



# Service Bulletin



## SERVICE UPDATE

**SUBJECT:** Service Update for Inventory Vehicles Only  
Rear Differential Module Seal Leak  
Expires May 31, 2013

**MODELS:** 2012 Buick LaCrosse  
2012 Cadillac SRX

**This service update involves vehicles in dealer inventory only and will expire May 31, 2013.**

### PURPOSE

This bulletin provides a service procedure to replace the clutch piston seal in the rear differential module on **certain** 2012 model year Buick LaCrosse and Cadillac SRX all wheel drive vehicles. The internal clutch piston seal on these vehicles may leak and cause the Service Rear Wheel Drive message to illuminate and set a C0407-64 DTC.

**This service procedure should be completed on involved vehicles currently in dealership inventory as soon as possible but no later than May 31, 2013, at which time this bulletin will expire.**

### VEHICLES INVOLVED

All involved vehicles are identified by VIN in the Global Warranty Management System – Investigate Vehicle History Application. Dealership technicians should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

Additionally, a list of involved vehicles currently in dealer inventory is available on the “Service Update Bulletin Information” link under the “Service” tab in GM GlobalConnect (US) or attached to the GlobalConnect message (Canada) used to release this bulletin.

PART INFORMATION

Parts required to complete this service update are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your “involved vehicles listing” before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order.

Part Number	Description	Quantity/Vehicle
22956728	PISTON KIT,L/SLIP DIFF CLU	1
88863349 - US 88863350 - CN	LUBRICANT,DIFFERENTIAL(CLUTCH) (will service 4 vehicles)	As Needed (Submit as Net Item)
88900401 - US 89021678 - CN	LUBRICANT,SYNTHETIC MULTI- PUPOSE(LUBRICANT,GR SYNTHETIC,SAE 75W-90)	1
88900330 - US 00992694 - CN	LUBRICANT,LIMITED-SLIP DIFFERENTIAL	1

SERVICE PROCEDURE

**Caution:** It is very important to observe maximum cleanliness when working on the differential clutch. Dirt particles can seriously damage the function and service life of the differential clutch.

1. Raise the vehicle. Refer to *Lifting and Jacking the Vehicle* in SI.
2. Drain the rear differential fluid.
3. Remove the rear axle assembly from the vehicle. Refer to the *Differential Carrier Assembly Replacement* procedure in SI.
4. Place the rear differential assembly on a clean work bench.

**Warning:** The hydraulic pressure in the differential clutch is very high. To prevent personal injury, wait for at least 10 minutes before removing any parts from the differential clutch.

5. Remove the limited slip differential clutch low and high pressure pipes from the differential clutch.
6. Remove the electrical connector from the limited slip differential valve and remove the harness from the clip.
7. Remove the limited slip differential clutch bolts (Qty: 6).
8. Remove the limited slip differential clutch from the differential carrier assembly.



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- 9. Remove the retaining ring that secures the differential clutch pack to the clutch housing.



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10. Remove the differential clutch pack from the clutch housing. Hold the housing in one hand and flip over to allow the clutch pack to fall into the other hand.



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11. Apply compressed air to the low pressure pipe connector port to release the piston from the differential clutch housing.

12. Remove the eLSD clutch piston from the housing.



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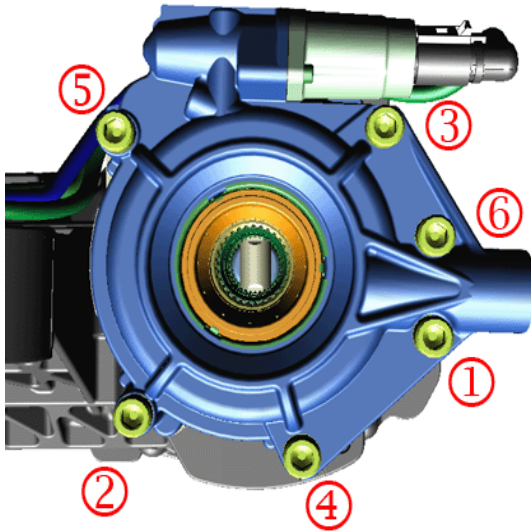
**Note:** If the piston spring is removed, ensure proper orientation when reinstalling. Spring fingers must be positioned as shown above.

13. Install the new eLSD clutch piston into the housing. Push down to seat.
14. Reinstall the differential clutch pack into the housing.
15. Reinstall the retaining ring that secures the differential clutch pack to the clutch housing.
16. Remove the low and high pressure pipe connectors from the limited slip differential clutch. Discard the connectors and pipe spring clips.
17. Install the NEW low and high pressure pipe connectors and spring clips to the limited slip differential clutch.

#### **Tighten**

Start by hand then tighten the connectors to **7 N·m (62 lb in)**.

18. Reinstall the limited slip differential clutch to the differential carrier assembly.



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19. Reinstall the limited slip differential clutch bolts (Qty: 6).

**Tighten**

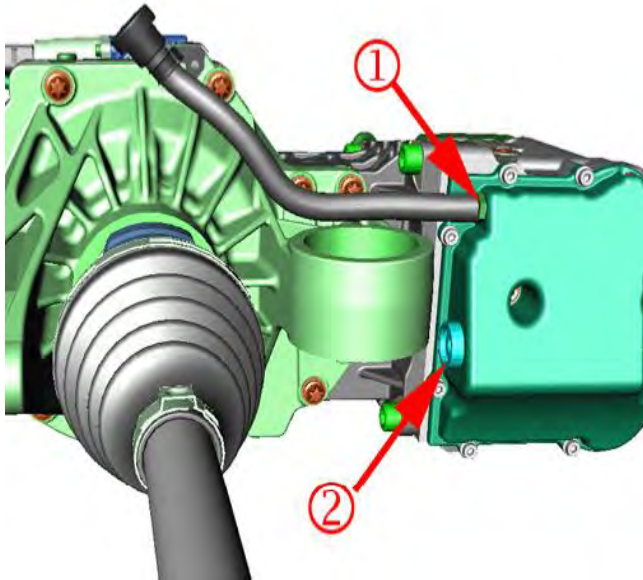
Tighten the bolts in proper sequence to **30 N·m (22 lb ft)**.

20. Reinstall the limited slip differential clutch low and high pressure pipes to the differential clutch.



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21. Reinstall the electrical connector to the limited slip differential valve and harness to the clip. Route the electrical harness under the pressure lines as shown.



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22. Remove the TTD clutch cover fill plug (2) and add 140 ml (0.15 qts) of eLSD clutch lubricant. Install the fill plug.

**Tighten**

Tighten to **14 N·m (10 lb ft)**.

23. Install the rear axle assembly to the vehicle. Refer to the *Differential Carrier Assembly Replacement* procedure in SI.
24. Refill the differential rear axle. Refer to the *Differential Rear Axle Lubricant Level Inspection* in SI.
25. Lower the vehicle. Refer to *Lifting and Jacking the Vehicle* in SI.
26. Start the vehicle and allow running for 5 minutes at idle.
27. In PARK, cycle the throttle from idle to wide open throttle briefly 5 times, waiting a minimum of 30 seconds between each WOT cycle to cycle solenoids to purge air.
28. With the engine running, observe the scan tool rear limited slip differential clutch pump motor current parameter. The parameter display should be above 2.5A when the pump is on. If the current is below 2.5A, then shut the vehicle off and recheck the level by performing Steps 29 through 33.
29. To stabilize the clutch oil level, let the vehicle rest 10 minutes with the ignition off.
30. Raise the vehicle and support the vehicle.
31. Remove the differential clutch cover plug (2) and recheck the differential clutch fluid level.
32. The eLSD clutch fluid should be level with the bottom of the eLSD clutch cover plug hole (2). If the eLSD clutch is overfilled, drain out fluid until it is at the proper level. Add fluid through the vent opening (1) if the eLSD clutch is low on fluid.
33. Install the TTD clutch cover plug (2) and re-tighten to **14 N·m (10 lb ft)**.
34. Lower the vehicle.
35. Vehicles will also require a calibration update to the clutch control module (CCM). Follow SI and TIS2WEB instructions to reprogram the CCM with the latest calibration available through TIS2WEB.
36. Drive the vehicle 6 miles (10 km) to confirm that the DTC does not reset.

**WARRANTY TRANSACTION INFORMATION**

Submit a transaction using the table below.

<b>Labor Code</b>	<b>Description</b>	<b>Labor Time</b>	<b>Net Item</b>
V2579	Replace Clutch Piston (inc. reprogramming)	4.6	*

- \* The amount identified in "Net Item" should represent the actual sum total of the current GMCC&A Dealer net price for differential (clutch) lubricant needed to perform the required repairs, not to exceed \$11.12 USD, \$13.75 CAD, plus applicable Mark-Up or Landed Cost (for Export).

**DEALER PROGRAM RESPONSIBILITY**

Dealers must take the steps necessary to ensure that the service update correction has been made to all involved vehicles in dealer inventory before selling or dealer-trading the vehicle, but no later than May 31, 2013.

