

January 2019
FL800A
NHTSA #18V-787
Transport Canada #18-624

Subject: Cascadia Steering Wheel Airbags

Models Affected: Specific Freightliner Cascadia vehicles manufactured August 3, 2017, through October 31, 2018.

General Information

Daimler Trucks North America LLC (DTNA), 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 3,226 vehicles involved in this campaign.

On specific vehicles, certain electrical ground wiring may have been improperly assembled which could result in a damaged steering wheel clockspring. A damaged clockspring can lead to unintended deployment of the steering wheel airbag, which may cause a risk of injury to the driver and an increased risk of a crash.

The wiring leading to the steering wheel clockspring will be modified, the clockspring will be replaced, and correct grounding will be ensured.

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 FL800, 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.

Table 1 - Replacement Parts for FL800

Campaign Number	Kit Number	Part Description	Part Number	Qty. per VIN
FL800A	N/A	CLOCKSPRING-AIRBAG,GLOBAL WHL	14-19090-001	1 ea
		HARN-STRG,HRN,SERVICE JMP	A66-16268-000	1 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.

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Labor Allowance

Table 2 - Labor Allowance

Campaign Number	Procedure	Time Allowed (hours)	SRT Code	Corrective Action
FL800A	Modify wiring, replace clockspring, and fix grounding	1.5	996-R060A	12-Repair Recall/Campaign

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:

- Claim type is **Recall Campaign**.
- In the Campaign field, enter the campaign number and appropriate condition code (**FL800-A**).
- In the Primary Failed Part Number field, enter **25-FL800-000**.
- 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 **034-004-305** 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.

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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.

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Copy of Notice to Owners

Subject: 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 (DTNA), on behalf of its Freightliner Trucks Division, has decided that a defect that relates to motor vehicle safety exists on specific Freightliner Cascadia vehicles manufactured August 3, 2017, through October 31, 2018.

On specific vehicles, certain electrical ground wiring may have been improperly assembled which could result in a damaged steering wheel clockspring. A damaged clockspring can lead to unintended deployment of the steering wheel airbag, which may cause a risk of injury to the driver and an increased risk of a crash.

The wiring leading to the steering wheel clockspring will be modified, the clockspring will be replaced, and correct grounding will be ensured.

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, go to 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 two hours 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

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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.

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Work Instructions

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Clockspring and Grounding Procedure

1. Check the base label (Form WAR259) for a completion sticker for FL800 (Form WAR260) indicating this work has been done. The base label is usually located on the front wall under the dash. If a sticker is present, no work is needed. If there is no sticker, proceed with the next step.
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, and the dash switch 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. Use lacquer thinner, as needed, to clean off any excess paint on electrical connections throughout these instructions.
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.

IMPORTANT: Vehicles will have either a GNDE cable going directly to the battery negative (back-of-cab battery box equipped units) or a ground cable 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.

9. Inspect the GNDP cab skin stud. Verify that the GNDP skin stud on the underside of the cab is clean and torqued correctly. Disassemble and inspect the stud for overspray on the flat surfaces. Torque the stud 14 lbf·ft (19 N·m). Repaint the connection as necessary.
10. Inspect the GNDE pass-through stud on the engine side of the frontwall. Verify that the GNDE pass-through stud on the engine side frontwall is clean and torqued correctly. See [Fig. 1](#). Disassemble and inspect the stud for overspray on the flat surfaces. Torque the stud 14 lbf·ft (19 N·m). Repaint the connection as necessary.

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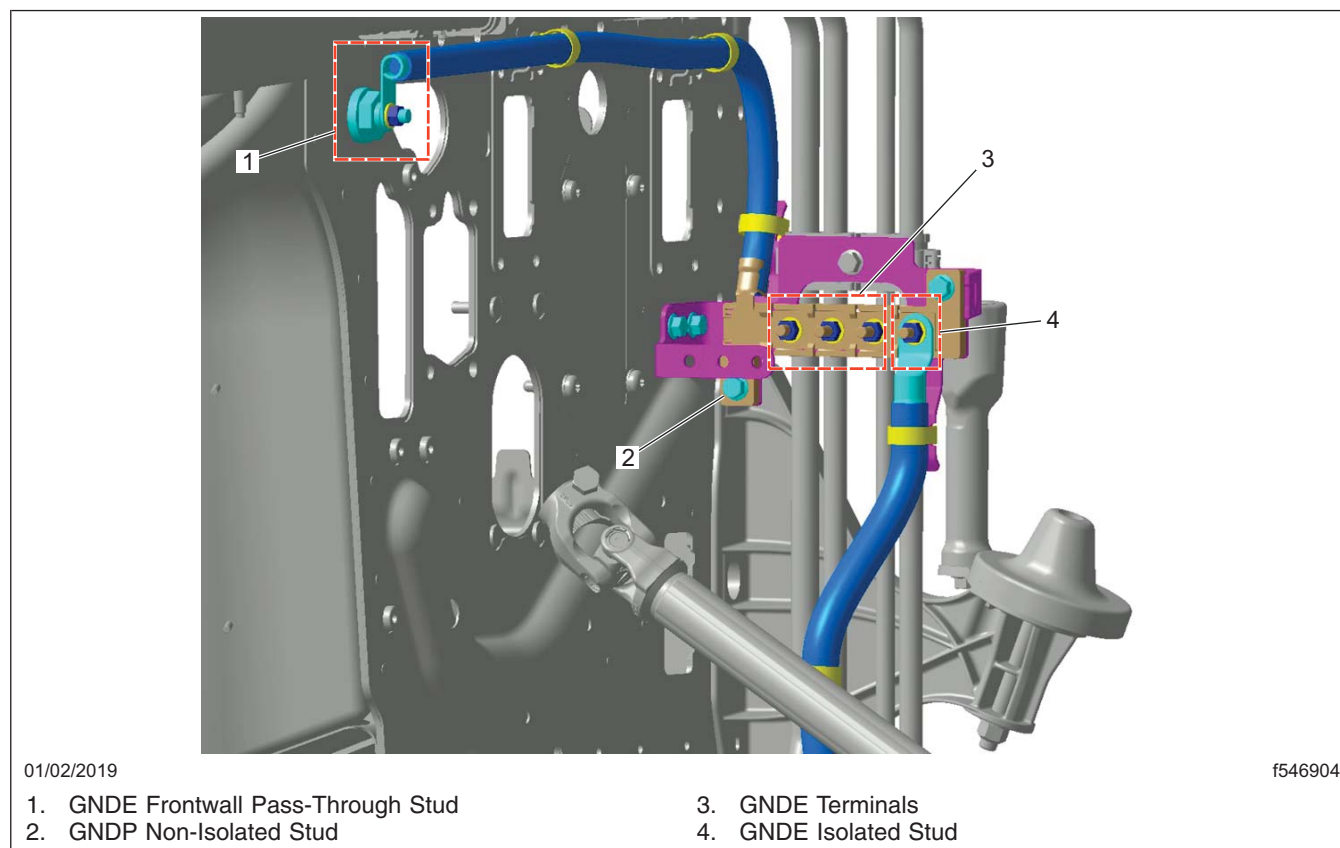


Fig. 1, MGJB and Frontwall Grounds

NOTE: There should always be FOUR ring eyes attached to the GNDP non-isolated stud.

11. Inspect the GNDP non-isolated stud, located on the lower aft portion of the MGJB bracket. 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. Repaint the connection as necessary.

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.

12. Inspect the GNDE MGJB. Verify that the GNDE Main Ground Junction Block (MGJB) is clean, configured properly, and torqued correctly. 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 16 lbf-ft (21 N-m). Repaint the connection as necessary.
13. 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 9 lbf-ft (12 N-m).
14. Inspect the GNDE pass-through stud on the cab side of the frontwall. See [Fig. 2](#). Wiggle the cable to check for movement, and service if loose. Torque the stud 14 lbf-ft (19 N-m).

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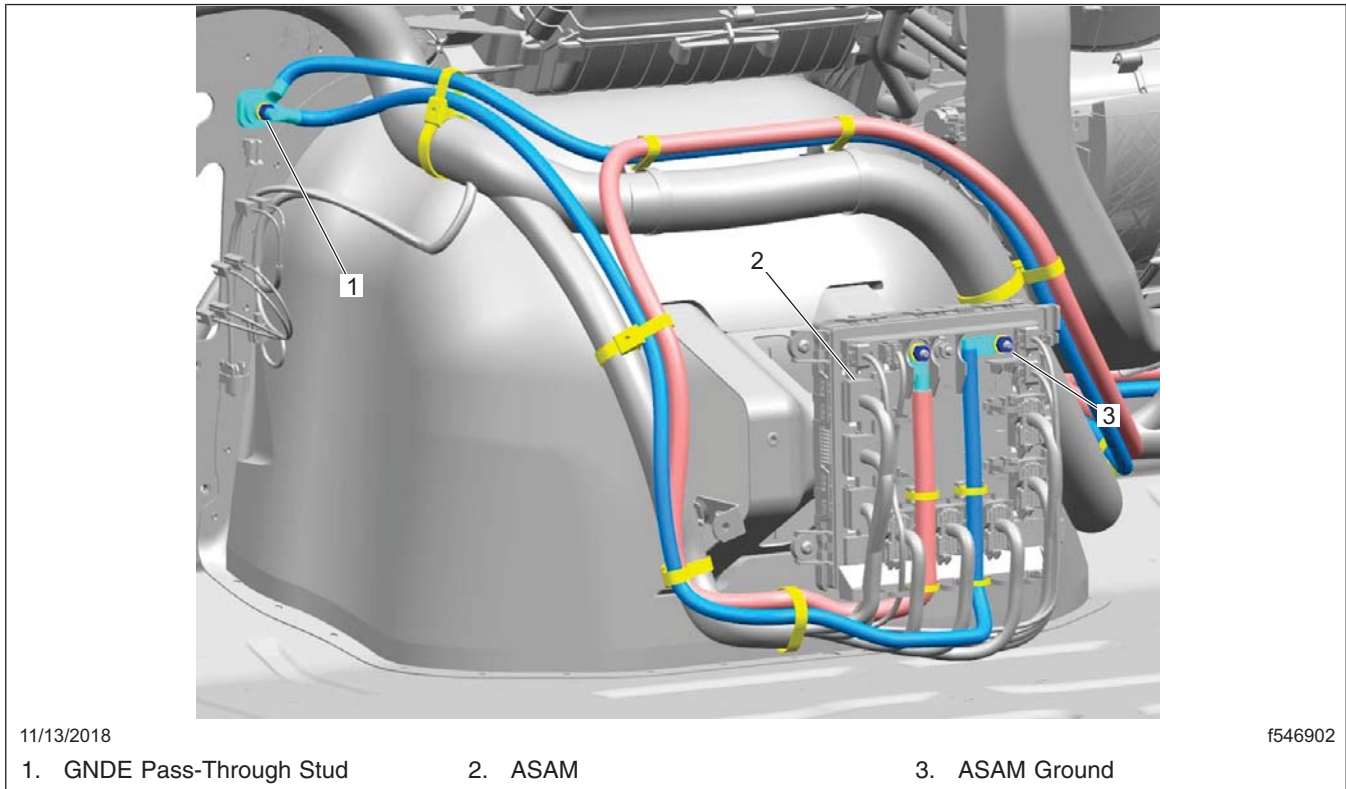


Fig. 2, Ground Locations Inside the Cab

15. Replace the steering wheel clockspring. Refer to Section 46.01.140 in the *New Cascadia Workshop Manual* for instructions. (Steps 15.1 thru 15.13 on the next page.)

DANGER

The components and chemicals used in the air bag system are hazardous. The system contains components that use combustible chemicals; care must be taken when replacing or handling system components. Damaged or deployed air bag systems should be inspected for leaking propellant chemicals before any attempt is made to remove, replace, or handle the components. If a leak is found, contact LifeGuard Technologies (1-866-765-5835) for handling instructions.

The surface of the deployed air bag may contain small amounts of sodium hydroxide (which is a by-product of the gas generant combustion) and metallic sodium. Sodium hydroxide may be irritating to the skin and eyes. Always wear rubber gloves and safety glasses when handling a deployed air bag. Immediately wash your hands and exposed skin areas with water and a mild soap. Flush your eyes immediately if exposed to sodium hydroxide.

Consider undeployed air bags to be dangerous and capable of deploying at any time. Before performing any work on these systems, review all service literature and comply with the following warnings and precautions. Unintentional or improper deployment of the air bag system can result in injury or death.

- Carry undeployed air bags with the bag and the trim cover pointed away from your body.
- Place undeployed air bags face up on a surface in an enclosed area.

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- Do not place objects near or on top of an undeployed air bag.
- Store undeployed and undamaged air bag modules in a cool, dry, enclosed area.
- Keep all liquids, acids, halogens, heavy metals, and heavy salts away from the air bag system. Do not allow system chemicals to contact other liquids, combustibles, and flammable materials. Doing so could cause chemical burns or personal injury.
- Do not attempt to disassemble the air bag inflator unit or breach the integrity of the sealed metallic inflator case.
- Do not cut, drill, braze, solder, weld, probe, or strike any part of the air bag system.
- Do not expose the air bag module to electricity. Never probe a circuit on the air bag side of a connector unless the harness or air bag is disconnected between the test point and the air bag.
- Do not attempt to adapt, reuse, or install an air bag system in any vehicle other than the specific vehicle for which it is designed.
- Do not cut wires or tamper with the connector between the vehicle wiring harness and the air bag module unless the troubleshooting diagnostics specifically direct you to do so. Cutting or removing the connector from the system will disable the safety shunt and could cause unintentional deployment.
- Allow deployed air bag systems to cool after deployment.
- Air bag systems should be deployed in an open area or outdoors to prevent accidental fires.
- Wear rubber gloves and safety glasses when handling a deployed air bag.
- Store, transport, dispose of, and recycle air bag system components in accordance with all applicable federal, state, and local regulations.
- When reactivating the system for the first time after repairs have been made, stand outside of the cab and away from the front of the air bag while turning on the ignition. Check that the SRS indicator comes on for a few seconds and then goes out. Make sure there are no active fault codes.
- Keep all heavy objects in the cab secured.

15.1 Remove the fasteners that attach the airbag to the steering wheel.

15.2 Remove the airbag.

15.3 Disconnect the clockspring connector from the right hand (RH) switch pod. See [Fig. 3](#)

15.4 Use a 10 mm hex driver to remove the steering wheel bolt. Retain the bolt.

15.5 Remove the steering wheel.

15.6 Remove the clockspring capscrews.

15.7 Remove the clockspring.

15.8 Install the new clockspring, but do not connect it to the dash wiring.

15.9 Tighten the clockspring capscrews to 10 lbf-in (113 N-cm) +/- 1 lbf-in (11 N-cm).

15.10 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.

15.11 Make sure that the steering wheel is oriented as straight as possible.

15.12 Apply Loctite® 242 to the steering wheel bolt, then install the bolt and tighten 52 to 66 lbf-ft (70 to 90 N-m).

15.13 Install the airbag, torque the steering wheel airbag fasteners to 53 lbf-in (600 N-cm) +/- 9 lbf-in (100 N-cm).

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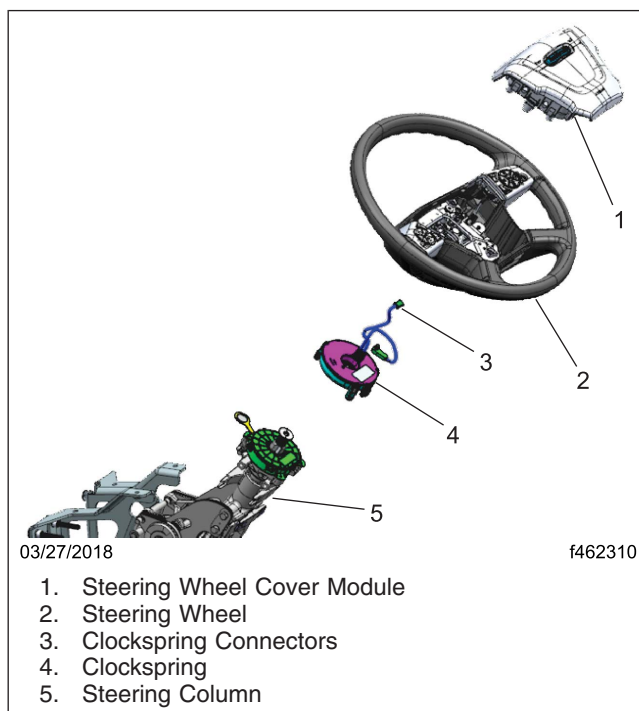


Fig. 3, Steering Wheel Cover Module, Steering column and Clockspring.

16. Install the ground diode circuit.

16.1 Before installing the diode harness, make sure that the harness is wrapped with fiber wrap. See [Fig. 4](#).

16.2 Disconnect connector X4 on the ASAM. See [Fig. 5](#).

16.3 Insert the diode circuit into connector X4, pin 6.

IMPORTANT: Do not use tie straps to secure the harness.

16.4 Route the circuit from the ASAM to the clockspring, as shown. Use electrical tape to secure the circuit to the existing harness. See [Fig. 6](#)

16.5 Remove the connector lock from the clockspring connector, then remove the horn ground circuit terminal (black) from pin 4.

16.6 Cut the terminal and discard it, then fold the wire back and tape it to the harness.

16.7 Insert the terminal from the diode harness into cavity 4 of the clockspring connector. See [Fig. 7](#).

IMPORTANT: Make sure the harness is secure and clear of the steering column cover attachment points, and that the harness is clear of any moving parts from the steering column.

16.8 Connect the clockspring connector. See [Fig. 8](#).

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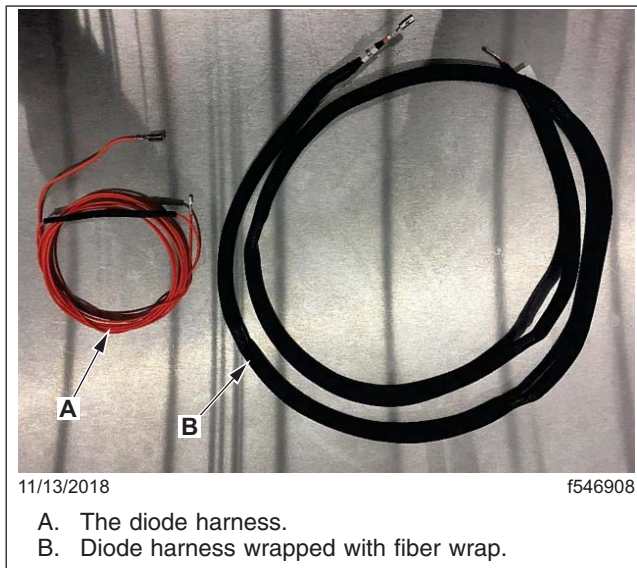


Fig. 4, Diode Harness Wrapped with Fiber Wrap

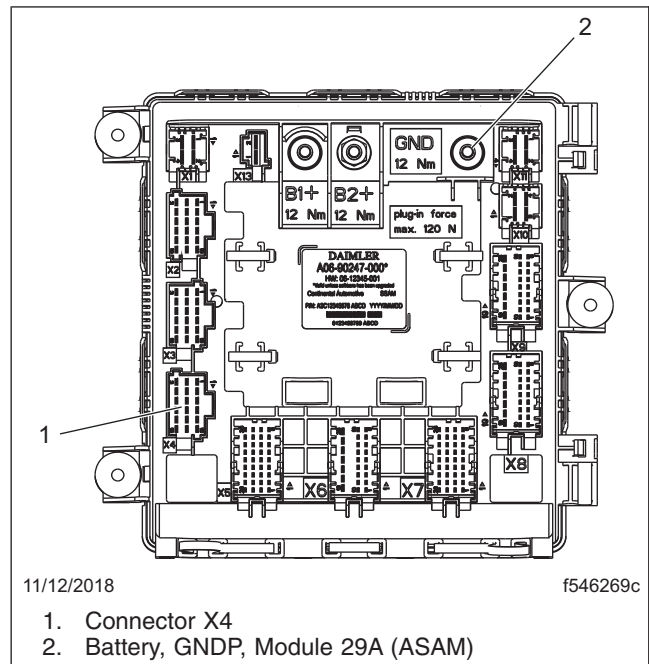


Fig. 5, ASAM Connector Map



Fig. 6, Diode Routed and Wrapped with Electrical Tape

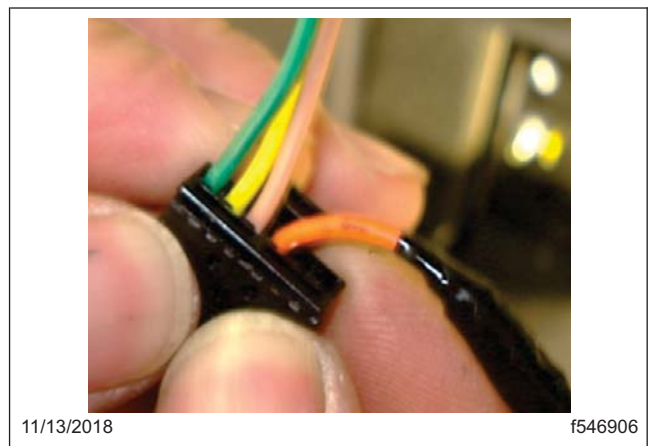


Fig. 7, Diode Harness Plugged into the Clockspring Connector

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Fig. 8, Connected Clockspring Connector

17. Install the dash panels. Refer to Section 60.06, Subject 100 in the *New Cascadia Workshop Manual* for instructions.
18. Close the hood.
19. Connect the batteries.
20. 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.
21. Clean a spot on the base label (Form WAR259). Write the recall number, FL800, on a blank red completion sticker (Form WAR260), and attach it to the base label to indicate this recall has been completed.