



# Service Bulletin



## SERVICE UPDATE

**SUBJECT:** Service Update for Inventory and Customer Vehicles  
RESS Battery Coolant Level Low  
Expires with Base Warranty

**MODELS:** 2012-2013 Chevrolet Volt

This service update includes vehicles in dealer inventory and customer vehicles that return to the dealership for any reason. This bulletin will expire at the end of the involved vehicle's New Vehicle Limited Warranty period.

### PURPOSE

This bulletin provides a service procedure to check the coolant level, check for any leaks, and fill the coolant tank to proper height. Certain subject vehicles were built with the coolant volume fill that was below the specification in the Rechargeable Energy Storage System (RESS). As a result, after the coolant system purges the air in the coolant loop (which may take up to 12 months), the remaining coolant level is lower than required. If this were to occur, a DTC may be set with a DIC message, "Service High Voltage Charging System". If a code is set, the wall charging system will be inactive until service is performed.

**This service procedure should be completed as soon as possible on involved vehicles currently in dealer inventory and customer vehicles that return to the dealer for any type of service during the New Vehicle Limited Warranty coverage period.**

### 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. Customer vehicles that return for service, for any reason, and are still covered under the vehicle's base warranty should also be checked for vehicle eligibility.

## 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
12378390 – US 10953456 – CN	GM Pre-Mixed DEXCOOL	As Needed (submit as Net Item)

## SERVICE PROCEDURE



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1. Visually inspect the coolant level in the HV battery surge tank and verify that the coolant level is *at the top of the label (1)* on the side of the surge tank.

**Caution:** If there is a loss of coolant or the coolant level is low, it is critical that the technician follows the **Pressure Test Procedure** in this bulletin.

2. Determine the surge tank coolant level.
  - If the HV battery surge tank coolant level is *at the top of the label (1)* on the side of the surge tank, no further action is required.
  - If the HV battery surge tank coolant level is *not at the top of the label (1)* on the side of the surge tank, refer to *Pressure Test Procedure* in this bulletin.

### **Pressure Test Procedure**

1. Remove the front compartment front sight shield. Refer to *Front Compartment Front Sight Shield Replacement* in SI.
2. Remove the anti-tamper coolant cap bracket and the coolant cap.
3. Place a floor jack under the vehicle, and then raise the left front of the vehicle. Refer to *Lifting and Jacking* in SI.
4. Use the *EN-24460-A* Cooling System Pressure Tester with the *GE-46143* Radiator Cap and Surge Tank Test Adapter in order to apply pressure of *5 psi (34.4 kPa)* to the cooling system. You **MUST** allow the vehicle to rest during this pressure test time period for a minimum of 5 minutes.
5. Raise the vehicle on the hoist. Refer to *Lifting and Jacking* in SI.

6. Perform the following service steps:
  - 6.1 Remove the high voltage battery (HV) protective aluminum foil patch located on the right rear of the battery tray.
  - 6.2 Using a plastic trim tool or an equivalent, remove the butyl tape patch.
  - 6.3 Remove the rubber inspection plug from the Hybrid/EV Battery Pack housing.
7. Insert a rolled up paper towel into the inspection plug area and twist and turn it in order to determine if there is any coolant present.
  - If any coolant is present, then you *MUST CALL TAC*.
  - If coolant is not present, then proceed to Step 7.1.
  - 7.1 Install the rubber inspection plug into the Hybrid/EV Battery Pack housing.
  - 7.2 Install the butyl tape patch or new butyl tape if the substance is weather worn.
  - 7.3 Install the protective aluminum foil patch.
8. Determine if the hybrid HV battery cooling system passes the pressure test.
  - If the cooling system passes the pressure test, lower the vehicle and refer to *Adding Coolant to the Surge Tank* in this bulletin.

**Note:** Cooling system repairs are not part of this field action bulletin. Submit a claim as warranty or customer pay as appropriate.

- If the cooling system does NOT pass the pressure test, refer to SI to diagnose and repair the cooling system. Refer to *Adding Coolant to the Surge Tank* in this bulletin after performing the cooling system repairs. Submit a warranty claim for the cooling system repair.

### Adding Coolant to the Surge Tank



3672187

**Note:** Always use GM Pre-mixed DEXCOOL® GM Part No. 12378390 (in Canada P/N 10953456) which is a 50/50 mixture of DEXCOOL® and deionized water. This will eliminate the possibility of the introduction of non-deionized water that is used in some aftermarket premixed coolants. DO NOT use 100 percent DEXCOOL® and add ordinary tap water or distilled water. Doing so may cause unwanted DTCs.

1. Adjust the surge tank coolant level to the *top of the label (1)*. Refer to *Drive Motor Battery Cooling System Draining and Filling — Removing Excess Coolant From System* in SI.

2. Install the coolant cap and the anti-tamper coolant cap bracket. Refer to *Coolant Cap Bracket Replacement* in SI.
3. Install the front compartment front sight shield. Refer to *Front Compartment Front Sight Shield Replacement* in SI.

#### WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below. All transactions should be submitted as a ZFAT transaction type, unless noted otherwise.

<b>Labor Code</b>	<b>Description</b>	<b>Labor Time</b>	<b>Net Item</b>
9100567	Inspect Surge Tank Coolant Level – No Further Action Req'd	0.2	N/A
9100568	Inspect Surge Tank Coolant Level & Add Coolant (inc. pressure check)	0.6	*

- \* The amount identified in “Net Item” should represent the actual sum total of the current GMCC&A Dealer net price for DEXCOOL needed to perform the required repairs, not to exceed \$1.57 USD, \$2.15 CAD, plus applicable Mark-Up or Landed Cost (for Export).

#### DEALER PROGRAM RESPONSIBILITY

Whenever a vehicle subject to this service update enters your vehicle inventory, or is in your facility for service in the future, and the vehicle is still covered under the New Vehicle Limited Warranty, you must take the steps necessary to be sure the service update correction has been made before selling or releasing the vehicle.

