



Service Bulletin

PRELIMINARY INFORMATION

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

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

This PI was superseded to update Administrative Details. Please discard PIP4989C.

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 MotorGenerator (MGU) Belt resulting in a no charge concern. There may be a Battery Saver message illuminated with or without DTCs P1A6F or P0A90 being 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 replace the Battery Pack Cooling Fan.
- Consider viewing the December 2011 Emerging Issues Video 10211.12D for more info on the TorqueWrench Adapter and Tensioner replacement procedure if necessary before performing any repairs

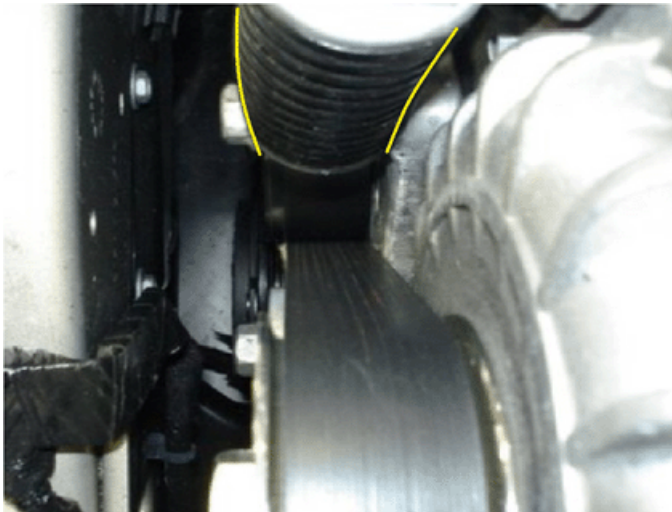
Note: Prior to the removal of any components, the following steps must be performed.

1. Inspect the under hood area for any damage (engine, CV boots, etc.) that may have been induced when the belt had broken.
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.



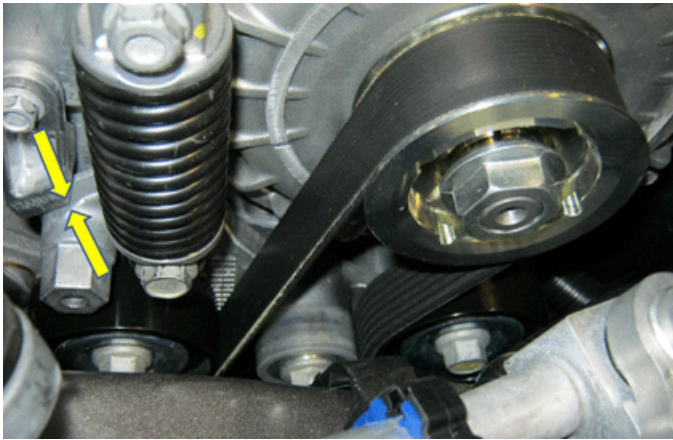
3. If a Laser Belt Alignment Tool (EN-49228 or equivalent) is available, use it to check for proper pulley alignment.
4. Inspect the drive belt Tensioner strut assembly to ensure that it is installed correctly - "TOP" is stamped on the upper rounded end of the tensioner strut housing as shown below. 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.



5. Check for clearance/gap between tensioner stop and the tensioner assembly

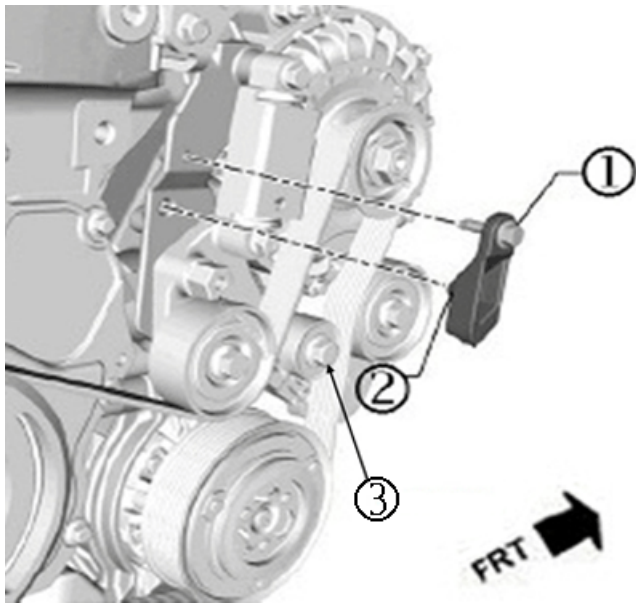
- Loosen M6 tensioner stop bolt. Using a 19mm socket, rotate the hex feature beneath the strut counter-clockwise to extend the strut. Tighten M6 tensioner stop bolt and confirm you now have clearance/gap between tensioner stop and the tensioner asm.
- Check and note if the tensioner stop is in place 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.



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.



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, follow 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.



Warranty Information

The correction for this concern may be one of several repairs described above. For vehicles repaired under warranty, please use the appropriate warranty labor operation based on the original cause in addition to well documented straight time.

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.

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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