



UI Bulletin #190

Subject: Battery Negative Cable Disconnection and Connection
Models Years Affected: 2023 and beyond
Models Affected: BrightDrop Zevo 600
Origination Date: April 5, 2023
Revision Date: N/A

Battery Negative Cable Disconnection and Connection

Warning: Unless directed otherwise, the ignition must be OFF with the key removed, and all electrical loads must be OFF before servicing any electrical component. Disconnect the negative battery cable to prevent an electrical spark should a tool or equipment come in contact with an exposed electrical terminal. Failure to follow these precautions may result in personal injury and/or damage to the vehicle or its components.

For Vehicles equipped with OnStar® (UE1) with Back Up Battery: The Back Up Battery is a redundant power supply to allow limited OnStar® functionality in the event of a main vehicle battery power disruption to the VCIM (OnStar® module). Do not disconnect the main vehicle battery or remove the OnStar® fuse with the ignition key in any position other than OFF. Retained accessory power should be allowed to time out or be disabled (simply opening the driver door should disable retained accessory power) before disconnecting power. Disconnecting power to the OnStar® module in any way while the ignition is On or with retained accessory power activated may cause activation of the OnStar® Back-Up Battery system and will discharge and permanently damage the back-up battery. Once the Back-Up Battery is activated it will stay on until it has completely discharged. The back-up battery is not rechargeable and once activated the back-up battery must be replaced.

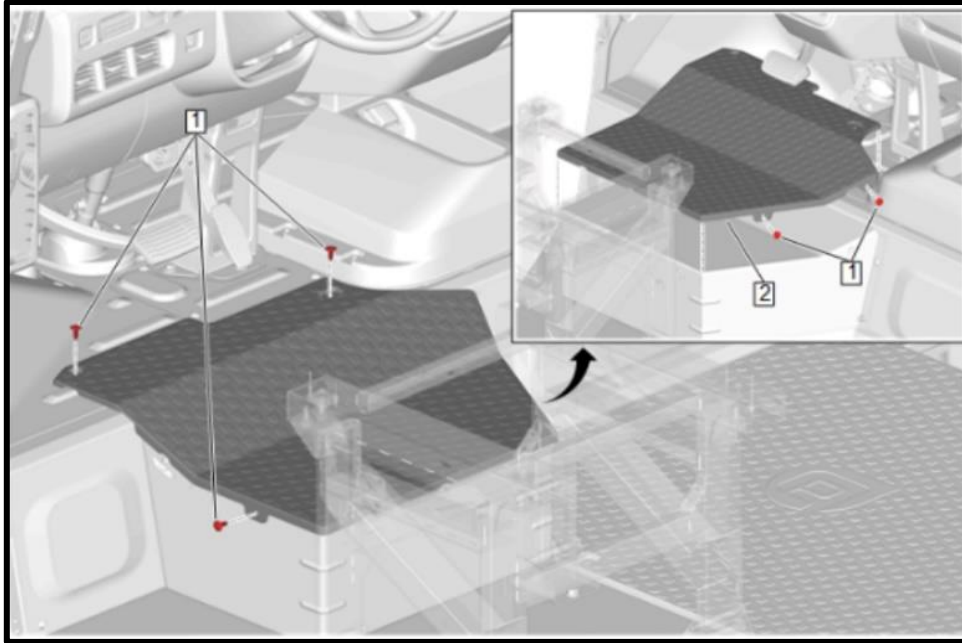
Caution: This vehicle is equipped with a High Voltage (HV) battery safety monitoring system. The HV battery monitoring and notification system is disabled when the 12 Volt battery/system is removed/disconnected. To minimize the risk associated with a disabled HV battery safety monitoring system, always observe the following:

- Only disconnect the 12V battery/system as indicated by a service procedure.
- Minimize the length of time the 12V battery/system is disabled.
- Minimize the length of time the vehicle is left in a disassembled condition.

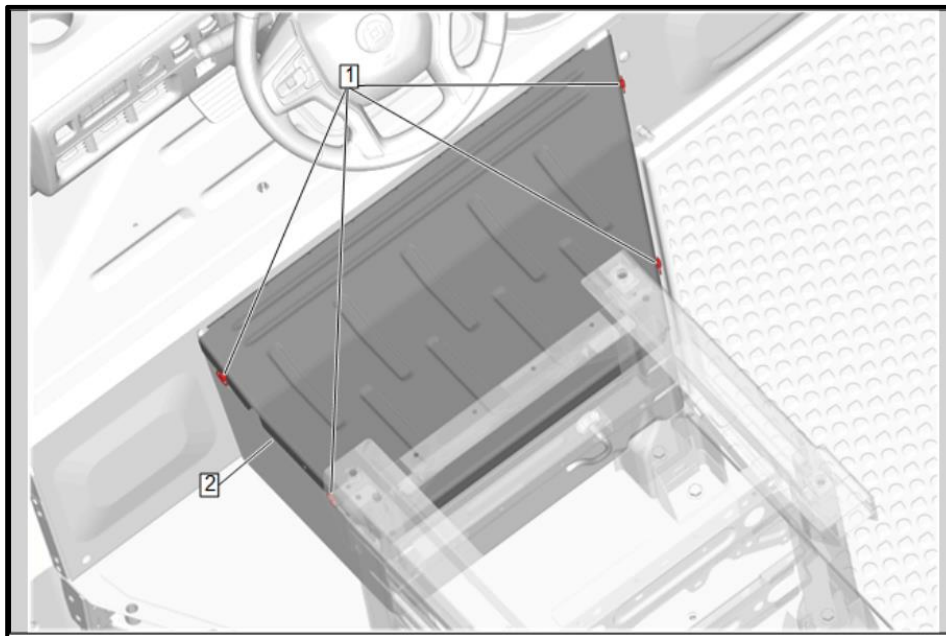
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Removal Procedure



1. Front Floor Auxiliary Mat Retainer (1) » Remove [5x]
2. Front Floor Auxiliary Mat (2) » Remove



3. Turn each dash lower center extension panel bolt (1) approximately one quarter turn and pull the bolt outwards lightly to disengage the bolt at the retainer.
4. Dash Lower Center Extension Panel - Upper (2) » Remove

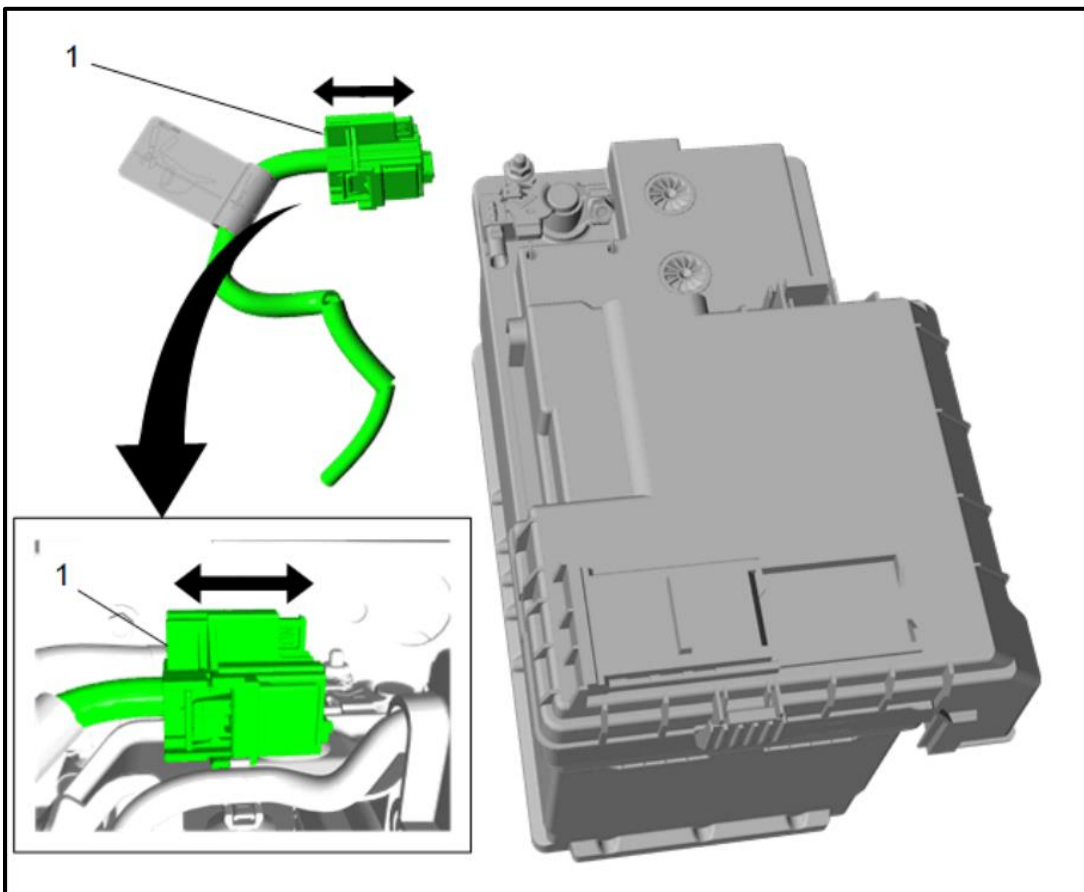
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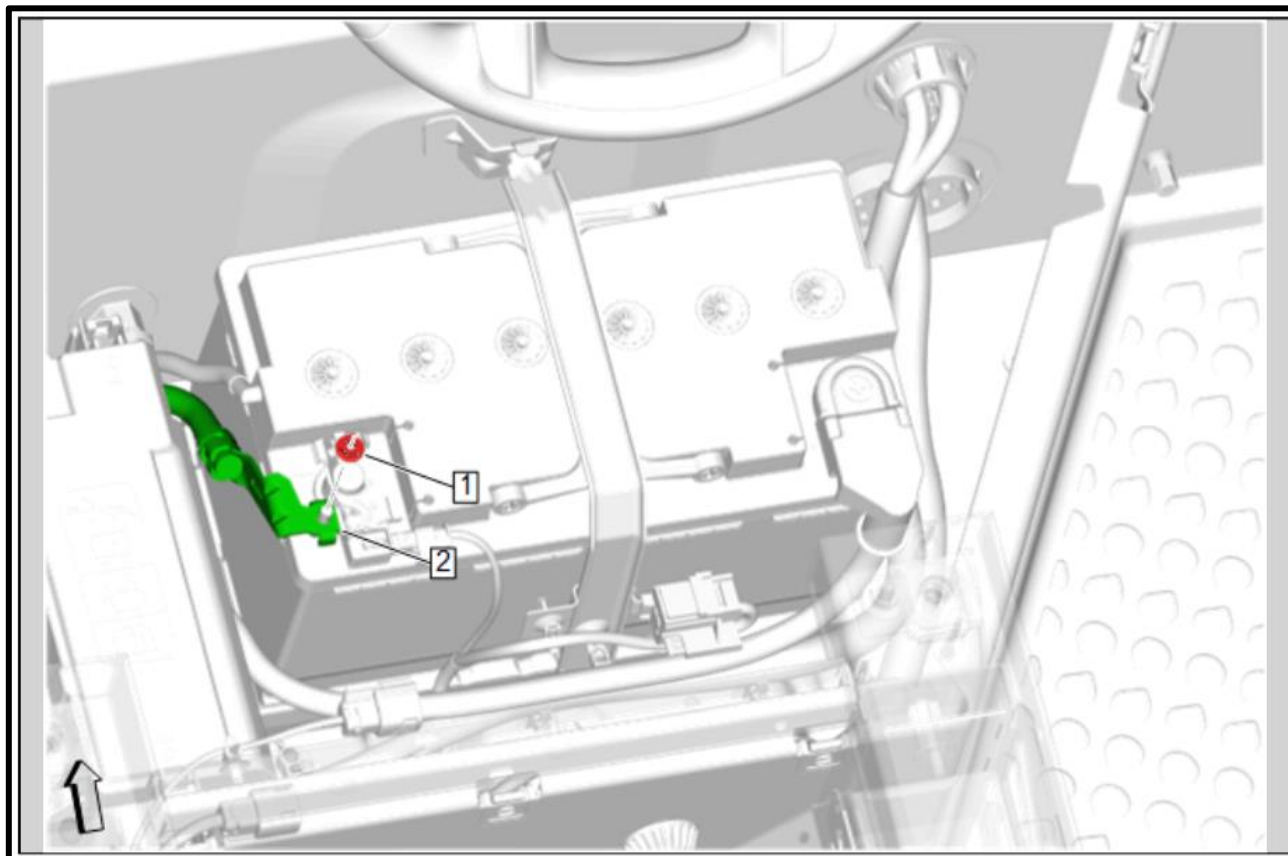
Warning:

Always ensure the Battery Maintenance Mode is inactive before disconnecting the 12 volt battery. This mode can be active with the ignition off, regardless of whether the vehicle charging cord is plugged in or not. When this mode is active, the on-board high voltage battery charger will energize the 12-volt battery cables and charge the 12 volt battery. Disconnecting the battery cables while this mode is active may result in an electrical shock or a burn from hot battery cable leads.

5. Check the 12-volt battery voltage with a digital multimeter before disconnecting any battery cables leads. If the voltage is 13.5 volts or above, the Battery Maintenance Mode is active. The technician must wait for the T18 battery charger to deactivate before disconnecting the battery negative cable. Refer to [Charging System Description and Operation](#) for more information.



6. Engage the high voltage service lockout (HVSL) (1) by lifting the red connector position assurance tab, then while depressing the connector tab, pull apart the connector halves until the indicator tab wording changes from ON to OFF. Place a tie strap or a high voltage disable padlock through the exposed HVSL hole to prevent improper re-engagement.

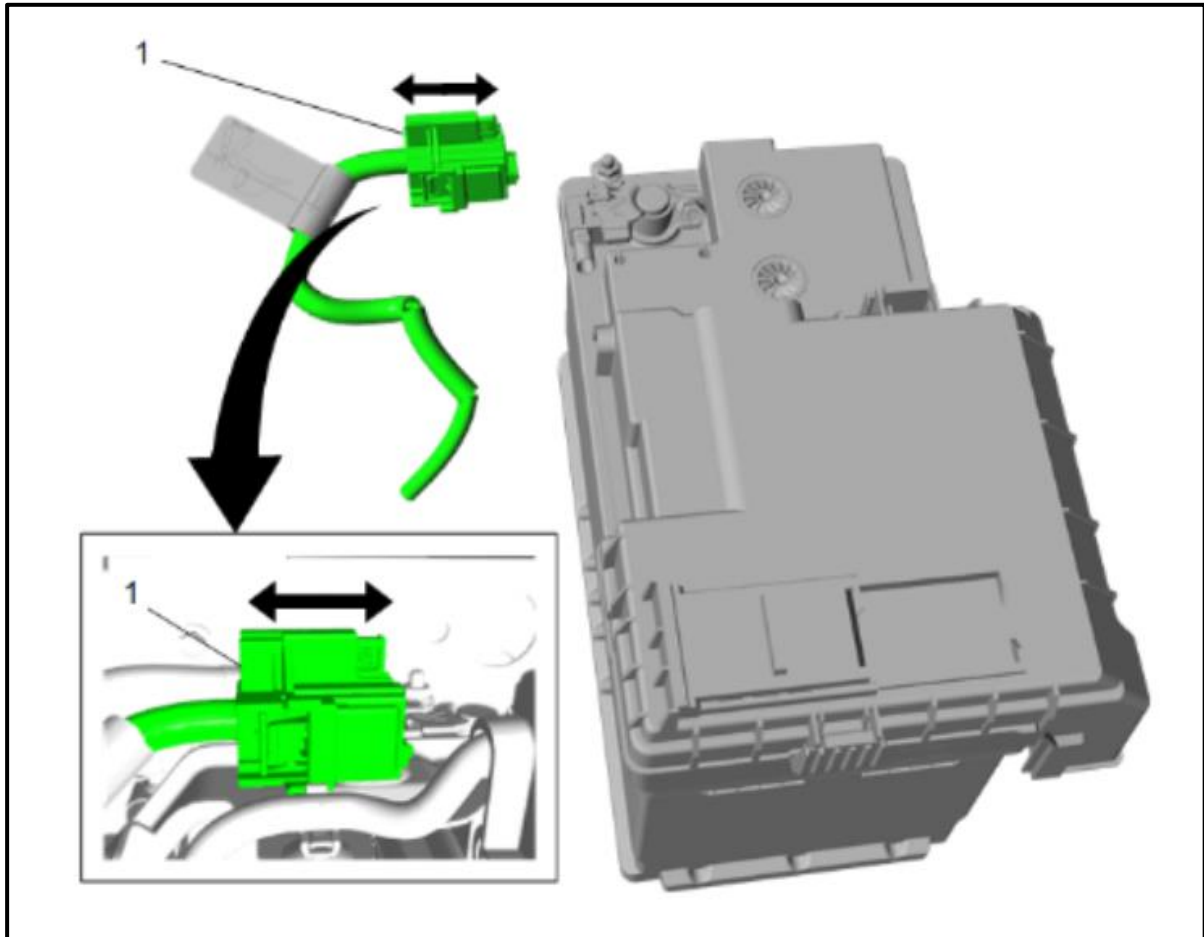


Note: The battery monitor module is attached directly to the battery negative terminal. It determines the battery condition by calculating the battery state of charge (SOC), functions, and state of health, which is used to help determine if the 12v stop/start system will allow an auto stop when the vehicle has come to a stop. If only disconnecting the battery negative cable, do NOT disconnect the battery monitor module electrical connector at the module and do NOT disconnect the module at the battery negative post or else a module learn will be required to calibrate the module. The learn takes 4 hours.

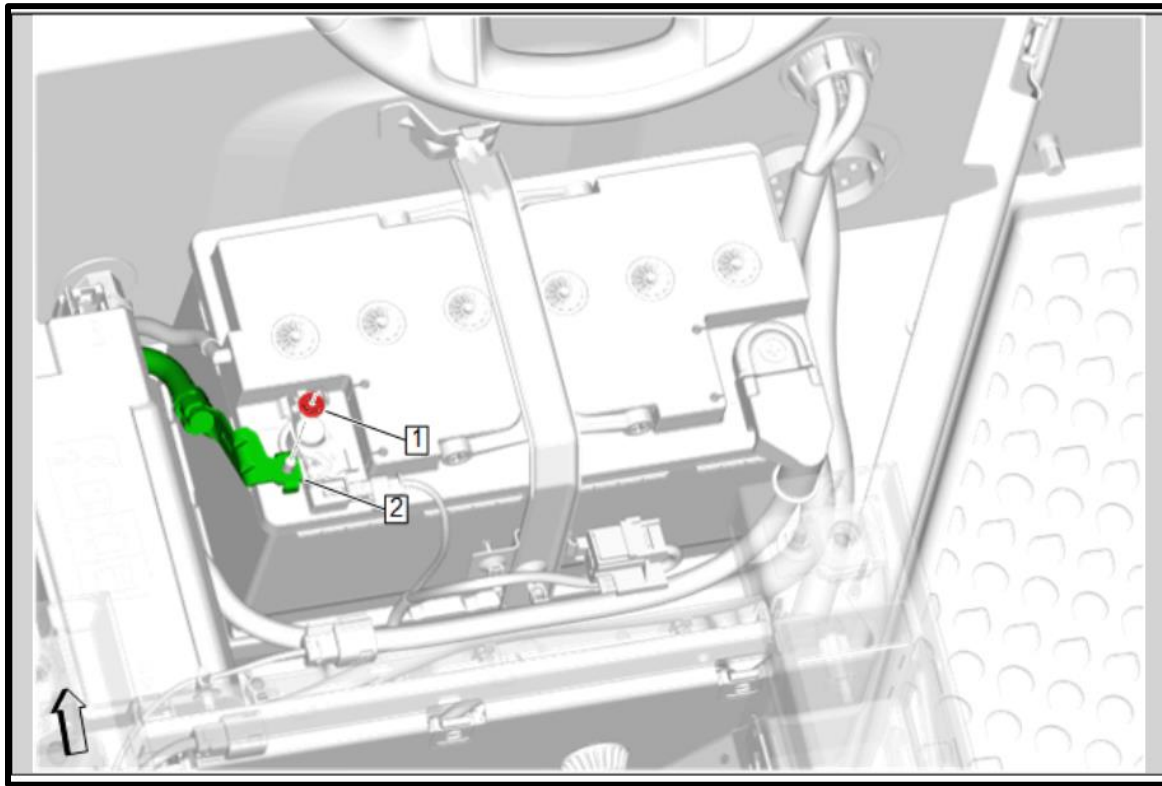
7. Battery Negative Cable Nut (1) » Remove
8. Battery Negative Cable (2) @ Battery Monitor Module » Reposition away



Installation Procedure



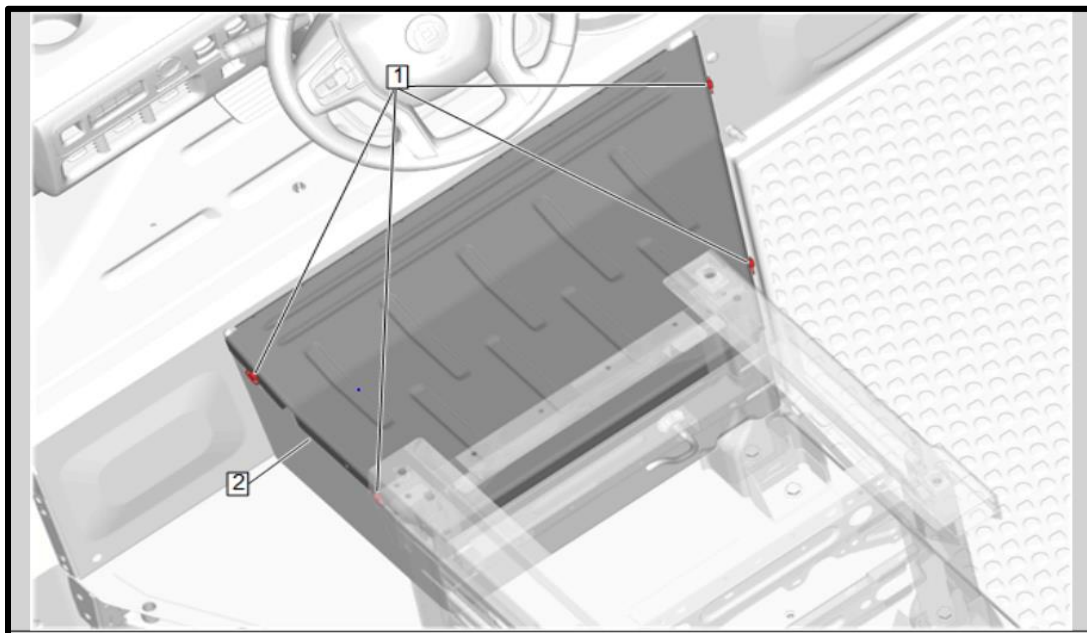
1. Disengage the high voltage service lockout (HVSL) (1) by cutting off the tie strap and/or removing the locking device. Depress the connector tab and slide the connector halves together until the indicator tab wording changes from OFF to ON.



2. Battery Negative Cable (2) @ Battery Monitor Module » Install

Caution: Refer to [Fastener Caution](#)

3. Battery Negative Cable Nut (1) » Install and tighten 9 Nm (80 lb. in).

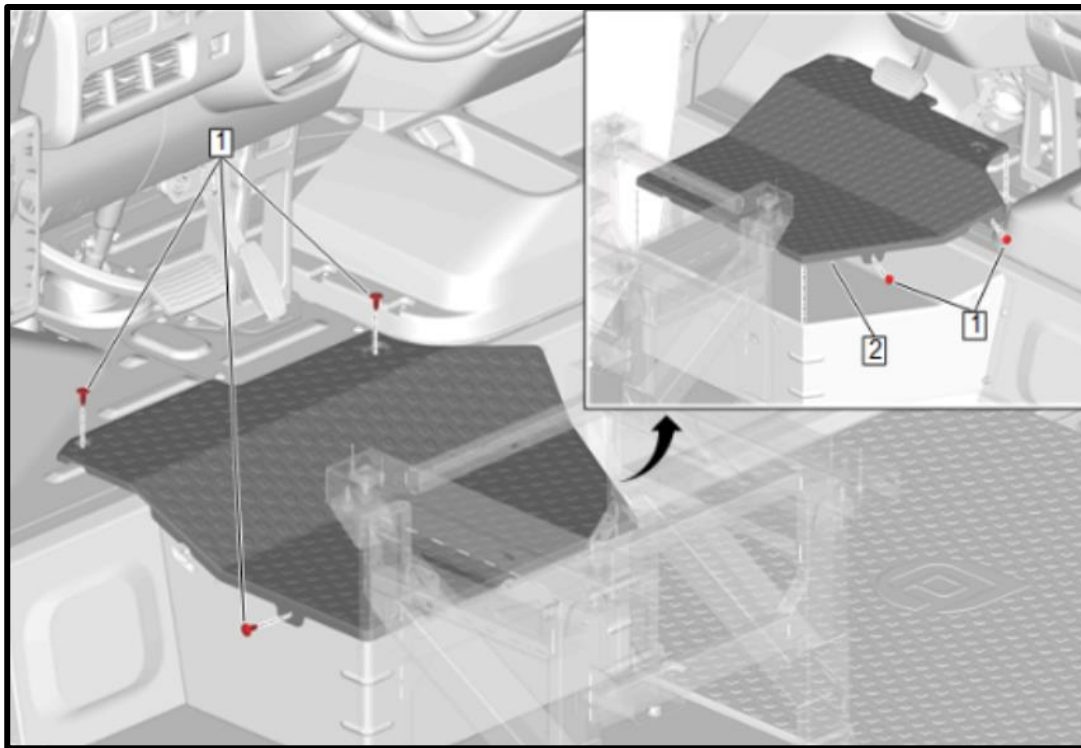


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4. Dash Lower Center Extension Panel - Upper (2) » Install
5. Push each dash lower center extension panel bolt (1) inwards to engage the bolt at the retainer and then turn the bolt approximately one quarter turn to secure the bolt.



6. Front Floor Auxiliary Mat (2) » Install
7. Front Floor Auxiliary Mat Retainer (1) » Install [5x]

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