

# 43-071 Temporary Repair for Chassis with Failed DEF Sensors if a DEF Sensor is NOT AVAILABLE

9/30/2021

 [Edit](#)  [Clone](#)

43-071

## Section

Inlet/Exhaust/Aftertreatment - 43

## Subject

Temporary Repair for Chassis with Failed DEF Sensors if a DEF Sensor is NOT AVAILABLE

## Whats New Abstract

Fix-As-Fail – Due to undersupply issues, only a limited supply of Diesel Exhaust Fluid (DEF) sensors are available. As a temporary solution, after PACCAR confirms a DEF sensor is not available, a temporary software update will allow a vehicle to continue operation with a failed DEF sensor by disabling the DEF sensor diagnostics.

## Introduction

Due to undersupply issues, only a limited supply of Diesel Exhaust Fluid (DEF) sensors are available. As a temporary solution, in agreement with EPA, CARB, and ECCC:

1. When a chassis is diagnosed with a failed DEF sensor and
2. **ONLY** if PACCAR Parts Division (PPD) confirms a DEF sensor is not available
3. PPD will issue a DEF Diagnostic Delete software authorization code via email
4. The dealer may install a temporary software update to allow a vehicle to continue operation with a failed DEF sensor.

**IMPORTANT!** Installing this software update without the PPD software authorization code **will constitute Emission Control System tampering and may open the dealer to liability for related operator fines**. Refer to bulletin [43-046](#) for additional details.

Because this is a chassis related repair, this repair should only be performed at PACCAR authorized service centers, including authorized Cummins service centers for chassis with Cummins engines. Non-PACCAR service centers, including qualified fleets and ISPs, must work with a sponsoring dealer to submit chassis with a confirmed failed DEF sensor to PACCAR SOLUTIONS to either obtain a replacement DEF sensor or to obtain a software authorization code.

## Revision

09/30/2021: The parts section has been updated to inform dealers that an order for a DEF sensor must be placed. The bulletin has also been updated to inform dealers that this repair must be performed at, or directly supported by, a PACCAR service center, in accordance with current warranty agreements.

09/29/2021: A data error caused notifications informing that chassis have been removed from the list. The error has been found and all chassis have been placed back on the list.

The Warranty section has been updated to only require the Software Authorization Code instead of the email for warranty claims. A new report has been provided that only contains chassis with Software Authorization Codes.

09/24/2021: The Operator Information has been updated to include French and Spanish translations. Revised Introduction statement. Corrected typo in DEF sensor shipped email example.

## Chassis Affected

---

All chassis **with a confirmed failed DEF sensor** built from 01/18/2016 through current production equipped with PACCAR Engine Model Years 2016-2021A MX-13 or MX-11 engines or Cummins EPA2017 engines.

PACCAR Engine Temporary Software:

- Engine Software pages will be updated as software becomes available.
- MY17 & 18 Software updates for chassis without PTO is scheduled for September 22, 2021. Software for chassis with PTO is scheduled for October 18, 2021.
- MY19, 20, 21A Software updates for chassis without PTO is scheduled for September 27, 2021. Software for chassis with PTO is scheduled for November 1, 2021.
- MY16 Software for chassis with and without PTO is scheduled for October 11, 2021.

Cummins Engine Temporary Software:

- Refer to Cummins TSB210187 and T2488 in Cummins Quick Serve. (T2488 is tentatively scheduled to be published September 23, 2021.)

## Action

---

### Fix-As-Fail

If a customer comes into your dealership and demonstrates the condition as described in the Introduction above, follow the procedure below to confirm the DEF sensor has failed **AND** a replacement part is not available.

**For PACCAR MX-11 and MX-13 powered chassis only:** SIR will show that 43071 has been completed in SIR after the claim has been processed. Technicians are instructed to write 43071 in grease pencil on the DEF tank after installing the Temporary software update.

Chassis that were previously added to the request form in bulletin 43-070 are being prioritized for hardware or software assignments.

**IMPORTANT!** PACCAR MX-13 and MX-11 engines only: Check with the customer or view the truck configuration to determine if the truck has a PTO installed. This temporary software calibration disables some functionality of PTO and Fast Idle. Software planned for late October and early November will re-enable PTO and Fast Idle operation. Chassis with PTO usage will be prioritized for sensor replacements.

**IMPORTANT!** In the case where this temporary software is applied, inform the customer that their vehicle WILL be included in a future emissions recall that will involve the installation of a replacement DEF sensor and a permanent software update to re-enable the DEF sensor diagnostics.

## Inform the Operator/Owner/Fleet Manager

1. Print the 43-071 Operator Information found in the Links.
2. Confirm the Operator/Owner/Fleet Manager understands all the content of the document.
3. Inform the Operator that the document must be kept in the vehicle. It may be required at DOT inspection stations due to the DEF level gauge not being functional after the software update.

## Warranty

Until further notice and regardless of the vehicle's warranty status, Kenworth will pay for the temporary software installation.

If the vehicle is out of any applicable warranty for the DEF sensor by time, miles, or hours at the time of DEF sensor diagnosis, and when a replacement DEF sensor is not available, the customer is responsible for the diagnostics costs.

- If the DEF sensor is covered by an applicable warranty, diagnostics require a standard and separate long form claim.
- **The dealer must receive a software authorization code from PACCAR SOLUTIONS to install the temporary software update.**
- Chassis that received related software updates prior to the release of this bulletin are not eligible for reimbursement.
- For PACCAR MX powered chassis:
  - 0.5 hours labor to update the PACCAR MX engine PCI software (045-986 & 045-967). Use Quick Claim Code 43-071A.
  - The software authorization code from this [Software Authorization Report](#) MUST be included with the claim. These claims may be subject to audit by EPA, CARB, and/or ECCC.
  - Dealers using DWC to file claims must file a long form claim.
- For Cummins powered chassis, refer to TRP 2488 for claim filing details.
  - **IMPORTANT!** Because this is a chassis related issue, only PACCAR approved dealers can apply this software.
  - Because this is a chassis related repair, this repair must be performed at, or directly supported by, a PACCAR service center, in accordance with current warranty agreements.



### NOTE

This software update will not trigger a DTC. Diagnosis of DTCs is only covered when there is a report showing DTCs were not present prior to the software update.

- File a long form claim for extraordinary circumstances. A quick claim for standard labor must be filed first.
- Issues that are a result of the use of DAVIE4 or Cummins Insite software versions that are less than the currently released version will not be covered by warranty.

- File the claim within 14 days in accordance with Warranty Policy.

For cross division repairs, refer to Warranty Policy Bulletin [CE011](#).

**Take-Off Parts Disposition: N/A**

| PRWS CLAIM CODING      |             |                      |                                                                                                                                                                                                                                                                                                                                  |
|------------------------|-------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Campaign Code:         | 43071       | Campaign Type        | Field Repair                                                                                                                                                                                                                                                                                                                     |
| Claim Category:        | Truck       | Repair Type          | Fix-As-Fail                                                                                                                                                                                                                                                                                                                      |
| Customer Concern Code  | 010         | Causal Code          | 33                                                                                                                                                                                                                                                                                                                               |
| Corrective Action Code | 23          | Responsibility Code: | Camp                                                                                                                                                                                                                                                                                                                             |
| Failure Location       | 043-007-131 | Causal Part          | <p>Dealer must verify the appropriate DEF sensor for the chassis as listed in WebECAT.</p> <p>Q21-6170-001K1T</p> <p>Q21-6170-002K1T</p> <p>Q21-6170-003K1T</p> <p>Q21-6170-004K1T</p> <p>Q21-6170-005K1T</p> <p>Q21-6170-006K1T</p> <p>Q21-6170-007K1T</p> <p>Q21-6170-008K1T</p> <p>Q21-6171-001K1T</p> <p>Q21-6171-002K1T</p> |
| Supplier Code          | N/A         | SRT Code             | <b>045-986</b><br>0.4 hrs.                                                                                                                                                                                                                                                                                                       |

|  |  |  |                                                                                                      |
|--|--|--|------------------------------------------------------------------------------------------------------|
|  |  |  | Download/Install<br>New Software<br><b>045-967</b><br>0.1 hrs.<br>Process DAVIE4 file<br>through PVP |
|--|--|--|------------------------------------------------------------------------------------------------------|

| CLAIM CODING      |                                                                                                                                        |                      |       |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------|
| Failure Location: | 043-007-131                                                                                                                            | Work Accomplished:   | 69    |
| Failure Type:     | 700                                                                                                                                    | Responsibility Code: | 01    |
| SRT Code:         | <b>045-986</b><br>0.4 hrs.<br>Download/Install<br>New Software<br><br><b>045-967</b><br>0.1 hrs.<br>Process DAVIE4<br>file through PVP | Claim Type:          | N/E   |
| Vendor Code:      | N/A                                                                                                                                    | Campaign Field:      | 43071 |

## Parts

---

Place an order for a DEF sensor.

**ONLY** if a DEF sensor is not available, and confirmed by PACCAR SOLUTIONS, can this temporary software be used. PACCAR SOLUTIONS will issue a software authorization code via email, (also available to you in the Dealer Report and the Software Authorization Report) and this code will allow you to proceed with the temporary software update.

If the temporary software update has been approved, cancel your order. Replacement of the DEF sensor will be addressed in a future emissions recall.

**IMPORTANT!** If an order number is not provided, your chassis will not be processed.

## Background

---

Supply of replacement DEF sensors is severely constrained. If a replacement DEF sensor is not available, a temporary software update can be installed. The temporary software update will allow a vehicle with a failed DEF sensor to continue to operate by disabling the DEF quality and DEF level diagnostics and associated derate inducements. **When DEF sensors are readily available, vehicles that received the software update will be included in an emissions recall to update the software and restore full diagnostic and inducement functionality for the vehicle.**

The DEF or Urea Quality Sensor (UQS) sensor consists of three different sensors: a urea quality sensor, a DEF fluid temperature sensor, and a DEF fluid level sensor.

Chassis will be flagged with 43-071 Completed in SIR after the claim is processed.

Report Search Tips:

- The reports update in near real-time.
- The reports are sorted by Dealer Code, then Chassis Number, then Disposition.
- The report view is limited to 2500 rows per page.
  - The search function only searches the page.
  - The reports can be exported to Excel by clicking the three vertical dots to the left of **(View Only)** in the blue bar at the top of the page.

**(View Only) :**

## Procedure

**Please follow your dealership's safety procedures and precautions to ensure the vehicle can be safely repaired and maintained.**

### Conditions that must be met prior to updating engine software

1. Refer to bulletin [43-061](#) to confirm the appropriate coolant control valve is installed. If a coolant control valve is not available, proceed with this procedure.
2. If you are installing a DEF sensor for a chassis that you have not received an email notification for, please inform us via the DEF Sensor Received form in the Links below.
3. Perform normal diagnostics for the DTC as directed in RMI for PACCAR MX-13 and MX-11 engines or Cummins Quick Serve for Cummins powered vehicles.
  - At this time, PACCAR does not endorse or pay for cleaning of the DEF sensor.
4. Order a DEF sensor after a DEF sensor is confirmed to have failed.
5. Notify PACCAR SOLUTIONS by entering the chassis on the [Failed DEF Sensor Reporting form](#) in the Links section.
  - If applicable, add your order number as described in the form.
  - A response email will be sent to the address provided in the form. Responses are expected to be sent within 24 hours.
  - If you have not provided all the required information, an email requesting an update to the information will be sent to the email provided in the form. No action will be taken for the chassis until the updated information is provided.
  - If you have multiple chassis to upload, download a copy of the [Chassis list Excel file for multiple chassis upload](#) in the Links section below, fill it out, then add the file to the form attachment. In the Failed DEF Sensor Reporting form, in the Last 8 field, state "see attached".
6. Wait for the email reply from PACCAR SOLUTIONS informing you that either a DEF sensor has been shipped for this chassis or you receive an email authorizing you to install the temporary DEF Diagnostic

Delete software. Examples of the emails are provided below.

- If a DEF sensor has been shipped for this chassis, do not continue with this procedure.
  - Only continue with this procedure after PACCAR SOLUTIONS authorization email is received that provides permission to continue to install the software update.
7. After you have received the authorization code from PACCAR SOLUTIONS:
- For all chassis, advise the Owner/Operator/Fleet manager of the consequences of installing this software update as described below.
  - **For PACCAR MX-13 or MX-11 powered chassis**, file a TCS365 case following the guide below. Sponsored fleets can work with their related dealers to install this software update.
  - **For Cummins powered chassis**, refer to the Cummins section under Engine Software Updates below.
8. **For PACCAR MX-13 or MX-11**, if DTCs P3796, P3797, P3798 are present, a stationary regen must be performed as part of this repair after the engine software is updated. File warranty claims for all diagnostic and related items as a normal warranty claim or customer repair.
9. **For Cummins powered chassis**, if DTCs FC2639 or FC1921 are present, a stationary regen must be performed as part of this repair after the engine software is updated. File warranty claims for all diagnostic and related items as a normal warranty claim or customer repair.
10. After installing the software update, write "43-071" on the DEF tank to inform others that the DEF Diagnostic Delete software has been installed.

## Inform the Operator/Owner/Fleet Manager

1. Print the 43-071 Operator Information found in the Links
2. Confirm the Operator/Owner/Fleet Manager understands all the content of the document.
3. **Inform the Operator that the document must be kept in the vehicle.** It may be required at DOT inspection stations due to the DEF level gauge not being functional after the software update.

## TCS365 Case Creation Guide for PACCAR MX-13 and MX-11 Engines

After you have received an authorization code to install the software update, follow this guide to create a TCS365 case for this bulletin to ensure the case is flowed to the appropriate personnel.

A TCS365 case for this bulletin is only required if the following is found:

- All diagnostics described in bulletin 43-061 are completed, the DEF sensor is failed, and replacement parts are not available.

1. Open TCS365 in Google Chrome or Microsoft Edge.
2. Select **Vehicle Support | Technical Assistance**.
3. Select Case Type **MX Software Support** and Case Category **Parameter Changes**.
4. On the MX Software Support page, fill in the following fields as follows and fill in the other fields as appropriate:
  - **Subject:** bulletin 43-071
  - **Description:** Temporary Repair for Chassis with Failed DEF Sensors
  - Complaint/Verification Results: *List active DTCs that support desire to temporarily disable DEF diagnostics.*  
For example: Temporary Repair for Chassis with Failed DEF Sensors  
Complaint/Verification Results: P3932
  - **Area of Concern:** Select Software/Programming
  - **Dealer PO #:** Add the authorization number from the *Software Authorization Granted* email described below. Do not enter a PO # here.
  - **Upload File:** N/A

## Engine Software Updates

After installing the software update, use a yellow grease pencil or paint pen to write *43-071* on the top of the DEF tank as an indicator to other technicians that the DEF Diagnostics Delete software update has been installed.

### For PACCAR MX engines

1. To install this engine software update, you are required to obtain authorization as described above.
2. For PACCAR MX engines, ensure DAVIE4 is up to date.
3. Update the engine software. Refer to Bulletin [E134](#) for information about programming a PACCAR MX engine.

**IMPORTANT! Unless otherwise instructed, all PACCAR MX engine or aftertreatment software files must be processed through PACCAR Vehicle Pro (PVP) prior to programming with DAVIE4.**

### For Cummins Engines

You are only authorized to install this software update AFTER you have received the authorization code from PACCAR.

Refer to Cummins TRP T2488 in Cummins Quick Serve.

Unauthorized download of this ECM calibration code is considered tampering of emission control devices on Cummins products.

Cummins Inc. prohibits tampering of emissions control devices on Cummins® products in any capacity.

## Examples of emails

### Do not reply to these emails.

In the following emails

1. *MX123456* is an example the last 8 digits of the VIN that you submitted via the form.
2. *AC99999* is an example of the Authorization code.

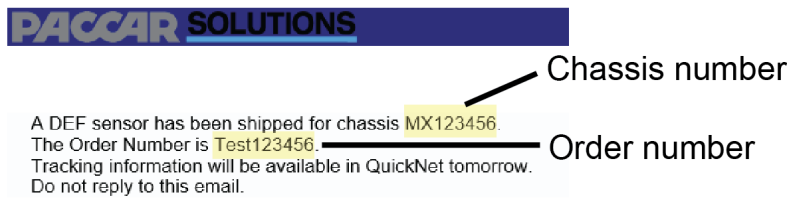
### DEF sensor shipped:

1. In Outlook, the received email will be from Olin Frisvold via Smartsheet as shown in the images below. It will have the subject line of *"A DEF sensor has been shipped for Chassis #."*

Olin Frisvold via Smartsheet  
A DEF sensor has been shipped for Chassis MX123456

Olin Frisvold via Smartsheet <automation@app.smartsheet.com>

- The body of the email will advise you that a DEF sensor has been shipped specifically for this chassis.



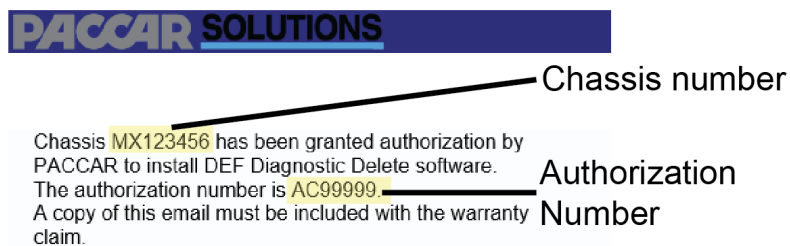
### Software Authorization Granted:

- In Outlook, the received email will be from Olin Frisvold via Smartsheet as shown in the image below. It will have the subject line of "Last 8 of VIN" has been granted authorization by PACCAR to install DEF Diagnostic Delete software.

Olin Frisvold via Smartsheet  
 Chassis MX123456 has been granted authorization by PACCAR to install DEF Diagnost...

Olin Frisvold via Smartsheet <automation@app.smartsheet.com>

- The body of the email will provide the authorization number as shown below.



### Attachments

[43-071 Operator Information](#) This document includes English, French, and Spanish languages.

[Failed DEF Sensor Reporting form](#) Used to report to PACCAR SOLUTIONS that a chassis has a failed DEF sensor.

[Chassis list Excel file for multiple chassis upload](#)

[DEF Sensor Received Form](#) Used to report to PACCAR SOLUTIONS that a chassis has received a DEF sensor, but no shipping information has been supplied to the dealer. This helps to prevent the customer from potentially being included in a future emissions recall.

[Dealer Report](#). The information provided in this sheet is for **INTERNAL** use at Kenworth and Kenworth dealers only for the express purpose of tracking the status of parts shipments and software authorization.

[Software Authorization Report](#) This report shows only chassis that have received approval for software authorization. The data included in this report is near-real time.

Authored by: OF

# 43-071 - Temporary Repair for Chassis with Failed DEF Sensors if a DEF Sensor is NOT AVAILABLE

10/1/2021

 [Edit](#)  [Clone](#)

43-071

## Section

Inlet/Exhaust/Aftertreatment - 43

## Subject

Temporary Repair for Chassis with Failed DEF Sensors if a DEF Sensor is NOT AVAILABLE

## Whats New Abstract

Fix-As-Fail – Due to undersupply issues, only a limited supply of Diesel Exhaust Fluid (DEF) sensors are available. As a temporary solution, after PACCAR confirms a DEF sensor is not available, a temporary software update will allow a vehicle to continue operation with a failed DEF sensor by disabling the DEF sensor diagnostics.

## Introduction

Due to undersupply issues, only a limited supply of Diesel Exhaust Fluid (DEF) sensors are available. As a temporary solution, in agreement with EPA, CARB, and ECCC:

1. When a chassis is diagnosed with a failed DEF sensor and
2. **ONLY** if PACCAR Parts Division (PPD) confirms a DEF sensor is not available
3. PPD will issue a DEF Diagnostic Delete software authorization code via email
4. The dealer may install a temporary software update to allow a vehicle to continue operation with a failed DEF sensor.

**IMPORTANT!** Installing this software update without the PPD software authorization code **will constitute Emission Control System tampering and may open the dealer to liability for related operator fines**. Refer to bulletin [2-16](#) for additional details.

Because this is a chassis related repair, this repair should only be performed at PACCAR authorized service centers, including authorized Cummins service centers for chassis with Cummins engines. Non-PACCAR service centers, including qualified fleets and ISPs, must work with a sponsoring dealer to submit chassis with a confirmed failed DEF sensor to PACCAR SOLUTIONS to either obtain a replacement DEF sensor or to obtain a software authorization code.

## Revision

10/01/2021: Select chassis have received preloaded software updates. Email notifications were sent out this morning. To further help identify these chassis, they are highlighted in green on all reports.

Image added to Parts section to show how the label indicates the chassis the sensor is intended for.

9/30/2021 - The parts section has been updated to inform dealers that an order for a DEF sensor must be placed. The bulletin has also been updated to inform dealers that this repair must be performed at, or directly supported

by, a PACCAR service center, in accordance with current warranty agreements. A data error caused notifications informing that chassis have been removed from the list. The error has been found and all chassis have been placed back on the list.

09/24/2021 - The Operator Information has been updated to include French and Spanish translations. Revised Introduction statement. Corrected typo in DEF sensor shipped email example.

## Chassis Affected

---

All chassis **with a confirmed failed DEF sensor** built from 01/18/2016 through current production equipped with PACCAR Engine Model Years 2016-2021A MX-13 or MX-11 engines or Cummins EPA2017 engines.

PACCAR Engine software:

- Engine Software pages will be updated as software becomes available.
- MY17 & 18 SW Software updates for chassis without PTO is scheduled for September 22, 2021. Software for chassis with PTO is scheduled for October 18, 2021.
- MY19, 20, 21A Software updates for chassis without PTO is scheduled for September 27, 2021. Software for chassis with PTO is scheduled for November 1, 2021.
- MY16 Software for chassis with and without PTO is scheduled for October 11, 2021.

Cummins engine software:

- Refer to Cummins TSB210187 and T2488 in Cummins Quick Serve. (T2488 is tentatively scheduled to be published September 23, 2021).

## Action

---

### Fix-As-Fail

If a customer comes into your dealership and demonstrates the condition as described in the Introduction above, follow the procedure below to confirm the DEF sensor has failed **AND** a replacement part is not available.

Chassis that were previously added to the request form in bulletin 43-070 are being prioritized for hardware or software assignments.

**IMPORTANT!** PACCAR MX-13 and MX-11 engines only: Check with the customer or view the truck configuration to determine if the truck has a PTO installed. This temporary software calibration disables some functionality of PTO and Fast Idle. Software planned for late October and early November will re-enable PTO and Fast Idle operation. Chassis with PTO usage will be prioritized for sensor replacements.

**IMPORTANT!** In the case where this temporary software is applied, inform the customer that their vehicle WILL be included in a future emissions recall that will involve the installation of a replacement DEF sensor and a permanent software update to re-enable the DEF sensor diagnostics.

## Inform the Operator/Owner/Fleet Manager

1. Print the **43-071 Operator Information** found in the Links.
2. Confirm the Operator/Owner/Fleet Manager understands all the content of the document.
3. Inform the Operator that the document must be kept in the vehicle. It may be required at DOT inspection stations due to the DEF level gauge not being functional after the software update.

## Warranty

Until further notice and regardless of the vehicle's warranty status, Peterbilt will pay for the temporary software installation.

If the vehicle is out of any applicable warranty for the DEF sensor by time, miles, or hours at the time of DEF sensor diagnosis, and when a replacement DEF sensor is not available, the customer is responsible for the diagnostics costs. This bulletin is only applicable to chassis receiving the temporary software update in lieu of a replacement DEF sensor.

- If the DEF sensor is covered by an applicable warranty, diagnostics require a standard and separate long form claim.
- **The dealer must receive a software authorization code from PACCAR SOLUTIONS to install the temporary software update.**
- Chassis that received related software updates prior to the release of this bulletin are not eligible for reimbursement.
- For PACCAR MX powered chassis:
  - 0.5 hours labor to update the PACCAR MX engine PCI software (045-986 & 045-967). Use Quick Claim Code 43-071A.
  - The software authorization code from this [Software Authorization Report](#) MUST be included with the claim. These claims may be subject to audit by EPA, CARB, and/or ECCC.
  - Dealers using DWC to file claims must file a long form claim. Reference campaign 43-071.
- For Cummins powered chassis, refer to TRP 2488 for claim filing details.
  - **IMPORTANT!** Because this is a chassis related issue, only PACCAR approved dealers can apply this software.
  - Because this is a chassis related repair, this repair must be performed at, or directly supported by, a PACCAR service center, in accordance with current warranty agreements.



### NOTE

This temporary software update will not trigger a DTC. Diagnosis of DTCs is only covered when there is a report showing DTCs were not present prior to the software update.

- File a long form claim for extraordinary circumstances. A quick claim for standard labor must be filed first.
- Issues that are a result of the use of DAVIE4 or Cummins Insite software versions that are less than the currently released version will not be covered by warranty.
- File the claim within 14 days in accordance with Warranty Policy.

For cross division repairs, refer to Warranty Policy Bulletin: [Repair of Non-Peterbilt Vehicle with the PACCAR MX Engine](#).

**Take-Off Parts Disposition: N/A**

| PRWS CLAIM CODING      |             |                      |                                                                                                                                                                                                                                                                                                               |
|------------------------|-------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Campaign Code:         | 43-071      | Campaign Type        | Field Repair                                                                                                                                                                                                                                                                                                  |
| Claim Category:        | Truck       | Repair Type          | Fix-As-Fail                                                                                                                                                                                                                                                                                                   |
| Customer Concern Code  | 010         | Causal Code          | 33                                                                                                                                                                                                                                                                                                            |
| Corrective Action Code | 23          | Responsibility Code: | Camp                                                                                                                                                                                                                                                                                                          |
| Failure Location       | 043-007-131 | Causal Part          | <p>Dealer must verify the appropriate DEF sensor for the chassis as listed in WebECAT</p> <p>Q21-6170-001K1T<br/> Q21-6170-002K1T<br/> Q21-6170-003K1T<br/> Q21-6170-004K1T<br/> Q21-6170-005K1T<br/> Q21-6170-006K1T<br/> Q21-6170-007K1T<br/> Q21-6170-008K1T<br/> Q21-6171-001K1T<br/> Q21-6171-002K1T</p> |
| Supplier Code          | N/A         | SRT Code             | <p><b>045-986</b><br/> 0.4 hrs.<br/> Download/Install New Software<br/> <b>045-967</b><br/> 0.1 hrs.<br/> Process DAVIE4 file through PVP</p>                                                                                                                                                                 |

| CLAIM CODING      |                                                                                                                                  |                      |        |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------|--------|
| Failure Location: | 043-007-131                                                                                                                      | Work Accomplished:   | 69     |
| Failure Type:     | 700                                                                                                                              | Responsibility Code: | 01     |
| SRT Code:         | <b>045-986</b><br>0.4 hrs.<br>Download/Install New Software<br><br><b>045-967</b><br>0.1 hrs.<br>Process DAVIE4 file through PVP | Claim Type:          | C      |
| Vendor Code:      | N/A                                                                                                                              | Campaign Field:      | 43-071 |

## Parts

Place an order for a DEF sensor.

**ONLY** if a DEF sensor is not available, and confirmed by PACCAR SOLUTIONS, can this temporary software be used. PACCAR SOLUTIONS will issue a software authorization code via email, (also available to in the Dealer Report and the Software Authorization Report) and this code will allow you to proceed with a temporary software update.

If the temporary software update has been approved, cancel your order. Replacement of the DEF sensor will be addressed in a future emissions recall.

**IMPORTANT!** If an order number is not provided, your chassis will not be processed.

Shipping labels list the intended chassis as shown in the image below.

PACCAR Parts - ROC  
09/27/21

0500

\*Dealer PO/Line: 4508567781A /00001  
 Dealer Location: LD662992  
 Dealer Stock No: LD662992  
 System No/ Release: PE25672- 002 Line: 0001

\*Quantity:  SPQ: 1  
 U/M: EA

Description: SENSOR- DEF QUALITY

\*Part Number: Q21-6170-001K1T

Intended chassis  
listed in these  
fields

## Background

Supply of replacement DEF sensors is severely constrained. If a replacement DEF sensor is not available, a temporary software update can be installed. The temporary software update will allow a vehicle with a failed DEF sensor to continue to operate by disabling the DEF quality and DEF level diagnostics and associated derate inducements. **When DEF sensors are readily available, vehicles that received the software update will be included in an emissions recall to update the software and restore full diagnostic and inducement functionality for the vehicle.**

The DEF or Urea Quality Sensor (UQS) sensor consists of three different sensors: a urea quality sensor, a DEF fluid temperature sensor, and a DEF fluid level sensor.

Chassis will be flagged with 43-071 Completed in SIR after the claim is processed.

Report Search Tips:

- The reports update in near real-time.
- The reports are sorted by Dealer Code, then Chassis Number, then Disposition.
- The report view is limited to 2500 rows per page.
  - The search function only searches the page.
  - The reports can be exported to Excel by clicking the three vertical dots to the left of **(View Only)** in the blue bar at the top of the page.

**(View Only) :**

## Procedure

**Please follow your dealership's safety procedures and precautions to ensure the vehicle can be safely repaired and maintained.**

**Conditions that must be met prior to updating engine software:**

**NOTE**

Starting 10/01/2021, select chassis that have been submitted through the Failed DEF Sensor Reporting form have had software preloaded. When software is preloaded, an email is sent to the email of the person who submitted the chassis. To further assist in identifying these chassis, they are highlighted in green on all reports.

1. Refer to bulletin [43-061](#) to confirm the appropriate coolant control valve is installed. If a coolant control valve is not available, proceed with this procedure.
2. If you are installing a DEF sensor for a chassis that you have not received an email notification for, please inform us via the [DEF Sensor Received form](#) in the Links below.
3. Perform normal diagnostics for the DTC as directed in RMI for PACCAR MX-13 and MX-11 engines or Cummins Quick Serve for Cummins powered vehicles.
  - At this time, PACCAR does not endorse or pay for cleaning of the DEF sensor.
4. Order a DEF sensor after a DEF sensor is confirmed to have failed.
5. Notify PACCAR SOLUTIONS by entering the chassis on the [Failed DEF Sensor Reporting form](#) in the Links section.
  - If applicable, add your order number as described in the form.
  - A response email will be sent to the address provided in the form. Responses are expected to be sent within 24 hours.
  - If you have not provided all the required information, an email requesting an update to the information will be sent to the email provided in the form. No action will be taken for the chassis until the updated information is provided.
  - If you have multiple chassis to upload, download a copy of the [Chassis list Excel File for Multiple Chassis Upload](#) in the Links section below, fill it out, then add the file to the form attachment. For the Last 8 field, state "see attached".
6. Wait for the email reply from PACCAR SOLUTIONS informing you that either a DEF sensor has been shipped for this chassis or you receive an email authorizing you to install the temporary DEF Diagnostic Delete software. Examples of the emails are provided below.
  - If a DEF sensor has been shipped for this chassis, do not continue with this procedure.
  - Only continue with this procedure after PACCAR authorization email is received that provides permission to continue to install the software update.
7. After you have received the authorization code from PACCAR SOLUTIONS:
  - For all chassis, advise the Owner/Operator/Fleet manager of the consequences of installing this software update as described below.
  - **For PACCAR MX-13 or MX-11 powered chassis**, file a TCS365 case following the guide below. Sponsored fleets can work with their related dealers to install this software update.
  - **For Cummins powered chassis**, refer to the Cummins section under Engine Software Updates below.
8. **For PACCAR MX-13 or MX-11**, if DTCs P3796, P3797, P3798 are present, a stationary regen must be performed as part of this repair after the engine software is updated. File warranty claims for all diagnostic and related items as a normal warranty claim or customer repair.
9. **For Cummins powered chassis**, if DTCs FC2639 or FC1921 are present, a stationary regen must be performed as part of this repair after the engine software is updated. File warranty claims for all diagnostic

and related items as a normal warranty claim or customer repair.

10. After installing the software update, write "43-071" on the DEF tank to inform others that the DEF Diagnostic Delete software has been installed.

## Inform the Operator/Owner/Fleet Manager

1. Print the 43-071 Operator Information found in the Links
2. Confirm the Operator/Owner/Fleet Manager understands all the content of the document.
3. **Inform the Operator that the document must be kept in the vehicle.** It may be required at inspection stations due to the DEF level gauge not being functional after the software update.

## TCS365 Case Creation Guide for PACCAR MX-13 and MX-11 Engines

After you have received an authorization code to install the software update, follow this guide to create a TCS365 case for this bulletin to ensure the case is flowed to the appropriate personnel.

A TCS365 case for this bulletin is only required if the following is found:

- All diagnostics described in bulletin 43-061 are completed, the DEF sensor is failed, and replacement parts are not available.
1. Open TCS365 in Google Chrome or Microsoft Edge.
  2. Select **Vehicle Support | Technical Assistance**.
  3. Select Case Type **MX Software Support** and Case Category **Parameter Changes**.
  4. On the MX Software Support page, fill in the following fields as follows and fill in the other fields as appropriate:
    - **Subject:** bulletin 43-071
    - **Description:** Temporary Repair for Chassis with Failed DEF Sensors
    - **Complaint/Verification Results:** *List active DTCs that support desire to temporarily disable DEF diagnostics.*  
For example: Temporary Repair for Chassis with Failed DEF Sensors  
Complaint/Verification Results: P3932
    - **Area of Concern:** Select Software/Programming
    - **Dealer PO #:** Add the authorization number from the *Software Authorization Granted* email described below. Do not enter a PO # here.
    - **Upload File:** N/A

## Engine Software Updates

After installing the software update, use a yellow grease pencil or paint pen to write 43-071 on the top of the DEF tank as an indicator to other technicians that the DEF Diagnostics Delete software update has been installed.

### For PACCAR MX engines

1. To install this engine software update, you are required to obtain authorization as described above.
2. For PACCAR MX engines, ensure DAVIE4 is up to date.
3. Update the engine software. Refer to Bulletin [E134](#) for information about programming a PACCAR MX engine.

**IMPORTANT! Unless otherwise instructed, all PACCAR MX engine or aftertreatment software files must be processed through PACCAR Vehicle Pro (PVP) prior to programming with DAVIE4.**

## For Cummins Engines

You are only authorized to install this software update AFTER you have received the authorization code from PACCAR.

Refer to Cummins TRP T2488 in Cummins Quick Serve.

Unauthorized download of this ECM calibration code is considered tampering of emission control devices on Cummins products.

Cummins Inc. prohibits tampering of emissions control devices on Cummins® products in any capacity.

## Examples of emails

### Do not reply to these emails.

In the following emails

1. MX123456 is an example the last 8 digits of the VIN that you submitted via the form.
2. AC99999 is an example of the Authorization code.

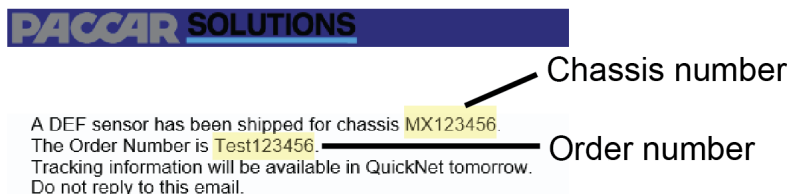
### DEF sensor shipped:

1. In Outlook, the received email will be from Olin Frisvold via Smartsheet as shown in the images below. It will have the subject line of "A DEF sensor has been shipped for Chassis#."

Olin Frisvold via Smartsheet  
A DEF sensor has been shipped for Chassis MX123456

Olin Frisvold via Smartsheet <automation@app.smartsheet.com>

2. The body of the email will advise you that a DEF sensor has been shipped specifically for this chassis.



### Software Authorization Granted:

1. In Outlook, the received email will be from Olin Frisvold via Smartsheet as shown in the image below. It will have the subject line of "Last 8 of VIN" has been granted authorization by PACCAR to install DEF Diagnostic Delete software.

Olin Frisvold via Smartsheet  
Chassis MX123456 has been granted authorization by PACCAR to install DEF Diagnost...

Olin Frisvold via Smartsheet <automation@app.smartsheet.com>

2. The body of the email will provide the authorization number as shown below.

**PACCAR SOLUTIONS**

Chassis number

Chassis **MX123456** has been granted authorization by PACCAR to install DEF Diagnostic Delete software. The authorization number is **AC99999**. A copy of this email must be included with the warranty claim.

Authorization  
Number

## Attachments

---

[43-071 Operator Information](#)

[Failed DEF Sensor Reporting Form](#)

[DEF Sensor Received Form](#)

[Chassis List Excel File for Multiple Chassis Upload](#)

[Peterbilt Dealer Report](#)- The information provided in this sheet is for **INTERNAL** use at Peterbilt and Peterbilt dealers only for the express purpose of tracking the status of parts shipments and software authorization.

[Software Authorization Report](#)

Authored by: PR