



Service Bulletin

File in Section: -

Bulletin No.: PI0920

Date: March, 2013

PRELIMINARY INFORMATION

Subject: Diagnostic Tips for Intermittent Rough Idle Concern

Models: 2013 Cadillac ATS
 2013 Chevrolet Malibu
 Equipped with 2.5L Engine (RPO LCV) and 2.0L Engine (RPO LTG)

Condition/Concern

Some customers may experience a rough idle at different points in a drive cycle. This concern is fairly intermittent and there may or may not be any DTCs set on the vehicle. The service advisor needs to get an accurate description of when it happened. They should also ask about the drive cycle right before the event occurred.

Here is a list of questions that should help define the concern:

- When did you notice the rough idle and how long had the vehicle been running before the rough idle?
- Did they start this drive from an overnight soak, or after a short cold soak/ short hot soak (like after a quick stop at a store)?
- How long was the soak period (how long did it sit with engine off before the car was started again and the condition occurred)?
- Did the customer do anything to make the roughness go away? (For example, turn engine off and on, bring it off idle, then let it idle, drive away and then the next idle the roughness is gone).

There may be several reasons for this rough idle feel that the customer is experiencing and the root cause(s) is under investigation.

Recommendation/Instructions

If there are any DTCs set, record them and follow published diagnostics for the DTC(s) first. If the rough idle is not resolved, drive the vehicle using the same drive cycle identified by the owner and see if rough idle can be reproduced. Have the GDS snapshot of the engine data ready for this test drive. If the vehicle does idle rough, several areas to look at include:

- ECM system voltage – wide swing of system voltage
- Pre O2 sensor readings were they swinging or staying flat, rich/lean?
- Long term and short term fuel readings when the event happened.
- Commanded vs actual fuel pressure reading, too much variance to what the system is requesting.
- Commanded vs actual intake and exhaust camshaft reading.
- Engine load rough idle compared to regular idle - abnormal engine loads.

If nothing is found in the engine operation that could be a cause of the rough idle for ATS, refer to Vacuum Operated Engine Mounts Description and Operation in SI to verify proper operation of the engine mounts.

If nothing is found in the engine operation that could be a cause of the rough idle for Malibu, compare it to another vehicle. A good reference point is the air duct as it runs across the back of the engine. Does it vibrate excessively compared to another vehicle? If it does, the engine mounts should be neutralized. Refer to Powertrain Mount Balancing in SI.

Re-evaluate the vehicle idle quality. If the above information does not resolve the rough idle, please contact GM Technical Assistance Center (TAC) for assistance.

Warranty Information

For vehicles repaired under warranty, use:

| Labor Operation | Description | Labor Time |
|--|---------------------------------------|------------|
| K9566* | Balance Procedure – Powertrain Mounts | 0.5 hr |
| *This is a unique labor operation for bulletin use only. It will not be published in the Labor Time Guide. | | |