File in Section:

Bulletin No.: PIP4870B

Date: October, 2013

# PRELIMINARY INFORMATION

Subject: (EREV) Engine Or Exhaust Noise While Driving In Extended Range Mode

Models: 2011-2014 Chevrolet Volt 2012-2014 Opel Ampera

This PI was superseded to update model list. Please discard PIP4870A.

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

## Condition/Concern

Some customers may comment that the engine noise is sometimes louder than expected. This document will explain known normal and abnormal reasons why the engine may be louder in some conditions and vehicles during Extended Range driving.

## Recommendation/Instructions

#### Normal Conditions:

- 1. The engine noise can be more perceivable between 25 50 MPH (40 80 KPH). This is a sensitive range where the road noise does not mask the engine, and it is the typical transition zone during electric launch to engine auto-start.
- 2. During the first engine start and warm-up of the day, the system will perform a catalyst preconditioning for about a minute. This can be a time period where the engine seems louder than normal.
- 3. For fuel economy, the engine often runs at wide open throttle, but at a reduced speed. This sound is uncharacteristic of a four-cylinder engine in a traditional sedan, but is a characteristic of an extended range electric vehicle such as the Chevrolet Volt.

#### Abnormal Induction Ground-Out Conditions:

- 1. Lower rubber isolator on air box not installed correctly or missing
- 2. Upper induction resonator cover not installed properly
- 3. Refrigerant line not bolted to engine support bracket
- 4. Throttle body contacting coolant pipes behind it

### Abnormal Exhaust Ground-Out Conditions:

1. Exhaust clamp rearward of the second catalytic converter is contacting the Battery (RESS) heat shield



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2. Exhaust Resonator underbody is contacting the heat shield



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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.