



PRELIMINARY INFORMATION

Subject: Intermittent Engine Hesitation or Flutter without DTC (Inspect and Correct Intake Camshaft Position (CMP) Sensor Bank 1 Connector Terminals for Intermittent Conditions or Poor Connections)

Models: 2007-2011 Buick Enclave
2010-2011 Buick LaCrosse
2004-2011 Cadillac CTS, SRX, STS
2008-2011 Chevrolet Equinox
2009-2011 Chevrolet Malibu, Traverse
2010-2011 Chevrolet Camaro
2007-2011 GMC Acadia
2010-2011 GMC Terrain
2007-2009 Pontiac G6
2008-2009 Pontiac G8, Torrent
2007-2009 Saturn OUTLOOK
2008-2010 Saturn VUE
Equipped with 6 Cylinder Engine RPO LF1, LLT, LY7, LAU, LP1 or LP9

This PI is being revised to add the 2011 model year, add Step 11 and update the Warranty Information. Please discard PI0090A.

The following diagnosis might be helpful if the vehicle exhibits the symptoms described in this PI.

Condition/Concern

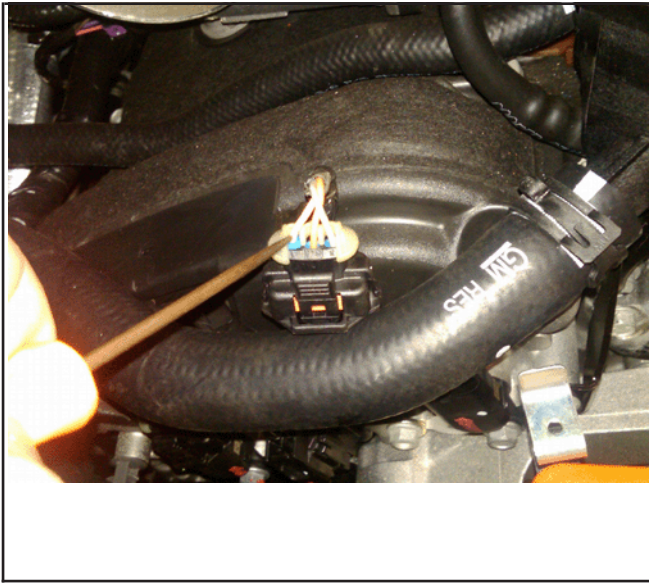
Some customers may comment on an intermittent engine hesitation or flutter.

This condition may be caused by the intake camshaft (cam) position (CMP) sensor bank 1 connector terminals having intermittent conditions or poor connections. This will result in the engine control module (ECM) temporarily being unable to determine engine position and it will stop fueling and sparking. The ECM will require at least one engine revolution to resynchronize (resync) and if it does, it will not set a DTC.

Recommendation/Instructions

Important: This procedure is for the intake CMP sensor bank 1.

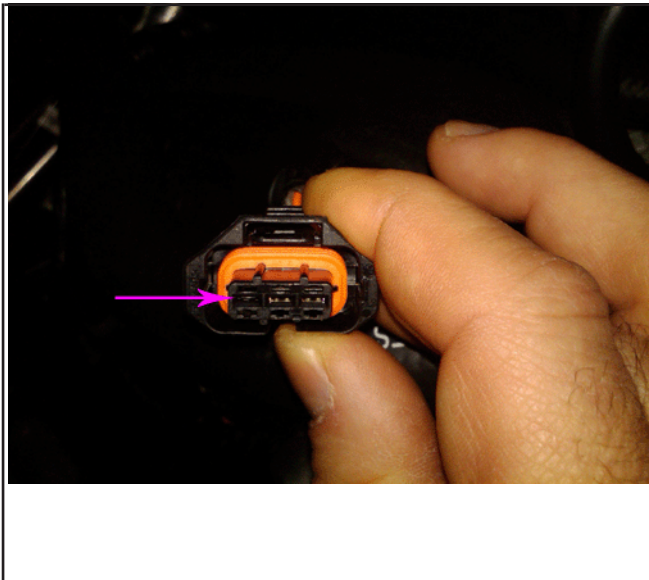
1. Turn ON the ignition with the engine OFF.
2. Perform the diagnostic system check - vehicle. Refer to Diagnostic System Check - Vehicle in SI.
 - If any DTCs are set, refer to Diagnostic Trouble Code (DTC) List – Vehicle in SI.
3. Turn OFF the ignition.



2429201

Note: Perform this visual inspection BEFORE disconnecting the intake CMP sensor bank 1 harness connector.

4. Visually inspect the CMP sensor harness connector for backed-out terminals as shown. Any of these circuits can contribute to this condition. For the component location, refer to Camshaft Position Sensor Replacement - Bank 1 (Right Side) Intake in SI.
 - If any intermittent conditions or poor connections are found, repair as needed. Refer to Connector Repairs and Wiring Repairs in SI.
5. Disconnect the CMP sensor harness connector.



2429345

6. Visually inspect the CMP sensor harness connector for backed-out terminals as shown. Any of these circuits can contribute to this condition.
 - If any intermittent conditions or poor connections are found, repair as needed. Refer to Connector Repairs and Wiring Repairs in SI.
 - If intermittent conditions or poor connections are not found, proceed to Step 7.
7. Verify the torque of the CMP sensor bolt.

Tighten

Tighten the bolt to 10 N·m (89 lb in).

 - If the CMP sensor bolt is properly torqued, proceed to Step 8.
8. Remove the CMP sensor. Refer to Camshaft Position Sensor Replacement - Bank 1 (Right Side) Intake in SI.

9. Inspect for foreign material, such as metal shavings in the magnet area of the CMP sensor and on the reluctor wheel.
 - If any contamination is found, clean or replace the CMP sensor as needed.
10. Install the CMP sensor. Refer to Camshaft Position Sensor Replacement - Bank 1 (Right Side) Intake in SI.
11. Connect the CMP sensor harness connector.
12. Clear any DTCs that may be present.
13. Perform the diagnostic repair verification after completing this procedure. Refer to Diagnostic Repair Verification in SI.

Warranty Information

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time
N6608 (MY 2004-2009)	Emissions System Wiring and/or Connector Repair or Replacement	Use Published Labor Operation Time
N6650 (MY 2010-2011)	Terminal Replacement	
J4364	Camshaft Position Sensor Replacement - Bank 1 (Right Side) Intake	