



## Preliminary Information

### PIP5534A MIL P2097 LCV (2.5L) LKW (2.5L) LTG (2.0L)

#### Models

Brand:	Model:	Model Years:	VIN:		Engine:	Transmissions:
			from	to		
Buick	Envision	2017 - 2018	All	All	LCV (2.5L) LTG (2.0L)	All
Buick	Regal	2014 - 2018	All	All	LTG (2.0L)	All
Cadillac	ATS	2013 - 2018	All	All	LCV (2.5L) LTG (2.0L)	All
Cadillac	CT6	2016 - 2018	All	All	LTG (2.0L)	All
Cadillac	CTS	2014 - 2018	All	All	LTG (2.0L)	All
Chevrolet	Camaro	2016 - 2018	All	All	LTG (2.0L)	All
Chevrolet	Equinox	2018	All	All	LTG (2.0L)	All
Chevrolet	Malibu	2013 - 2018	All	All	LCV (2.5L) LKW (2.5L) LTG (2.0L)	All
Chevrolet	Impala	2014 - 2018	All	All	LCV (2.5L) LKW (2.5L) LTG (2.0L)	All
Chevrolet	Traverse	2018	All	All	LTG (2.0L)	All
GMC	Acadia	2018	All	All	LCV (2.5L)	All
GMC	Terrain	2018	All	All	LTG (2.0L)	All

<b>Involved Region or Country</b>	<b>North America</b>
<b>Condition</b>	A customer may have a concern of the MIL illuminated with no drivability concerns. When the technician checks for codes they find P2097.
<b>Cause</b>	There are many things that can cause the P2097 and care must be taken when diagnosing this code.

**NOTE:** Failure to follow SI diagnostics first may lead to misdiagnosis of the vehicle concern, P2097. SI diagnostics for P2097 tests the purge valve and lines for concerns. The following diagnostics assumes the purge system has already been verified as not the cause of the code. When performing the diagnostic procedures below, the purge solenoid vacuum source line should be disconnected and blocked off at the vacuum source, intake manifold.

#### **Correction:**

Follow SI diagnostics first and if it does not lead to a resolution perform the following:

With the engine at normal operating temperature and the air conditioner / defroster turned off, monitor the long term fuel trim value for five minutes under each of the following conditions:

- 1) Idle the vehicle in park with your foot off the brake pedal.
- 2) Idle the vehicle, with your foot on the brake pedal to hold the vehicle from moving, place the transmission into drive.
- 3) Drive the vehicle at a steady speed of 50 mph or above without using the cruise control.

After completing the above, in the service bay with vehicle in park, take note of the long term fuel trim value, with the accelerator pedal and your foot, raise the engine idle up to approximately 2000 rpm and hold it there for 2 minutes and monitor any changes in the long term fuel trim value.

If the long term fuel trim value was high and then dropped into a normal range (-13% to +13%) and stays there, the concern may be a vacuum leak, skewed MAF sensor, modified/damaged air box or a non OEM air filter. Swap as many parts from a known good vehicle to rule out specific components mentioned. If no change, perform an AFIT test on all the injectors to see if any lean injectors can be found. If no individual lean injector(s) can be found, replace all four injectors.

If the long term fuel trim value was in a normal range (-13% to +13%) and never stayed outside of the normal range, ask the customer if they drive in heavy stop and go city traffic. Drive with the customer and see if they are a digital driver. A digital driver is one who gets up to their desired speed then lets off the throttle and lets the vehicle coast down a few miles per hour then gets back onto the throttle to get back up to their desired speed. They continue with this pattern as they continue to drive the vehicle. These two driving habits / styles can induce P2097. There is no fix available when the customer drives in this manner. The dealer should consult with their DMA (District Manager Aftersales) for assistance with the customer.

### Version History

Version	2
Modified	11/28/2017 - PI created 10/08/2018 - Additional information was added to the note; remove purge solenoid vacuum source from the intake and block off the intake port.



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