

Part 573 Safety Recall Report

21V-546

Manufacturer Name : PACCAR Incorporated**Submission Date :** NOV 09, 2021**NHTSA Recall No. :** 21V-546**Manufacturer Recall No. :** 21KWE**Manufacturer Information :**

Manufacturer Name : PACCAR Incorporated

Address : 777 106TH AVENUE NORTHEAST
BELLEVUE WA 98004

Company phone : 940 591 4220

Population :

Number of potentially involved : 6,916

Estimated percentage with defect : 6 %

Vehicle Information :

Vehicle 1 : 2022-2022 Kenworth T680, T880, W990

Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES

Body Style : OTHER

Power Train : DIESEL

Descriptive Information : The recalled population consists of vehicles with suspect HVAC control heads FF21-1028-13B1, -13B2 -23B1, -23B2 and F21-1047-10012 used at the Chillicothe and KenMex production plant beginning with the start of suspect material received by the kitting supplier on March 23, 2021. When the issue was detected, all vehicles on site were evaluated and a clean point was established (it was not understood at the time that oxidation may not yet be detectable).

Production Dates : MAR 23, 2021 - JUN 03, 2021

VIN Range 1 : Begin : 1XKYD49X1NJ470316 End : 1XKZPP9X4NJ499791 Not sequential**Description of Defect :**

Description of the Defect : Certain HVAC controls may have insufficient soldering and/or oxidation between the potentiometer(s) and the PCBA board, potentially resulting in inoperative functionality including windshield defrost.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : Inoperative windshield defrost may reduce driver visibility increasing the risk of a crash.

Description of the Cause : BHTC determined cleaning flux (Flux 75), which contains a higher concentration of ZnCl used for cleaning of the soldering machine nozzle, was used in error during selective soldering production resulting in incomplete soldering and/or oxidation because of the higher zinc content. Additionally, BHTC, sub-supplier to Mahle, failed to confirm selective soldering equipment parameters post maintenance. Incorrect parameters led to incomplete soldering of certain potentiometers to the PCBA board.

Identification of Any Warning that can Occur : None.

Involved Components :

Component Name 1 : CONTROL-CAB HVAC

Component Description : HVAC Control Head

Component Part Number : F21-1028-13B1, -13B2 -23B1, -23B2 and F21-1047-10012

Supplier Identification :

Component Manufacturer

Name : MAHLE Behr

Address : 1600 Webster Street
Dayton Ohio 45404

Country : United States

Chronology :

04-07-21:Chillicothe manufacturing plant reports to Kenworth Field Service the possibility of HVAC control head functionality issues and requests field feedback. Chillicothe establishes a production clean point end of day shift.

04-12-21:First shipment of certified control heads from BHTC to Chillicothe.

04-13-21:BHTC places permanent corrective actions in place for selective soldering process.

04-23-21:Safety and Compliance notified and investigation opened.

04-30-21:BHTC and Mahle share root cause investigation and permanent corrective actions with Safety and Compliance.

05-19-21:Safety and Compliance reviews warranty information and reads all claims to better understand potential field issues/impact.

05-28-21:Mahle and BHTC confirm potentially suspect population.

06-28-21:Mahle and BHTC confirm two parts returned as part of the warranty claim process have incomplete soldering.

07-16-21:Safety Committee meets and concurs that a safety related defect exists.

08-11-21:Mahle and BHTC report the true root cause of the insufficient soldering is incorrect flux used, and may cause oxidation.

09-09-21:Mahle and BHTC identifies a low usage part number, F21-1028-13B2, that may be affected. Kenworth identifies two additional vehicles with this part number.

09-10-21:Mahle reports additional testing to evaluate inconsistencies in the detection of oxidation, as a result

of incorrectly applied cleaning flux during soldering, identified BHTC containment actions may be inadequate. 09-29-21:Mahle testing is suspended. Mahle reports that parts returned via the warranty process include one failed part certified during containment activities and two failed parts from KenMex.

10-11-21:Mahle provides information to identify the additional suspect population. Paccar warranty claims and plant defect write-ups are reviewed to help determine the suspect population.

11-05-21:The Safety Committee meets and concurs that a safety related defect exists for the expanded population.

Description of Remedy :

Description of Remedy Program : Paccar will notify owners. Each suspect vehicle will have the HVAC control head inspected for suspect date codes and replaced accordingly. Owners who incurred costs to obtain a remedy for the problem addressed by the recall in advance of receiving notification may seek reimbursement through the process outlined in the general reimbursement plan on file.

How Remedy Component Differs from Recalled Component : Recalled components will be replaced with the identical OE part. Recalled components once removed will be marked and/or tagged as defects and returned to the supplier or destroyed per recall repair instructions.

Identify How/When Recall Condition was Corrected in Production : BHTC has removed the liquid cleaning flux from the facility and replaced it with a cleaning flux paste that cannot be used during selective soldering production (only liquid flux is compatible with the machine). Additionally, BHTC has put controls in place to check and update selective soldering process parameters post maintenance, and first and last parts from each selective soldering batch build will be x-rayed to confirm soldering of all joints is complete.

Recall Schedule :

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

Planned Dealer Notification Date : SEP 18, 2021 - SEP 18, 2021

Planned Owner Notification Date : SEP 18, 2021 - SEP 18, 2021

* NR - Not Reported