



Preliminary Information

PIP5549A Diagnostic Tip - SES Light Is On With DTCs P0171 and/or P0174 Set

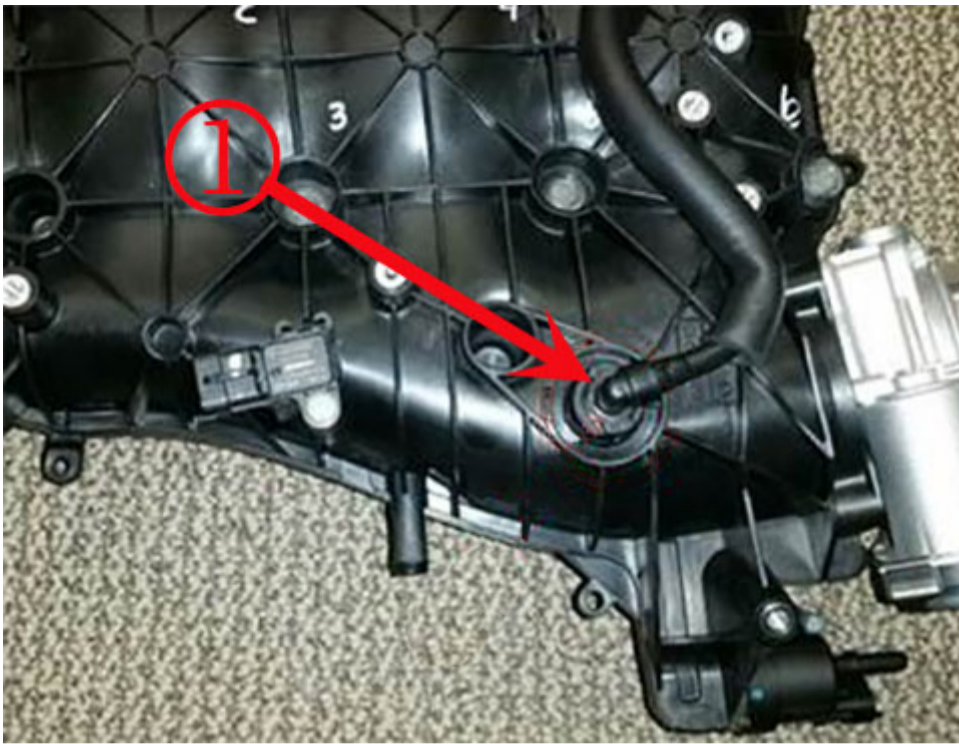
Models

Brand:	Model:	Model Years:	VIN:		Engine:	Transmissions:
			from	to		
Buick	Enclave	2012 - 2019	All	All	3.6 LLT, 3.6LFY	All
Cadillac	XTS	2015 - 2019	All	All	3.6 LFX	All
Chevrolet	Colorado	2015 - 2016	All	All	3.6 LFX	All
Chevrolet	Equinox	2015 - 2017	All	All	3..6 LFX	All
Chevrolet	Impala	2015 - 2019	All	All	3.6 LFX	All
Chevrolet	Traverse	2012 - 2019	All	All	3.6 LFX, 3.6 LFY	All
GMC	Acadia	2012 - 2017	All	All	3.6 LLT	All
GMC	Canyon	2015 - 2016	All	All	3.6 LFX	All
GMC	Terrain	2015 - 2017	All	All	3.6 LFX	All

Involved Region or Country	North America
Condition	A customer may bring their vehicle to the dealer with a complaint of an SES light on. Upon diagnosis the technician may find DTC's P0171 and/or P0174 stored in the ECM.
Cause	Possible Vacuum leak in intake or Purge.

Correction:

1. Ensure vehicle is at operating temperature then monitor and record Long Term & Short Term fuel trims. Plug both the manifold hole and the disconnected foul air tube hole.
2. Shut the engine off and disconnect the foul air tube from the intake manifold.



Detach foul air tube from connection shown above at arrow 1 and plug both sides 3. Restart the vehicle and monitor the Short Term & Long Term fuel trims.

Results:

1. If both the previously recorded Long term and Short term fuel trims were at a positive value above 5 and now the Short term has gone to a consistent negative value during this test replace the foul air tube.
2. If the previously recorded Short term is at a value above positive 5 and the long term is between -2 and 2, but during the test the short term has gone to a zero or negative value replace the foul air tube.
3. If the fuel trims in steps 1 or 2 did not change proceed with purge valve test.

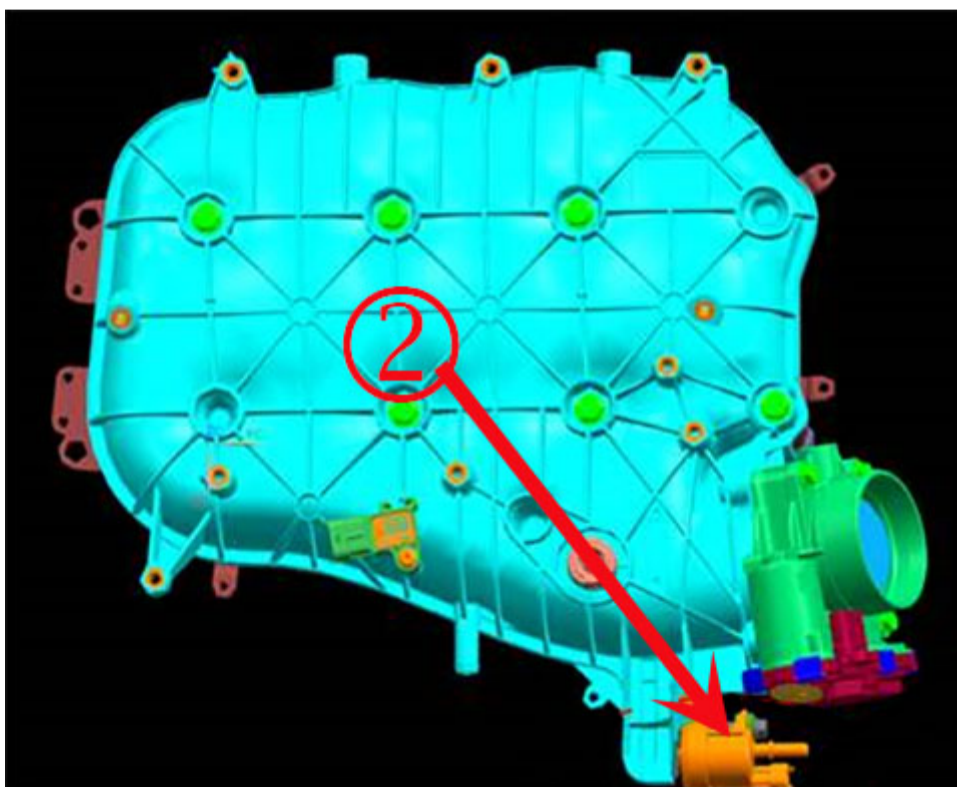
Note: In some cases the Intake Manifold may have to be replaced if foul air tube replacement by itself doesn't address the vacuum leak.

Only replace manifold if test above impacted fuel trims.

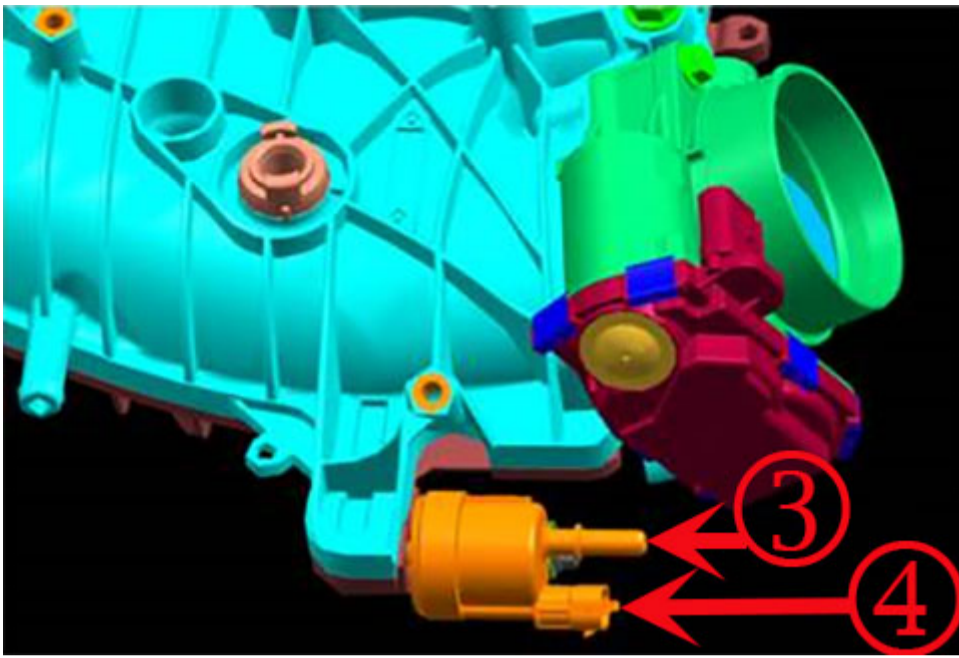
Purge Valve Test

If during the test procedure outlined above the fuel trims didn't change after foul air tube was capped off proceed to the following test.

1. Shut the vehicle off and ensure the foul air tube and manifold plugs have been removed and re-install the foul air tube to the manifold
2. Locate the purge valve on the intake manifold (see below)



3. Disconnect vacuum hose and power supply from purge valve (see below)



4. Restart the vehicle then place your finger or a vacuum gauge over the open port on the purge valve.



5. If you feel vacuum or read vacuum on the gauge at the port of the valve it will need to be replaced.

Shut the vehicle off and then re-install detached components

1. If no vacuum was felt or measured at purge valve port refer to the applicable DTC in service information to diagnose further.

NOTE: When a permanent repair or part replacement is identified a PI revision or bulletin will be submitted.

Warranty Information

For vehicles repaired under warranty, use the current labor time for the actual repair made.

Version History

Version	2
Modified	01/23/2018 - Created on 05/07/2019 - Updated to add Model Year and correction section.



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