

# 43-088: PACCAR MX Engine Model Year 2021B-2023 DEF Derate Time Extension

6/29/2026

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43-088

## Subject

PACCAR MX Engine Model Year (EMY) 2021B-2023 Diesel Exhaust Fluid (DEF) Derate Time Extension

## Whats New Abstract

An optional software update will be available on **07/06/2026** for chassis equipped with EMY 2021B-2023 PACCAR MX-11 and MX-13 engines. This update provides customers with additional time to service their trucks before a DEF-related derate occurs. The software is being offered to customers in alignment with recently updated regulatory agency guidance.

## Condition

This regulatory agency-aligned software update provides vehicle owners additional time to service their trucks before a DEF-related derate occurs.

Low or empty DEF tank levels trigger a fluid-level-based derate rather than a time-based limit. Previously, vehicles would progressively derate to 5 mph as the tank emptied. Now vehicles will progressively derate

to 25 mph.

Poor DEF quality and DEF-related system faults trigger a time-based derate. Previously, operators had 4 engine hours before the vehicle was limited to 5 mph. Now operators have 160 engine hours before the vehicle is limited to 25 mph.

## DEF INDUCEMENT EPA GUIDANCE DETAILS



		PACCAR MX Engines			
		Initial	Level 1	Level 2	Level 3
DEF Level	Tank Level	10%	2.5%	0%	0%
	Derate	Warning	-15%	-30%	25 MPH*
DEF Quality & Related Faults	Total Time Elapsed		10 hrs	80 hrs	160 hrs
	Derate	Warning	-15%	-30%	25 MPH**

\* Level 3 derate for DEF level will occur at the next vehicle startup if the tank is not filled.

\*\*Level 3 derate for DEF quality/related faults will occur at the next vehicle startup if the issue is not resolved at the previous shutdown.

All vehicles require Diesel Exhaust Fluid to operate properly.

### NOTE

The following items clarify what to expect after the software update has been completed.

- Turning the key off and back on will not reset the derate timers once a DEF error has occurred.
- Inducement time counters will not increase while the key is off.

### Chassis Affected

All chassis equipped with an EMY 2021B-2023 PACCAR MX-11 or MX-13 engine

### Action

#### Informational.

An optional software update is now available to allow more time to service a chassis before a DEF

related derate occurs.

## Warranty

**This bulletin is for informational purposes only and is not a proactive campaign.**

This optional software update is customer pay and is not covered under warranty.



### NOTE

This software update does not eliminate the requirement to use DEF. Any warranty claim that is the result of a failure to use DEF as required or misuse/tampering with the aftertreatment system may be denied.

## Procedure



### WARNING!

**Repair or maintenance procedures may pose a safety risk in limited circumstances. You must read all procedure steps before performing any work and follow all dealership safety procedures or precautions. Failure to comply may result in death, personal injury, equipment damage, or property damage.**



### NOTE

Software will be available on **07/06/2026**. Only perform this software update **07/06/2026** and later.



### NOTE

This software update does not eliminate the requirement to use DEF. Any warranty claim that is the result of a failure to use DEF as required or misuse/tampering with the aftertreatment system may be denied.

Please see the procedure in the Attachments section below for instructions on updating the software.

## Attachments

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[43-088: PACCAR MX EMY 2021B-2023 DEF Derate Time Extension - Procedure](#)