

FLA COE  
FLB COE  
FLD Conventional  
Business Class  
FLC 112 Conventional

Century Class Conventional  
Argosy  
Cargo  
Columbia  
122SD and Coronado

Business Class M2  
Cascadia  
108SD/114SD  
> New Cascadia

**Freightliner  
Service Bulletin**

**Description of revisions:** *This bulletin replaces the version dated July 30, 2020. Information about a reman part has been added.*

## General Information

New Cascadia vehicles with light emitting diode (LED) headlamps built from January 1, 2017 through February 17, 2020 may experience intermittent disabled headlamps due to an issue with the universal light ballast (ULB).

The LED headlamps can turn off if the supply voltage drops below approximately 9V. This low voltage commonly and momentarily occurs when cranking the engine on a vehicle with batteries that are not fully charged. The momentary low voltage may cause the electronic ULB control unit to malfunction. The ULB may not resume normal function until the power supply to the headlamp is disconnected.

If this malfunction occurs, the entire headlamp does not need to be replaced. Replace the ULB control unit. Before installing, validate the software number of the ULB is S07.70 or later. **Do not** replace the ULB with with a ULB that has the software number S07.26 or earlier. See [Fig. 1](#) for software number location.



**Fig. 1, Inner ULB Cover With Software Number**

When replacing the ULB on one headlamp, replace the ULB on the other headlamp, if it has not previously been replaced.

**NOTE:** New Cascadia vehicles built after February 17, 2020 have LED headlamps with a ULB control unit with software that allows the headlamp to recover from low voltage as soon as voltage returns to normal.

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## Parts

ULB Replacement Parts		
DTNA Part Number	ULB Software Number	Part Name
66-01405-050	S07.70 or later	New LED Headlamp ULB Control Unit (with seal and screws)
OR		
66-01405-040R	S07.70 or later	Reman LED Headlamp ULB Control Unit (with seal and screws)

Table 1, ULB Replacement Parts

## Work Instructions

1. Park the vehicle on a level surface, apply the parking brakes, and shut down the engine. Chock the tires.
2. Open the hood.
3. Disconnect the electrical connector from the back of the headlamp assembly.
  - 3.1 Press down on the locking tab with a screwdriver. See [Fig. 2](#).

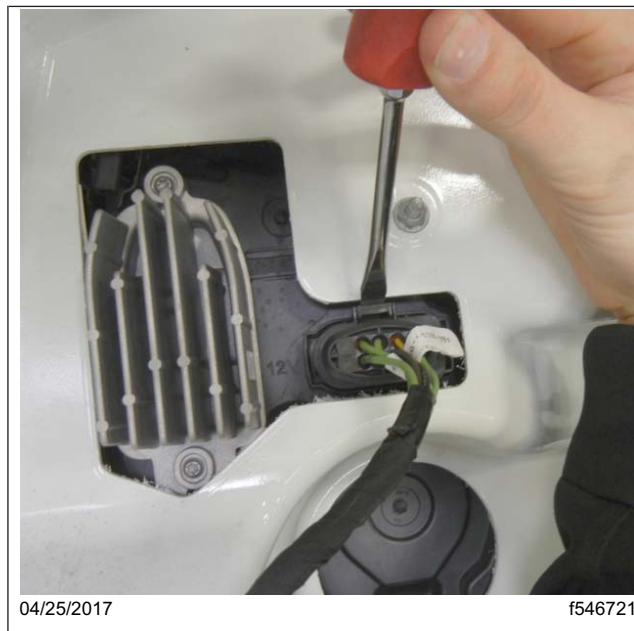


Fig. 2, Pressing Down on the Locking Tab

- 3.2 With the locking tab pressed down, remove the electrical connector from the headlamp.

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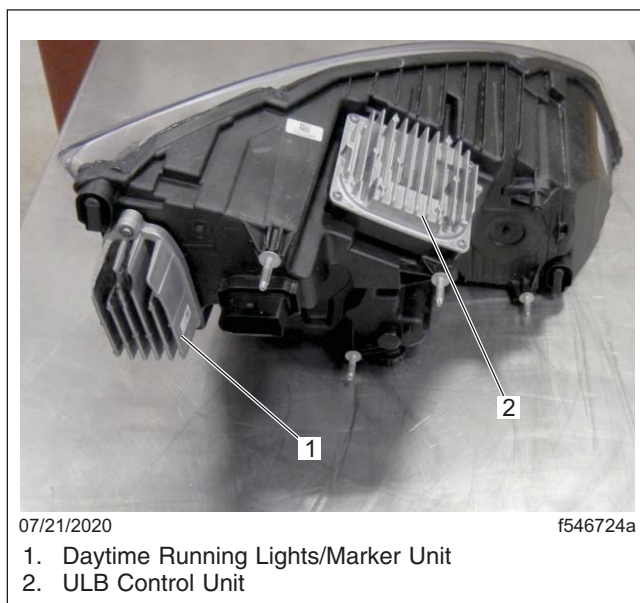
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## NOTICE

**Hold the headlamp assembly mounting stud with a Torx® tool while removing the nuts with a wrench. If the stud spins when the nut is removed, it will unscrew from the housing and potentially damage the assembly.**

4. With an assistant supporting the headlamp assembly, remove the four mounting fasteners.
5. Remove the headlamp assembly from the vehicle.
6. Remove the ULB control unit. See [Fig. 3](#).
  - 6.1 Manually remove the four screws from the ULB control unit.
  - 6.2 Remove the ULB control unit from the headlamp assembly. See [Fig. 4](#). Dispose of the old seal.



**Fig. 3, Headlamp Assembly (reverse side shown)**



**Fig. 4, ULB Control Unit**

- 6.3 Position the new ULB control unit on the headlamp assembly. Make sure the new ULB outer seal is positioned correctly within the headlamp housing and verify the electrical connector is fully seated.
- 6.4 Manually install the four new screws and tighten them 8.9 to 13.28 lbf·in (100 to 125 N·cm).
7. To provide corrosion protection, coat the headlamp harness connector terminals with dielectric grease. See [Table 2](#) for approved electrical lubricants.

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Approved Electrical Lubricants	
Manufacturer	Lubricant or Part Number
Standard Oil Co.	White Vaseline
Shell Oil Co.®	No. 71032; No. 71306
Texaco, Inc.®	No. 955
Quaker State®	No. NYK-77

**Table 2, Approved Electrical Lubricants**

8. Install the headlamp assembly on the vehicle.
  - 8.1 Position the headlamp assembly on the vehicle.
  - 8.2 With an assistant supporting the headlamp assembly, install the fasteners and tighten 6 lbf·ft (8±1 N·m).
9. Connect the electrical connector to the headlamp assembly.
10. Check the headlamps for proper operation.
11. Verify and, if necessary, adjust the headlamp aim as described in [Subject 54.04, 120](#) of the *New Cascadia Workshop Manual*.
12. Close the hood. Remove the tire chocks.

## Warranty

This procedure is warrantable only if the described condition exists and the repair is performed within the applicable base or extended coverage warranty period. If a failure is not found, this procedure is considered preventive and warranty does not apply.

Normal warranty applies. See [Table 3](#) for OWL VMRS codes and labor allowance information. Enter this service bulletin number in the *Service Bulletin #* field.

OWL VMRS Codes and Labor Allowance					
Primary Failed Part	Component Code	Cause Code	SRT Code	Description	Time: Hours
LED Headlamp ULB Control Unit	034-001-093	03	312-5026A	HEADLIGHT ULB MODULE, LED HEADLAMPS, ONE SIDE ONLY, R/R (SB54-331)	0.3
LED Headlamp ULB Control Units	034-001-093	03	312-5026B	HEADLIGHT ULB MODULE, LED HEADLAMPS, BOTH LH AND RH, REPLACE ULBS ONLY, (SB54-331)	0.5

**Table 3, OWL VMRS Codes and Labor Allowance**