Subject: Freightliner Cascadia SAM Chassis


General Information

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 49,000 vehicles involved in this campaign.

Under certain conditions, the SAM Chassis may experience water intrusion and corrosion damage. This corrosion may cause electrical shorts or intermittent operation of trailer tail lamps, trailer stop lamps, trailer side marker lamps, and trailer lighting. Intermittent operation of required trailer lamps may provide inaccurate signals to other drivers which could increase the risk of a crash. An electrical short in the SAM Chassis may also cause melting in the SAM or other electrical components, which may lead to a vehicle fire.

Vehicles in FL679A-C will be inspected for the presence of drip shields and drip loops and they will be installed where required. SAM Chassis will be inspected/tested to ensure proper functionality, and replaced if required. Vehicles in FL679D have had the Interim Recall performed, and no further work is needed. These vehicles will NOT appear in OWL as there is no further repair for dealers to perform.

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 number(s) listed below from your facing Parts Distribution Center.

If our records show your dealership has ordered any vehicles involved in campaign number FL679, 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 FL679A-C

<table>
<thead>
<tr>
<th>Campaign Number</th>
<th>Part Description</th>
<th>Kit Number</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>FL679A</td>
<td>MODULE-ECU, CONFIG-SAM CHAS, BASELINE, 12V</td>
<td>25-FL679-001</td>
<td>1 ea</td>
</tr>
<tr>
<td>FL679B</td>
<td>MODULE-ECU, CONFIG-SAM CHAS, MIDLINE, 12V, P</td>
<td>25-FL679-003</td>
<td>1 ea</td>
</tr>
<tr>
<td>FL679C</td>
<td>MODULE-ECU, CONFIG-SAM CHAS, HIGHLINE, 12V</td>
<td>25-FL679-002</td>
<td>1 ea</td>
</tr>
<tr>
<td>FL679A-C</td>
<td>SAM CHASSIS SHIELD</td>
<td>25-FL679-000</td>
<td>1 ea</td>
</tr>
<tr>
<td></td>
<td>JUMPER HARNESS</td>
<td>25-FL679-004</td>
<td>1 ea</td>
</tr>
<tr>
<td></td>
<td>COMPLETION STICKER</td>
<td>WAR260</td>
<td>1 ea</td>
</tr>
<tr>
<td></td>
<td>SAM CHASSIS COVER</td>
<td>06-5285-000</td>
<td>1 ea</td>
</tr>
</tbody>
</table>

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.

Intentionally Blank
## Labor Allowance

### Table 2 - Labor Allowance

<table>
<thead>
<tr>
<th>Campaign Number</th>
<th>Procedure</th>
<th>Time Allowed (hours)</th>
<th>SRT Code</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Short inspection/replace SAM Chassis</strong></td>
<td></td>
<td>1.5</td>
<td>996-0962A</td>
</tr>
<tr>
<td></td>
<td><strong>Includes</strong>: Visual inspection for shield, drip loop, corrosion; Ohm tests; replace SAM Chassis with reflash and reprogram; take photos</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Short inspection/install shield and/or drip loop/replace SAM Chassis</strong></td>
<td></td>
<td>1.8</td>
<td>996-0962B</td>
</tr>
<tr>
<td></td>
<td><strong>Includes</strong>: Visual inspection for shield, drip loop, corrosion; Ohm tests; install shield and/or drip loop; replace SAM Chassis with reflash and reprogram; take photos</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Short inspection/re-pin and clean terminals/replace SAM Chassis</strong></td>
<td></td>
<td>2.1</td>
<td>996-0962C</td>
</tr>
<tr>
<td></td>
<td><strong>Includes</strong>: Visual inspection for shield, drip loop, corrosion; Ohm tests; re-pin corroded/damaged terminals and clean light corrosion and debris; replace SAM Chassis with reflash and reprogram; take photos</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Short inspection/install shield and/or drip loop/re-pin and clean terminals; replace SAM Chassis</strong></td>
<td></td>
<td>2.4</td>
<td>996-0962D</td>
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<tr>
<td></td>
<td><strong>Includes</strong>: Visual inspection for shield, drip loop, corrosion; Ohm tests; Install shield and/or drip loop; re-pin corroded/damaged terminals and clean light corrosion and debris; replace SAM Chassis with reflash and reprogram; take photos</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td><strong>Long inspection</strong></td>
<td></td>
<td>0.6</td>
<td>996-0962E</td>
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<tr>
<td></td>
<td><strong>Includes</strong>: Visual inspection for shield, drip loop, corrosion; Ohm tests; communication/fault code troubleshooting</td>
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<tr>
<td></td>
<td><strong>Long inspection/install shield and/or drip loop</strong></td>
<td></td>
<td>0.9</td>
<td>996-0962F</td>
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<tr>
<td></td>
<td><strong>Includes</strong>: Visual inspection for shield, drip loop, corrosion; Ohm tests; communication/fault code troubleshooting; install shield and/or drip loop</td>
<td></td>
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<tr>
<td></td>
<td><strong>Long inspection/re-pin and clean terminals</strong></td>
<td></td>
<td>1.2</td>
<td>996-0962G</td>
</tr>
<tr>
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<td><strong>Includes</strong>: Visual inspection for shield, drip loop, corrosion; Ohm tests; communication/fault code troubleshooting; install shield and/or drip loop; re-pin corroded/damaged terminals and clean light corrosion and debris</td>
<td></td>
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<tr>
<td></td>
<td><strong>Long inspection/install shield and/or drip loop/re-pin and clean terminals</strong></td>
<td></td>
<td>1.5</td>
<td>996-0962H</td>
</tr>
<tr>
<td></td>
<td><strong>Includes</strong>: Visual inspection for shield, drip loop, corrosion; Ohm tests; communication/fault code troubleshooting; install shield and/or drip loop; re-pin corroded/damaged terminals and clean light corrosion and debris</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2, Continues on the Next Page
### Table 2, Continued from the Previous Page

**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 group (FL679-A, FL679-B, or FL679-C).

  - In the Primary Failed Part field, enter **25-FL679-000**.

  - In the Parts section, enter the appropriate kit number(s) as shown in the Replacement Parts Table.

<table>
<thead>
<tr>
<th>Campaign Number</th>
<th>Procedure</th>
<th>Time Allowed (hours)</th>
<th>SRT Code</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>FL679A-C</td>
<td>Long inspection/replace SAM Chassis</td>
<td>1.8</td>
<td>996-0962I</td>
<td>12-Repair Recall/Campaign</td>
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<tr>
<td></td>
<td><strong>Includes:</strong> Visual inspection for shield, drip loop, corrosion; Ohm tests; communication/fault code troubleshooting; replace SAM Chassis with reflash and reprogram; take photos</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Long inspection/install shield and/or drip loop/replace SAM Chassis</td>
<td>2.1</td>
<td>996-0962J</td>
<td>12-Repair Recall/Campaign</td>
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<tr>
<td></td>
<td><strong>Includes:</strong> Visual inspection for shield, drip loop, corrosion; Ohm tests; communication/fault code troubleshooting; install shield and/or drip loop; replace SAM Chassis with reflash and reprogram; take photos</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Long inspection/re-pin and clean terminals/replace SAM Chassis</td>
<td>2.4</td>
<td>996-0962K</td>
<td>12-Repair Recall/Campaign</td>
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<tr>
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<td><strong>Includes:</strong> Visual inspection for shield, drip loop, corrosion; Ohm tests; communication/fault code troubleshooting; re-pin corroded/damaged terminals and clean light corrosion and debris; replace SAM Chassis with reflash and reprogram; take photos</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL679A-C</td>
<td>Long inspection/install shield and/or drip loop/re-pin and clean terminals/replace SAM Chassis</td>
<td>2.7</td>
<td>996-0962L</td>
<td>12-Repair Recall/Campaign</td>
</tr>
<tr>
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<td><strong>Includes:</strong> Visual inspection for shield, drip loop, corrosion; Ohm tests; communication/fault code troubleshooting; install shield and/or drip loop; re-pin corroded/damaged terminals and clean light corrosion and debris; replace SAM Chassis with reflash and reprogram; take photos</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
• When a SAM Chassis is replaced, attachments are required. (Please review the Work Instructions for necessary attachments.)
  • When replacing a SAM Chassis due to unrecoverable levels of corrosion, attach one or more photos of the SAM Chassis that clearly show the product sticker and the corroded area(s).
  • When replacing a SAM Chassis due to failure of one of the ohm tests, note the pin and failing measurement in the claim story.
  • When replacing a SAM Chassis due to communication errors, attach the list of active and historic fault codes generated before starting the troubleshooting process.
• In the Labor section, 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 003-006-011 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.
  • 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.

For questions, U.S. and Canadian dealers, contact the Warranty Campaigns Department from 7:00 a.m. to 4:00 p.m. Pacific Time, Monday through Friday, via Web inquiry at AccessFreightliner.com / Support / My Tickets and Submit an Inquiry, 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.
Copy of Notice to Owners
Subject: Freightliner Cascadia SAM Chassis

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 March 26, 2007, through September 1, 2010, and equipped with a Signal-detection and Activation Module (SAM) Chassis.

Under certain conditions, the SAM Chassis may experience water intrusion and corrosion damage. This corrosion may cause electrical shorts or intermittent operation of trailer tail lamps, trailer stop lamps, trailer side marker lamps, and trailer lighting. Intermittent operation of required trailer lamps may provide inaccurate signals to other drivers which could increase the risk of a crash. An electrical short in the SAM Chassis may also cause melting in the SAM or other electrical components, which may lead to a vehicle fire.

Vehicles in FL679A-C will be inspected for the presence of drip shields and drip loops and they will be installed where required. SAM Chassis will be inspected/tested to ensure proper functionality, and replaced if required. Vehicles in FL679D have had the Interim Recall performed, and no further work is needed. If your vehicle had the Interim Recall performed, no work is needed, and you do not need to take any further action (FL679D).

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 / Contact Us / Find a Dealer. The Recall will take approximately one and a half 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
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.
Work Instructions

Subject: Freightliner Cascadia SAM Chassis


SAM Chassis/Shield/Drip Loop Inspections and Replacement/Installation

1. Check the base label (Form WAR259) for a completion sticker for FL679 indicating this work has been done. The base label is usually located on the passenger-side door about 12 inches (30 cm) below the door latch. If a completion sticker for this campaign is present, no work is needed. If a completion sticker is not present, proceed with the next step.

2. Park the vehicle, shut down the engine, and apply the parking brakes. Chock the tires.

3. Disconnect batteries.

4. Remove the driver’s side door sill cover.

5. Remove the lower driver’s side A-Pillar cover.

6. Inspect the SAM Chassis and verify that a drip shield is installed. See Fig. 1. Make sure that the drip shield is in contact with the frontwall at all points. If the drip shield is firmly seated to the frontwall, go to step 9. If there is no drip shield installed or the drip shield is loose or separated at any point from the frontwall, continue with step 7 to replace the drip shield.

7. Disconnect connectors X51 through X55.

8. Remove the liner on the back of the new drip shield from kit 25-FL679-000 to expose the adhesive, then position the drip shield over the SAM Chassis connectors and press securely. Ensure that the drip shield is firmly seated to the frontwall at all points. See Fig. 1.

9. Inspect the SAM Chassis harness for a drip loop. See Fig. 1. If a drip loop has already been created, go to step 11.

   If a drip loop has not been created, continue with step 10.

10. Create a drip loop for the SAM Chassis wiring harness. See Fig. 2. Attach the jumper harness from kit 25-FL679-004 if necessary to create additional length. Once the drip loop is created, use a tie strap to secure the harnesses. Do not connect connectors X51 through X55 until the following connector inspection is completed.

**WARNING**

SAM Chassis electrical components must be covered and protected from water intrusion at all times. Water intrusion can cause corrosion, permanently damaging the connectors, which could result in fire, personal injury, or property damage.

11. Inspect the SAM Chassis for an access cover on the engine side of the vehicle.

   If there is no access cover, install one using part number 06-52855-000.

   If the SAM Chassis has a cover, make sure that it closes securely. Close the cover and apply pressure at all four corners until each corner snaps shut. If the access cover does not close properly or is visibly damaged, replace the cover using part number 06-52855-000.
A. A drip loop prevents water from collecting at the connectors.

1. Drip Shield

Fig. 1, SAM Chassis with a Drip Shield and a Drip Loop

Fig. 2, SAM Chassis Wiring with a Drip Loop

A. Harnesses formed into a drip loop.

B. Wiring is routed down and away from the SAM Chassis.

1. Clutch Pedal (for reference)
2. Tie Strap
12. Inspect the SAM Chassis for corrosion. See Table 3. On the engine side, inspect under the access cover, including connectors X56 through X59. On the cab side, inspect connectors X51 through X55.

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fig. 3</td>
<td>Clean connector with no corrosion on the terminals. These terminals are good and do not need to be replaced.</td>
</tr>
<tr>
<td>Fig. 4</td>
<td>Green and white corrosion on the connectors. Terminal plating shows no signs of damage. These terminals can be cleaned.</td>
</tr>
<tr>
<td>Fig. 5</td>
<td>Dielectric grease on the terminals. These terminals can be cleaned and do not need to be replaced.</td>
</tr>
<tr>
<td>Fig. 6</td>
<td>Dirt and debris on the terminals. These terminals can be cleaned and do not need to be replaced.</td>
</tr>
<tr>
<td>Fig. 7</td>
<td>Orange, green, and white corrosion on the terminals. Terminal plating exhibits signs of unrecoverable corrosion. This unit is considered unrecoverable and must be replaced.</td>
</tr>
</tbody>
</table>

Table 3, SAM Chassis Corrosion Quick Reference

12.1 If necessary, scrub brush the corroded and dirty terminals with a dry nylon brush, then remove the debris with a shop vacuum. This will allow for a more accurate inspection of the connectors.

12.2 If corrosion is unrecoverable and limited to the connector terminals, replace the terminals. Refer to Section 54.06 of the Cascadia Workshop Manual, and Service Bulletin 54-290 for information on replacing connector terminals. Once the terminals are repaired, continue with step 13.

IMPORTANT: If the SAM Chassis needs to be replaced due to unrecoverable levels of corrosion, one or more photos that clearly show the product sticker and the corroded area must be attached to the claim.

12.3 If unrecoverable levels of corrosion are found at the SAM Chassis, remove all fuses, relays, and connectors, then take a picture of the SAM Chassis. Make sure that the photo(s) clearly show the product sticker and the corroded area(s) of the SAM Chassis. See Fig. 8. This photo must be attached to the claim.

12.4 Replace the SAM Chassis. Refer to Section 54.02, Subject 100 of the Cascadia Workshop Manual. Once the SAM Chassis is replaced, continue with step 20.

13. Reconnect connectors X51 through X53 and ensure that their harnesses are formed into a drip loop. Reconnect connectors X45 and X55, routing their wires down and away from the SAM Chassis.

14. Perform an ohm test on the SAM Chassis. See Fig. 9.

Perform an ohm test on the following three pins:

- X58-18 to X58-3; should measure between 50 kΩ to 220 kΩ.
- X58-18 to X58-5; should measure between 50 kΩ to 150 kΩ.
- X58-3 to X58-5; should measure between 50 kΩ to 150 kΩ.

If the SAM Chassis fails any of the three ohm tests, note the pin and failing measurement (it will be included in the claim story) and replace the SAM Chassis. Refer to Section 54.02, Subject 100 of the Cascadia Workshop Manual, then continue with step 20.

If the SAM Chassis passes the ohm test, continue with step 15 to verify CAN communication with the SAM Chassis.

15. Connect the batteries.
Fig. 3, Clean Terminals with No Corrosion

Fig. 4, Green and White Corrosion (recoverable with cleaning)

Fig. 5, Terminals with Dielectric Grease

Fig. 6, Terminals with Dirt and Debris
Fig. 7, Unrecoverable Corrosion, Terminal Plating is Compromised

Fig. 8, Sample Condemned SAM Chassis Photo for Claim

Fig. 9, X58 Terminal Locations for Ohm Tests

1. Terminal 5
2. Terminal 18
3. Terminal 3
16. Connect the vehicle to DiagnosticLink and make sure that communication can be established with the SAM Chassis. If communication cannot be established, troubleshoot communication issues. Refer to **G02.05 — SAM Chassis** in the *Cascadia Troubleshooting Manual*. If the troubleshooting indicates the SAM Chassis is bad, replace the SAM Chassis. Refer to **Section 54.02, Subject 100** of the *Cascadia Workshop Manual*, then continue with step 20.

17. With the vehicle connected to DiagnosticLink, capture and save all active and historic fault codes.

   **NOTE:** This file is a required claim attachment for any SAM Chassis replacements performed under this recall.

   17.1 Select "Fault Codes" from the menu.
   17.2 Select "File" then select "Print" from the drop down menu
   17.3 From the "Select Printer" window, choose "Convert to PDF."
   17.4 Save the PDF as "DiagnosticLink Data."

18. Troubleshoot all fault codes with Source Address (SA) 71, as well as any CAN fault codes directly related to SAM Chassis communication. Refer to **G02.05 — SAM Chassis** in the *Cascadia Troubleshooting Manual*. See **Table 4** for a list of fault codes related to SAM Chassis CAN communication.

<table>
<thead>
<tr>
<th>SA</th>
<th>SPN</th>
<th>FMI</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>524071</td>
<td>31</td>
<td>Lost communication with SAM Chassis</td>
</tr>
<tr>
<td>37</td>
<td>524071</td>
<td>31</td>
<td>Lost communication with SAM Chassis</td>
</tr>
<tr>
<td>49</td>
<td>524071</td>
<td>31</td>
<td>Lost communication with SAM Chassis</td>
</tr>
<tr>
<td>71</td>
<td>520201</td>
<td>3</td>
<td>CAN low - Voltage above normal, or shorted to high source</td>
</tr>
<tr>
<td>71</td>
<td>520202</td>
<td>4</td>
<td>CAN high - Voltage below normal, or shorted to low source</td>
</tr>
<tr>
<td>71</td>
<td>524033</td>
<td>31</td>
<td>Lost communication with SAM Cab</td>
</tr>
<tr>
<td>71</td>
<td>524037</td>
<td>31</td>
<td>Lost communication with CGW</td>
</tr>
<tr>
<td>71</td>
<td>524049</td>
<td>31</td>
<td>Lost communication with MSF</td>
</tr>
</tbody>
</table>

**Table 4, CAN Fault Codes**

When troubleshooting fault codes, prioritize troubleshooting in the following order:

- **Active and Historic Communication Faults**: Troubleshoot all active and historic SAM Chassis communication fault codes from **Table 4**. Refer to the *Cascadia Troubleshooting Manual*. If troubleshooting determines that the SAM Chassis is bad, continue with step 19. If troubleshooting resolves the fault code issues, continue with the next fault code priority.

- **High-Count Historic Faults with SA 71 (more than 30)**: Troubleshoot high-count historic fault codes with a source address of 71. Refer to the *Cascadia Troubleshooting Manual*. If troubleshooting determines that the SAM Chassis is bad, continue with step 19. If troubleshooting resolves the fault code issues, continue with the next fault code priority.

- **Moderate-Count Historic Faults with SA 71 (10 to 30)**: Troubleshoot all moderate-count historic faults with a source address of 71. Refer to the *Cascadia Troubleshooting Manual*. If troubleshooting determines that the SAM Chassis is bad, continue with step 19. If troubleshooting resolves the fault code issues, continue with the next fault code priority.

- **Low-Count Historic Faults with SA 71 (less than 10)**: If there are no customer-reported symptoms, the fault codes can be cleared without troubleshooting. If fault codes with a source address of 71 occur again after clearing them, troubleshoot the codes. Refer to the *Cascadia Troubleshooting Manual*. If troubleshooting determines that the SAM Chassis is bad, continue with step 19. If troubleshooting resolves the fault code issues, clear any remaining historic faults and continue with step 20.
19. If fault code troubleshooting determines that the SAM Chassis has failed, replace the SAM Chassis. Refer to **Section 54.02, Subject 100** of the *Cascadia Workshop Manual*, then continue with step 20.

20. Install the lower left-hand A-Pillar cover.

21. Install the door sill cover.

**IMPORTANT**: Repair or replacement of other modules that resolve root causes unrelated to SAM Chassis communication issues (fault codes NOT listed on **Table 4**) is not covered by this campaign. However, if the SAM Chassis is replaced using the criteria in step 18 and the MSF, the SAM Cab, or the CGW is also replaced or re-programmed in order to maintain compatibility, it will be covered under this campaign. An OWL recall pre-approval request will be required.

22. If the SAM Chassis is replaced, program it using DiagnosticLink. Refer to **Service Bulletin 54-231, Replacing SAM Cab and SAM Chassis Hardware Assemblies**, and **Service Bulletin 54-239, Cascadia Cabin CAN ECU Compatibility** for more information.

23. Clean a spot on the base label (Form WAR259), write recall number FL679 on a blank red completion sticker (Form WAR260), and attach it to the base label.