May 2015
INT FL679
NHTSA #15V-127
Transport Canada #2015-113
INTERIM RECALL BULLETIN

Subject: Freightliner Cascadia SAM Chassis

Models Affected: Specific Freightliner Cascadia vehicles manufactured March 26, 2007, through September 1, 2010, and equipped with 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.

Until the Final Recall remedy is available, this interim procedure will be performed if the vehicle is experiencing tail lamp problems. Vehicles that are not experiencing a SAM Chassis related failure do not need this interim procedure and it should not be performed.

Under certain conditions water may enter the SAM Chassis causing corrosion which may result in electrical shorts or possible intermittent operation of the tail lamps. Intermittent operation of the tail lamps may provide an inaccurate signal to other drivers which could increase the risk of a crash. An electrical short in the chassis SAM may also cause melting in the SAM or other electrical components which may lead to an electrical fire.

Customers have been advised of the issue and that the final remedy is not yet available. If a vehicle is not experiencing any problems with the tail lamps, no action is needed until the final repair begins. DO NOT perform the interim inspection or repair. If a vehicle is having tail lamp problems (and the cause is not something common such as light bulbs, fuses, loose wires/connections, etc.) the vehicle may be eligible for the interim inspection and possible repair, at which point the interim inspection should be scheduled.

Work Instructions

Please refer to the attached work instructions. Before beginning work, use OWL to confirm whether a vehicle is eligible for an interim Recall repair.

Replacement Parts

Obtain parts for this Interim Recall repair by ordering from your facing Parts Distribution Center.

Table 1 - Parts for INT FL679

Campaign Number	Part Description	Part Number	Qty.
INT FL679-01	MODULE-ECU,CONFIG-SAM CHAS,BASELINE,12V	A06-75982-003	1 ea
INT FL679-02	MODULE-ECU,CONFIG-SAM CHAS,MIDLINE,12V,P	A06-75983-003	1 ea
INT FL679-03	MODULE-ECU,CONFIG-SAM CHAS,HIGHLINE,12V	A06-75984-003	1 ea
INT FL679-01 INT FL679-02 INT FL679-03	SAM Chassis Shield	A22-68255-000	1 ea
INT FL679-01 INT FL679-02 INT FL679-03	Jumper Harness	06-73835-000	1 ea

Table 1

Removed Parts

Please follow Warranty Failed Parts Tracking shipping instructions for the disposition of all removed parts.

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Labor Allowance

Table 2 - Labor Allowance

Campaign Number	Procedure	Time Allowed (hours)	SRT Code
INT FL679-01 INT FL679-02 INT FL679-03	Inspect SAM Chassis	0.3	996-0948A
	Inspect / Replace Sam Chassis	1.2	996-0948F
	Inspect / Replace SAM Chassis & SAM Shield	1.3	996-0948E
	Inspect / Replace SAM Chassis, SAM Shield & Jumper Harness	1.4	996-0948D

Table 2

Claims for Credit

An interim Recall repair is performed only when a failure is present, do not perform the interim repair if there is no failure. You will be reimbursed for your parts, labor, and handling by submitting your claim through the Warranty system within 30 days of completing an interim Recall repair. Please reference the following information in OWL:

- If the vehicle is NOT experiencing a tail lamp failure, no work is needed. DO NOT perform the interim inspection and/or repair.
- If the vehicle PASSES the inspection and tests (**aka - SAM Chassis Pre-Approval Worksheet**.) submit an OWL recall inspection claim.
- If the vehicle FAILS the inspection and tests, submit an OWL recall pre-approval request and attach the SAM Chassis Pre-Approval Worksheet
  - If the pre-approval is approved, submit a based on payment claim.
  - If the pre-approval is denied, submit an inspection claim.
- Claim type is **Recall Campaign**.
- In the Campaign field, enter the campaign number and appropriate group (e.g. **INT FL679-01, INT FL679-02, etc.**).
- In the Primary Failed Part field, enter **25-FL679-000**.
- In the Parts section, enter the appropriate part(s) as shown in the Replacement Parts Table.
- In the Labor section, enter the appropriate SRT from the Labor Allowance Table. Include SRT 939-6035A for 0.3 hours for OWL pre-approval. 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**.

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.

The interim letter notifying vehicle owners is included for your reference.

Copy of Interim 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 it's Freighliner 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 Signal-detection and Activation Module (SAM) Chassis.

Under certain conditions water may enter the SAM Chassis causing corrosion which may result in electrical shorts or possible intermittent operation of the tail lamps. Intermittent operation of the tail lamps may provide an inaccurate signal to other drivers which could increase the risk of a crash. An electrial short in the chassis SAM may also cause melting in the SAM or other electrical components which may lead to an electrical fire.

This is the first of two notices you will receive regarding this subject. This letter is to inform you of an upcoming recall. In the interim, as part of your pre-trip and post trip inspections, ensure correct operation of the tail lamps.

Daimler Trucks is currently developing a final remedy and will notify you when it is available. *When you receive the second notice*, please contact your authorized Daimler Trucks North America dealer to schedule the Recall for your vehicles.

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 to another person, federal regulations require you to send a copy of this notice to the lessee by first class mail within 10 days of your receipt of this notice. 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 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. 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.

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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Work Instructions

Subject: Freightliner Cascadia SAM Chassis

Models Affected: Specific Freightliner Cascadia vehicles manufactured March 26, 2007, through September 1, 2010, and equipped with SAM Chassis.

IMPORTANT: The Interim Recall inspection and/or repair is performed when a tail lamp failure is present. Replacement of a SAM Chassis requires submission of an OWL Recall pre-approval request.

Inspection

1. Check for a claim for INT FL679. If a claim has been filed, no work is needed. If a claim has not been filed, continue with the next step.
2. Park the vehicle, shut down the engine, and apply the parking brakes. Chock the tires.
3. Check for battery voltage at the SAM Chassis.

   Is there battery voltage at the SAM Chassis?

NO – This is not related to the recall. Troubleshoot and repair the problem as appropriate. Refer to the *Cascadia Troubleshooting Manual* for troubleshooting information. No further work under INT FL679 is needed. File an inspection claim.

YES – Refer to **Table 3** for a list of fault codes related to SAM Chassis tail lamp issues. If any of these fault codes are displayed, go to step 4 and fill out the **INT FL679 SAM Chassis Pre-Approval Worksheet**.

If none of the listed codes are displayed, no further work is needed, file an inspection claim.

IMPORTANT: Common lighting issues such as bulbs, fuses, loose connections, etc. are not covered by INT FL679. The Interim Recall addresses issues related only to the fault codes in **Table 3**. If a fault code is **not** shown in **Table 3** it is not covered by this campaign

SAM Chassis Tail Lamp Fault Codes, SA 71		
SPN	**FMI**	**Description**
520603	3	Trailer tail lamps -Voltage above normal, or shorted to high source
520603	4	Trailer tail lamps -Voltage below normal, or shorted to low source
520713	4	End-of-frame primary trailer tail lamps – Voltage below normal, or shorted to low source
520713	5	End-of-frame primary trailer tail lamps – Current below normal, or open circuit
520903	3	Tail lamp right -Voltage above normal, or shorted to high source
520903	4	Tail lamp right -Voltage below normal, or shorted to low source
520903	5	Tail lamp right -Current below normal, or open circuit
520918	3	Tail lamp left -Voltage above normal, or shorted to high source
520918	4	Tail lamp left -Voltage below normal, or shorted to low source
520918	5	Tail lamp left - Current below normal, or open circuit

Table 3, SAM Chassis Tail Lamp Fault Codes, SA 71

4. Fill out the SAM Chassis Pre-Approval Worksheet (tests) at the end of these work instructions
5. What are the results of the test?

   If the vehicle passes ALL tests, no further work is needed. Submit a claim for inspection.

   If the vehicle FAILS one or more of the tests and the faults are not resolved by normal troubleshooting, the SAM Chassis needs to be replaced and the drip shield and drip loop need to be installed (unless they are already present). Submit an OWL Recall pre-approval request for INT FL679, you must attach the completed copy of the INT FL679 - SAM Chassis Pre-Approval Worksheet.

   - If the pre-approval is approved, go to SAM Chassis Replacement and Drip Shield/Loop Installation.
   - If the pre-approval is denied, no further work is needed. Submit a claim for inspection.

SAM Chassis Replacement and Drip Shield/Loop Installation

If a drip shield and/or drip loop are already present, they do not need to be replaced.

1. Disconnect batteries.
2. Remove the driver side door sill cover.
3. Remove the lower left-hand A-Pillar cover.
4. Mark and disconnect the SAM Chassis wiring.
5. Replace the SAM Chassis. Refer to **Section 54.02**, **Subject 100** in the *Cascadia Workshop Manual* for replacement instructions.
6. Remove the liner on the back of the drip shield to expose the adhesive, then position the drip shield over the SAM Chassis connectors and press securely. Ensure that there is sufficient clearance at the frontwall for the drip shield to stick directly to the metal and not to any other material. See **Fig. 1**. (if a drip shield is already present, skip this step.)
7. Create a drip loop for the SAM Chassis wiring harness. See **Fig. 2**. Attach a jumper harness (06-73835-000) if necessary to create additional length. Once the drip loop is created, use a tie strap to secure the harnesses. (If a drip loop is already present, skip this step.)
8. As previously marked, connect the cab wiring to the SAM Chassis. Make sure that the wiring is routed down and away from the SAM Chassis to prevent the entrance of moisture.
9. Install the lower left-hand A-Pillar cover.
10. Install the door sill cover.
11. Connect the batteries.
12. If required, program the SAM Chassis 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.
13. Submit the claim based on the approved SAM Chassis Pre-Approval.

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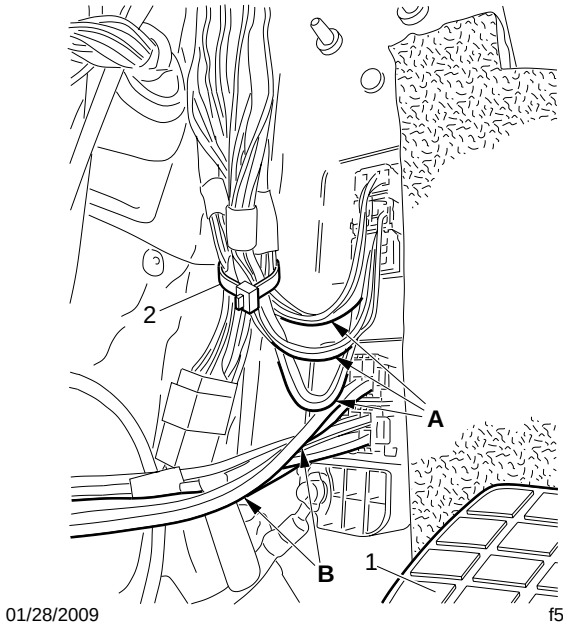
A. A drip loop prevents water from collecting at the connectors.

1. Drip Shield

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



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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

Fig. 2, SAM Chassis Wiring with a Drip Loop

INT FL679 SAM Chassis Pre-Approval Worksheet

NOTE: Not all sections of the worksheet will be filled out. Only values for fault codes indicated in **Table 3** (page 4) will be recorded.

INT FL679 SAM Chassis Pre-Approval Worksheet				
Test	**Description**	**Yes**	**No**	**Voltage/ Resistance**
1	**SA 71 SPN 520603 FMI 3 -Trailer tail lamps -Voltage above normal, or shorted to high source.**			
	A. Is the fault code active?			—
	B. Turn the headlight switch off, then check the voltage at fuse 13. What is the Voltage at fuse 13? 0 volts indicates a good SAM Chassis. Any voltage indicates a short to power internal to the SAM Chassis.	—	—	
	C. Back probe connector X55, pin 3 at the SAM Chassis. What is the voltage at connector X55, pin 3? 0 volts indicates a good SAM Chassis. Any voltage indicates a short to power internal to the SAM Chassis.	—	—	
	D. Back probe connector X55, pin 3 on the harness. Is there voltage at connector X55, pin 3? Any voltage indicates short to power in the harness. This does not indicate a problem with the SAM Chassis.	—	—	—
2	**SA 71 SPN 520603 FMI 4 -Trailer tail lamps -Voltage below normal, or shorted to low source.**			
	A. Is the fault code active?			
	B. Check fuse 13. Is the fuse blown? A blown fuse indicates a short to ground.			
	C. Turn the headlight switch off and check connector X55, pin 3 to battery ground at the SAM Chassis. What is the resistance? 0 to 100 ohms resistance indicates a short to ground internal to the SAM Chassis.	—	—	
	D. If there is continuity, remove relay R9. What is the resistance in the SAM Chassis? 0 to 100 ohms resistance indicates a short to ground internal to the SAM Chassis.	—	—	
	E. Disconnect the light connected to the circuit. Check for a short to ground between connector X55, pin 3 and battery ground on the harness. Is there any resistance? Any resistance value indicates a short to ground in the harness. This does not indicate a problem with the SAM Chassis.	—	—	—
3	**SA 71 SPN 520713 FMI 3 -Trailer tail lamps -Voltage above normal, or shorted to high source.**			
	A. Is the fault code active?			
	B. Turn the headlight switch off and check the voltage at connector X56, pin 13 on the SAM Chassis. What is the voltage? 0 volts indicates a good SAM Chassis. Any voltage indicates a short to power internal to the SAM Chassis.	—	—	
	C. Check the voltage at connector X56, pin 13 on the harness. Is there any voltage? Any voltage indicates a short to power in the harness. This does not indicate a problem with the SAM Chassis.	—	—	—

INT FL679 SAM Chassis Pre-Approval Worksheet				
Test	**Description**	**Yes**	**No**	**Voltage/ Resistance**
	SA 71 SPN 520713 FMI 4 - End-of-frame primary trailer tail lamps – Voltage below normal, or shorted to low source.			
	A. Is the fault code active?			
4	**B**. Check connector X56, pin 13 to battery ground on the SAM Chassis. What is the resistance? 0 to 100 ohms resistance indicates a short to ground internal to the SAM Chassis.	—	—	
	C. Disconnect the light connected to the circuit. Check for a short to ground between connector X56, pin 13 and battery ground on the harness. Is there any resistance? Any resistance value indicates a short to ground in the harness. This does not indicate a problem with the SAM Chassis.	—	—	—
	SA 71 SPN 520713 FMI 5 - End-of-frame primary trailer tail lamps – Current below normal, or open circuit.			
	A. Is the fault code active?			
5	**B**. Check resistance between connector X56, pin 13 and the end of the circuit. What is the resistance? Less than 0.3 ohms indicates a good circuit. "OL" or "open" indicates an open circuit.	—	—	
	C. Apply fused (10-amp) power to connector X56, pin 13, with the harness disconnected. Connect a 100 watt light (or similar) to the end of the circuit; make sure that the light has a good ground. Does the light work? Lights on indicates a good circuit. This does not indicate a problem with the SAM Chassis.			—
	SA 71 SPN 520903 FMI 3 - Tail lamp right -Voltage above normal, or shorted to high source.			
	A. Is the fault code active?			
6	**B**. Turn the headlight switch off and check the voltage at connector X58, pin 3 on the SAM Chassis. What is the voltage? 0 volts indicates a good SAM Chassis. Any voltage indicates a short to power internal to the SAM Chassis.	—	—	
	C. Check the voltage at connector X58, pin 3 on the harness. Is there any voltage? Any voltage indicates a short to power in the harness. This does not indicate a problem with the SAM Chassis.	—	—	—
	SA 71 SPN 520903 FMI 4 - Tail lamp right -Voltage below normal, or shorted to low source.			
	A. Is the fault code active?			
7	**B**. Check connector X58, pin 3 to battery ground on the SAM Chassis. What is the resistance? 0 to100 ohms resistance indicates a short to ground internal to the SAM Chassis.	—	—	
	C. Disconnect the light connected to the circuit. Check for a short to ground between connector X58, pin 3 and the battery ground on the harness. Is there any resistance? Any resistance value indicates a short to ground in the harness. This does not indicate a problem with the SAM Chassis.	—	—	—

INT FL679 SAM Chassis Pre-Approval Worksheet				
Test	**Description**	**Yes**	**No**	**Voltage/ Resistance**
8	**SA 71 SPN 520903 FMI 5 - Tail lamp right -Current below normal, or open circuit.**			
	A. Is the fault code active?			
	B. Check the resistance between connector X58, pin 3 and the end of the circuit. What is the resistance? Less than 0.3 ohms indicates a good circuit. "OL" or "Open" indicates an open circuit.	—	—	
	C. Apply fused (10-amp) power to connector X58, pin 3 with the harness disconnected. Connect a 100 watt light (or similar) to the end of the circuit; make sure the light has a good ground. Does the light work? Lights on indicates a good circuit. This does not indicate a problem with the SAM Chassis.			—
9	**SA 71 SPN 520918 FMI 3 - Tail lamp left -Voltage above normal, or shorted to high source.**			
	A. Is the fault code active?			
	B. Turn the headlight switch off and check the voltage at connector X58, pin 18 on the SAM Chassis. What is the voltage? 0 volts indicates a good SAM Chassis. Any voltage indicates a short to power internal to the SAM Chassis.	—	—	
	C. Check the voltage at connector X58, pin 18 on the harness. Is there any voltage? Any voltage indicates a short to power in the harness. This does not indicate a problem with the SAM Chassis.	—	—	—
10	**SA 71 SPN 520918 FMI 4 - Tail lamp left -Voltage below normal, or shorted to low source.**			
	A. Is the fault code active?			
	B. Check connector X58, pin 18 to battery ground on the SAM Chassis. What is the resistance? 0 to 100 ohms resistance indicates a short to ground internal to the SAM Chassis.	—	—	
	C. Disconnect the light connected to the circuit. Check for a short to ground between connector X58, pin 18 and battery ground on the harness. Is there any resistance? Any resistance value indicates a short to ground in the harness. This does not indicate a problem with the SAM Chassis.	—	—	—
11	**SA 71 SPN 520918 FMI 5 - Tail lamp left - Current below normal, or open circuit.**			
	A. Is the fault code active?			
	B. Check the resistance between connector X58, pin 18 and the end of the circuit. What is the resistance? Less than 0.3 ohms indicates a good circuit. "OL" or "open" indicates an open circuit.	—	—	
	C. Apply fused (10-amp) power to connector X58, pin 18, with the harness disconnected. Connect a 100 watt light (or similar) to the end of the circuit, and make sure that the light has a good ground. Does the light work? Lights on indicates a good circuit. This does not indicate a problem with the SAM Chassis.			—