

SS 1034762 P4 Cascadia Front HVAC Evaporator Freezing

Applicable Vehicles:

This solution applies to P4 Cascadia vehicles.

Symptoms:

Front evaporator freezes creating ice buildup, reducing airflow through the vents. Reported conditions that appear to attribute to the evaporator freezing include the following.

- Engine RPM 900 and above, typically noticed when vehicle is moving at highway speeds
- HVAC in Recirculation mode
- Standard / ECO mode, but take much longer or may not freeze up in ECO mode
- Blower Motor at 50% or above
- Temp control to full cold
- Ambient temp roughly 86 or above
- Humidity at 75% or above

Issue:

The evaporator freezing condition is very hard or cannot be duplicated, in a repair facility. Because the condition is hard to duplicate, determining root cause is still under investigation. Complaints of this issue have been more prevalent on P4 Cascadia vehicle built in 2019 and 2020.

Solution:

It is always recommended to follow HVAC troubleshooting and repair procedures. If the HVAC has been fully checked and functioning properly i.e. system refrigerant properly charged, temperature sensors reading accurately, mode doors fully functioning, system operating per section 1.12.002 of the New Cascadia Electrical System and Troubleshooting Manual, then the following recommendation can be used when encountering an evaporator freezing condition.

Until root cause is determined, not running the front HVAC in recirculation mode is recommended when encountering an evaporator freezing issue. Once root cause is determined, this solution will be update to provide better guidance.