

BOLT EV

Front Seatback Cover Replacement



The front seatback cover on some 2017-2019 Bolt EV models may become detached between the upper seatback cover and the side air bag. An updated seatback cover design has been released to address this condition. The new design features additional J-hooks that secure more tightly to the side air bag in order to keep the seat cover from becoming detached.



Guidelines for Returning Parts to the Warranty Parts Center

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Bolt EV Front Seatback Cover Replacement

The procedure for removing and installing the front seatback cover is extensive and achieving a proper fit requires attention to detail. The Service Information has been updated with the replacement procedure for the 2nd design seatback cover. Here are a few tips to keep in mind when performing the procedure.



Updated seatback cover design

SEATBACK COVER REMOVAL

Replacing the seatback cover requires removing the seat from the vehicle as well as removing the head restraint from the seat, the inner recliner finish cover, the seat recliner handle, the seat adjuster vertical actuator handle, and the seat outer finish cover.

To begin removing the front seatback cover, release the J-hook retainer at the outboard seatback side air bag using a flat-bladed tool or trim stick and remove the seatback upper support bolt.

Next, disengage the seatback cover along the seatback upper support, side air bag, and the inboard side of the seatback using a trim stick to push in and release the seatback cover retainers. Also disengage the seatback cover at the bottom of the seatback latch finish cover. The seatback cover retainers are arrow retainers.



Release the seatback cover retainer

Use a flat-bladed tool to push in and release the seatback cover retainers at the top of the finish cover. With the top of the cover released, reposition the upper support bracket around the side air bag and pivot it upwards.

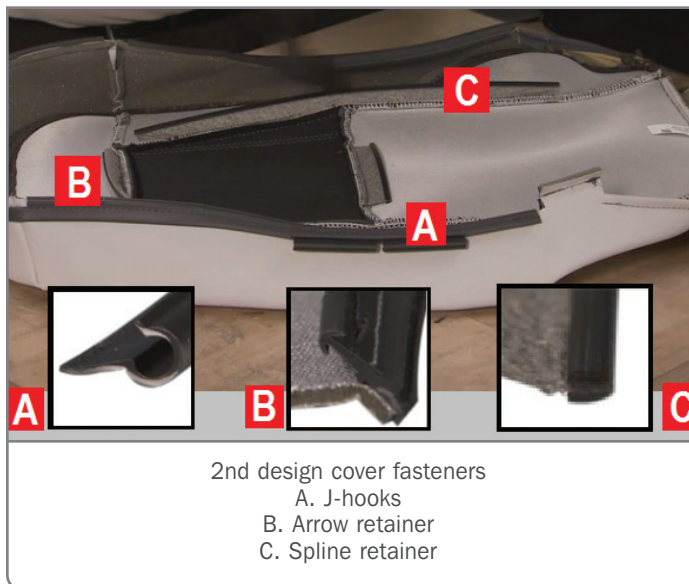
Pull the finish cover outward and then upward to disengage the lower retainers and remove the finish cover from the seat frame. Remove and discard the seatback upper support.

Remove the two lower seat cover push-in retainers at the bottom of the seatback. They will be reused during installation of the new seatback cover.

Pull the seatback cover through to the front of the seat to clear the seat hinges. Next, pull the black spline retainer out of the seat frame around the entire edge of the frame and remove the arrow retainer from the channel in the middle of the seatback cover. Finally, remove the seatback cover from the seat frame.

INSTALLING THE NEW SEATBACK COVER

The 2nd design seatback cover comes with two additional J-hooks in the lower seatback area. It also uses J-hooks around the side air bag, arrow retainers around the edge and bottom of the seatback cover, and a black spline retainer along the inner edge of the cover.



Begin the installation of the new cover by aligning the middle section of the seatback cover with the channel in the middle of the seatback. Use a trim stick to seat the retainer into the channel.

Work around the edge of the seatback cover to seat the black spline retainer into the channel.

CONTINUED ON PAGE 3



Secure the cover to channel in the middle of the seatback.

Push the lower seat cover fabric through to the back of the seat and secure the push-in retainers, from the original seatback cover, into the lower set of holes in the seat frame.

Install a new seatback upper support, which will help hold the seatback cover closer to the air bag cover.



Install a new seatback upper support.

arrow retainer on the seatback cover and push it into the channel. Engage the other retainers along the top and inboard side of the seatback latch finish cover. The retainers will make an audible click when engaged in the channel. Continue to secure the retainers along the side air bag.

To install the new J-hooks around the rim of the outboard air bag, modify a flat-bladed trim stick by making it thinner approximately 40 mm in length from the end of the tool. The extra clearance is needed to properly install the new J-hooks. Be sure to only push the J-hooks in far enough to hook around the rim of the side air bag.



Push-in retainer

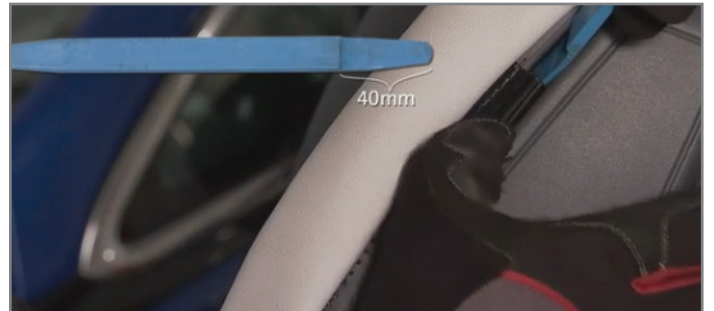
Raise the upper support and then push the seatback latch finish cover down and inward to engage the lower retainers. Make sure that the channel in the seatback cover fits around the trim of the side air bag.

The seatback finish cover is secured to the frame at the lower part of the cover and at the top of the cover.

Install the seatback cover bottom first, ensuring that both retainers are properly seated on the lower seat frame. Lower the upper support around the side air bag and position the seatback cover to engage the seatback latch finish cover retainers at the top of the seatback. Reinstall the seatback finish panel bolt that secures the upper support. Tighten to specification, but use care not to overtighten.

Next, fold back the arrow retainers on bottom of the seatback cover and install them into the channel on the lower edge of the seatback cover.

Pull the seatback cover up into position. Use the head restraint posts to confirm the cover is centered on the seat. Flip the center



Modify a trim stick so it's thinner 40 mm from the end.

Secure the lower J-hook under the seatback cover at the side air bag. Fold the J-hook into the fabric so the sewn-in stitching of the J-hook goes into the middle of the upper support. This will allow the J-hook to snap into the side of the upper support. Check that there are not any wrinkles or gaps in the fit of the seatback cover.

Finish the installation by reinstalling the trim pieces, adjustment handles and head restraint.

To view a video of the seatback cover installation procedure, check out the April 2019 Emerging Issues seminar, 10219.04V, on the GM Center of Learning at centeroflearning.com (U.S.). In Canada, review the May 2019 edition of TAC Talk.

► Thanks to Chuck Wieseckel

Tech2Win and GDS 2 Updates Released

An update to the Tech2win software (Version 2.336) was released on April 22 in TIS2Web. The software includes a fix for the MDI/MDI 2 Device Explorer not coming up for some users. The digital certificate was also updated. Users should update Tech2Win at their earliest convenience to avoid warnings of an expired certificate.

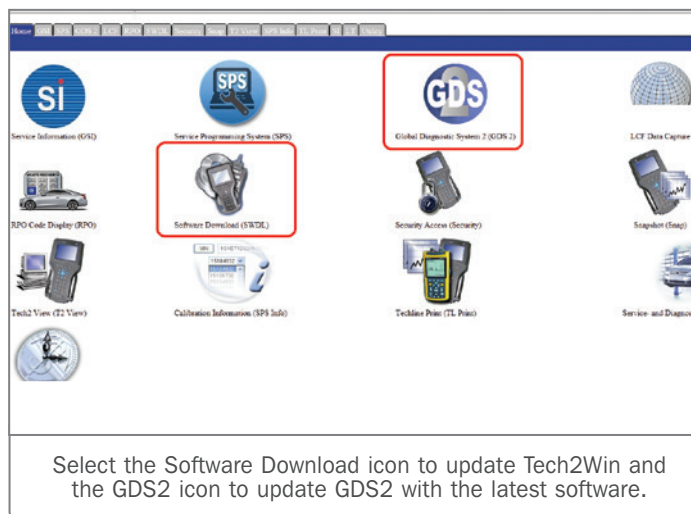
The Tech2Win update is available by clicking on the Software Download icon or the Utility Tab located in TIS2Web.

In addition, an update to the GDS2 core software (Version 21.0.01501) was released on April 15 in TIS2Web. The GDS2 update includes numerous bug fixes.

The GDS2 software update is available by selecting the GDS2 icon in TIS2Web.

UPDATING SOFTWARE

When updating to a new core version, many firewalls/antivirus programs will recognize it as a new application. It may be necessary to engage your local IT support to ensure GDS2 is entered as an exception in these programs to allow normal functionality. GDS2 users also need full administrative rights to install the update. If issues are encountered with GDS2 not functioning



properly, right click on the GDS2 icon on the desktop and select "Run as administrator."

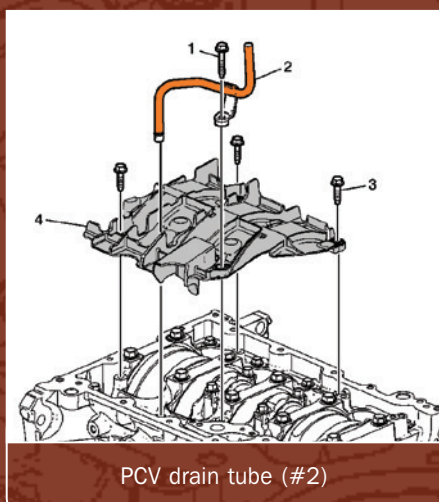
For assistance, contact the Techline Customer Support Center (TCSC) at 1-800-828-6860 (English) or 1-800-503-3222 (French).

► Thanks to Chris Henley

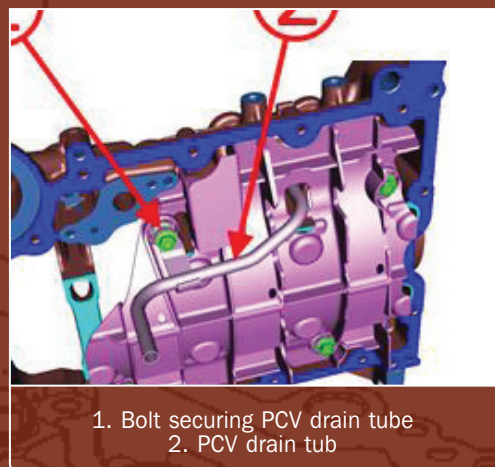
PCV Drain Tube Deletion

The 1.4L 4-cylinder engine (RPO LE2, LV7) and 1.5L 4-cylinder engine (RPO LYX, LFV, L3A) on 2016-2019 Encore, Cruze, Equinox, Malibu, Spark, Trax, Volt, and Terrain models features a Positive Crankcase Ventilation (PCV) drain tube.

GM has determined that the PCV drain tube is not needed and the drain tube will be deleted in mid-year 2019 production going forward. As a result, the PCV drain tube will no longer be present when performing engine service on these engines nor will it be available as a service part. A replacement for the tube is not required.



If the PCV drain tube needs to be replaced, remove the bolt that secures the tube to the crankshaft oil deflector and bedplate. The crankshaft oil deflector does not need to be removed. Remove the old tube and discard it. Replace the drain tube bolt with a new shorter bolt to retain the crankshaft oil deflector. The shorter bolt must be used if the PCV drain tube is discarded.



Refer to Bulletin #19-NA-080 for additional information.

► Thanks to Jeff Kropp

Vehicle Pulls During Regenerative Braking

Some 2011-2019 Volt, 2014-2016 ELR, 2017-2019 CT6, and 2017-2019 Bolt EV models may pull to the left or right when the regenerative braking paddle on the back-left side of the steering wheel is used and/or when braking with the brake pedal.

The first step in diagnosis of the pull condition is to inspect the vehicle's tires. The most common cause is usually related to incorrect tire pressure, tire wear or uneven tread depth, an incorrect installed tire or a mis-matched brand of tires.

The regenerative braking system on these models applies torque evenly to both axles while braking in a straight line. Pulling to one side or the other is not caused by the propulsion system.

During regenerative braking, when the vehicle is coasting or braking, the drive motor generator power inverter module operates the drive motor as a generator. Operating as an electrical generator, the drive motor exerts a driveline load that helps to slow the vehicle. The electrical energy that the drive motor creates is transferred by the drive motor generator power inverter module to the hybrid/EV battery pack. Constant communication between the drive motor generator power inverter module and the electronic brake control module allows the blending of regenerative braking force with hydraulic braking force.



The regenerative braking system applies torque evenly to both axles while braking in a straight line.

To verify that the tires are in the proper condition, inspect the tires for wear and correct installation. Also correct the tire pressure, if necessary. Authorization will be needed to replace any tires if needed. Review Bulletin #00-03-10-003 (U.S.) or #01-03-10-003 (Canada) for what constitutes tire damage vs. normal wear and tear.

If none of the conditions are present with any of the tires, switch the front tires to the rear to see if the pull condition goes away or is lessened. If the pull is less, it may be necessary to replace those tires on the rear of the vehicle.

If the pull condition is still present, get authorization to replace all four tires and wheels from another vehicle to determine if the pull condition goes away. If the tires are confirmed to be good, follow further diagnostics in the appropriate Service Information.

► Thanks to Chuck Wieseckel and Lane Rezek



Regenerative braking paddle on the Bolt EV

The GM Warranty Parts Center (WPC) requests the return of parts replaced at dealerships in order to better understand and help resolve product concerns. Returned parts are analyzed by Brand Quality, Engineering, Suppliers, Production Plant, Assembly Plant and Quality Management personnel to help quickly identify the issue, determine the root cause, and implement a correction.

Before returning parts to GM, dealerships should keep several preparation and shipping considerations in mind regarding the type of part being shipped (hazmat/dangerous goods), proper packaging, and required documentation.

Some common automotive hazardous material examples include items such as air bags, seat belt pretensioners, brake boosters, compressed gas shocks and lifts, batteries (including lithium ion and lithium metal batteries), paint, adhesives, solvents, hazardous waste, and any part that comes in contact with flammable liquid (i.e. fuel).



Ensure that all guidelines are followed before returning parts to the WPC.

For example, if a fuel line received from the parts warehouse is considered new and unused, it is not considered a hazmat material. However, if the same part has been installed in a vehicle and has been in contact with fuel, it is now considered a hazardous material and should be shipped under the 49 CFR Hazardous Material Regulations and shipped accordingly.

TIP: Do not ship high voltage lithium ion batteries to the WPC. The GM Battery Service Center provides return instructions with each lithium ion battery section shipment. Refer to Bulletin #18-NA-236 for return instructions. If a special parts return request comes from the WPC, follow the instructions for where to return the battery provided at the time of the request.

When printing out the WPC shipping label, the label might indicate that it is not hazardous, which is based on a new or unused part. Any part that comes in contact with flammable liquid (i.e. fuel) is considered a hazardous material.

SHIPPING NON-HAZMAT/NON-DANGEROUS GOODS

When shipping non-hazardous/non-dangerous goods to the WPC:

- When it is feasible, it is highly recommended the parts be returned in their original packaging.
- Properly protect and package all returned parts in original Customer Care and Aftersales (CCA) packaging so they are not damaged when received at the WPC. All parts should be returned to the WPC in original packaging. For example, with an engine assembly, the pallet and cardboard box are both necessary. Dealerships will be debited for failure to return in a crate/box/container.
- Only use boxes without hazardous material marking and labeling to return Non-hazardous material parts. Incorrect usage of these boxes can cause delay in receiving at the WPC, and may result in the transaction being debited.

| WPC | | | | | |
|---|------|---------------------------------|---|-----------|----------------|
| Warranty Parts Return to GM | | | | | |
| Type of Request: Parts | | WPC Address | | | |
| Service Agent | | Additional Shipping Information | | | |
| Transaction Information | | Tracking Number | | | |
| Transaction ID: 001263432846 | | Account | | | |
| Invoice Number: 312098 | | Account | | | |
| Vehicle Information | | | | | |
| VIN | | Job Card Date | | Odometer | |
| Build Date: 2018-06-18 | | 2018-11-12 | | 2122 | |
| Labour Operation: 402330 - Fuel Injector Replacement | | | | | |
| Complaint: 0321 - Engine/Fuel/Exhaust - "Check Engine" Light | | | | | |
| CUSTOMER STATES THAT THE CHECK ENGINE LIGHT IS ON. SCANNED AND RECEIVED CODE P01D1 - INJECTOR CODE - CYLINDER 4 INJECTION TIMING SLOW | | | | | |
| Cause: 6583 - Module/Component - Poor Contact | | | | | |
| FOUND THAT THE SERVICE ENGINE LIGHT WAS ON. SCANNED FOR CODES AND HAD A P01D1 CYLINDER INJECTION TIMING SLOW. LOOKED UP BULLETINS NO BULLETINS. CHECKED COMPRESSION. HAD GOOD COMPRESSION. | | | | | |
| Correction: REPLACED NUMBER 4 INJECTOR AND GLOW PLUG. REPLACED RETURN LINE ORINGS ALL 8 OF THEM. RECHARGED AC SYSTEM AND PROGRAMMED NUMBER 4 INJECTOR. PRIMED SYSTEM AND TEST DROVE MULTIPLE TIMES. VERIFIED REPAIR. NO SET ON AT THIS TIME. SAVED OLD PARTS FOR WARRANTY IN THE INJECTOR BOX. | | | | | |
| Special Instructions: NOTE: Dealers are responsible to comply with all laws, including Dangerous Goods Transportation rules. To be shipped as a Hazardous Material in compliance with DOT rules (E.g. packaging, paperwork, marking, labeling and placarding). Therefore, shipments must be prepared by a 49 CFR Hazardous Certified individual, in addition to rejection of shipments and denial of payment by GM. Failure to comply can result in civil penalties from Government enforcement agencies. GM is not providing legal advice but recommends that Dealers seek expert counsel to determine DOT compliance. | | | | | |
| Replacement Parts: | | | | | |
| Quantity | Part | Part Number | Description | Hazardous | Core Part Flag |
| 1 | | 00000000012654651 | WASHER-CMSHE CVR | No | No |
| 1 | | 00000000012679959 | GLOW PLUG ASM-DSE ENG | No | No |
| 1 | | 00000000012687230 | PIPE ASM-FUEL HIGH PRESS (RAIL TO INJECT) | No | No |
| 1 | X | 00000000012696966 | INJECTOR ASM-HIGH PRESS DSL FUEL | No | Yes |

WPC shipping label

- Parts containing or soaked by fluids, such as oil, must be thoroughly drained, wiped clean and placed in an appropriate packing container and securely packaged to prevent leakage or

contamination. Transfer all caps and plugs from the new part to the replaced part before shipping. If parts are received at the WPC with fluids such as oil or fuel, the part will not be accepted as Received and the transaction will be debited.

- Dealerships will be fully debited for the entire warranty claim each and every time there is a violation of Hazardous Material/Dangerous Goods Transportation legislation.
- Transactions will be debited if the requested core parts are not returned to the WPC.

GUIDELINES FOR RETURNING PARTS

Follow these guidelines when packaging and returning parts:

- Clearly mark or circle with a paint pen the area of concern on the part, such as a leak, crack, premature wear or defect. The area of defect should be clearly marked and not defaced so it is easily identified.
- The request being made is for the actual failed part; do not send a similar or new part.
- Do not remove any pieces from the part being sent back.
- Tag parts in an area that will not damage the part being sent back. For example, do not wrap a metal tag wire around wiper blade inserts, apply tape around door seals, or stick moldings together.
- All parts related to the repair procedure covered by the labor operation on the part return request should be returned together. For example, a transaction for labor operation T5603, replace 8 injectors, would result in 8 injectors returned under one part return request.
- All parts related to the specific labor operation being requested should be bundled together and shipped in one box.
- Do not send multiple requests in the same box.
- Ship each individual request in a separate box with its unique Global Warranty Management (GWM) shipping label affixed on the top of the box and on one outward facing side.
- Include inside the package the GWM parts return shipping label, job card with technician comments, and other related documentation to allow parts to be successfully routed and analyzed.
- The dealership should highlight the transaction number and place the folded documentation in the plastic packing bag with the highlighted transaction number facing outward. This process will assist the WPC in handling and crediting the dealership for returning the part in a timely manner. The bag containing all documentation must be securely attached to the appropriate part.
- Whenever possible, the container from the new/replacement part should be used for the return of the failed part. All previous labeling on the box should be removed or covered prior to re-use.

- Use only clean, dry boxes to return parts. Be sure to package parts to avoid damage during shipping. Parts must not be shipped loose. It is important that parts arrive at the WPC in the same condition that they were in when removed from the vehicle.

ANALYZING PRODUCT ISSUES

Brand Quality Managers and engineers inspect the returned components for quality issues. A dealership feedback and debit will be issued if, during their inspections: they find:

- The part/component was not defective:
- Not all parts or documents (Cost Comparison for any assembly replacement from dealers required to contact the PQC, completed shop copy of job cards, diagnostic information, etc.) were returned.
- The job card did not contain the Complaint, Cause, and Correction information as required to substantiate the repair. Vague comments such as, "broken", or "customer satisfaction", are not acceptable.
- The shop copy of the job card did not contain all proper documentation.

Job Card, or repair order, information is critical to analyzing product issues. The more detail that is included, the better the results. Where applicable, the job card should include:

- Accurate and detailed information regarding the customer complaint.
- All dealer technician comments regarding the root cause of failure with document ID numbers, test results, diagnostic trouble codes, TAC case number, assembly serial numbers, measurements, etc.
- Any characteristics or symptoms of the fault that were observed.
- Operating conditions that were observed when the fault occurred such as: Scan Tool Data Snapshot information, weather, temperature and altitude.
- Attach Scan Tool Data Printout / Snapshot, diagnostic worksheets and all substantiating service documents with the Job Card that is returned with the part. Also include the TAC and/or PQC case numbers.
- Any required documents, such as diagnostic worksheets, etc.).

For additional information, refer to the latest version of Bulletin #99-00-89-019.

► Thanks to Mark Gordon and Mark Kevnick

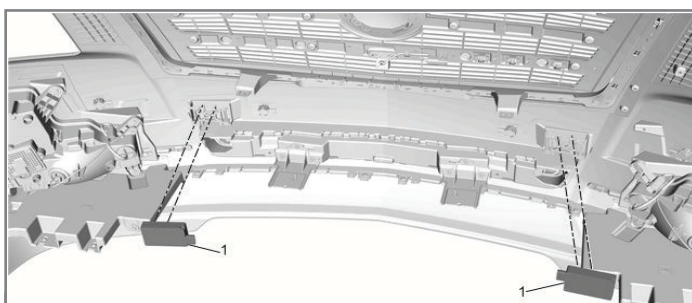


Inoperative Active Safety System with DTCs Set

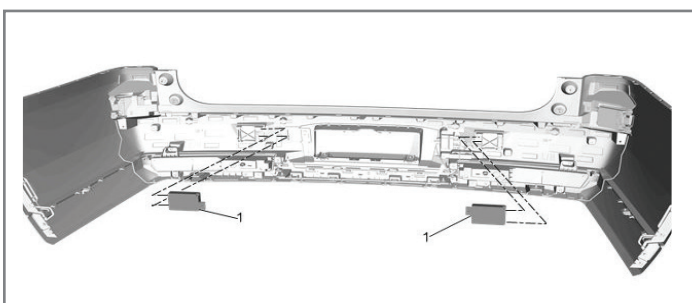
The Forward Collision/Active Safety System may be inoperative on some 2018-2019 Tahoe, Suburban, Yukon, and Escalade models. DTCs B390A 45 (Short Range Object Sensor – Variant Not Programmed), B390A 58 (Short Range Object Sensor – Performance), and/or DTC B390A 67 (Short Range Object Sensor – Incorrect Assembly) may be set.

The cause of the condition may be a combination of the following:

- The B233 Radar Sensor Module – Short Range performs internal fault detection on itself, and the module continually runs the program to detect faults.
- If the B233 Radar Sensor Module – Short Range has detected an internal malfunction, it will not function and the Active Safety System will be inoperative.



Front Radar Sensor Module – Short Range location



Rear Radar Sensor Module – Short Range location

The two front radar sensor modules – short range are used to measure the distance to objects that are within 98 ft. (30 m) of the front of the vehicle. The radar sensor modules – short range improve cut-in detection, which are objects that enter the vehicle path from the side and are not necessarily detected by the front-view camera and radar sensor module – long range.

At the rear of the vehicle, the active safety control module uses the two radar sensor modules – short range and the parking assist control module as part of the backing warning system and the rear automatic braking system.

BLOCKED RADAR

If DTC B390A 58 is set, check for anything that can interfere with the radar signal. DTC B390A 58 sets when the control module does not see the expected change to a parameter(s) in response to a particular event.

Verify that the area in front of the radar is clean of mud, ice, snow, etc. Also verify that the fascia panels in front of the radar are not damaged or obstructed by any add-on accessories or emblems.

If the vehicle fascia is clean, unobstructed, and damage free, and DTC B390A 58 is still set as current, the radar sensor has detected a blockage condition and will not be able to clear it until certain conditions are met.

Drive the vehicle at a speed greater than 6 mph (9 km/h) and allow the radar sensor to be exposed to other vehicles/traffic in the direction of the radar sensor field of view. Usually, a short drive in normal traffic conditions will allow the radar sensor to clear the blockage condition.

INCORRECT INSTALLATION

DTC B390A 67 may set if a B233 Radar Sensor Module – Short Range is reinstalled on the incorrect side of the vehicle. DTC B390A 67 sets when the control module has detected that the component has been incorrectly installed or there are polarity errors. The B233 Radar Sensor Module – Short Range cannot be swapped from side-to-side once they have been installed on a vehicle.

PROGRAMMING AND SET-UP

If DTC B390A 45 is set, it may be due to the radar not learning the vehicle position correctly, rather than an indication of an actual software programming issue. DTC B390A 45 will set to indicate that it may be necessary to program subsystem option content. To correct this issue, perform the programming and set-up steps using the Service Programming System (SPS).

► Thanks to Hassan Abdallah

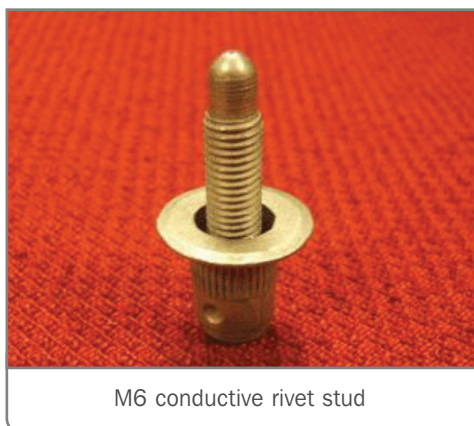
Use Replacement Fasteners with Conductive Finish for Electrical Ground Repairs

Corroded or stripped electrical ground connections can cause a loss of module communication and other electrical system malfunctions, leading to unnecessary repairs and parts replacement. The electrical system relies on a secure, corrosion-free ground connection in order to function properly, so any damaged ground connections must be repaired to provide a good mounting point with a low resistance ground path as well as prevent future corrosion.

Ground repair connections are accomplished using one of the following replacement fasteners with a conductive finish:

- Welded M6 stud and nut
- Welded M6 nut and bolt
- Welded M8 nut and bolt

Before installing a new fastener in the current ground location or at a new mounting location, remove any grease from the repair area using a residue-free solvent. Select a location that has 20 mm (0.79 in.) clearance behind the panel surface and 20 mm (0.79 in.) clearance surrounding the stud flange.



After drilling the mounting hole (for a new location), remove any paint and primer from the area until bare metal is visible.

Install the appropriate new fastener and check that it is securely fastened without any detectable movement.

When installing the M6 conductive rivet stud, assemble the rivet stud tool with the groove and flare side facing the rivet stud, and then the washer and the M6 nut.

Cover the stud threads with painter's tape or equivalent and refinish the repair area using an anti-corrosion primer.

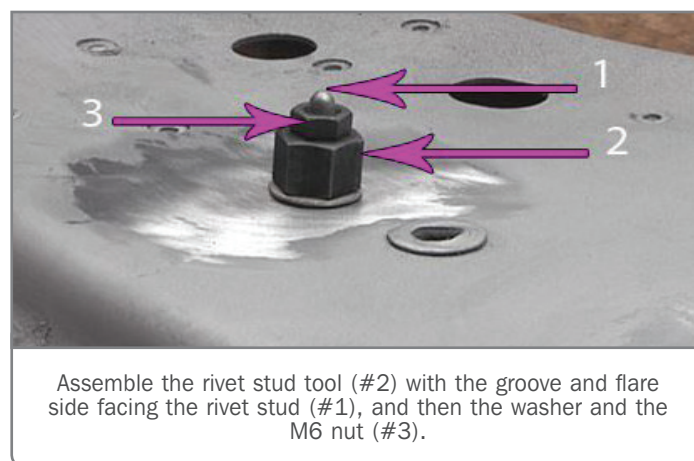
TIP: The surrounding area must be properly finished prior to the installation of the ground wire terminal and conductive nut to maintain a secure, stable and corrosion-free electrical ground.



Thoroughly clean the stud threads using a residue-free solvent. Once dry, apply dielectric lubricant to the threads.

TIP: Fretting corrosion is a build-up of insulating, oxidized wear debris than can form when there is a small motion between electrical contacts, causing electrical resistance across the connection.

Remove any corrosion or contamination on the electrical ground wire terminal. Install the terminal, tighten the conductive nut to the proper torque and verify system operation.



For additional details on electrical ground connection repairs, refer to the latest version of Bulletin #10-08-45-001. The bulletin includes a list of part numbers for the replacement fasteners and special tools.

► Thanks to Sherman Dixon



Remote Link App No Longer Available

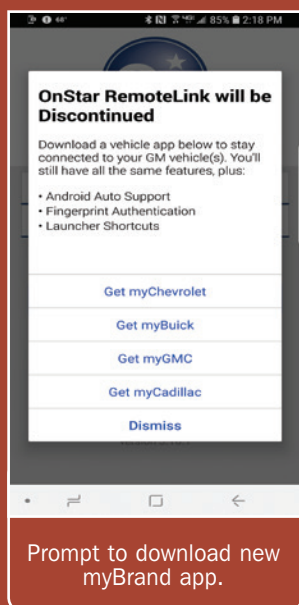
The OnStar Remote Link mobile app was removed from the Google Play Store and the Apple App Store in late March 2019. It was previously announced that updates for the app would be discontinued and that the features of the Remote Link app are available in the myBrand mobile apps.

New users will need to download the myBrand mobile app (myChevrolet, myBuick, myGMC, myCadillac) to access Remote Link functionality.

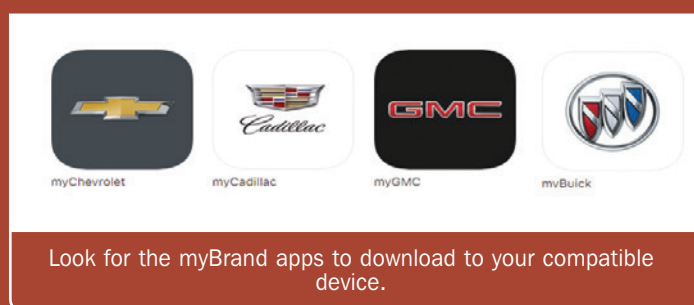
The myBrand app allows users with a compatible smartphone or mobile device to remote start a vehicle, lock/unlock the doors, view key diagnostic information, set parking information and more (vehicle must be properly equipped).

The functionality of the Remote Link app will be removed in late April 2019, which will impact any users currently using the Remote Link app. Users will get a

prompt asking them to download the myBrand mobile app when attempting to use the Remote Link App.



Prompt to download new myBrand app.



The myBrand apps are available on select Apple and Android devices. Service availability, features and functionality vary by vehicle, device and data plan. Device data connection is required. The myBrand apps can be downloaded from the Google Play Store and the Apple App Store.

Refer to the myBrand mobile app section in the New Owner Setup Guide for the steps to download the myBrand app.

► Thanks to Jeremy Richardson

TECH LINK

GM TechLink is published for all GM retail technicians and service consultants to provide timely information to help increase knowledge about GM products and improve the performance of the service department.

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