



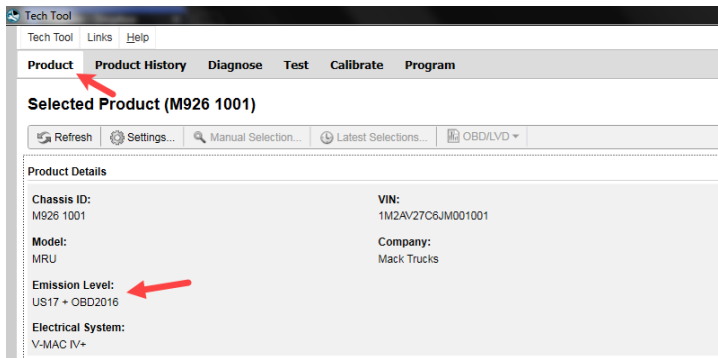
Mack Chassis - Diagnostic Trouble Code (DTC) P20CF, Diagnosis And Repair - US14+OBD15 Emissions, Common Model Year 2016



> Internal Content

Verify the chassis emissions level

- Details can be found in the Product Details box on the Product tab in PTT as seen below:



Software improvements have been released to address this DTC. A Field Service Bulletin with information and instructions has been published and can be found under the Service tab in [Impact](#), [Function Group 284](#). The article can also be searched for by Title. Refer to the chart below for the correct bulletin information:

Emissions Level (Model Year)	Field Service Bulletin
US14+OBD15 (2016)	FSB 284-064 Engine Control Module (ECM) and Aftertreatment Control Module (ACM), Reprogramming

If the Bulletin does not appear when searched with either VIN or Chassis information entered, search by model:

1. Clear any chassis information from the Search box.
2. Select or enter the applicable model.



Search

Chassis series Chassis No.

VIN

CXU

Function group

3. Make sure Title is selected in the Search By field. Enter the correct Bulletin title in the text entry field.

Additional search values

Search by:

Titles

FSB 284-064

4. Press the Search button. The operation will appear in the results window.

Fgrp	Title	Info type	ID/Operation
284	FSB 284-064 Engine Control Module (ECM) and Aftertreatment Control Module (ACM), Reprogramming	Repair	2841-22-09-16

5. Select the correct vehicle configuration from the list that appears as shown below:

FSB 284-064 Engine Control Module (ECM) and Aftertreatment Control Module (ACM), Reprogramming

Description	ID	Date
<input type="checkbox"/> CXU, ENG-VE11, Assembly Date 2015-01-01 - 2015-12-31		06/08/2018
<input type="checkbox"/> CXU, ENG-VE13, Assembly Date 2015-01-01 - 2015-12-31		
<input type="checkbox"/> CXU, ENG-VE16, Assembly Date 2015-01-01 - 2015-12-31		

If software is current and the code is present, the code confirmed status should be verified to be True as shown above before continuing diagnosis. If the status is False and there are no related codes or symptoms, clear the code and release the vehicle.



Tags

[mack](#)

[p20cf](#)

[fsb 284-064](#)

Related links and attachments

[KC-201 FSB 284-064](#)



Feedback

[Give feedback](#)

to help improve the content of this article

(June 2018)

Information

Software updates with enhancements are available for the engine control module (ECM) and aftertreatment control module (ACM) for MACK MP7, MP8 and MP10 engines on OBD2015 vehicles built from January 1, 2015 to December 31, 2015.

Note: This bulletin does not apply to MACK Trucks Australia.

Follow the reprogramming procedure in the following order as outlined in this document:

- ECM reprogramming
- ACM reprogramming

The software updates address the following Diagnostic Trouble Codes (DTCs):

- P026C - Fuel Injector, Low Mass Flow
- P0507 – Idle Engine Speed Rationality: Idle Speed High
- P2002 – PM Filter Efficiency Monitor
- P0422 – Catalyst 2 Efficiency Below Threshold (Bank 1)
- P226D – Diesel Particulate Filter (DPF) Missing Substrate
- P249C – Time to Enter DEF (Diesel Exhaust Fluid) Dosing
- P208E – Aftertreatment Reagent Dosing Valve Clogged
- P2459 – Too Frequent Regeneration
- P24A4 – DPF Restriction – Soot Accumulation Too High (Bank 1)
- P10FE – DPF Restriction – Soot Accumulation Moderately High (Bank 1)
- P226C – Boost Pressure Slow Response
- P249F – Excessive Time to Enter Closed Loop DPF Regeneration Control
- P24A0 – Closed Loop DPF Regeneration Control at Limit – Temperature Too Low
- P208A – Aftertreatment DEF Pump: Open Circuit
- P20CF – (AHI) Fuel Injector “A” Stuck Open
- P226C00 – Turbocharger Boost Control “A” Slow Response
- P205B – Aftertreatment DEF tank Temperature Sensor: Rationality Low
- P20128 - Engine Cooling System: Stuck Open or Leaking Thermostat Monitor

Check the current main software for ECM and ACM to determine the action required as shown in the table below.

Action Required		
ECM	Main Software	Action Required
MP7 / MP8	Equal or Less Than 22687466	Update to Latest Software
MP10	Equal or Less Than 22644017	Update to Latest Software
ACM	Main Software	Action Required

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MP7 / MP8 / MP10	Equal or Less Than 22741796	Update to Latest Software
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Required Tools

Premium Tech Tool (PTT) version 2.06.35 or higher

VOCOM Diagnostic Connector 88890304

Communication Interface 88890300

Note: Using other interfaces may affect programming speed.

Note: Check Premium Tech Tool version by clicking on Help tab and then click on "About Tech Tool".

Software Update Procedure

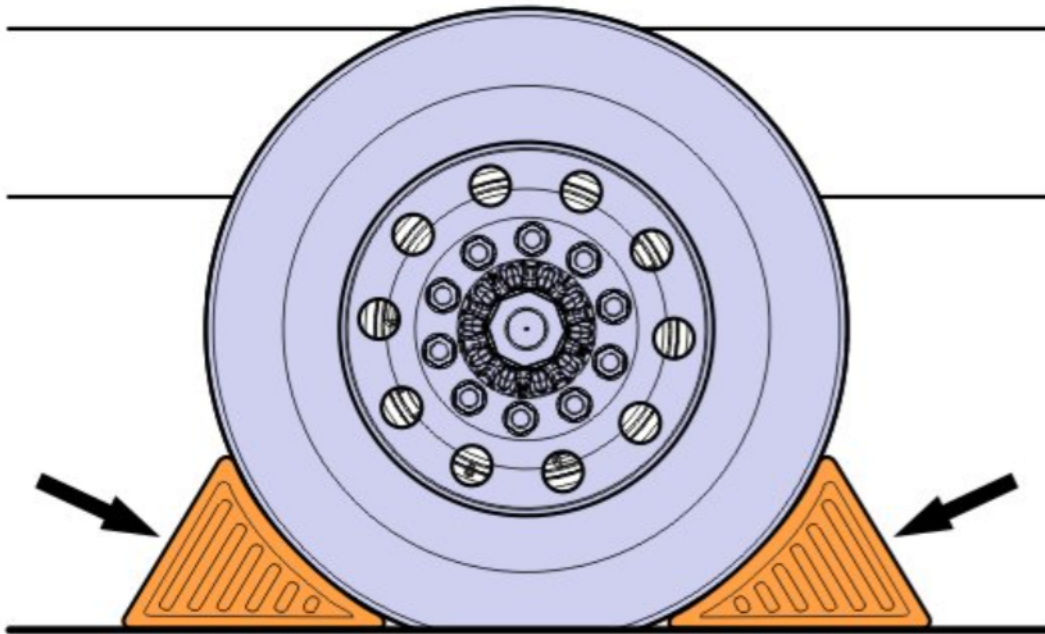
You must read and understand the precautions and guidelines in Service Information, group 20, "General Safety Practices, Engines" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.



Danger

Do not attempt to repair or service this vehicle without having sufficient training, the correct service literature and the proper tools. Failure to follow this could make the vehicle unsafe and lead to serious personal injury or death.

1. Park the vehicle on a level surface.
2. Apply the parking brake.
3. Place the transmission in neutral or park.
4. Install the wheel chocks.



5. Connect Premium Tech Tool (PTT) to the vehicle diagnostics connector using the 16 pin OBD cable 88890304 and Communication Interface 88890300. Connect the PC to a functional LAN or modem connection and a 120 Volt AC source.
6. Turn the ignition switch "ON".
7. Log in to PTT and Identify Vehicle is displayed.
8. Once the vehicle has been identified, enter the Work Order Number information, then click Start Work.

Work Order Number

Enter a work order number or select a recently used work order number in the list.

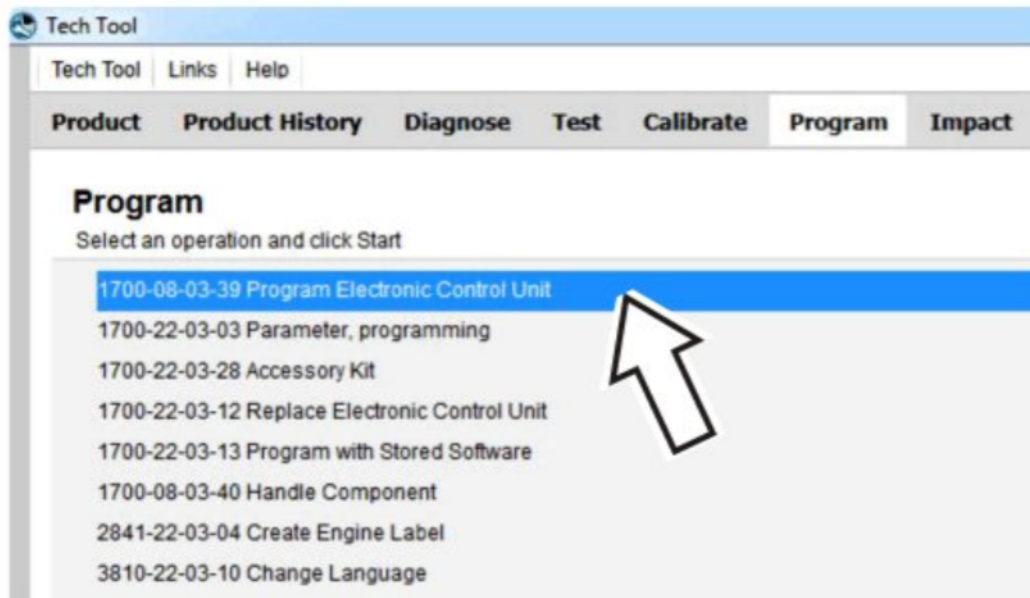
Enter work order number:

Select a recently used work order:

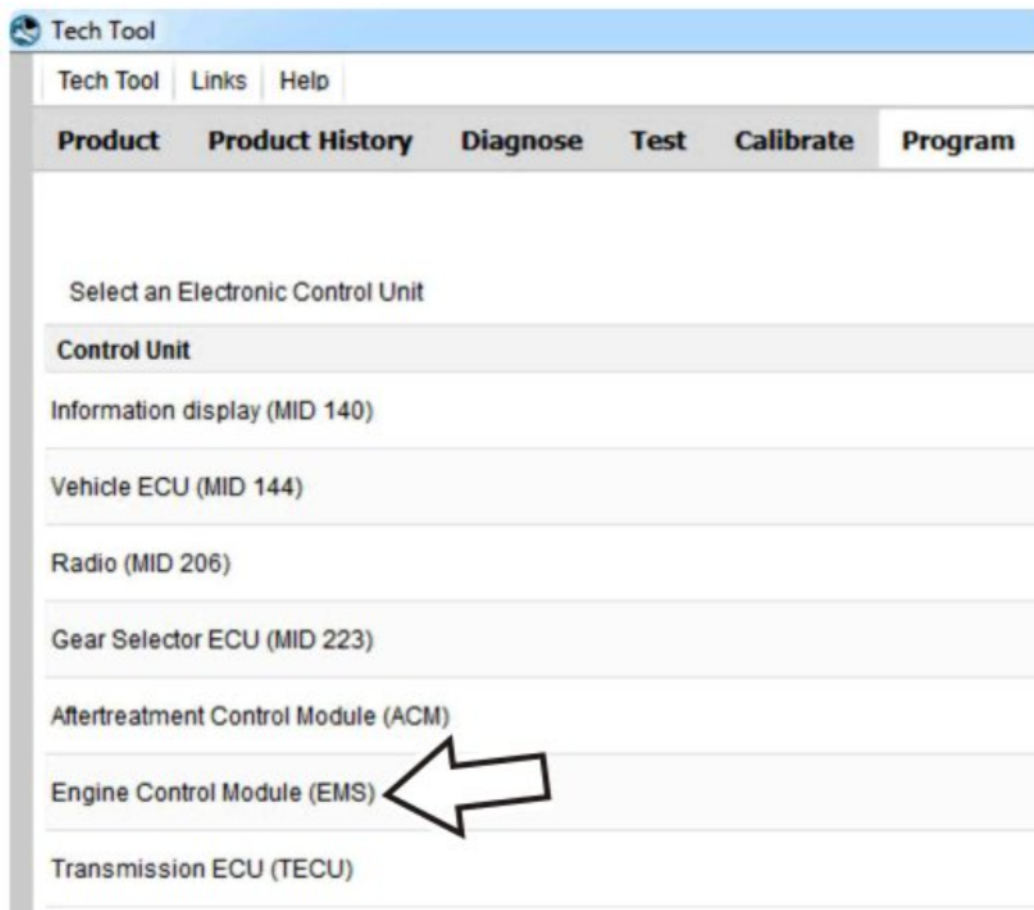
Work Order No	User ID	Date

Enter Notes:

9. From the Main Menu select Program and then Program Electronic Control Unit 1700-08-03-39. Then click Start.



10. Select Engine Control Module (EMS).












11. Select Program to update the ECM with the latest software.

Programming options

- Update control unit with latest software
 Reload control unit with existing software

12. Certain conditions must be met to continue with programming: battery voltage above 10v, parking brake applied, and ignition key in ON position with engine not running. When all conditions have been met, click Continue to proceed with programming.

1	 > 10 V	12.7 V	
2	 		
3	 = 0 rpm	 0 rpm	

1700-08-03-39 Program control unit - Update software

Automatically checked conditions

- 1 Battery voltage above 10 V
- 2 Parking brake applied
- 3 Ignition key in **ON** position. Engine not running

13. Select "I accept" to agree to the terms and press continue to proceed.

Note: In the United States and Canada, the programming is NOT chargeable. An invoice will not be generated.

1700-08-03-39 Program control unit - Update software

The following control units will be programmed

Engine Control Module (EMS)

Chargeable programming

The software you are about to program is chargeable. If programming is performed using the software, an invoice will be generated.

Programming will be charged once even if multiple retries are needed.

The software has commercial part number

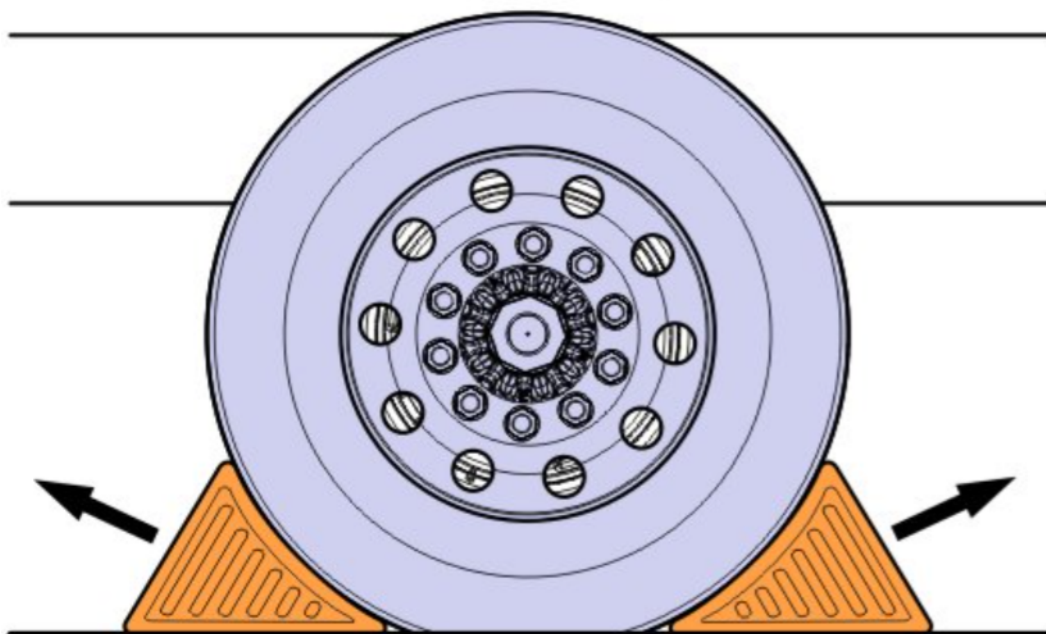
85136079 : Engine Control Module

The number can be used for price lookup in your local system and will be specified on the invoice.

I accept 

Select I accept to agree to the terms Press Continue to proceed

14. When programming is complete, click Exit to return to Main Menu to program the ACM.
15. When all programming is complete, clear any diagnostic trouble codes (DTC) and Finish Work.
16. Remove the wheel chocks.



Reimbursement

This repair may be eligible for reimbursement if a product failure	UCHP Reimbursement
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was experienced within time and mileage limits of the applicable Warranty coverage. Reimbursement is obtained via the normal claim handling process.	
Claim Type (used only when uploading from the Dealer Bus. Sys.)	01
Labor Code	
Primary Labor Code (Engine Control Module (ECM) and Aftertreatment Control Module (ACM), Reprogramming)	2841-22-09-16 0.4 hrs.
Causal Part	3092091

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