

# Updating HVAC ECU Software to Fix Front HVAC Evaporator Freezing and Improve Espar Heater Cool Down

# 54-338

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 December 2021. The general information and warranty information has been updated.*

## General Information

New Cascadia vehicles with sleeper cabs may become extremely cold when in A/C mode, which can lead to reduced airflow as a result of internal ice buildup at the evaporator.

Conditions that contribute to the front evaporator freezing include:

- Engine at 900 rpm and above, typically noticed when vehicle is moving at 60 mph (97 km/h) or more.
- Air conditioning in recirculation mode; the front evaporator may freeze in ECO mode but it will take much longer.
- Blower motor operating at 50% power or above.
- Temperature control knob turned to the full cold setting.
- Ambient temperature approximately 86°F (30°C) or above.
- Humidity at 75% or higher.

There are also issues with the durability of the Espar D5 heater system when paired with the battery parked HVAC system (BPHS). This can be improved by applying "cool down" software to the parked electronic control unit (ECU) HVAC\_P01T.

The front evaporator freezing issue is addressed by the new software available for the front ECU HVAC\_F01T and auxiliary ECU HVAC\_R01T.

This software is now available and should be installed. The software is backwards compatible for all ECUs. Each vehicle will require the software updates listed.

For vehicles without a BPHS or ParkSmart unit, install the software listed in [Table 1](#). If a newer version of the software listed is available, install that.

DiagnosticLink Software Updates for Vehicles without a BPHS or ParkSmart Unit		
Controller	Front (F01T)	Rear (R01T)
Sw Version	21.28.01	21.28.01
Sw Part Number	001 448 14 28 ZGS 001	001 448 07 28 ZGS 001

**Table 1, DiagnosticLink Software Updates for Vehicles without a BPHS or ParkSmart Unit**

For vehicles with a BPHS, install the software listed in [Table 2](#). If a newer version of the software listed is available, install that.

DiagnosticLink Software Updates for Vehicles with a BPHS			
Controller	Front (F01T)	Rear (R01T)	Parked (P01T)
Sw Version	21.28.01	21.28.01	20.35.1
Sw Part Number	001 448 14 28 ZGS 001	001 448 07 28 ZGS 001	000 448 70 28 ZGS 007

**Table 2, DiagnosticLink Software Updates for Vehicles with a BPHS**

For vehicles with a ParkSmart unit, install the software listed in [Table 3](#). If a newer version of the software listed is available, install that.

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DiagnosticLink Software Updates for Vehicles with a ParkSmart Unit			
Controller	Front (F01T)	Rear (R01T)	Parked (P01T)
Sw Version	21.28.01	21.28.01	20.35.1
Sw Part Number	001 448 14 28 ZGS 001	001 448 07 28 ZGS 001	000 448 68 28 ZGS 003

Table 3, DiagnosticLink Software Updates for Vehicles with a ParkSmart Unit

After the HVAC\_P01T software has been updated, drivers may notice the Espar combustion chamber fan and coolant pump running for approximately three minutes after the Espar D5 heater has turned off.

### Warranty

This is an informational bulletin only. Warranty does not apply.