



# Service Bulletin

File in Section: -

Bulletin No.: PIP4989B

Date: May, 2012

## PRELIMINARY INFORMATION

**Subject:** BAS+ (HYBRID) eAssist Drive Motor Generator Belt Broken Noisy Worn Or Misaligned

**Models:** 2012 Buick LaCrosse eAssist  
2012 Buick Regal eAssist  
2013 Chevrolet Malibu Eco eAssist  
All with RPO HP6

This PI was superseded to update recommended field. Please discard PIP4989A.

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

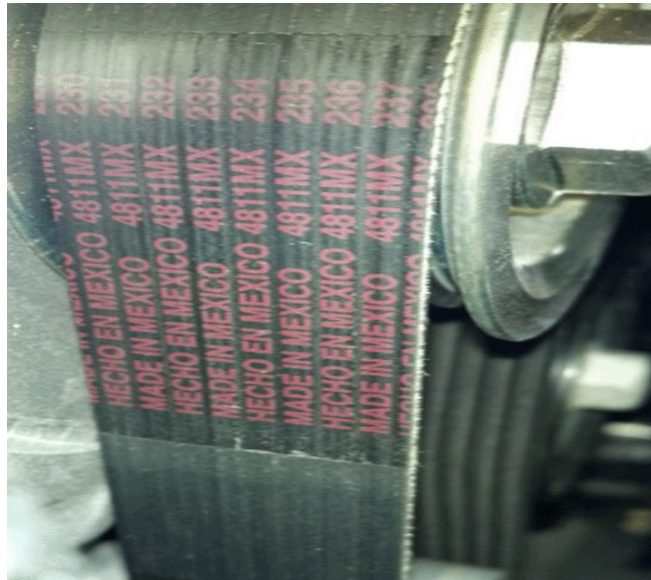
### Condition/Concern:

Customer or Technician may comment that there is a broken, noisy, worn or misaligned Drive Motor Generator (MGU) Belt resulting in a no charge concern. There may a Battery Saver message illuminated with or without DTCs P1A6F or P0A90 set.

### Recommendation/Instructions:

**Important:** If the 12V system voltage has fallen below a predetermined level (approximately 9V), use GDS2 to command the Battery Pack Cooling Fan on to make sure it operates.

- If the Battery Pack Blower Fan is inoperative and the vehicle build date is after December 15, 2011, replace the Battery Pack Cooling Fan.
  - If the vehicle build date is on or before December 15, 2011 follow published Service Information.
  - Consider viewing the December 2011 Emerging Issues Video 10211.12D for more info on the Torque Wrench Adapter and Tensioner replacement procedure if necessary before performing any repairs.
1. Inspect the underhood area for any damage (engine, CV boots, etc.) that may have been induced when the belt broke.
  2. Inspect the Drive Belt and note whether it looks like the belt just snapped cleanly, if it is shredded or worn due to misalignment, incorrect tension, or damaged due to contamination from any fluids. Take a digital photo of the broken belt ends and note the belt date code. The code is four numbers followed by "MX" printed in red lettering as shown below.



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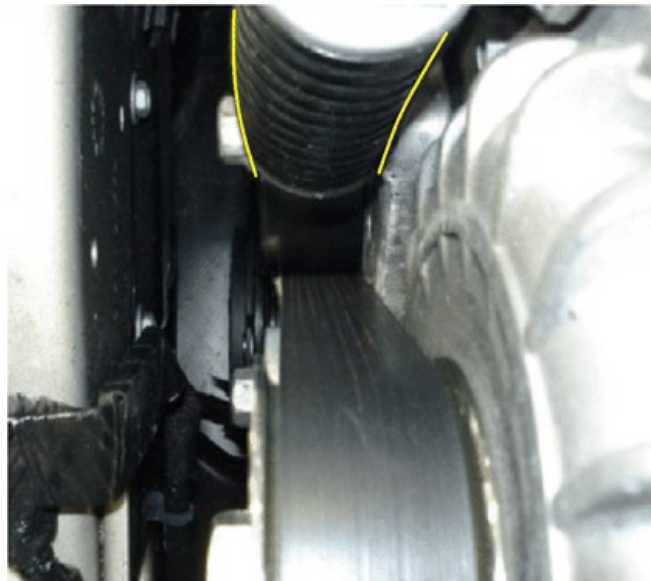
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**Important:** Prior to the removal of any components, the following steps must be performed.

3. If a Laser Belt Alignment Tool (EN-49228 or equivalent) is available, use it to check for proper pulley alignment.
4. Inspect the drive belt tensioner strut assembly to ensure that it is installed correctly - "TOP" is stamped on the upper rounded end of the tensioner strut housing as shown below. If it is installed upside down or if the upper and lower retaining bolts have been reversed during previous repairs, it could cause an alignment concern as shown below. It is not necessary to remove the Tensioner Bolts from the Bracket or remove the spring from the Tensioner. The Upper bolt of the Tensioner is longer than the lower bolt.

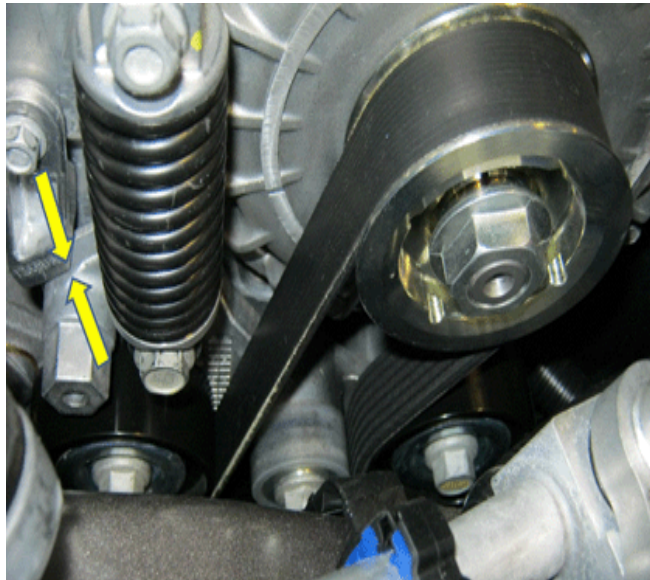


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5. Check for clearance/gap between tensioner stop and the tensioner assembly. There should be a very small gap of approximately 1mm between the tensioner and stop.
  - Loosen M6 tensioner stop bolt. Using a 19mm socket, rotate the hex feature beneath the strut counterclockwise to extend the strut. Tighten M6 tensioner stop bolt and confirm you now have clearance/gap between tensioner stop and the tensioner assembly.
  - Check and note if the tensioner stop is in place and the bolt is tight.
  - Remove the top tensioner bolt (requires 1st removing stop, then compressing strut, then removing bolt (if present))
  - Verify that the tensioner assembly rotates about center pivot, but that the pivot or bolt is not loose. The tensioner should be able to move back and forth smoothly with only a small amount of force.



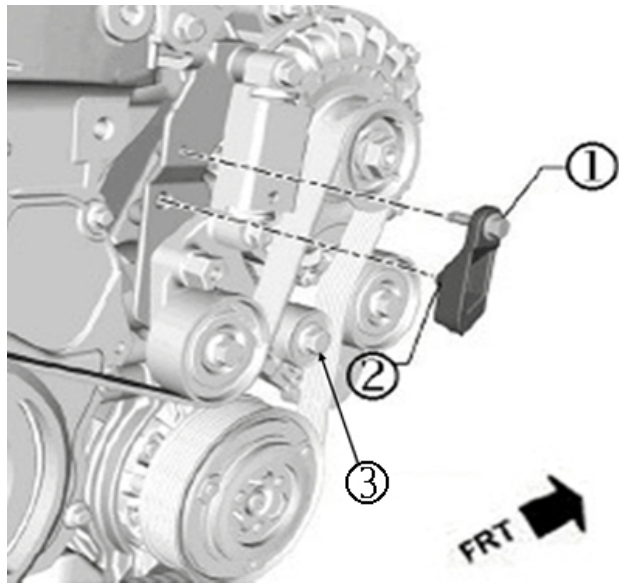
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**Important:** When checking the Center Pivot Bolt torque, it is necessary to use the Torque Wrench Adapter J-45025 when performing this repair. Without this tool, the torque specification in SI will be inaccurate. Achieving the correct torque specification is critical or the bolt may loosen, resulting in premature wear or breakage. The specification in SI is considering that the tech has the Torque Wrench Adapter installed on a 3/8 drive Torque Wrench while they are both kept in a straight line with each other.



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6. Check the tensioner pivot bolt torque by marking the head of the tensioner pivot bolt with a marker (See call-out 3 in photo below), torquing it to 42 Nm (31 lb/ft) with the J-45025 / EN-45025 torque tool, and noting the mark again. Please take a digital photo if several degrees of movement (90 Degrees, etc.) are noted.
7. After following the steps above and gathering all of the requested information, order a new drive belt.
8. Follow the 2.4L Drive Belt Replacement Procedure in SI to install the new drive belt. As mentioned in this SI procedure, the tensioner stop below (1) must be removed before the tensioner is compressed with the EN-48932 compressor or tensioner/bracket damage may occur. Also, as mentioned, the tensioner assembly should be rotated out of the way to allow more clearance, which will make it easier to install the tensioner stop. Once the stop is installed, ensure that the dowel (2) is fully engaged to the bracket and that the tensioner stop sits flush against the bracket before the tensioner stop bolt is torqued to specification. There should be a gap of approximately 1mm between the tensioner and the stop.



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Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.