



# Service Bulletin

## PRELIMINARY INFORMATION

**Subject:** Rough Idle While in Gear

**Models:** 2013-2015 Cadillac ATS  
2014-2015 Cadillac CTS  
2015 Chevrolet Colorado  
2015 GMC Canyon  
Equipped with 2.5L (RPO LCV) or 2.0L (RPO LTG) 4 Cylinder Engine

**Attention:** This PI also applies to any of the above models that may be Export vehicles.

### Condition/Concern

Some customers may comment on a rough idle while vehicle is in gear.

**Note:** The roughness is usually felt in the seat/floor pan area, and not in the steering wheel.

The roughness may be described to dissipate during the rise of engine RPMs.

This may be caused by fluid coupling within the transmission torque converter.

### Recommendation/Instructions

If you encounter a vehicle with the above concern, follow the procedure below:

**Important:** (2013-2014 Cadillac ATS Only) Before proceeding, verify that the latest version of PI1092 has been completed.

1. Bring the vehicle up to operating temperature.



2. Using a Pico Oscilloscope Diagnostic Kit, mount the PicoScope single-axis or 3 axis vibration sensor (TA143) on the intake cover bolt with the hole on the sensor facing in the forward direction as illustrated above.

**Note:** Only the use of the Pico Oscilloscope Diagnostic Kit with NVH should be utilized, available from GM Dealer equipment (P/N 733-CH-51450). Previous vibration tools are NOT recommended due to the types and frequencies producing these vibrations.

**Important:** When using the Pico Oscilloscope Diagnostic Kit, make sure the A/C is not on and vehicle is at idle at all times during testing.

**Note:** For proper usage of the Pico Oscilloscope Diagnostic Kit, refer to the GM Center of Learning Website for a PicoScope Noise, Vibration, and Harshness Diagnostics Overview.

3. Place the vehicle in Neutral, and record a 30 second time frame of the lateral amplitude of engine speed 1 (E1). Be sure to record the findings on the vehicle repair order for reference.
4. After recording the vehicle's lateral amplitude of engine speed 1 with the vehicle in Neutral, repeat a 30 second time frame recording of engine speed 1 lateral amplitude with the vehicle in Drive and in Reverse.

**Important:** Be sure the brake is applied when attempting recordings while vehicle is in either Drive or Reverse so that there is no movement within the vehicle while recording.

5. Once all three of the 30 second recordings of the engine speed 1 lateral amplitude are established, compare the engine speed 1 lateral amplitude of the vehicle in Neutral to those of the vehicle in Drive and Reverse. If the engine speed 1 lateral amplitude of the vehicle in Drive or Reverse is three times greater than that of the vehicle in Neutral, replace the vehicle's transmission torque converter. Refer to Torque Converter Replacement in SI.  
If the engine speed 1 (E1) lateral amplitude of the vehicle in Drive or Reverse is less than three times greater than that of the vehicle in Neutral, continue diagnosis referring to SI.

## Parts Information

RPO	Part Number	Description
LCV	24265770	CONVERTER ASM-TORQ (240 MM)
LTG	24265771	CONVERTER, TORQ

## Warranty Information

For vehicles repaired under the Bumper-to-Bumper coverage (Canada Base Warranty coverage), use the following labor operation. Reference the Applicable Warranties section of Investigate Vehicle History (IVH) for coverage information.

Labor Operation	Description	Labor Time
8480298*	Pico Oscilloscope Diagnostic Test on Intake Cover Bolt	0.5 hr
Add	To Replace Torque Converter	**

\*This is a unique Labor Operation for Bulletin use only. It will not be published in the Labor Time Guide.

\*\* Use published time from 8464810.

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.



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