51230 Manual Service Disconnect Not Seated



Reference Number: N162051230 Release Date: November 2017

GWM Number: 2051230 Revision: 02

Revision Description: The Service Procedure and the Warranty Information sections have been revised. Please

discard all copies of bulletin 51230-01.

Attention: Effective immediately, technicians MUST record the SPS Warranty Claim Code on the job card. To avoid

warranty transaction rejection, this information must be entered when submitting the transaction.

It is a violation of Federal law for a dealer to deliver a new motor vehicle or any new or used item of motor vehicle equipment (including a tire) covered by this notification under a sale or lease until the defect

or noncompliance is remedied.

All involved vehicles that are in dealer inventory must be held and not delivered to customers, dealer traded, or used for demonstration purposes until the repair contained in this bulletin has been performed on the vehicle.

		Model Year			
Make	Model	From	То	RPO	Description
Chevrolet	Malibu Hybrid	2016	2016		

Involved vehicles are marked "open" on the Investigate Vehicle History screen in GM Global Warranty Management system. This site should always be checked to confirm vehicle involvement prior to beginning any required inspections and/or repairs.

Condition	General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2016 model year Chevrolet Malibu Hybrid vehicles equipped with a manual service disconnect (MSD). The MSD is a shut-off switch to the high voltage battery designed to shut off high voltage power before servicing the vehicle. In some of these vehicles, the MSD was not installed properly and may not be locked in position. Improperly installed MSDs could become loose and disconnect while driving, which would cut off all high-voltage power to the vehicle. The loss of high-voltage power to these vehicles would cut propulsion energy and effectively stall the vehicle, which could affect the driver's ability to control the vehicle and could increase the risk of a crash.
Correction	Dealer will inspect the MSD and, if necessary, seat the connector properly. The dealer will also reflash an updated calibration to enable a diagnostic monitor to detect if the high voltage interlock loop (HVIL) is incomplete.

Parts

No parts are required for this repair.

Warranty Information

Labor		Labor	Trans. Type
Operation	Description		
9102390*	Inspect the Drive Motor Battery High Voltage Manual Disconnect Lever and Reprogram the Hybrid Powertrain Control Module 2 Reprogramming with SPS	0.6	ZFAT
	ADD: Reseat the Drive Motor Battery High Voltage Manual Disconnect Lever	0.2	

^{*} To avoid warranty transaction rejection, the SPS Warranty Claim Code must be entered when submitting this transaction. If the technician failed to record this information on the job card, it is retrievable. See Warranty Information Bulletin 06-08-47-001M (SI Document ID 4724920) for instructions.

Service Procedure

Danger: Ensure all High Voltage safety procedures are followed. Failure to follow the procedure exactly as written may result in serious injury or death.

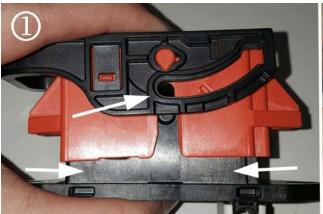
Danger: Before working on any high voltage system, be sure to wear the following Personal Protection Equipment:

- Safety glasses with appropriate side shields when within 50 feet of the vehicle, either indoors or outdoors.
- Certified and up-to-date Class "0" Insulation gloves rated at 1000V with leather protectors.
- Visually and functionally inspect the gloves before use.

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- Wear the Insulation gloves at all times when working with the high voltage battery assembly, whether the system is energized or not.
- Failure to follow the procedure exactly as written may result in serious injury or death.
- Remove rear compartment floor trim panel. Refer to Rear Compartment Floor Panel Trim Replacement (Battery Cover, With HP4) in SI.





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- Inspect the drive motor battery high voltage manual disconnect lever (MSD) and make sure the connection is
 properly seated and retained. When properly installed the drive motor battery high voltage manual disconnect lever
 (MSD) should be flush with the base. Also visually inspect that the "lugs" are inside the retaining lever "ramps" as
 illustrated in figure 2.
 - If the drive motor battery high voltage manual disconnect lever (MSD) IS NOT properly seated as shown (1), continue to step 3.
 - If the drive motor battery high voltage manual disconnect lever (MSD) is properly seated (2), skip to step 6.
- Disconnect the 12 V battery.
 - 3.1. Remove the drive motor battery high voltage manual disconnect lever (MSD). Refer to *Drive Motor Battery High Voltage Manual Disconnect Lever Replacement* in SI.

Note: It is imperative that the drive motor battery high voltage manual disconnect lever (MSD) is fully inserted in the base and locking pins are engaged before rotating cam lever down. When properly installed the drive motor battery high voltage manual disconnect lever should be flush with the base.



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4. With the cam on the drive motor battery high voltage manual disconnect lever (MSD) in the fully upright position, install the drive motor battery high voltage manual disconnect lever onto the battery.

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Pushing down on the drive motor battery high voltage manual disconnect lever (MSD) will cause the cam lock to engage and swing closed. Push the cam lock to the fully closed position as shown above. DO NOT install the MSD with the cam lock closed.

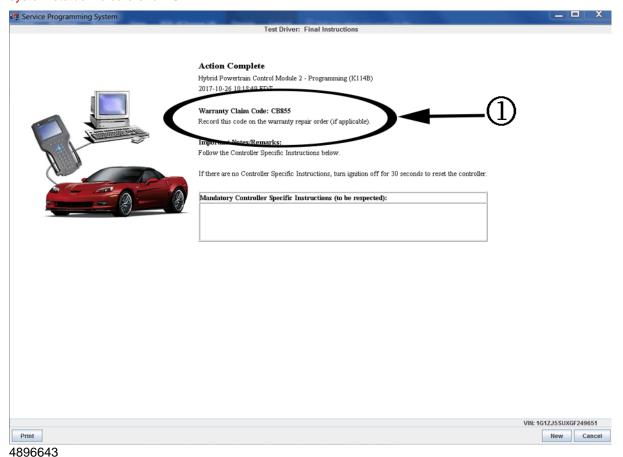
Note: Carefully read and follow the instructions below.

- DO NOT program a control module unless directed to by a service procedure or a service bulletin. If the control
 module is not properly configured with the correct calibration software, the control module will not control all of the
 vehicle features properly.
- DO NOT attempt to order the calibration number from GM Customer Care and Aftersales. The calibration numbers
 required for this service procedure are programmed into control modules via a Multiple Diagnostic Interface (MDI)
 with the calibration update. If you cannot access the calibration, call the Techline Customer Support Center and it
 will be provided.
- DO NOT program a control module unless directed to by a service procedure or a service bulletin. If the control
 module is not properly configured with the correct calibration software, the control module will not control all of the
 vehicle features properly.
- Ensure the programming tool is equipped with the latest software and is securely connected to the data link connector. If there is an interruption during programming, programming failure or control module damage may occur.
- Stable battery voltage is critical during programming. Any fluctuation, spiking, over voltage or loss of voltage will
 interrupt programming. When required install the *EL-49642* SPS Programming Support Tool to maintain system
 voltage. If not available, connect a fully charged 12 V jumper or booster pack disconnected from the AC voltage
 supply. DO NOT connect a battery charger.
- Turn OFF or disable systems that may put a load on the vehicles battery such as; interior lights, exterior lights (including daytime running lights), HVAC, radio, etc.

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- During the programming procedure, follow the SPS prompts for the correct ignition switch position.
- Clear DTCs after programming is complete. Clearing powertrain DTCs will set the Inspection/Maintenance (I/M) system status indicators to NO.



Important: Technicians MUST record the SPS Warranty Claim Code (1) on the job card. To avoid warranty transaction rejection, this information must be entered when submitting the transaction.

Note: When performing this software update, TIS2WEB will automatically select the latest calibrations that are designed to address this concern and close this field action.

- 6. Install *EL-49642* SPS programming support tool.
- 7. Access the Service Programming System (SPS) and follow the on-screen instructions.
- 8. On the SPS Supported Controllers screen, select K114B Hybrid Powertrain Control Module 2 Programming and follow the on-screen instructions.
- 9. Record SPS Warranty Claim Code on job card for warranty transaction submission.
- 10. At the end of programming, choose the "Clear All DTCs".

Note: If you have programming concerns or SPS error codes, call the Techline Customer Support Center. TCSC can be reached at 1-800-828-6860.

Dealer Responsibility – For USA (USA States, Territories, and Possessions)

It is a violation of Federal law for a dealer to deliver a new motor vehicle or any new or used item of motor vehicle equipment (including a tire) covered by this notification under a sale or lease until the defect or noncompliance is remedied.

The US National Traffic and Motor Vehicle Safety Act provides that each vehicle that is subject to a recall of this type must be adequately repaired within a reasonable time after the customer has tendered it for repair. A failure to repair

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within sixty days after tender of a vehicle is prima facie evidence of failure to repair within a reasonable time. If the condition is not adequately repaired within a reasonable time, the customer may be entitled to an identical or reasonably equivalent vehicle at no charge or to a refund of the purchase price less a reasonable allowance for depreciation. To avoid having to provide these burdensome remedies, every effort must be made to promptly schedule an appointment with each customer and to repair their vehicle as soon as possible. In the recall notification letters, customers are told how to contact the US National Highway Traffic Safety Administration if the recall is not completed within a reasonable time.

Dealer Responsibility – All

All new, used, GM Certified Used, courtesy transportation vehicles, dealer shuttle vehicles, etc. in dealers' possession and subject to this recall <u>must</u> be held and inspected/repaired per the service procedure of this bulletin <u>before</u> customers take possession of these vehicles. Involved vehicles must be held and not delivered to customers, dealer-traded, released to auction, used for demonstration, or any other purpose.

All GM Certified Used vehicles currently in the dealers' inventory within the Certified Pre-Owned Inventory System (CPOIS) will be de-certified and must be held and remedied per the service procedure in this bulletin. Upon submitting an accepted/paid warranty transaction in the Global Warranty Management (GWM) system, the vehicle can be re-certified for sale within the CPOIS system, or once again be used in the CTP program.

Dealers are to service all vehicles subject to this recall at no charge to customers, regardless of mileage, age of vehicle, or ownership, from this time forward.

Customers who have recently purchased vehicles sold from your vehicle inventory, and for which there is no customer information indicated on the dealer listing, are to be contacted by the dealer. Arrangements are to be made to make the required correction according to the instructions contained in this bulletin. A copy of the customer letter is provided in this bulletin for your use in contacting customers. Recall follow-up cards should not be used for this purpose, since the customer may not as yet have received the notification letter.

In summary, whenever a vehicle subject to this recall enters your vehicle inventory, or is in your dealership for service in the future, you must take the steps necessary to be sure the recall correction has been made before selling or releasing the vehicle.

Dealer Reports

For dealers with involved vehicles, a listing with involved vehicles has been prepared and will be provided to U.S. and Canadian dealers through the GM GlobalConnect Recall Reports, or sent directly to export dealers. The listing may contain customer names and addresses obtained from Motor Vehicle Registration Records. The use of such motor vehicle registration data for any purpose other than follow-up necessary to complete this recall is a violation of law in several states/provinces/countries. Accordingly, you are urged to limit the use of this report to the follow-up necessary to complete this recall.

Courtesy Transportation – For USA & Canada

Courtesy transportation is available for customers whose vehicles are involved in a product program and still within the warranty coverage period. See General Motors Service Policies and Procedures Manual, Section 6.1.10 – Courtesy Transportation, for details.

Customer Notification

USA & Canada - General Motors will notify customers of this recall on their vehicle (see copy of customer letter included with this bulletin).

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IMPORTANT SAFETY RECALL

This notice applies to your	vehicle, VIN:	

Dear General Motors Customer:

This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act.

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2016 model year Chevrolet Malibu Hybrid vehicles equipped with a manual service disconnect (MSD). As a result, GM is conducting a safety recall. We apologize for this inconvenience. However, we are concerned about your safety and continued satisfaction with our products.

IMPORTANT

- Your vehicle is involved in GM safety recall 51230.
- Schedule an appointment with your GM dealer.
- This service will be performed for you at **no charge**.

Why is your vehicle being recalled?

The high-voltage shut-off switch in your vehicle may not have been installed properly. This shut-off switch is commonly known as the manual service disconnect ("MSD") and is designed to shut off high-voltage power before servicing the vehicle. The MSD in your vehicle may not be fully locked in place and could become loose and disconnect while driving, which would cut off all high-voltage power to the vehicle. The loss of high-voltage power to your vehicle would cut propulsion energy and effectively stall the vehicle, which could affect your ability to control the vehicle and could increase the risk of a crash.

What will we do?

Your GM dealer will dealer will inspect the MSD and, if necessary, seat the connector properly. Your dealer will also reprogram the diagnostic monitor with an updated calibration to enable it to detect if the high voltage interlock loop (HVIL) is complete. This service will be performed for you at **no charge**. Because of service scheduling requirements, it is likely that your dealer will need your vehicle longer than the actual inspection and service correction time of approximately 50 minutes.

What should you do?

You should contact your GM dealer to arrange a service appointment as soon as possible.

Do you have questions?

If you have questions or concerns that your dealer is unable to resolve, please contact the appropriate Customer Assistance Center at the number listed below.

Division	Number	Text Telephones (TTY)
Chevrolet	1-800-630-2438	1-800-833-2438
Puerto Rico – English	1-800-496-9992	
Puerto Rico – Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

If after contacting your dealer and the Customer Assistance Center, you are still not satisfied we have done our best to remedy this condition without charge and within a reasonable time, you may wish to write the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE, Washington, DC 20590, or call the toll-free Vehicle Safety Hotline at 1.888.327.4236 (TTY 1.800.424.9153), or go to http://www.safercar.gov. The National Highway Traffic Safety Administration Campaign ID Number for this recall is 16V521.

Federal regulation requires that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within ten days.

Jeffrey M. Boyer Vice President Global Vehicle Safety