

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE

Subject: Freightliner Cascadia Steering Wheel Airbags

Models Affected: Specific Freightliner Cascadia vehicles manufactured August 3, 2017, through January 30, 2019.

General Information

REVISIONS: Shipping instructions and cost reimbursement procedures for airbags removed during the Interim Recall have been added (pages 20-23), and include the documents listed below. Please note the Dealer Checklist **MUST** be included in your reimbursement claim. An SRT, to be used in your reimbursement claim, has been added for shipping the airbags.

- INT FL806 Airbag Shipping Instructions
- INT FL806 Airbag Shipping Dealer Checklist
- Bill of Lading
- Class 9 Hazardous Material Label Template

Daimler Trucks North America LLC, on behalf of its Freightliner Trucks Division, has decided that a defect that relates to motor vehicle safety exists on the vehicles mentioned above.

There are approximately 3,930 vehicles involved in this campaign.

On specific vehicles, an unintended deployment of the steering wheel airbag may occur under certain circumstances. The unintended deployment of a steering wheel airbag may be caused when certain electrical grounds are improperly assembled. This may cause risk of injury to the driver and potential increase in the risk of a crash.

The remedy is to reassemble the grounding to isolate the airbag ignitor circuit from the other electrical components. A new wiring harness and clockspring will be installed.

Additional Repairs

Dealers must complete all outstanding Recall and Field Service campaigns prior to the sale or delivery of a vehicle. A Dealer will be liable for any progressive damage that results from its failure to complete campaigns before sale or delivery of a vehicle.

Owners may be liable for any progressive damage that results from failure to complete campaigns within a reasonable time after receiving notification.

Work Instructions

Please refer to the attached work instructions. Prior to performing the campaign, check the vehicle for a completion sticker (Form WAR260).

Replacement Parts

Replacement parts are now available and can be obtained by ordering the kit and/or part number(s) listed below from your facing Parts Distribution Center.

If our records show your dealership has ordered any vehicles involved in campaign number FL806, a list of the customers and vehicle identification numbers will be available in OWL. Please refer to this list when ordering parts for this recall.

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE

| Campaign Number | Kit Number | Part Description | Part Number | Qty. per Kit |
|---|------------|--------------------------------|---------------|--------------|
| FL806A (Interim not performed on these VINs) | NA | HARN-STRG,CLK,HRN AB10,SRV JMP | A66-17803-001 | 1 ea |
| | | CLOCKSPRING-AIRBAG,GLOBAL WHL | 14-19090-001 | 1 ea |
| | | TERM LUG 3/8 6 AWG | 23-12446-063 | 1 ea |
| | | BLANK COMPLETION STICKER | WAR260 | 1 ea |
| FL806B (Interim performed on these VINs) | NA | COVER-STEERING WHEEL,DRIVER AB | 14-19562-001 | 1 ea |
| | | HARN-STRG,CLK,HRN AB10,SRV JMP | A66-17803-001 | 1 ea |
| | | CLOCKSPRING-AIRBAG,GLOBAL WHL | 14-19090-001 | 1 ea |
| | | TERM LUG 3/8 6 AWG | 23-12446-063 | 1 ea |
| | | SCREW-CAP,HEXSOCH,M6X16 | 23-14428-000 | 2 ea |
| | | BLANK COMPLETION STICKER | WAR260 | 1 ea |

Table 1

Removed Parts

U.S. and Canadian Dealers, please follow Warranty Failed Parts Tracking shipping instructions for the disposition of all removed parts. Export distributors, please destroy removed parts unless otherwise advised.

Labor Allowance

Table 2 - Labor Allowance

| Campaign Number | Procedure | Time Allowed (hours) | SRT Code | Corrective Action |
|-----------------|---|----------------------|-----------|---------------------------|
| FL806A | Ground updates, reuse existing airbag | 3.1 | 996-R063C | 12-Repair Recall/Campaign |
| FL806B | Ground updates, install new airbag | 4.2 | 996-R063D | |
| FL806AB | Replace damaged/spinning GNDP floor stud (claim additional SRT only if stud is replaced) | 0.5 | 996-R063B | |
| | Package and ship airbags to General Dynamics (claim additional SRT only when filing for cost reimbursement) | 1.5 | 996-R063E | |

Table 2

IMPORTANT: When the Recall has been completed, locate the base completion label in the appropriate location on the vehicle, and attach the red completion sticker provided in the recall kit (Form WAR260). If the vehicle does not have a base completion label, clean a spot on the appropriate location of the vehicle and first attach the base completion label (Form WAR259). If a recall kit is not required or there is no completion sticker in the kit, write the recall number on a blank sticker and attach it to the base completion label.

Claims for Credit

You will be reimbursed for your parts, labor, and handling (landed cost for Export Distributors) by submitting your claim through the Warranty system within 30 days of completing this campaign. Please reference the following information in OWL:

REVISIONS: Shipping instructions and cost reimbursement procedures for airbags removed during the Interim Recall have been added (see pages 20-23). Please note the Dealer Checklist **MUST** be included in your reimbursement claim. An SRT, to be used in your reimbursement claim, has been added for shipping the airbags.

- Claim type is **Recall Campaign**.
- In the Campaign field, enter the campaign number and appropriate condition code (**FL806-A or FL806-B**).

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE

- In the Primary Failed Part Number field, enter **25-FL806-000**.
- In the Parts field, enter the appropriate kit or part number(s) as shown in the Replacement Parts Table.
- In the Labor field, first enter the appropriate SRT from the Labor Allowance Table. Administrative time will be included automatically as SRT 939-6010A for 0.3 hours.
- The VMRS Component Code is **032-001-003** and the Cause Code is **A1 - Campaign**.
- **U.S. and Canada -- Reimbursement for Prior Repairs.** When a customer asks about reimbursement, please do the following:
 - Accept the documentation of the previous repair.
 - Make a brief check of the customer's paperwork to see if the repair may be eligible for reimbursement. (See the "Copy of Owner Letter" section of this bulletin for reimbursement guidelines.)
 - Submit an OWL Recall Pre-Approval Request for a decision.
 - Include the approved amount on your claim in the Other Charges section.
 - Attach the documentation to the pre-approval request.
 - If approved, submit a based on claim for the pre-approval.
 - Reimburse the customer the appropriate amount.

IMPORTANT: OWL must be viewed prior to performing the recall to ensure the vehicle is involved and the campaign has not been previously completed. Also, check for a completion sticker prior to beginning work.

U.S. and Canadian dealers, contact the Warranty Campaigns Department via Web inquiry at DTNACconnect.com / WSC, or the Customer Assistance Center at (800) 385-4357, after normal business hours, if you have any questions or need additional information. Export distributors, submit a Web inquiry or contact your International Service Manager.

U.S. and Canadian Dealers: To return excess kit inventory related to this campaign, U.S. dealers must submit a Parts Authorization Return (PAR) to the Memphis PDC. Canadian dealers must submit a PAR to their facing PDC. All kits must be in resalable condition. PAR requests must include the original purchase invoice number. Export Distributors: Excess inventory is not returnable.

The letter notifying U.S. and Canadian vehicle owners is included for your reference.

Please note that the National Traffic and Motor Vehicle Safety Act, as amended (Title 49, United States Code, Chapter 301), requires the owner's vehicle(s) be corrected within a reasonable time after parts are available to you. The Act states that failure to repair a vehicle within 60 days after tender for repair shall be prima facie evidence of an unreasonable time. However, circumstances of a particular situation may reduce the 60 day period. Failure to repair a vehicle within a reasonable time can result in either the obligation to (a) replace the vehicle with an identical or reasonably equivalent vehicle, without charge, or (b) refund the purchase price in full, less a reasonable allowance for depreciation. The Act further prohibits dealers from selling a vehicle unless all outstanding recalls are performed. Any lessor is required to send a copy of the recall notification to the lessee within 10 days. Any subsequent stage manufacturer is required to forward this notice to its distributors and retail outlets within five working days.

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE

Copy of Notice to Owners

Subject: Freightliner Cascadia Steering Wheel Airbags

For the Notice to U.S. Customers: This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act. **For the Notice to Canadian Customers:** This notice is sent to you in accordance with the Canadian Motor Vehicle Safety Act.

Daimler Trucks North America LLC, on behalf of its Freightliner Trucks Division, has decided that a defect which relates to motor vehicle safety exists on specific Freightliner Cascadia vehicles manufactured August 3, 2017, through January 30, 2019.

On specific vehicles, an unintended deployment of the steering wheel airbag may occur under certain circumstances. The unintended deployment of a steering wheel airbag may be caused when certain electrical grounds are improperly assembled. This may cause risk of injury to the driver and potential increase in the risk of a crash.

The remedy is to reassemble the grounding to isolate the airbag ignitor circuit from the other electrical components. A new wiring harness and clockspring will be installed.

This is the second notice regarding this recall. The final recall repair is now available and parts have been secured. **Vehicles that had the interim repair performed require the final repair and will have the steering wheel airbag reinstalled.** Please contact an authorized Daimler Trucks North America dealer to arrange to have the recall performed and to ensure that parts are available at the dealership. To locate an authorized dealer, search online at www.Daimler-TrucksNorthAmerica.com. On the menu tab, select "Contact," scroll down to "Find a Dealer," and select the appropriate brand. The Recall will take approximately four to five hours, depending on the repair, and will be performed at no charge to you.

You may be liable for any progressive damage that results from your failure to complete the Recall within a reasonable time after receiving notification.

If you do not own the vehicle that corresponds to the identification number(s) which appears on the Recall Notification, please return the notification to the Warranty Campaigns Department with any information you can furnish that will assist us in locating the present owner. If you have leased this vehicle, Federal law requires that you forward this notice to the lessee within 10 days. If you are a subsequent stage manufacturer, Federal law requires that you forward this notice to your distributors and retail outlets within five working days. If you have paid to have this recall condition corrected prior to this notice, you may be eligible to receive reimbursement. Please see the reverse side of this notice for details.

For the Notice to U.S. Customers: If you have questions about this Recall, please contact the Warranty Campaigns Department at (800) 547-0712, 7:00 a.m. to 4:00 p.m. Pacific Time, Monday through Friday, e-mail address DTNA.Warranty.Campaigns@Daimler.com, or the Customer Assistance Center at (800) 385-4357 after normal business hours. If you are not able to have the defect remedied without charge and within a reasonable time, you may wish to submit a complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590; or call the Vehicle Safety Hotline at (888) 327-4236 (TTY: 800-424-9153); or to <http://www.safercar.gov>. **For the Notice to Canadian Customers:** If you have questions about this Recall, please contact the Warranty Campaigns Department at (800) 547-0712, 7:00 a.m. to 4:00 p.m. Pacific Time, Monday through Friday, e-mail address DTNA.Warranty.Campaigns@Daimler.com, or the Customer Assistance Center at (800) 385-4357 after normal business hours.

We regret any inconvenience this action may cause but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE

Reimbursement to Customers for Repairs Performed Prior to Recall

If you have already **paid** to have this recall condition corrected you may be eligible to receive reimbursement.

Requests for reimbursement may include parts and labor. Reimbursement may be limited to the amount the repair would have cost if completed by an authorized Daimler Trucks North America LLC dealer. The following documentation must be presented to your dealer for consideration for reimbursement.

Please provide original or clear copies of all receipts, invoices, and repair orders that show:

- The name and address of the person who paid for the repair
- The Vehicle Identification Number (VIN) of the vehicle that was repaired
- What problem occurred, what repair was done, when the repair was done
- Who repaired the vehicle
- The total cost of the repair expense that is being claimed
- Proof of payment for the repair (such as the front and back of a cancelled check or a credit card receipt)

Reimbursement will be made by check from your Daimler Trucks North America LLC dealer.

Please speak with your Daimler Trucks North America LLC authorized dealer concerning this matter.

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE

Work Instructions

Subject: Freightliner Cascadia Steering Wheel Airbags

Models Affected: Specific Freightliner Cascadia vehicles manufactured August 3, 2017, through January 30, 2019.

REVISIONS: Shipping instructions and cost reimbursement procedures for airbags removed during the Interim Recall have been added (see pages 20-23). Please note the Dealer Checklist **MUST** be included in your reimbursement claim. An SRT, to be used in your reimbursement claim, has been added for shipping the airbags.

Ground Inspection and Airbag Procedure

1. Check the Coverage Info screen in OWL for an FL806 FINAL repair claim indicating this work has been done. If a claim is present, no work is needed. If there is no claim, proceed with the next step. **NOTE:** An FL806 completion sticker may not be a good indication that the Final repair has been completed as some dealers may have installed a sticker during the Interim repair.

IMPORTANT: Some vehicles had the airbag removed on a previous repair and will require the installation of a new airbag along with additional repair procedures which are included in these work instructions. Vehicles with an airbag currently installed will reuse the existing airbag and will be directed not to perform all of the steps in this procedure.

The airbag, if installed, is located on the steering wheel and will be clearly marked "AIR BAG."

2. Position the front tires straight ahead. If possible, drive the vehicle in a straight line for a short distance, stopping at the spot where service work will be done.
3. Apply the parking brakes and shut down the engine. Chock the tires.
4. Disconnect the batteries.
5. Remove the dash lower center consoles, the footwell panel, the steering column lower cover, the dash switch panel, the dash auxiliary (B panel) fascia, the right-hand lower dash panel, the electronics bay cover, and the panel gauge auxiliary cover panel. Refer to Section 60.06, Subject 100 in the *New Cascadia Workshop Manual* for instructions.
6. Open the hood.
7. Inspect the vehicle frame rail GNDE and GNDP studs. See [Fig. 1](#) and [Fig. 2](#). Use lacquer thinner, as needed, to clean off any excess paint on electrical connections throughout these instructions.



Fig. 1, GNDE Frame Rail Stud



Fig. 2, GNDP Frame Rail Stud

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE

8. Verify that the Electrical Ground (GNDE) and the Power Ground (GNDP) frame rail studs are clean and torqued correctly. Disassemble and inspect the studs for overspray on the flat surfaces, and in between the ring eyes. Torque these frame rail ground studs 14 lbf-ft (19 N-m). Repaint the connection as necessary. See **Fig. 9** on page 10.

IMPORTANT: Vehicles will have a GNDE cable either going directly to the battery negative (back-of-cab battery box equipped units) or to the left frame rail stud near the HDEP MCM (undercab battery box equipped units), but not both. Service as required for the vehicle's configuration. The GNDP frame rail stud is located on the inside of left frame rail, just aft of the left rear engine mount.

9. Relocate GNDP cab skin ground (**Fig. 7** on page 9) to the longitudinal bolt near the floor stud. This will require replacing the original GNDP ring eye terminal (23-12446-063) with a 6 AWG 3/8-inch ring eye cable end (p/n 23-11194-506) that fits on the 10-mm longitudinal bolt; the left cab splash shield will need removed for this repair. Remove the longitudinal bolt, and clean the cab skin around longitudinal bolt as needed. Install the GNDP ground cable and longitudinal bolt, and torque to 33 lbf-ft (45 N-m). See **Fig. 3**.
10. If the GNDP floor stud is damaged or spinning in its mount when removing the nut used to mount the sleeper A/C line support Z bracket, the stud will need replaced with a bolt. Continue with the following sub-steps for this procedure.

NOTE: Vehicles without a sleeper A/C support bracket (typically daycabs) do not need the following repair. Continue with step 11.

- 10.1 Remove the driver's-side sill cover, the lower A-pillar cover, and the lower steering wheel cover. See **Fig. 4**.
- 10.2 Roll back the driver's-side floor mat far enough to access the center floor area above the stud, where the bolt is installed.
- 10.3 Locate the mounded area on the floor, directly above the GNDP stud location.

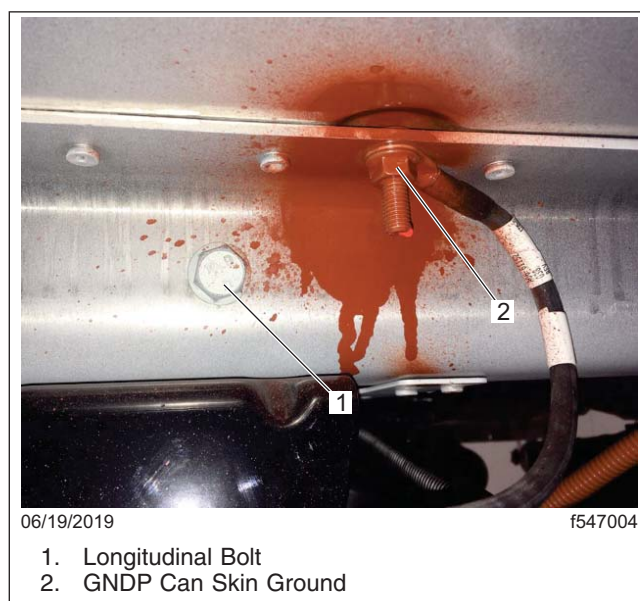


Fig. 3, Cab Skin Ground and Longitudinal Bolt

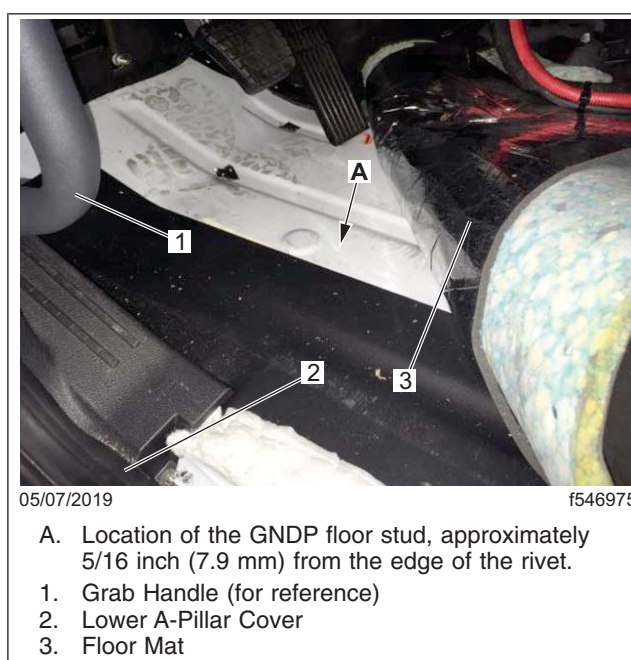


Fig. 4, GNDP Floor Stud Location

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE

- 10.4 Locate and mark a spot directly between the mound and the closest rivet. The center will be approximately 5/16 inch (7.9 mm) from the edge of the rivet. Verify the area below the floor is clear, and drill a 5/16 inch (7.9 mm) hole through the aluminum floor at the spot marked. See [Fig. 5](#)

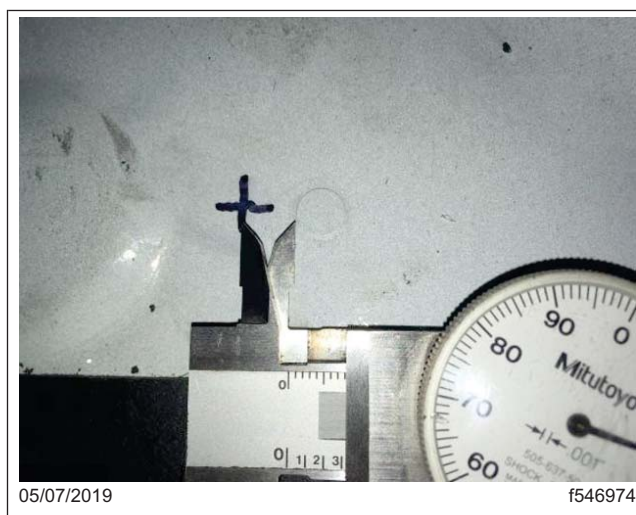


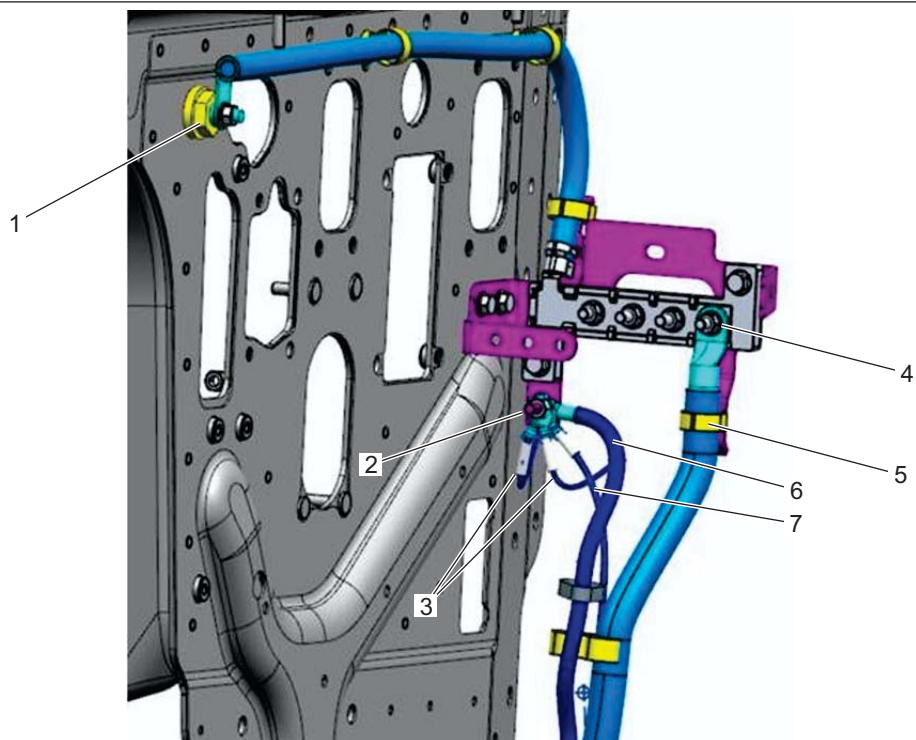
Fig. 5, Measuring Between the Floor Mound and the Rivet

- 10.5 Use a cutoff wheel or suitable tool to cut the damaged stud off flush with lower floor skin.
- 10.6 Using a 5/16 x 1.25 bolt, install the A/C line support Z bracket, and secure it with a washer and nut. Torque to 14 lbf·ft (18 N·m).
- 10.7 Position the driver's-side floor mat in the vehicle and install the driver's side lower steering cover, the lower A-pillar cover, and the sill cover.
11. Inspect the GNDE pass-through stud on the engine side of the frontwall. See [Fig. 6](#) and [Fig. 8](#). Verify that the GNDE pass-through stud on the engine side frontwall is clean and torqued correctly. Disassemble and inspect the stud for overspray on the flat surfaces. Torque the stud 7 lbf·ft (9.5 N·m). Repaint the connection as necessary.
12. Inspect the GNDP non-isolated stud, located on the lower aft portion of the MGJB bracket. See [Fig. 6](#), ref. 2.

NOTE: There should always be FOUR ring eyes attached to the GNDP non-isolated stud. **The non-isolated stud itself is NOT a return path to ground through the bracket and relies on the grounding cable returning to the frame for ground;** confirm the 2YU GNDP cable is connected from the stud to the frame rail GNDP stud. The GNDP cab skin cable is oversized, and larger than the return to frame cable.

Verify that the GNDP non-isolated stud is clean, configured properly, and torqued correctly. Disassemble and inspect the stud for overspray on the flat surfaces, and in between the ring eyes. Verify there are exactly four (4) circuits on ring eye terminals that attach to the GNDP non-isolated stud on every vehicle. If more or less are found on this stud, combine this inspection step with the next one for GNDE MGJB, separate and group the cables until four GNDP connections are confirmed. Fan these GNDP ring eyes properly on the non-isolated stud and then torque the stud to 14 lbf·ft (18 N·m). Repaint the connection as necessary.

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE



02/19/2019

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- | | |
|--|---|
| 1. GNDE Frontwall Pass-Through Stud | 5. GNDE to Battery |
| 2. GNDE Non-Isolated Stud | 6. Cab Skin Ground Cable |
| 3. Cab Ground Harnesses (mod 28G) | 7. Chassis Ground Harness to frame rail (mod 2YU) |
| 4. GNDE Ground Terminals (harnesses not shown for clarity) | |

Fig. 6, MGJB and Frontwall Grounds



02/18/2019

f546945

Fig. 7, GNDE Cab Skin Stud



02/18/2019

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Fig. 8, GNDE Engine-Side Pass-Through Stud

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE

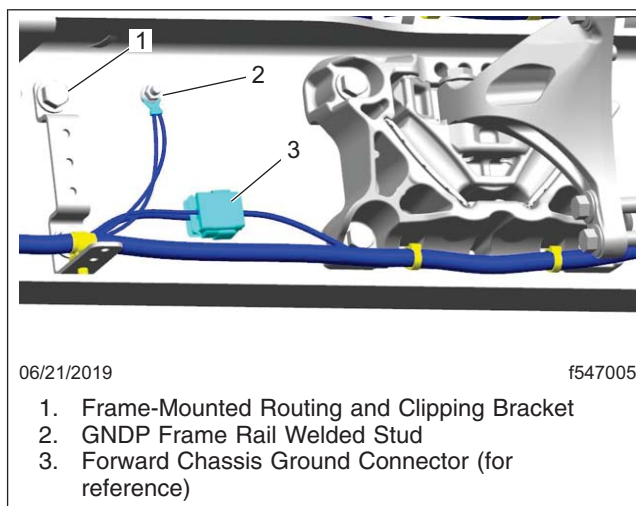


Fig. 9, GNDP Frame Rail Stud

13. Inspect the GNDE ring terminals on the isolated studs on the Main Ground Junction Block (MGJB). See [Fig. 6](#), ref. 4. Verify that the GNDE connections to the MGJB are clean, configured properly, and torqued correctly.

NOTE: No particular location or order is needed for the GNDE terminals, other than ensuring that only GNDE terminals are located on the MGJB studs.

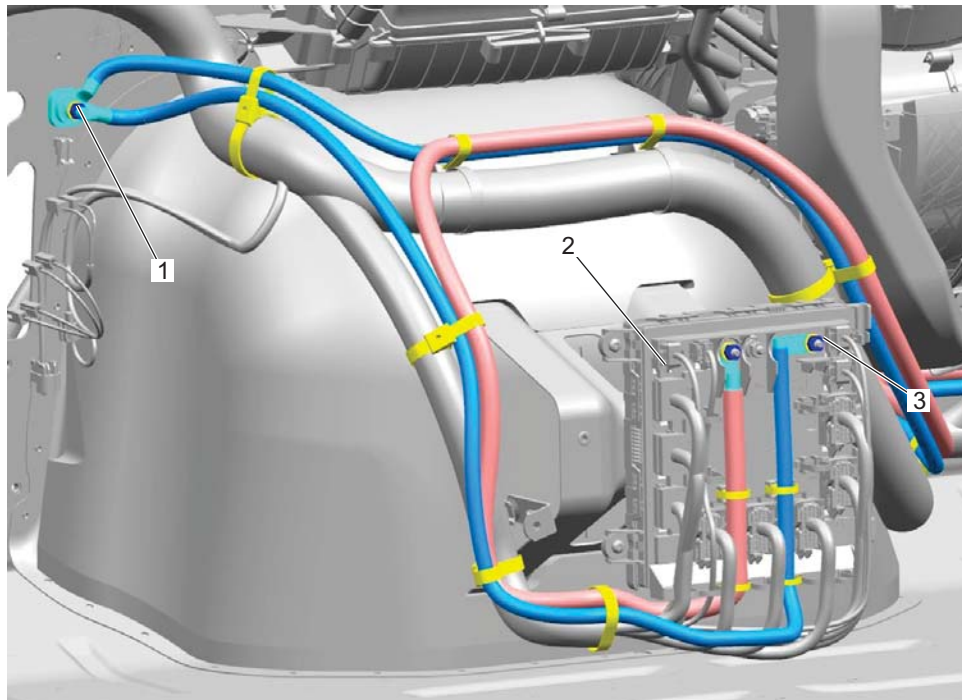
Disassemble and inspect the studs for overspray on the flat surfaces, and in between the ring eyes, then fan the ring eyes properly and torque the studs 14 lbf·ft (18 N·m). Repaint the connection as necessary.

14. Inspect the ASAM (advanced signal detect and actuation module) power and ground connections. Check the torque at the ASAM power and ground connections. Torque them 8.6 lbf·ft (12 N·m).
15. Inspect the GNDE pass-through stud on the cab side of the frontwall. See [Fig. 10](#) and [Fig. 11](#).

NOTE: The driver's side HVAC floor duct and the main dash harness clipping tie strap may need to be removed for improved access to the cab side GNDE pass-through.

Wiggle the cable to check for movement, and service if loose. Torque the stud 7 lbf·ft (9.5 N·m).

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE



11/13/2018

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1. GNDE Pass-Through Stud

2. ASAM

3. ASAM Ground

Fig. 10, Ground Locations Inside the Cab



02/18/2019

f546943

Fig. 11, Cab Side GNDE Pass-Through Stud

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE

16. Install the ground service harness (A66-17803-001).
 - 16.1 Remove the VPDM outer cover, then remove the 4 mounting screws and gently lower the VPDM to the cab floor and remove the back cover from the VPDM. Refer to Section 54.08, Subject 100 in the *New Cascadia Workshop Manual* for instructions.
 - 16.2 Locate and remove VPDM connector J6 by loosening the captured screw from the front of the VPDM and removing the connector from the back of the VPDM. See [Fig. 12](#).
 - 16.3 Locate and remove the black ground wire from VPDM connector J6, pin E10 by removing the green terminal lock from the connector and then removing the wire/terminal while at the same time releasing the lock tab using tool DDE DK10CHA17002-2, or a similar tool. See [Fig. 13](#) and [Fig. 14](#).
 - 16.4 Locate the 2-pin connector provided on service harness A66-17803-001 and separate the housing from the harness mating connector housing, then remove the grey terminal lock from the connector housing.
 - 16.5 Install the GND wire into the 2-pin connector. The GND wire can be inserted into either pin of the 2-pin connector because both pins are populated with circuit GND-C. Once the GND wire is inserted into the 2-pin connector, install the grey terminal lock to secure the terminal. Connect the 2-pin connector with the mating harness connector.
 - 16.6 Install the green terminal lock into connector J6, then install the connector J6 in the VPDM and secure it with the captured screw on the front of the VPDM. Tighten captured screw to 3.7 lbf·ft (5 N·m). Verify that the connector is fully seated by making sure that the green indicator next to captured screw extends from the VPDM housing.
 - 16.7 Locate the ground module at the right lower cab under the electronics bay. Disconnect the 8-pin connector (GND_INT_DASH_O_STP_GNDP_1A) from the ground module. See [Fig. 15](#).
 - 16.8 Locate the wire terminal labeled HRN GNDP on service harness A66-17803-001. Route the HRN GNDP end of the harness along the existing dash harness from the VPDM to the ground module under the electronics bay.
 - 16.9 Using tool DDE DK10CHA17002-2 or a similar tool, pull the red terminal lock from the module side of the 8-pin connector so that the terminal can be inserted. See [Fig. 16](#).
 - 16.10 Insert the wire terminal HRN GNDP into pin 6 of the 8-pin ground module connector and push the red lock back into the locked position. Connect the 8-pin connector to the ground module. See [Fig. 17](#).
 - 16.11 Route the remainder of service harness A66-17803-001 labeled CS HRN GNDP along the existing dash harness, across the dash to the base of the steering wheel clockspring.
 - 16.12 Unplug the clockspring 6-pin connector (STRG_DASH_O_CLOCK_SPRING_1A) from the underside of the clockspring. Remove the black ground wire GND currently in pin 4 of the clockspring connector by first releasing the terminal lock and then releasing the tab that holds the terminal using tool DDE DK10CHA17002-2 or similar tool.
 - 16.13 Blunt cut, shrink tube, and secure the GND wire back into the harness. Install the wire terminal labeled CS HRN GNDP from service harness A66-17803-001 into the clockspring connector at pin 4, and install the terminal lock. Secure the service harness to the existing dash harness as needed using electrical tape and tie straps. Install the front and rear VPDM covers and install the VPDM.

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE

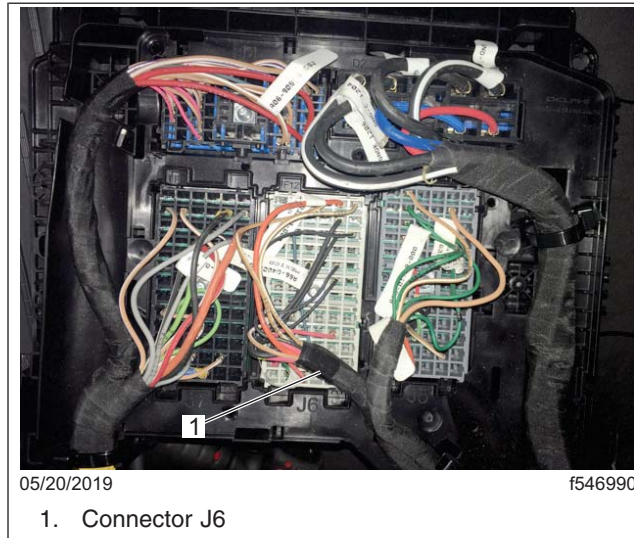


Fig. 12, VPDM Connectors

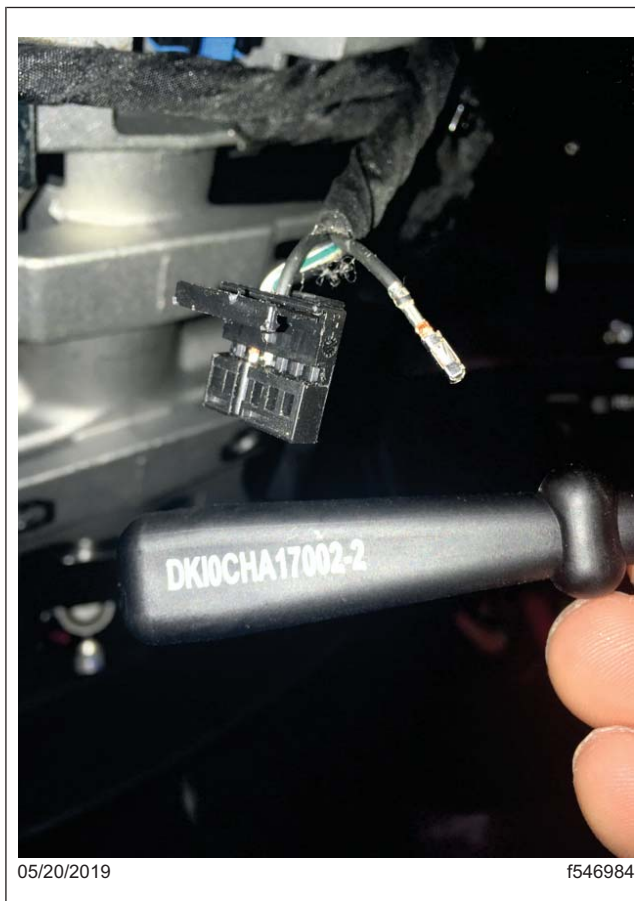


Fig. 13, Wire Removal Tool DDE DKIOCHA17002-2

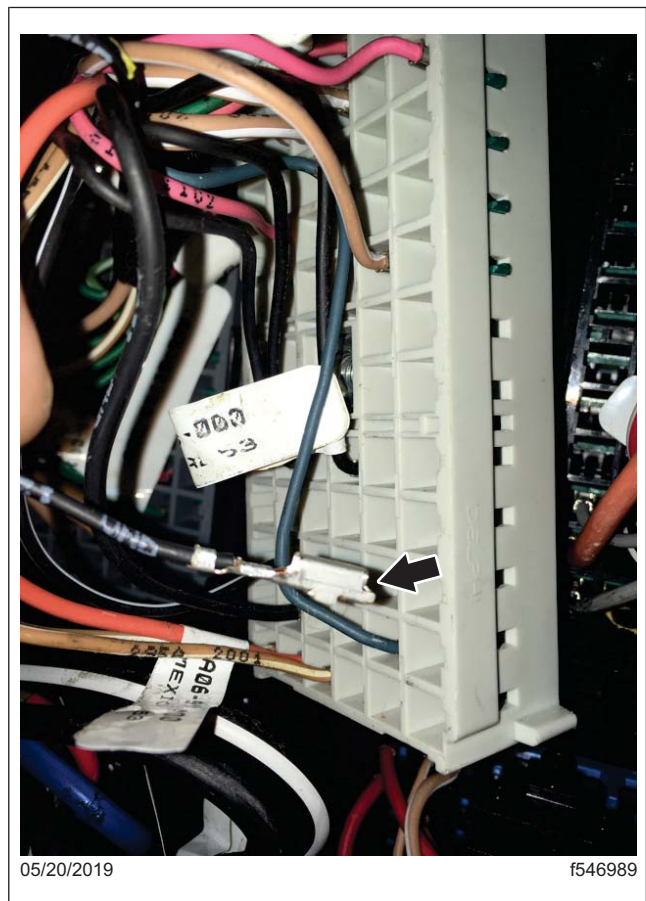


Fig. 14, Removing the Ground Wire from Connector J6, E10

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE

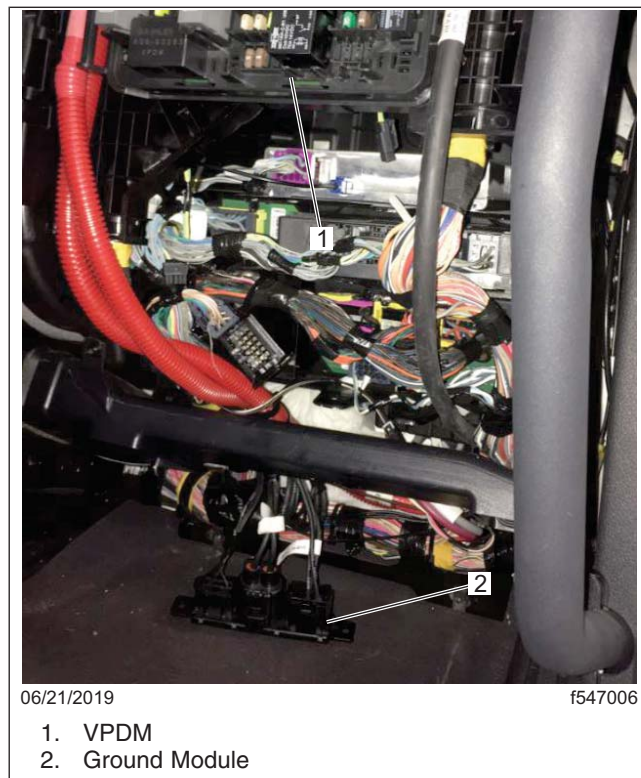


Fig. 15, Ground Module Location



Fig. 16, Removing the Red Terminal Lock

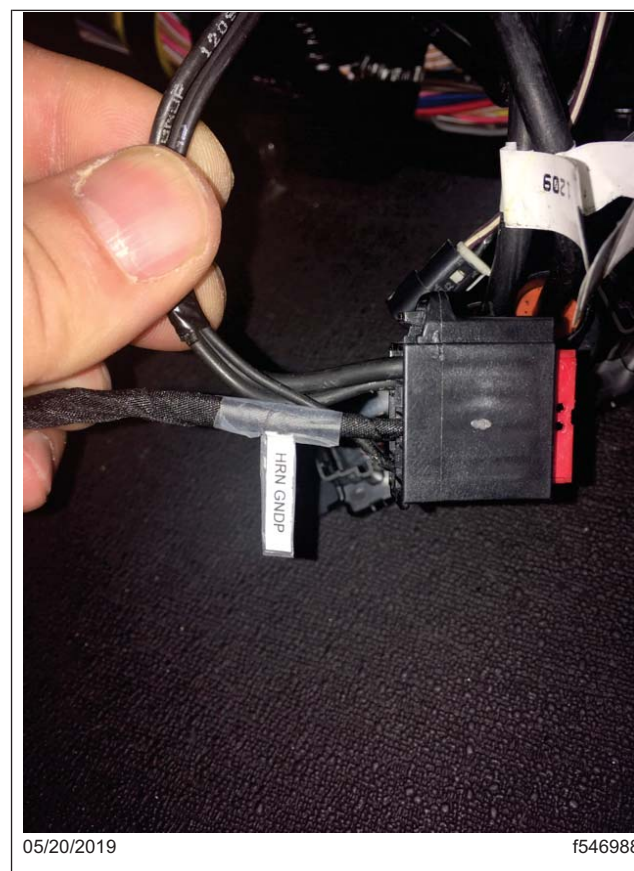


Fig. 17, 8-Pin Connector with Terminal HRN GNDP Installed

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE

IMPORTANT: If the airbag was removed during the repair in FL806INT and a new airbag is being installed, the final repair will also require that the air bag ECU be re-connected, two parameter changes, and the temporary airbag sun visor stickers removed.

17. Replace the steering wheel clockspring. Refer to Section 46.01.140 in the *New Cascadia Workshop Manual* for instructions.

- 17.1 Inspect steering wheel to verify if an airbag is installed. Airbags will be clearly marked "AIR BAG". Either remove the fasteners that attach the airbag to the steering wheel and remove the airbag, -Or- remove the steering wheel cover by pulling it up.
- 17.2 Disconnect the clockspring connector from the right hand (RH) switch pod. See [Fig. 18](#).

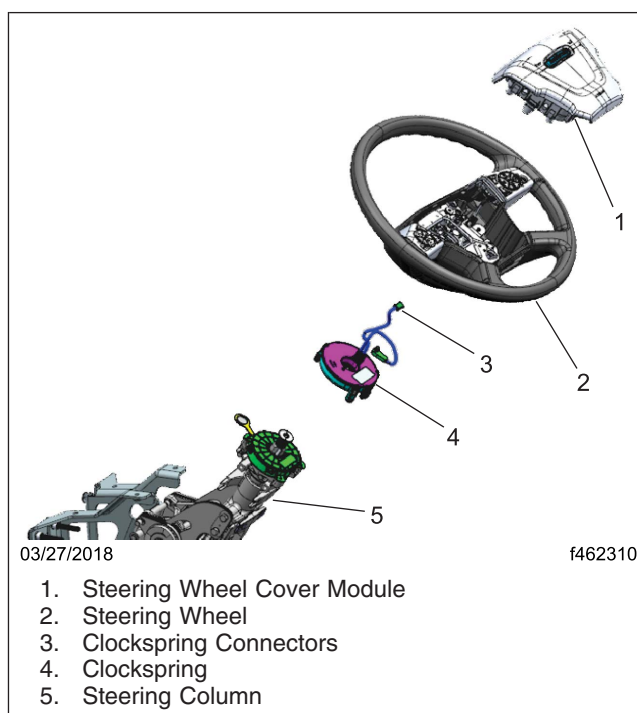


Fig. 18, Steering Wheel Cover Module, Steering column and Clockspring

- 17.3 Use a 10 mm hex driver to remove the steering wheel bolt. Retain the bolt.
- 17.4 Remove the steering wheel.
- 17.5 Remove the clockspring capscrews.
- 17.6 Remove the clockspring.
- 17.7 Install the new clockspring and connect it to the dash wiring.
- 17.8 Tighten the clockspring capscrews to 10 lbf·in (113 N·cm) +/- 1 lbf·in (11 N·cm).
- 17.9 Thread the switch and airbag connectors through the hole to the right of the steering wheel, and set the steering wheel on the steering column.
- 17.10 Carefully align the skip-tooth on the steering wheel with the skip-tooth on the steering column shaft end and lower the wheel onto the column. Refer to Section 46.01, Subject 100 in the *New Cascadia Workshop Manual* for instructions.

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE

- 17.11 Apply Loctite® 242 to the steering wheel bolt, then install the bolt and tighten 52 to 66 lbf·ft (70 to 90 N·m).
- 17.12 If the vehicle had an airbag upon arrival, reinstall the existing airbag on steering wheel. If vehicle did not have airbag, install a new airbag (14-19562-001) on the steering wheel. Connect the steering wheel switch connector and the electrical wiring from the clockspring to the new airbag module, then position the airbag module on the steering wheel.
- 17.13 Install two airbag retaining screws (23-14428-000) at the bottom of the steering wheel, and tighten 44 to 53 lbf·in (500 to 600 N·cm).

IMPORTANT: If the airbag was removed during the previous INT FL806 repair and a new airbag is being installed, the final repair will also require the airbag ECU to be re-connected, two parameter changes, and the temporary airbag sun visor stickers removed.

- 17.14 For units that arrived with an airbag installed and are reusing the existing airbag, connect the batteries and go to step 26. For units that had the airbag previously removed and required a new airbag be installed, continue with step 18.
- 18. On vehicles that had the airbag removed during Interim Recall **INT FL806**, the airbag ECU harness connector was disconnected, wrapped, and secured and will need the ECU pigtail harness rerouted and connected to the cab harness in order to complete this repair.
 - 18.1 Locate the airbag ECU, located beneath the driver's-side seat.
 - 18.2 Raise the seat to the highest position.
 - 18.3 Remove the B-pillar trim to access the harness connectors for the airbag ECU.
 - 18.4 Remove and unwrap the connectors for the airbag ECU pigtail going to the B-pillar harness, previously secured in a plastic bag.
 - 18.5 Connect the airbag ECU sensor harness to the cab harness. The connectors are located behind the base of the B-pillar cover. Route the harness wiring along or under the floor mat as needed.

NOTE: The floor harness connectors to the airbag ECU should be kept behind the B-pillar trim to protect them. The B-pillar trim should be left off until step 26.

- 19. If the vehicle is equipped with a Rolltek ECU, continue with the next step. If the vehicle is not equipped with a Rolltek ECU, go to step 21..
- 20. Connect the RollTek module.
 - 20.1 Remove the access panel from the back of the RollTek module.
 - 20.2 Remove the B-pillar lower trim and locate the yellow two-pin connector in the B-pillar cavity, the two-pin connector was previously stowed as shown on page 2 of D66-16484-000.
 - 20.3 Remove and discard the terminating resistor A66-17222-000 from the Rolltek connector, shown on page 3 of D66-16484-000.
 - 20.4 Connect the yellow two-pin connector into the RollTek module. Secure harness as needed.
 - 20.5 Install the plastic harness connection cover plate on the RollTek ECU.

NOTE: The B-pillar trim should be left off until step 26.

- 21. Connect the batteries. If the vehicle is not equipped with a RollTek ECU, continue with the next step. If the vehicle is equipped with a RollTek ECU, go to step 23.

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE

NOTE: Ensure that the latest version of DiagnosticLink is installed before programming the vehicle.

22. In order to complete the installation of the new airbag, two parameters must be changed. Open DiagnosticLink prior to connecting to vehicle, then open "Tools", "Options", and "Connections" and make sure the box is checked for "Enable automatic connection of SAE standard J1708 and J1939 devices."

22.1 Connect the vehicle to DiagnosticLink and ensure that CGW rollcalls is visible in the "Connections" window and open "Program Device", remove any pending downloads.

22.2 Open "Parameters" and allow for the parameters to be read completely by DiagnosticLink, as indicated by the status bar at bottom of page.

22.3 Go to Program Device. There should be an upload pending. Click "Connect to Server" to upload the vehicle parameters to the server.

22.4 After upload is complete, click "Add." Make sure the correct VIN is populated in the pop-up window, then click "OK" and "Connect to Server."

22.5 After the server download is complete, use the "Parameters" tab to set the following two parameters:

- **CGW04T:** "Monitor parameter ECU24", change parameter to A0274475727-001 "ECU24: SRS J1939open not installed", Then use the "+" box to expand "Monitor Parameter ECU24", drop down 4 lines to "ECU Installed", change Value from "No" to "Yes" by selecting parameter A0254479827-001. See [Fig. 19](#).
- **ICUC:** "PID 0x43 (FTL Config)", "paramSRS" change parameter to A0414475121-001 param-SRS available, and verify value is changed to "available." See [Fig. 20](#).

22.6 Press the "Send" button to write the parameter changes to the ICUC and CGW in the vehicle.

22.7 Once the parameter write is complete, click on the "Program Device" panel and verify there is a pending upload. Click on "Connect to Server" to upload updates to server.

The screenshot shows the DiagnosticLink Professional interface. The 'Parameters' window is open, displaying a list of parameters for a vehicle with VIN 3AK3H0R2H5Z23450. The 'ECU Installed' parameter for ECU24 is highlighted, showing a value of 'yes'. The 'Send' button is visible at the bottom right.

| Parameter | Part | Value | Units | Minimum | Maximum | Description |
|-----------------------------|-----------------|--|-------|---------|---------|-------------|
| Monitor parameter ECU08 | A0274474827-001 | ECU 08: HVCP installed | | | | |
| Monitor parameter ECU10 | A0144472027-001 | ECU 10: SSAM installed | | | | |
| Monitor parameter ECU12 | A0144472727-001 | ECU 12: RDF not installed | | | | |
| Monitor parameter ECU16 | A0274475427-001 | ECU 16: TPMS J1939open not installed | | | | |
| Source Address | (from parent) | 33 | | | | |
| Location | (from parent) | J1939_Open/Telematics | | | | |
| Short Term | (from parent) | TPMS | | | | |
| ECU Installed | A0144474827-001 | yes | | | | |
| ECU Monitoring Active | (from parent) | yes | | | | |
| ECU CAN Wake able | (from parent) | no | | | | |
| ECU Monitoring Timeout Type | (from parent) | normal | | | | |
| Diagnostics | (from parent) | J1939 | | | | |
| ECU for the CDS relevant | (from parent) | no | | | | |
| Monitor parameter ECU20 | A0144476827-001 | ECU 20: ACM not installed | | | | |
| Monitor parameter ECU21 | A0144477127-001 | ECU 21: ESP not installed | | | | |
| Monitor parameter ECU24 | A0274475727-001 | ECU24: SRS J1939open not installed | | | | |
| Source Address | (from parent) | 53 | | | | |
| Location | (from parent) | J1939_Open/Telematics | | | | |
| Short Term | (from parent) | SRS | | | | |
| ECU Installed | A0254479827-001 | yes | | | | |
| ECU Monitoring Active | (from parent) | yes | | | | |
| ECU CAN Wake able | (from parent) | no | | | | |
| ECU Monitoring Timeout Type | (from parent) | normal | | | | |
| Diagnostics | (from parent) | J1939 | | | | |
| ECU for the CDS relevant | (from parent) | no | | | | |
| Monitor parameter ECU25 | A0274476427-001 | ECU 25: MPC not installed_NAFTA | | | | |
| Monitor parameter ECU36 | A0154471827-001 | ECU 36: PSM not installed | | | | |
| Monitor parameter ECU37 | A0154472527-001 | ECU 37: VRDU installed and not CDS relevant - Cor1 | | | | |
| Monitor parameter ECU39 | A0154473227-001 | ECU 39: DCMD installed | | | | |
| Monitor parameter ECU40 | A0154473827-001 | ECU 40: DCMP installed | | | | |
| Monitor parameter ECU44 | A0274474827-001 | ECU 44: HVCP not installed | | | | |
| Monitor parameter ECU49 | A0274476827-001 | ECU 49: IPM not installed | | | | |
| Monitor parameter ECU76 | A0304475727-001 | ECU76: CTP not installed not for the CDS relevant | | | | |
| Monitor parameter ECU92 | A0274475027-001 | ECU 92: HVCR not installed | | | | |

Parameters were successfully read from the device.

06/19/2019 f120521

Fig. 19, Modifying the CGW Parameter

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE

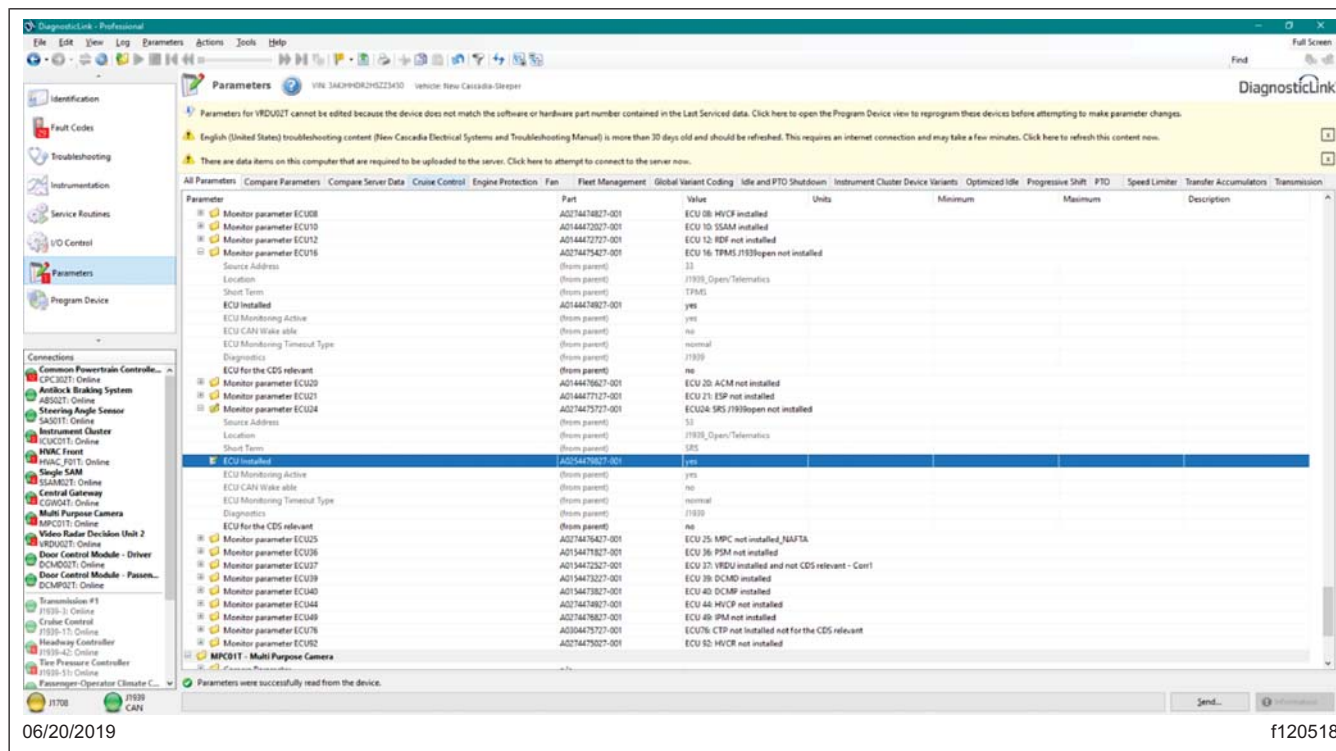


Fig. 20, Modifying the ICUC Parameter

IMPORTANT: If there is no pending upload, go back to "Parameters," click "Refresh," and verify that the two parameters are correctly set per step 22.5. Go back to "Program Device", there should now be a pending upload, click "Connect to Server".

23. Verify proper operation of the steering wheel switches and the electric horn, and make sure that the SRS telltale indicator on the ICUC instrument cluster is operating normally, the SRS indicator should come on for a few seconds after ignition on or start up. If this does not happen, then verify that the correct parameters have been set in the ICUC and the CGW as indicated in step 22.5.

23.1 Clear all fault codes, ensure no active fault codes are present in SRS.

23.2 With ignition on and engine off, wait until the SRS lamp on the ICUC instrument cluster is not lit.

23.3 With ignition off, unplug the yellow two-pin connector in the B-pillar for airbag harness. See Fig 21.

July 2019
FL806AB
NHTSA #19V-066
Transport Canada #19-054
REVISED NOTICE



Fig. 21, Yellow Two-Pin Connector

- 23.4 With ignition on, verify that the SRS lamp lights and there is a pop-up message on the ICUC that states "Caution – Driver airbag Error Detected." If this does not happen, then verify that the correct parameters have been set in the ICUC and the CGW as indicated in step 22.5.
- 23.5 With ignition off, connect the yellow two-pin connector in the B-pillar for air the bag harness and turn ignition on. Wait up to 15 seconds for the SRS self-check to complete and verify that the SRS lamp light goes out and the popup message disappears.
- 23.6 Check for fault codes in the SRS ECU, and verify that there are no active faults. Clear all previously active SRS faults.

24. Disconnect the vehicle from DiagnosticLink.

IMPORTANT: The previously installed temporary airbag stickers **MUST** be removed from both sides of the driver's-side sun visor, and the existing airbag warning stickers must be fully uncovered and readable.

- 25. Remove the two stickers, if previously installed, one on each side of the driver's-side sun visor. The stickers needing removed read as follows: "STEERING WHEEL AIRBAG REMOVED PER RECALL INT FL806" **or** "STEERING WHEEL AIRBAG REMOVED AND ROLLTEK DISABLED IF EQUIPPED PER RECALL FL806."
- 26. Install the dash panels. Refer to Section 60.06, Subject 100 in the *New Cascadia Workshop Manual* for instructions. Install the B-pillar trim if previously removed.
- 27. Close the hood.
- 28. Verify proper operation of the steering wheel switches and the electric horn, and make sure that the SRS telltale on the instrument cluster is operating normally and does not remain illuminated after start up.
- 29. Clean a spot on the base label (Form WAR259). Write the recall number, FL806, on a blank red completion sticker (Form WAR260), and attach it to the base label to indicate this recall has been completed.

INT FL806 Airbag Shipping Instructions

NOTE: All airbags removed during INT FL806 must be shipped to final destination **PRIOR** to 180 days from the date the airbag was removed from vehicle. Failure to meet the 180 day deadline will result in additional costs for the shipping location and possible EPA penalties.

NOTE: An emailed notice for each Class 9 Hazardous Material airbag shipment shall be provided to Dave Zoghby at General Dynamics (dave.zoghby@gd-ots.com) **2 weeks in advance** of the shipment. The emailed notice should provide information similar to the Bill of Lading such as shipping description, number of shipping containers, container type, shipping weight, and dealer/shipper contact information.

IMPORTANT: Airbags are designated as a Class 9 Hazardous Material. Airbags must be stored and transported per EPA guidelines, in quantities up to 250 airbags, and for up to 180 days. Reference **EPA 40 CFR parts 260, 261, and 262**, and **EPA 49 CFR 173.166**.

- Store and transport the airbags inside steel drums with a wall and lid thickness no less than 20 gauge. The lid must be securely affixed with a lever-locking or bolted-ring assembly. The lid drum must provide ventilation. Ventilation can be achieved by removing the threaded bung fitting and covering the opening with tape.
- The drum can **ONLY** be filled with INT FL806 airbags to a capacity not greater than fifty (50) percent of the drum's total volume. This *includes* any packaging or cushioning used to wrap the airbags.
- Dealers expecting a high volume of airbags should use multiple steel drums. Removed airbags should be consolidated, within reason, into the least amount of approved shipping containers as possible, while following all EPA & State regulations for Class 9 Hazardous Material shipments.

Containers meeting the regulation requirements can be sourced locally or purchased from companies that specialize in material handling supplies such as ULine (ULINE.COM). The container size selection should be based on the number of airbags to be placed within the container (i.e. small for single airbag, large for multiple airbags).

A Bill of Lading must be created for all airbags being transported to General Dynamics (OTS-GD MS). The Bill of Lading must accompany the shipment and a copy of the Bill of Lading should be kept for 3 years. The Bill of Lading for each shipment must include at a minimum, the name of transporter/carrier, date of shipment, name & address of dealer/shipper, name & address of receiving facility, shipping description, number of containers, quantity of the airbags in shipment, the container type, and shipping weight (see attached example). A Class 9 Hazardous Material label must be affixed to the container (see attached template).

Transportation for shipments to General Dynamics (OTS-GD MS) should be arranged with transporters/carriers authorized to carry Class 9 Hazardous Materials. Examples of carriers for Class 9 Hazardous Material include but not limited to; FedEx Ground, UPS Ground, & YRC Freight.

Ship containers to:

General Dynamics-OTS Munition Services (aka GD-OTS MS)
4174 County Road 180
Carthage, MO 64836
Attn. Logistics

A dealer checklist is provided to help this process and is required upon claim filing (see attached).

All containment costs to support storage and transportation of airbags removed as part of Interim Recall FL806, should be consolidated and itemized in one or two **Final FL806 Campaign claims** with the required documentation (see checklist). Dealers with questions regarding airbag storage or transportation should submit a WSC Ticket to Warranty Campaigns.

INT FL806 Airbag Shipping Dealer Checklist

IMPORTANT: Airbags are designated as a Class 9 Hazardous Material. Airbags must be stored and transported per EPA guidelines, in quantities up to 250 airbags per container and for up to 180 days. Reference **EPA 40 CFR parts 260, 261, and 262**, and **EPA 49 CFR 173.166**.

Date: _____

- ☐ Consolidate only INT FL806 airbags in approved Class 9 Hazardous Material containers.
 - Container(s) can only contain up to a qty of 250 INT FL806 airbags including packing material.
 - Container(s) can be no more than 50% full.
- ☐ Tape the Class 9 Hazardous Material label to the container(s).
- ☐ Complete the Bill of Lading and give to transporter.
- ☐ Email Dave Zoghby of General Dynamics at dave.zoghby@gd-ots.com, **2 weeks in advance** of shipment. Email must include:
 - Shipping Description
 - Container Type
 - Number of Containers
 - Total Shipping Weight
 - Dealer/shipper contact information
- ☐ Ship container(s) to:
General Dynamics-OTS Munition Services (aka GD-OTS MS)
4174 County Road 180
Carthage, MO 64836
Attn. Logistics
- ☐ Airbags shipped prior to 180 from removal date.
- ☐ Reimbursement. Depending on the number of shipments required, include the following documents in one or two Final FL806 repair claims:
 - Container invoice
 - Freight invoice for shipping to General Dynamics
 - Copy of Dealer Checklist

Bill of Lading

Shipment Authorization #: _____

Shipment Date: _____

TO

FROM

| |
|---|
| Consignee: EBV EEC dba GD-OTS MS |
| Street: 4174 County Road 180 |
| City/State/Zip: Carthage, MO 64836 |
| Telephone: 417-624-0212 |
| Route: I44 to US 66 to County Road 180 |

| |
|------------------------------------|
| Shipper: |
| Street: |
| |
| City/State/Zip: |
| 24 hr Emergency Contract Tel No. : |

Carrier

SHIPPER'S INSTRUCTIONS

| |
|----------------|
| Name |
| Company |
| Street |
| City/State/Zip |

| |
|--|
| |
| |
| |
| |

| HM | Shipping Description | # of Containers | Container Type | Shipping Weight | Units |
|----|---|-----------------|----------------|-----------------|--------|
| X | UN3268, Safety Devices, Class 9, RQ(100) WCP#1293-9501 | | Drum | | Pounds |
| X | UN3268, Safety Devices, Class 9, RQ(100) WCP#1293-9501 | | Fiber Boxes | | Pounds |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| | | | | |
|---|--|--|--|--|
| Placards Tendered: YES X NO Mark with "X" or "RQ" if appropriate to designate Hazardous Material s Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also when shipping hazardous materials, the shipper' s certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in t he Regulation for a particular material. | | | If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges. _____ (Signature of Consignor) | Freight Charges are collect unless market prepaid To Be Paid by Shipper: |
|---|--|--|--|--|

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | |
|-----------------------|---------|-------|
| Shipper | Carrier | Date: |
| Per | Per | Date: |
| Consignee Acceptance: | | Date: |

