



Service Bulletin

PRELIMINARY INFORMATION

Subject: Bump, Surge or Vibration at Idle in Drive at a Stop

Models: 2013-2014 Buick Encore

2012-2014 Chevrolet Cruze, Sonic

2013 Chevrolet Tracker, Trax

Equipped with 1.4L (RPOs LUJ, LUV) and 1.8L Engine (RPO 2H0, Mexico Use Only, Engine Not Used in US and Canada) and 6T40 Automatic Transmission (RPOs MHB, MH8)

Vehicles Built Prior to August 1, 2013

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

This PI has been revised to update the Equipped with Information. Please discard PI0928D.

Condition/Concern

Some customers may comment on a bump feeling, a surge or an engine vibration while stopped at idle with the transmission in Drive and their foot on the service brake.

Note: This condition is only when stopped at idle with the transmission in Drive and foot on the service brake.

Recommendation/Instructions

This condition may be caused by the transmission Neutral Idle feature. When the service brakes are applied and the vehicle speed, throttle position, and transmission temperature are within the calibration defined limits, the TCM commands the transmission to Neutral.

Important: The Neutral Idle feature will only function when transmission fluid temperature is 37°C (99°F) or greater. Verify that the transmission fluid temperature is 37°C (99°F) or greater before diagnosing this condition.

When the concern occurs, move the transmission shift lever to the manual position.

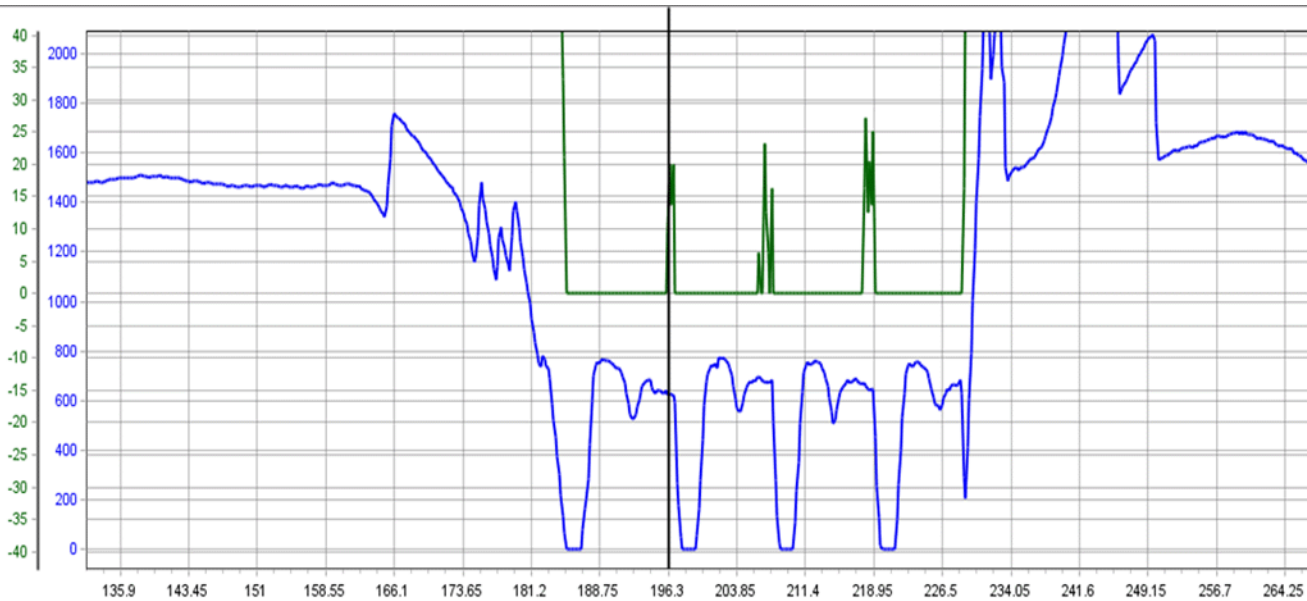
Moving the transmission shift lever to the manual shift position will prevent the Neutral Idle feature from functioning.

If the concern is eliminated by moving the transmission shift lever to the manual position, it is caused by the Neutral Idle feature and variation in the 1-2-3-4 clutch fiber plates. The 1-2-3-4 clutch fiber plates should be replaced with the part number listed below. This is a kit that contains two clutch fiber plates. The 1-2-3-4 clutch piston should also be replaced at the same time.

If the concern is not eliminated by moving the transmission shift lever to the manual position, it has a different cause and further diagnosis is required.

Important: These clutch plates will only correct a continuous, on/off bump, surge or vibration feel that occurs while stopped in Drive with a foot on the service brake. These clutch plates will not eliminate the single bump feeling that occurs as the vehicle comes to a stop and the transmission enters neutral. These clutch plates will not eliminate the single bump feeling that occurs when the service brake is released and the transmission engages the 1-2-3-4 clutch. These single bump feelings are normal and cannot be eliminated.

For diagnosis purposes, a typical Neutral Idle bump is illustrated in the GDS2 snapshot below. When Neutral Idle is activated Transmission ISS will nearly match Engine Speed. When Neutral Idle is deactivated, 1st gear will be engaged and Transmission ISS will drop to zero as long as the vehicle is stopped. The variation in the 1-2-3-4 clutch fiber plates create the variation in Transmission ISS and the small spikes in the Transmission OSS. These Transmission OSS spikes cause Neutral Idle to be commanded on/off/on/off as seen below creating the bump or surge sensation.



Legend	Parameter Name	Control Module	Value 1	Value 2	Delta	Unit
█	Transmission ISS	Transmission Control Module	623			RPM
█	Transmission OSS	Transmission Control Module	10			RPM

Parts Information

Part Number	Description	Qty
24273076	Plate Kit, 1-2-3-4 Clutch	1
24259453	Piston, 1-2-3-4 Clutch	1

Warranty Information

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time
8467352	Low and Reverse and 1-2-3-4 Clutch Housing Overhaul	Use Published Labor Operation Time

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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