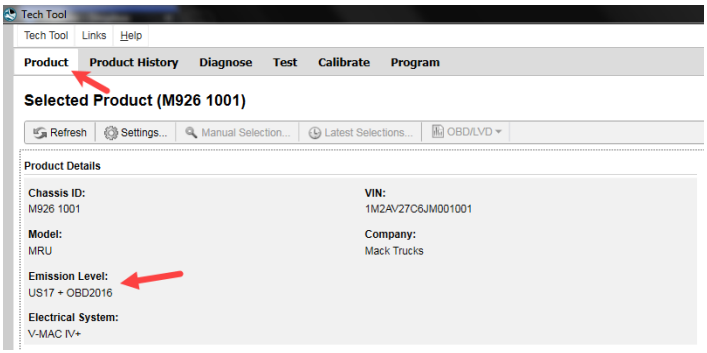
Mack Chassis - Diagnostic Trouble Code (DTC) P0420 Illuminating The Malfunction Indicator Lamp (MIL) - US17+OBD16 And US17+OBD18 (GHG17) Emissions (Common Rail Fuel System) - Commonly Model Years 2018 And 2019

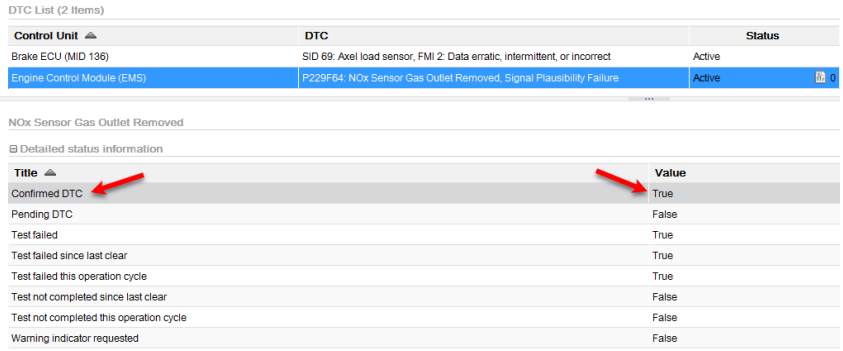
Internal Content

Verify the chassis emissions level

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



Review the Detailed Status Information for the relevant code on the DTC Readout.



Once the chassis is confirmed to be US17+OBD16 or +OBD18:

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- Software improvements have been released to address this code.

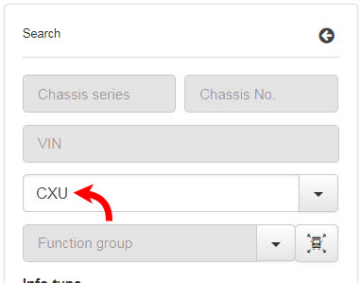
- Refer to FSB 284-067 Engine Control Module (EMS) and Aftertreatment Control Module (ACM), Reprogramming.

• The bulletin can be found under the Service tab in Impact by searching for either the FSB number, or by reviewing the articles under Function Group 284.

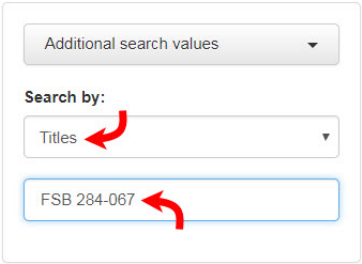
• If the article does not appear when searched with either VIN or Chassis information entered, search by model:

1. Clear any chassis information from the Search box.

2. Select or enter the applicable model.



3. Make sure Title is selected in the Search By field. Enter "FSB 284-067" in the text entry field.



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

Fgrp	Title	Info type	ID/Operation
284	FSB 284-067, Engine Control Module (ECM) and Aftertreatment Control Module (ACM), Reprogramming	Repair	2841-22-09-19

5. Mutiple article choices will appear. Find the Operation for the correct Chassis.

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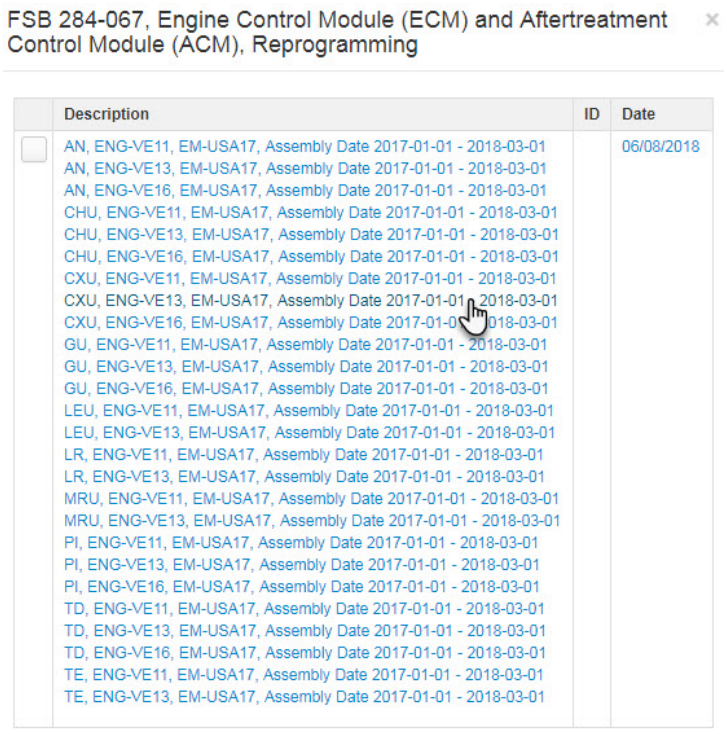
- **Note:** It is possible that more than one choice will have the same title (as shown below). Despite having the same title, the Operations are different and should be reviewed to locate the correct procedure.



If software is current according to the bulletin, the code should only be diagnosed if the Confirmed Status is True, as shown above. If status is False, the code should be cleared and the vehicle released.

If other symptoms or related codes are present, normal diagnostics will need to be performed to determine the cause.

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Tags p0420-00 k55905221 p042000 mack

Tags p0420-00 K33903221 p042000 mack

Related links and attachments

No links or attachments available

Feedback

Give feedback

to help improve the content of this article

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(June 2018)

Information

Software updates with enhancements are available for the engine control module (ECM) and aftertreatment control module (ACM) for VOLVO D11, D13 and D16 engines on OBD2017 and OBD2018 vehicles built from January 1, 2017 to March 01, 2018.

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):

- P0420 – Catalyst System Efficiency Below Threshold
- P02FA – Diesel Intake Air Flow Position Sensor Minimum / Maximum
- P24DA – Particulate Matter Sensor Exhaust Sample Error Bank 1
- P009E – Fuel Pressure Relief Control Performance / Stuck Off
- P0471 – Engine Exhaust Back Pressure Circuit Range/Performance
- P1031 – Particulate Matter Sensor Clogged Tip

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
D11 / D13	Equal or Less Than 23080716	Update to Latest Software
D16	Equal or Less Than 22825014	Update to Latest Software
ACM	Main Software	Action Required
D11 / D13 / D16	Equal or Less Than 23004689 (D11) 22883002 (D13) 22825000 (D16)	Update to Latest Software

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”.

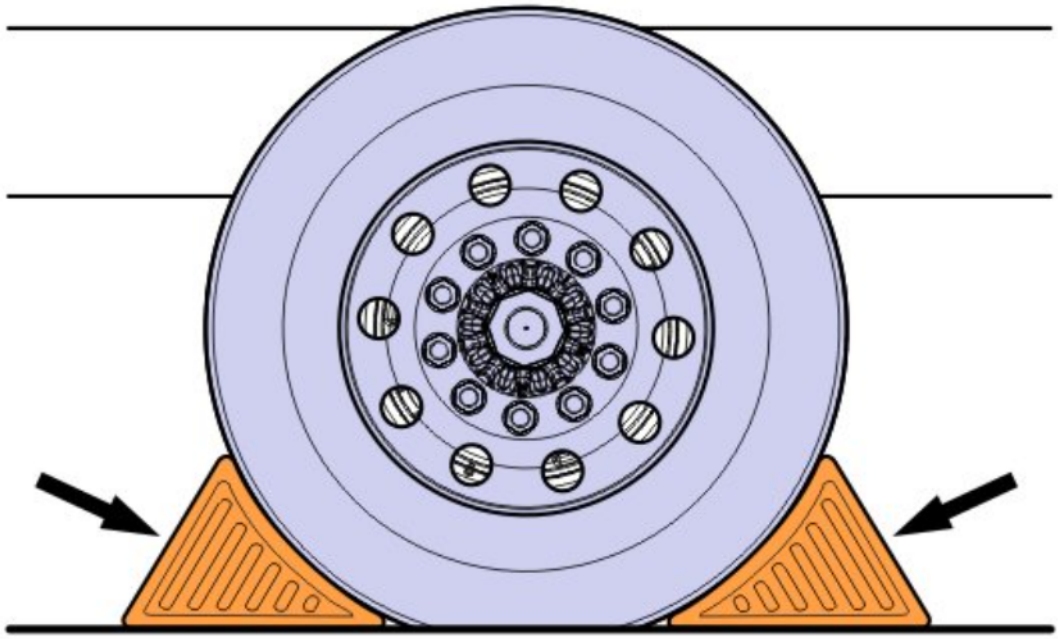
Software Update Procedure

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.

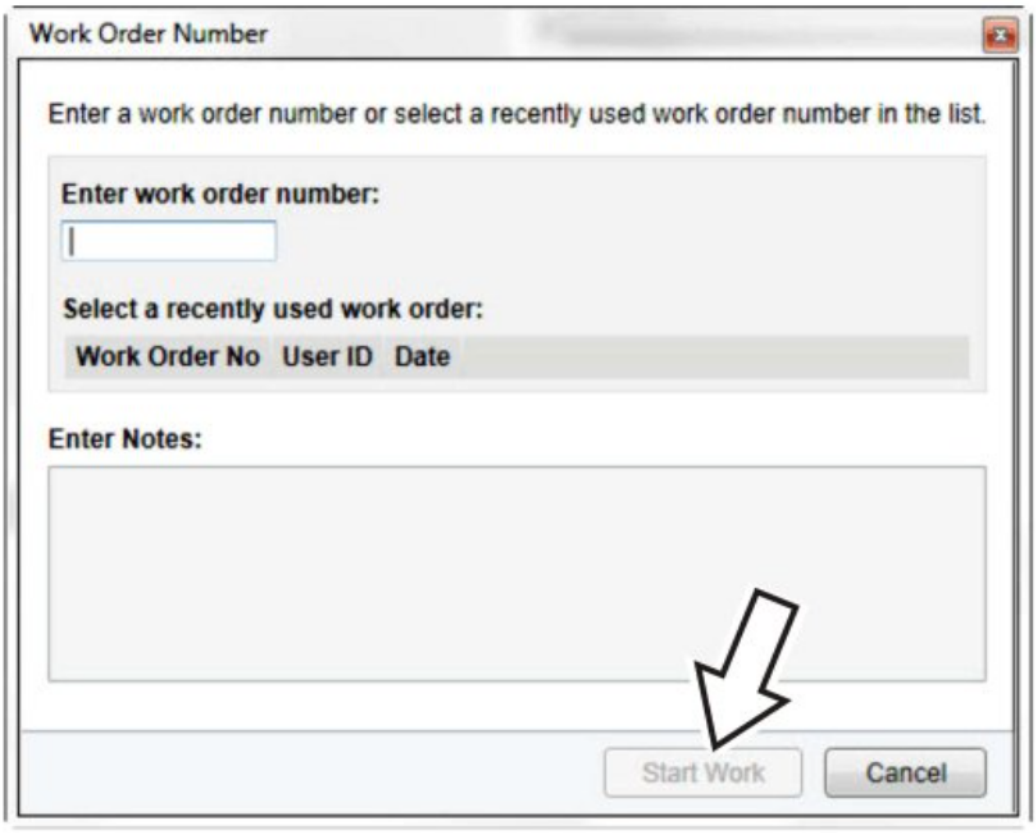
Danger

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.

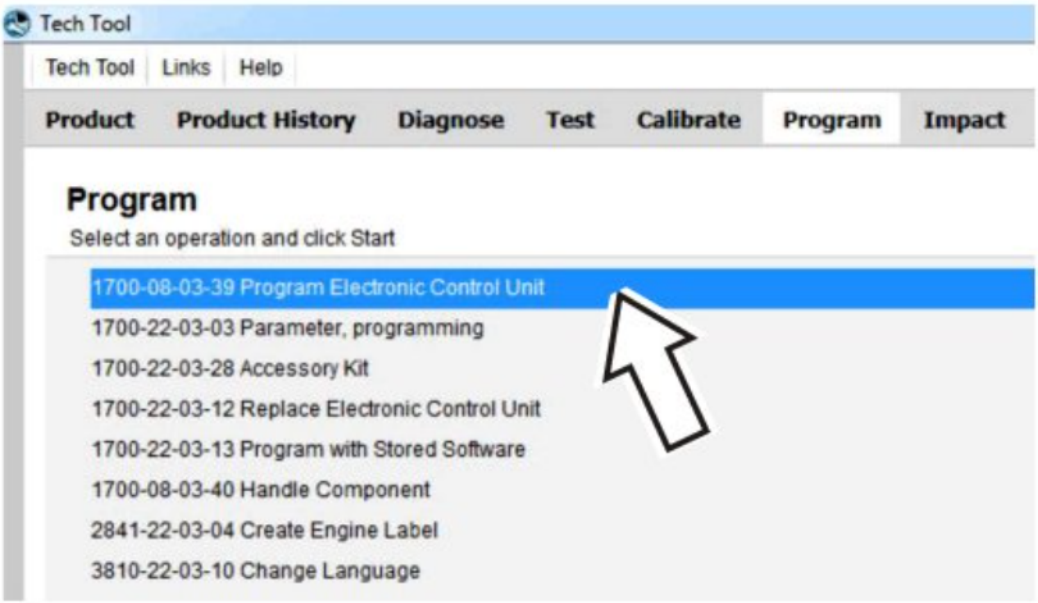
1. Park the vehicle on a level surface.
2. Apply the parking brake.
3. Place the transmission in neutral or park.
4. Install the wheel chocks.



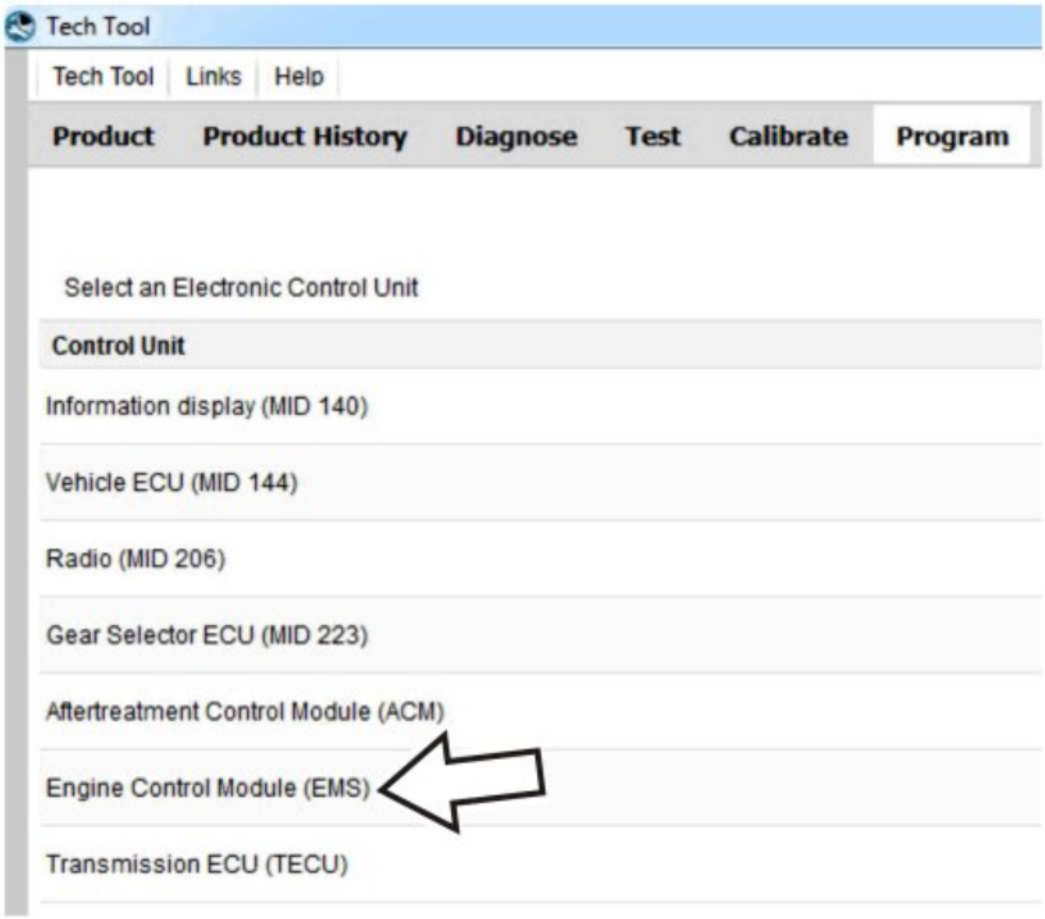
5. Connect Premium Tech Tool (PTT) to the vehicle diagnostics connector using the 16 pin OBD cable 88890304 and Communication Interface 88890300. Connect the PC to a functional LAN or modem connection and a 120 Volt AC source.
6. Turn the ignition switch “ON”.
7. Log in to PTT and Identify Vehicle is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



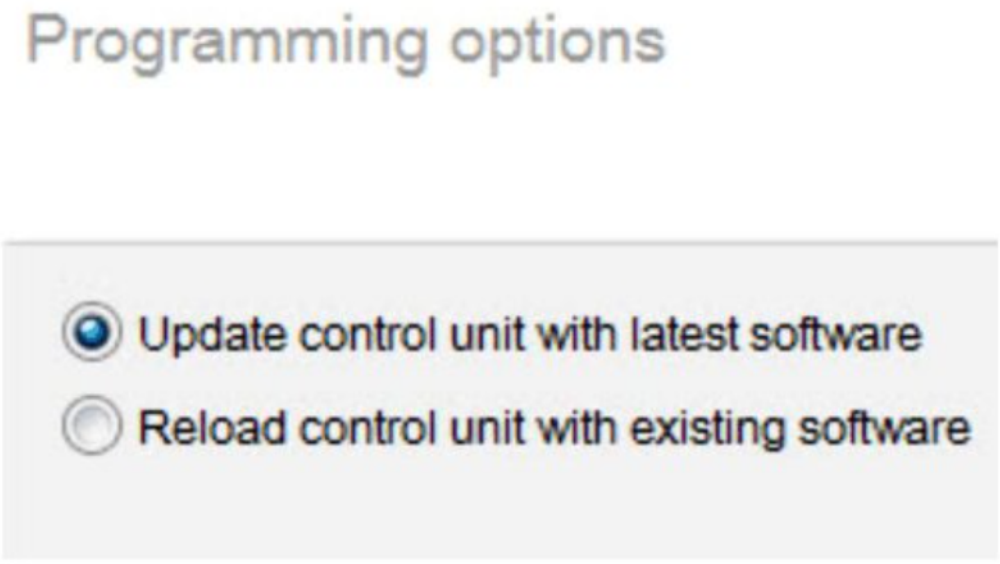
9. From the Main Menu select Program and then Program Electronic Control Unit 1700-08-03-39. Then click Start.



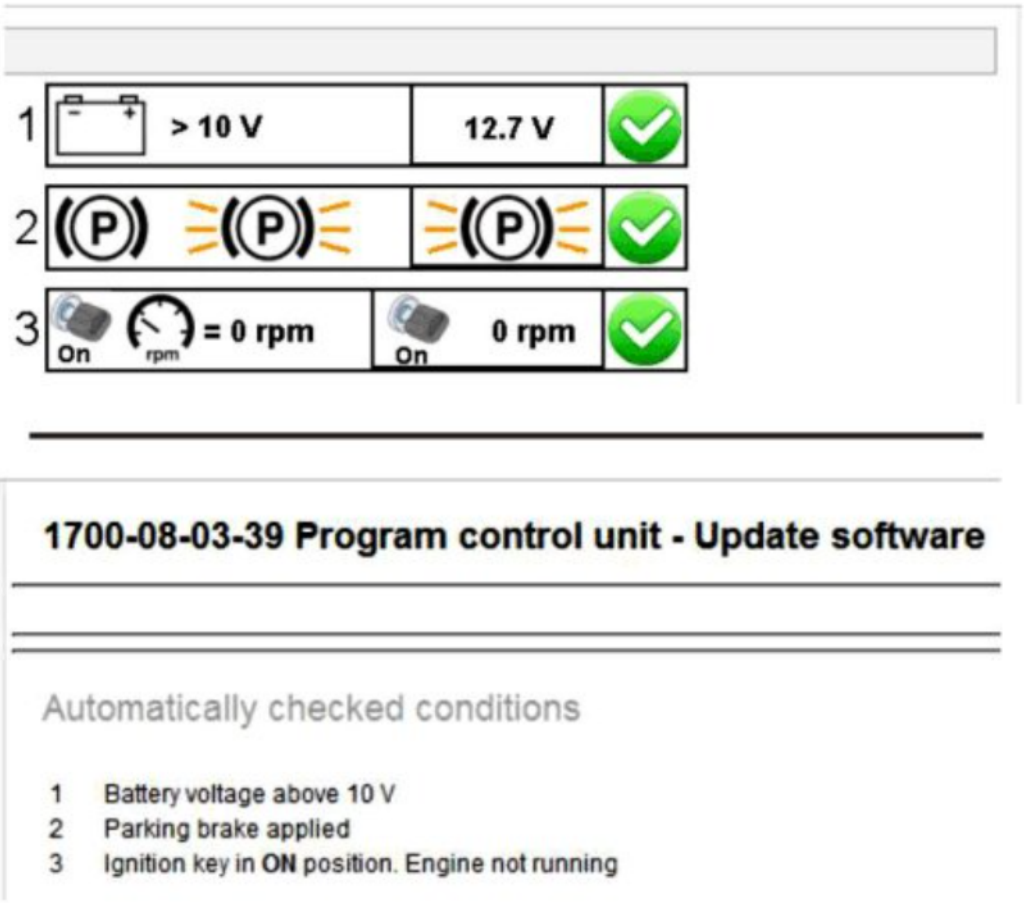
10. Select Engine Control Module (EMS).



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

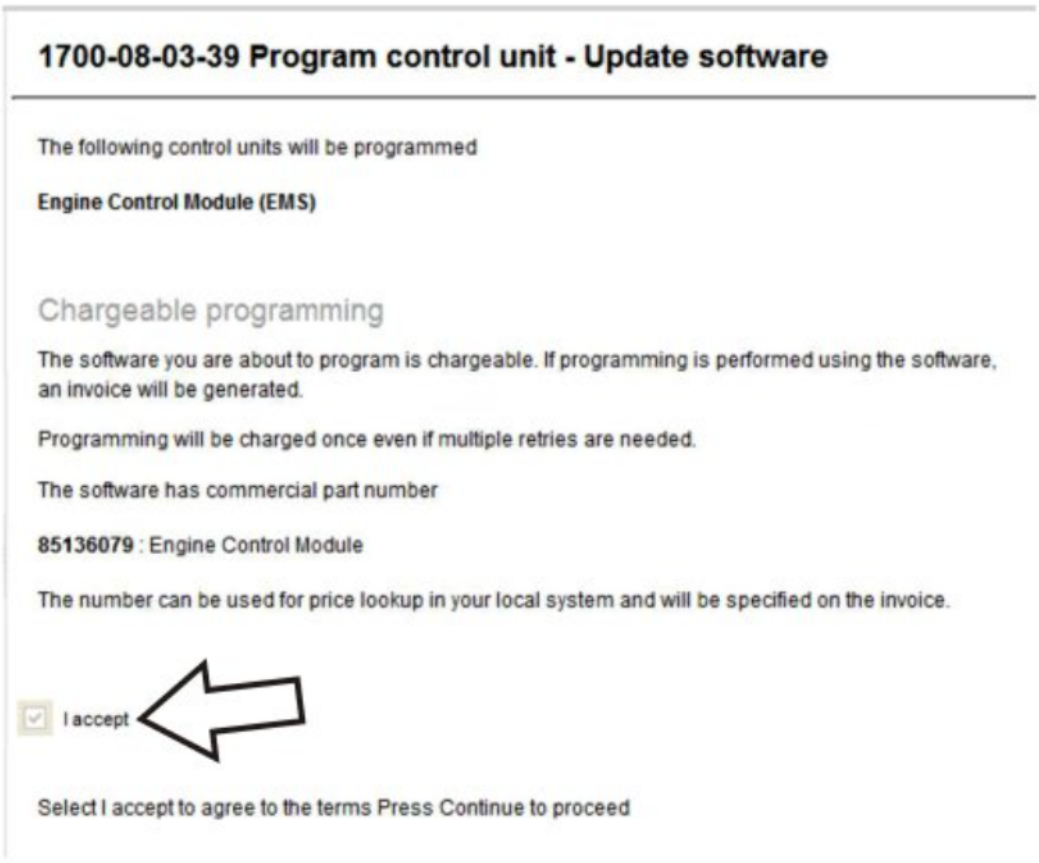


12. Certain conditions must be met to continue with programming: battery voltage above 10v, parking brake applied, and ignition key in ON position with engine not running. When all conditions have been met, click Continue to proceed with programming.

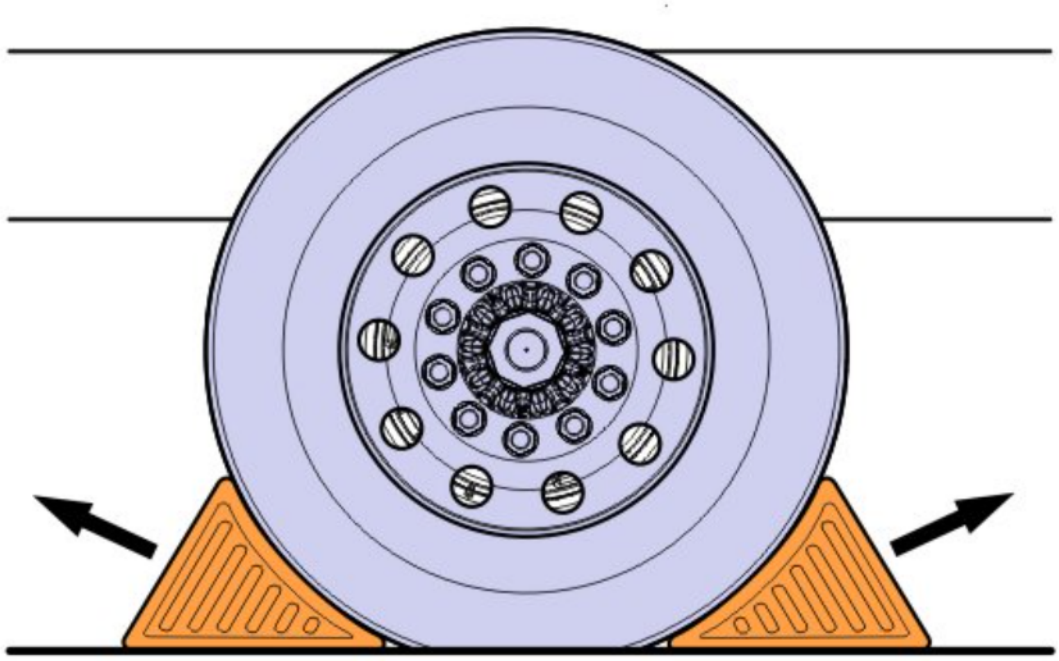


13. Select “I accept” to agree to the terms and press continue to proceed.

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



14. When programming is complete, click Exit to return to Main Menu to program the ACM.
15. When all programing 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 was experienced within time and mileage limits of the applicable Warranty coverage. Reimbursement is obtained via the normal claim handling process.	UCHP Reimbursement
Claim Type (used only when uploading from the Dealer Bus. Sys.)	W
Labor Code	
Primary Labor Code (Engine Control Module (ECM) and Aftertreatment Control Module (ACM), Reprogramming)	2841-22-09-19 0.4 hrs.
Causal Part	3092091

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