

Part 573 Safety Recall Report

20V-199

Manufacturer Name : PACCAR Incorporated**Submission Date :** APR 06, 2020**NHTSA Recall No. :** 20V-199**Manufacturer Recall No. :** 20pbc AND 20KWB**Manufacturer Information :**

Manufacturer Name : PACCAR Incorporated

Address : 777 106TH AVENUE NORTHEAST

BELLEVUE WA 98004

Company phone : 940 591 4220

Population :

Number of potentially involved : 455,458

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2008-2019 Peterbilt 330, 335, 337, 340, 348, 365, 367, 384, 386, 387, 388, 389, 567, 579, 587

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : The recall population encompasses trucks equipped with NAMUX Software that included the 25% voltage threshold setting for the ABS/ESC malfunction indicator lamp

Production Dates : JAN 10, 2007 - MAR 01, 2018

VIN Range 1 : Begin :

NR

End : NR

 Not sequential

Vehicle 2 : 2008-2020 Kenworth T170, T270, T370, T660, T680, T800, T880, and W900

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Trucks Manufactured with NAMUX Software that included the 25% voltage threshold setting for the ABS/ESC malfunction indicator lamp

Production Dates : JAN 24, 2007 - JUL 10, 2019

VIN Range 1 : Begin :

NR

End : NR

 Not sequential**Description of Noncompliance :**

Description of the Noncompliance : The Tractor ABS/ESC Lamp may not illuminate without battery and/or ignition power to the ABS controller (i.e. a blown fuse).

FMVSS 1 : 121 - Air brake systems

FMVSS 2 : 136 - Electronic Stability Control Systems on Heavy Vehicles

Description of the Safety Risk : A driver being unaware of an inoperable ABS or ESC system increases the risk

Description of the Safety Risk : of an accident.

An ABS or ESC warning lamp that does not comply with FMVSS 121 or FMVSS 136 may increase the risk of an accident.

Description of the Cause : The NAMUX software illuminates the Tractor ABS/ESC Lamps when the voltage from the ABS/ESC ECU at a specific input pin of the CECU cab controller drops below 25% of the battery input voltage present at the CECU. In the instance where the ABS/ESC ECU loses power (i.e. the fuse blows) the voltage being measured may not drop below the 25% voltage threshold, thus the ABS and/or ESC malfunction lamp will not illuminate.

Prior to implementation of the FMVSS-136 Electronic Stability Control Mandate (ESC) the malfunction lamp for ESC was combined with the Traction Control (TC) Lamp. Post FMVSS-136 mandate the ABS, ESC and the TC lamps are separate lamps.

Identification of Any Warning that can Occur : Depending on the configuration of the truck, other unrelated warning lamps (i.e. Traction Control, Check Engine, etc.) may illuminate indicating there is an issue with the vehicle.

Involved Components :

Component Name 1 : NR

Component Description : NR

Component Part Number : NR

Supplier Identification :

Component Manufacturer

Name : NR

Address : NR

NR

Country : NR

Chronology :

This recall is an outgrowth of investigation performed in connection with 18V-368. Further testing showed a larger population of vehicles was affected and proposed remedies were not effective. A new testing matrix and

a bench test were developed in September 2018. Work on identifying affected chassis and development of remedy occurred in parallel with the testing described below.

10/23/18-2/12/19: Testing is refined to target the effects of the various voltage thresholds to see if at some intermediate voltage thresholds, the ABS/ESC lamp will correctly illuminate.

4/16/19: Bench test indicates every NAMUX equipped truck except those 2.1m trucks built with the latest version of NAMUX software may be suspect.

4/26/19-5/10/19: Query cab controller supplier as to potential changes in circuitry related to the voltage threshold.

8/12/19-9/3/19: Improper voltage threshold settings identified as likely root cause

9/18/19: Ruled out theory that varying voltage drops over that circuit caused inconsistent test results during full truck testing. Confirmed that CVMUX production trucks are not affected because the production NAMUX software included the 35% voltage threshold as well as a CAN data check for ABS power.

9/19/19: Requested additional full truck testing be conducted on a truck with low battery voltage to assess function of the ABS Lamp when batteries are drained and truck barely starts

10/9-10/15/19: Embedded Engineering confirmed voltage threshold settings for all NAMUX software variations

10/21-10/23/19: software package released as a running change for production; another software release is made available for testing.

12/16/19: Joint Safety Committee reviewed status

2/13/2020: Provided chassis list & instructions to Field Service Engineering for accessing the ECAT CERT region with the ESA service tool for testing the rework procedure, testing delayed due to COVID-19.

3/24/20: Joint Safety Committee convened remotely and decided noncompliance exists.

Description of Remedy :

Description of Remedy Program : The remedy consists of updating the NAMUX software within the cab control module.

How Remedy Component Differs from Recalled Component : Any time a truck is connected to the PACCAR service tool the NAMUX software is checked and will require the NAMUX software to be at or later release level than the level released to insure the ABS lamp illuminates when battery and/or ignition power is lost the ABS controller (i.e. a mandatory software update).

Identify How/When Recall Condition was Corrected in Production : In December 2017 all NAMUX software in current production was updated with the optimized cab control module input pin configuration settings. As root cause was determined/confirmed additional software updates for various configurations were released to include a redundant CAN check. In each case, the software was also released to the field as a mandatory update for any vehicle when connected to the PACCAR service tool.

Recall Schedule :

Description of Recall Schedule : customer notifications will be sent within 60 days

Planned Dealer Notification Date : JUN 04, 2020 - JUN 04, 2020

Planned Owner Notification Date : JUN 05, 2020 - JUN 05, 2020

* NR - Not Reported