important: If the vehicle VIN DOES NOT match, the message below will be shown.



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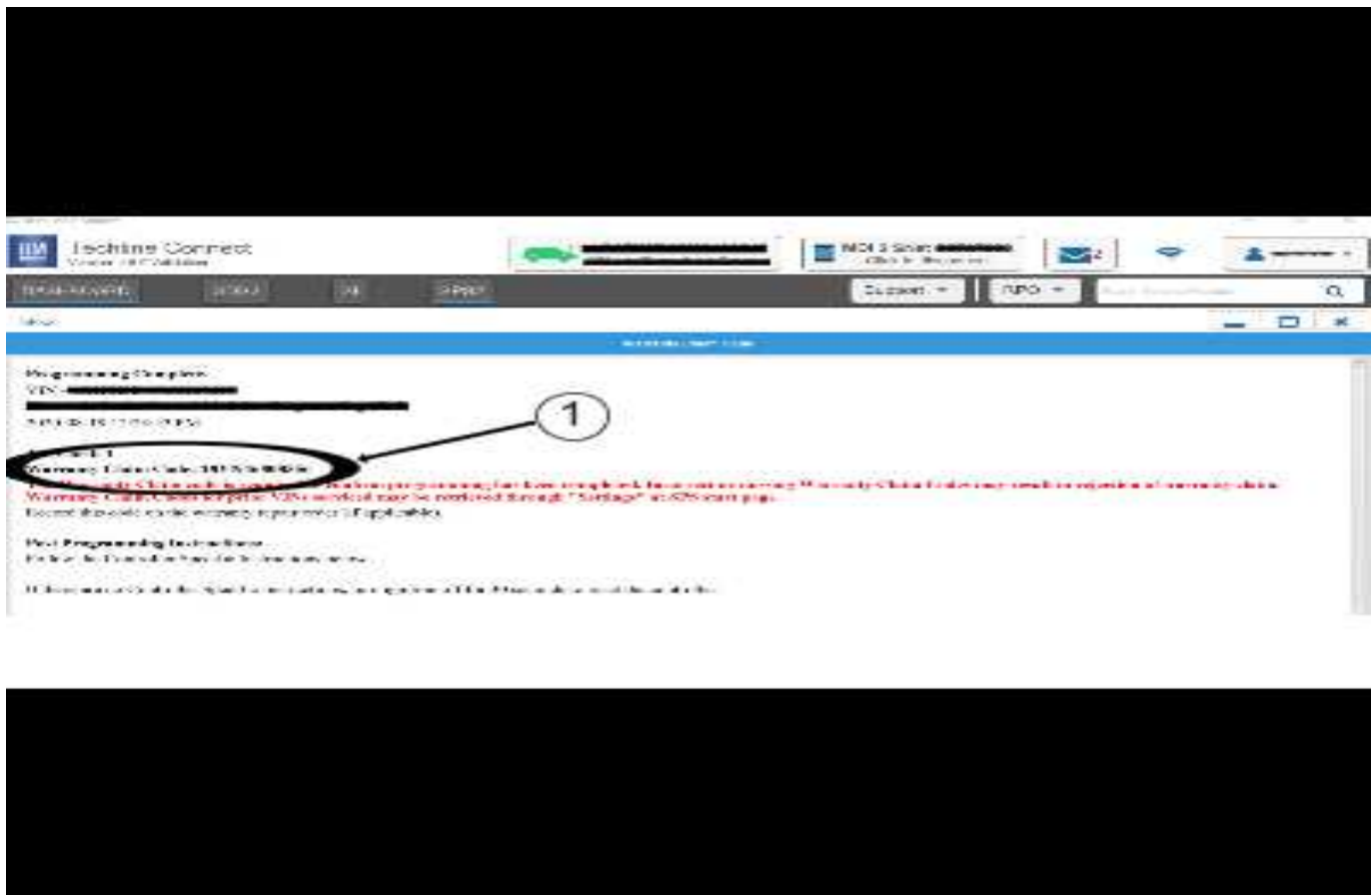


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Important: Techline Connect screen shown above.

Important: If the same calibration/software warning is noted on the TLC or SPS Summary screen, select OK and follow screen instructions. After a successful programming event, the Warranty Claim Code (WCC) is located in the Service Programming System dialogue box of the SPS Summary screen. Document the WCC on the job card. No further action is required. Refer to the Warranty Information section of this bulletin.

1. Reprogram the ECM. Refer to K20 Engine Control Module: Programming and Setup in the Service Manual.



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Note: The screenshot above is an example of module programming and may not be indicative of the specific module that is being programmed. Module selection and VIN information have been blacked out.

Important: To avoid warranty transaction rejections, you **MUST** record the warranty claim code provided on the Warranty Claim Code (WCC) screen shown above on the job card. Refer to callout 1 above for the location of the WCC on the screen.

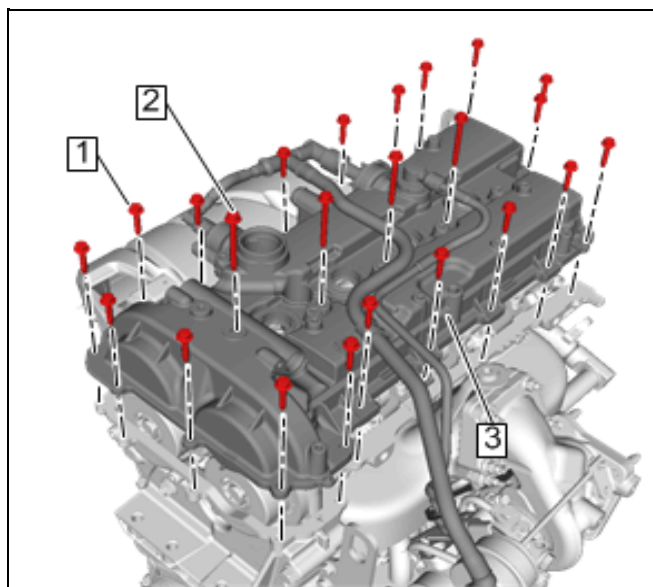
2. Record the Warranty Claim Code on the job card for warranty transaction submission.

For 2016-2019 Model Years:

A**B**

Note: The graphic above compares the old style primary PCV valve (A) to the new revised PCV valve (B).

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1. Remove the camshaft cover (3). Refer to Camshaft Cover Replacement in SI.
2. Remove the old style PCV valve from the cover and discard.
3. Apply a light coating of oil to the new revised PCV valve O-ring.



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4. Using hand pressure, install the new PCV valve into the cover until seated into bore.
5. Install the camshaft cover.

2013-2019 Model Years :

Note: An oil and filter change is necessary to remove excessive fuel collected in the crankcase and correct the DTC set.

1. Perform an oil change. Refer to Engine Oil and Oil Filter Replacement in the Service Manual.
2. Clear the code and take the vehicle for a test drive to validate that the code does not return.

Important: If the customer continues to frequently operate the vehicle in this manner, they **MUST** change the engine oil and filter more frequently than the oil life monitor indicates. How often the customer must change the engine oil is based on how they operate the vehicle.

Parts Information

Causal Part	Description	Part Number	Qty
N/A	Filter, Oil	Refer to EPC	1
N/A	Oil		
N/A	VALVE, PCV (Primary)	55596783	1

Warranty Information

Important: Only select the labor operation that coincides with the repair performed.

For vehicles repaired under the Powertrain coverage, use the following labor operation. Reference the Applicable Warranties section of Investigate Vehicle History (IVH) for coverage information.

Labor Operation	Model	Description	Labor Time
4086338*	All	Diagnose MIL and Clear Code	0.2 hr
Add	All	Oil and Filter Change	0.3 hr
Add	Envision	Camshaft Cover Removal and Install	2.5 hrs
Add	Regal	Camshaft Cover Removal and Install	1.5 hrs
Add	ATS	Camshaft Cover Removal and Install	3.9 hrs
Add	CTS	Camshaft Cover Removal and Install	3.7 hrs
Add	Camaro	Camshaft Cover Removal and Install	3.9 hrs
Add	Equinox	Camshaft Cover Removal and Install	2.5 hrs
Add	Malibu	Camshaft Cover Removal and Install	3.6 hrs
Add	Traverse	Camshaft Cover Removal and Install	4.0 hrs
Add	Terrain	Camshaft Cover Removal and Install	2.5 hrs
Add	All	Install Primary PCV Valve	0.1 hr
2886148*	All	Engine Control Module Reprogramming with SPS for DTC P0172 Set** (Applies to 16MY, 17MY and 18MY only)	0.3 hr

*This is a unique Labor Operation for bulletin use only.

Important: **To avoid warranty transaction rejections, carefully read and follow the instructions below:

- " The Warranty Claim Code must be accurately entered in the "SPS Warranty Claim Code" field of the transaction.
- " When more than one Warranty Claim Code is generated for a programming event, it is required to document all Warranty Claim Codes in the "Correction" field on the job card. Dealers must also enter one of the codes in the "SPS Warranty Claim Code" field of the transaction, otherwise the transaction will reject. It is best practice to enter the FINAL code provided by SPS/SPS2.

Warranty Claim Code Information Retrieval

If the SPS Warranty Claim Code was not recorded on the Job Card, the code can be retrieved in the SPS2 system as follows:

- " Open TLC on the computer used to program the vehicle.
- " Select and start SPS2.
- " Select Settings.
- " Select the Warranty Claim Code tab.

The VIN, Warranty Claim Code and Date/Time will be listed on a roster of recent programming events. If the code is retrievable, dealers should resubmit the transaction making sure to include the code in the SPS Warranty Claim Code field.

Version	7
Modified	Released August 06, 2018 January 30, 2019 – Added an Attention statement, updated the Models section, Correction, Service Procedure and Parts and Warranty Information. February 14, 2019 – New Labor Operation number requested for ECM programming under Warranty Information section. March 19, 2019 – Updated the Envision, Equinox and Terrain Labor Times. March 28, 2019 – Added NEW and DISCARD to steps 2, 3 and 4 under For 2016-2019 Model Years: of the Service Procedure. May 29, 2019 – Added Build Date/EUN Breakpoint information to Models, added For 2019 Model Years section to the Service Procedure, added Model Year descriptions to the two Labor Operation Numbers, changed the Labor Time for Engine Control Module Reprogramming with SPS and added SPS Warranty Claim Code information. March 11, 2022 – Added DTC P06DE and/or P0521 to Subject and Condition section and updated the Service Procedure programming steps.