Holden Aftersales. Parts News.



Date: 2nd November 2012

Volt Collision Damage and Repair Overview Subject:

To coincide with the launch of the Holden Volt we would like to make you aware of the following specific features and considerations that should be taken into account when carrying out any collision repairs on a Holden Volt.

General

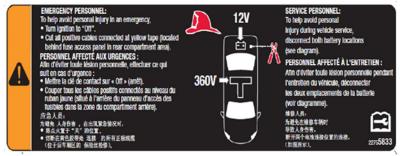
> Collision repair work on a Holden Volt should be undertaken in conjunction with the Service team from a Holden Volt Dealership to ensure the safe disabling and reenabling of the vehicle systems during repair.

Disabling the High Voltage System

- Only Holden Volt Certified Technicians have performed the necessary technical training to ensure that the High Voltage System is disabled correctly.
- Holden strongly recommends that any Collision Repairer about to perform repairs to a Holden Volt first contact their nearest Holden Volt Dealer for assistance in making the vehicle safe prior to and after any collision repair work is performed.

High Voltage Labels

- The Holden Volt features a series of high voltage labels that enable guick identification of potential electrical hazards. The labels are attached on each high voltage component. The labels are colour coded to indicate the potential high voltage state.
- > The emergency / service personnel warning label is affixed at the front of the engine compartment and provides specific procedures for emergency personnel.



The high voltage danger labels are red and indicate that high voltage is present at all times. These labels are located on the high voltage battery.





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The high voltage warning labels are orange and indicate a potential shock hazard if high voltage is not properly disabled. The labels are located on all high voltage components with the exception of the high voltage battery which utilises the danger label.



Personal Protection Equipment

- > Before working on any high voltage system, be sure you are wearing the following Personal Protection Equipment:
- > Safety glasses with appropriate side shields when within 15 metres of the vehicle, either indoors or outdoors.
- > Certified and up-to-date Class "0" Insulation gloves rated at 1000V with leather protectors.
 - o Visually and functionally inspect the gloves before use.
 - o Wear the insulation gloves at all times when working with the high voltage battery assembly, whether the system is energised or not.
- Failure to follow the procedures exactly as written may result in serious injury or
- ➤ Holden recommend that you contact your nearest Holden Volt Dealer for assistance.





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Air Bags

- ➤ The Holden Volt is equipped with eight air bags to protect the occupant in front, rear, side and rollover collisions for 360° of protection.
- ➤ The Holden Volt is one of the few vehicles with knee air bags which help to reduce injuries to the front occupant's legs.
- > There are dual pretensioner for the front seat belts that work together with the air bag system to protect the occupant in the event of a collision.

Thermal Management Systems

- ➤ The vehicle utilises three separate cooling systems that maintain the proper operating temperature of the components.
- > The components include the drive motor battery, drive motor / generator power inverter module, drive motor battery charger, and engine.
- ➤ The cooling systems require a pre-mixed 50/50 solution of DEX-COOL® coolant and deionised water.
- ➤ Tap water should never be used in the cooling system as it will leave deposits and cause corrosion which effects heat sink performance.

A/C refrigerant lubricant POE vs PAG

- Important: Never use A/C recovery, recycle and recharge equipment that contains PAG (polyalkylene glycol) lubricant to service the Volt A/C system.
- ➤ The Holden Volt is equipped with an electric drive A/C compressor that has an operating voltage of 300 volts. This A/C system uses refrigerant R-134a but does not use the traditional PAG (polyalkylene glycol) oil to lubricate the system. This system uses a special low-moisture content POE (polyolester) oil to lubricate the system components. If another refrigerant oil is used in place of POE oil, then excessive moisture will damage the insulation inside the electrically driven compressor, resulting component failure and a serious risk of injury, or even death.
- ➤ Please use only the compressor oil approved in Holden Electronic Parts Catalogue for the Holden Volt.
- ➤ If the A/C system has been filled with incorrect oil, the air conditioning system must be drained and flushed using hybrid-ready A/C recovery, recycle and recharge equipment.

Welding

- ➤ When welding, GM recommends disconnecting the 12 volt battery and removing any modules if welding within 300mm of them.
- ➤ GM also recommends disabling the high voltage system if welding within 300mm of the high voltage battery. To maintain personal and vehicle safety, disconnection of the high voltage system must be undertaken by a Holden Volt certified Technician from a Holden Volt Dealership.
- ➤ Maintain suitable precautions for magnetisation of components during welding in line with the welding equipment manufacturers directives.

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Paint Baking

> GM does not recommend baking the Holden Volt vehicle for more than 40 minutes at 60° Celsius. Damage to the high voltage battery may occur if longer periods or higher temperatures are used.

Further detailed information on specifications and repair procedures for the Holden Volt is available by subscription to: www.acdelcotds.com.

Regards,

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