

Engine Control Module (ECM) and  
Aftertreatment Control Module (ACM),  
Software Updates  
D13M  
VAH, VHD, VN

## **SP 284-067, Engine Control Module (ECM) and Aftertreatment Control Module (ACM), Software Updates**

(July 2018)

### **Information**

Software updates with enhancements are available for the Engine Control Module (ECM) and Aftertreatment Control Module (ACM), for certain VOLVO D13M engines with US2017 emission level, on vehicles built from November 2016 to July 2018.

**Note:** 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):

- P0471 - Engine Exhaust Backpressure Circuit Range/Performance
- P04DB – Crankcase Ventilation System Disconnected
- P009E – Fuel Pressure Relief Control Performance / Stuck Off
- P0087 – Fuel Rail/System Pressure - Too low Bank 1
- P02EC – Diesel Intake Air Flow Control System - High Air Flow Detected
- P02ED – Diesel Intake Air Flow Control System - Low Air Flow Detected

**Note:** If any DTCs reoccur after software updates, they must be diagnosed properly before replacing components.

## Required Tools

Premium Tech Tool (PTT) version 2.06.65 or higher

VOCOM Diagnostic Connector 88890304

Communication Interface 88890300 or 88894000

**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

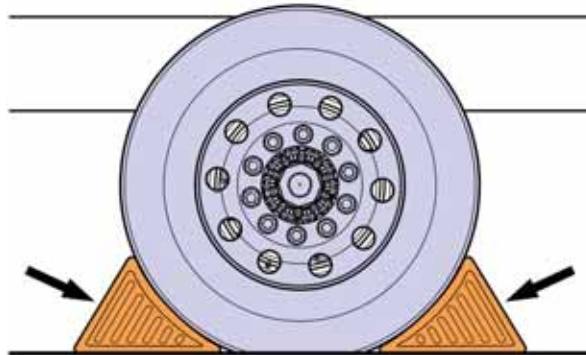
You must read and understand the precautions and guidelines in Service Information, group 20, "General Safety Practices, Engines" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.



### 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.



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- 5 Verify service program eligibility by checking service program status in VDA.
- 6 Connect Premium Tech Tool (PTT) to the vehicle diagnostics connector using the 16 pin OBD cable 88890304 and Communication Interface 88890300 or 88894000. Connect the PC to a functional LAN or modem connection and a 120 Volt AC source.

- 7 Turn the ignition switch “**ON**”.
- 8 Log in to PTT and Identify Vehicle is displayed.
- 9 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:

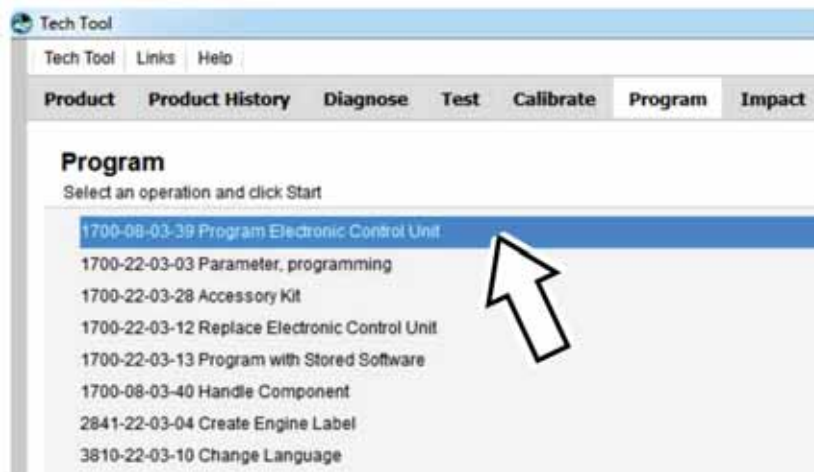
Work Order No	User ID	Date
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Enter Notes:

Start Work Cancel

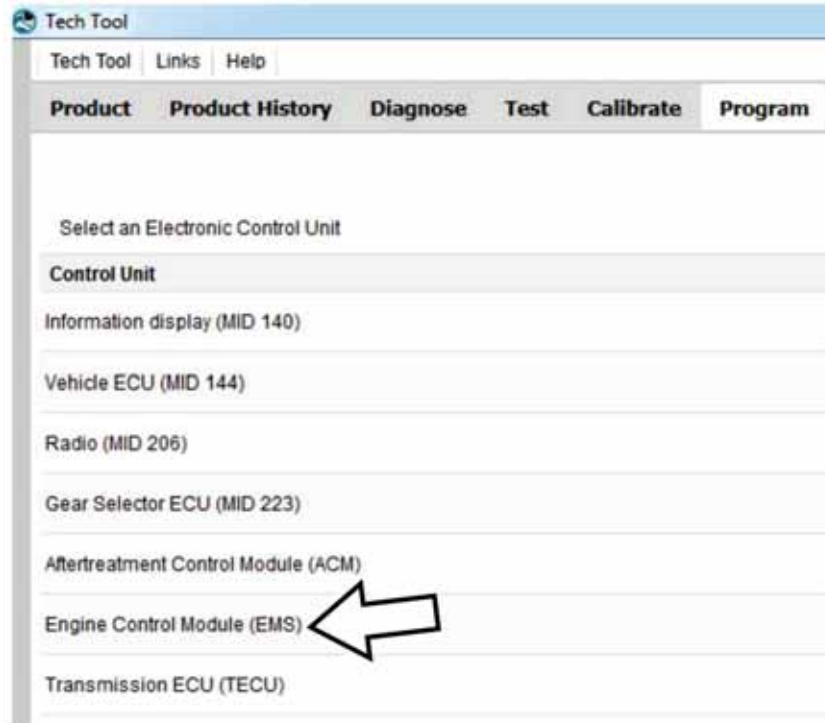
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- 10 From the Main Menu select Program and **then** Program Electronic Control Unit 1700-08-03-39. Then click Start.



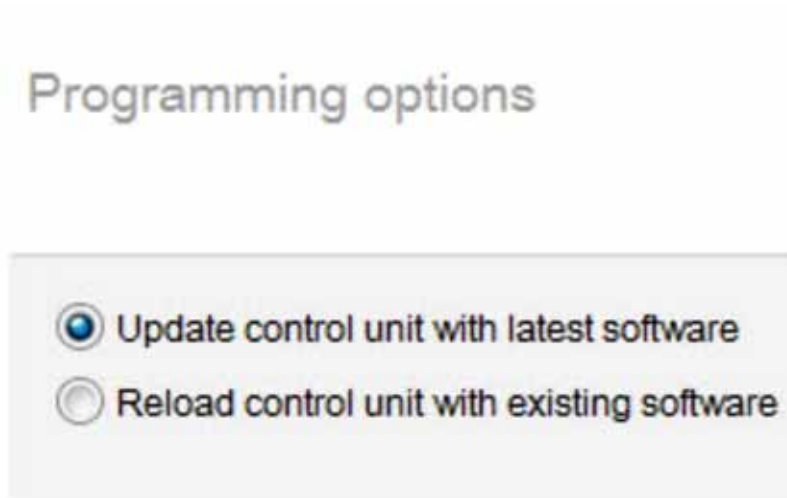
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11 Select **EMS**.



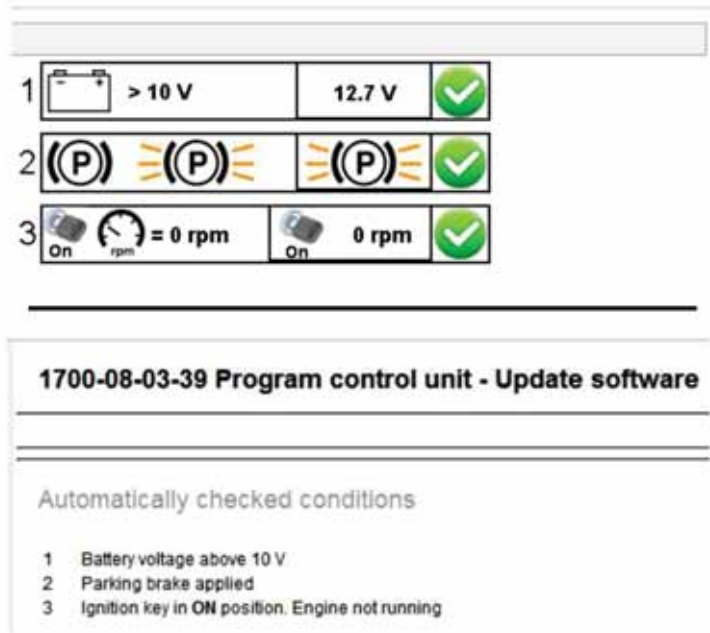
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12 Select Program to update the **EMS** with the latest software.



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13 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.



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

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14 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.



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

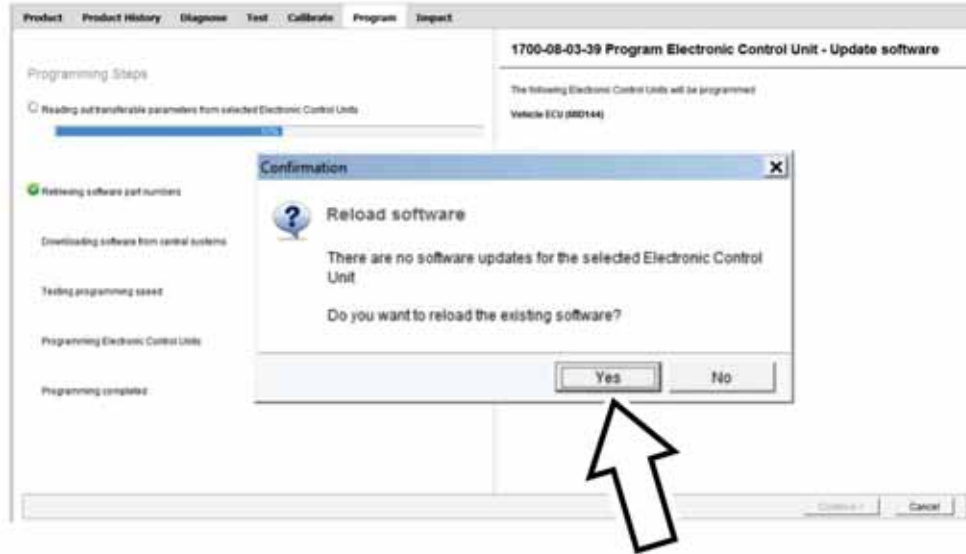
The number can be used for price lookup in your local system and will be specified on the invoice.

I accept

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

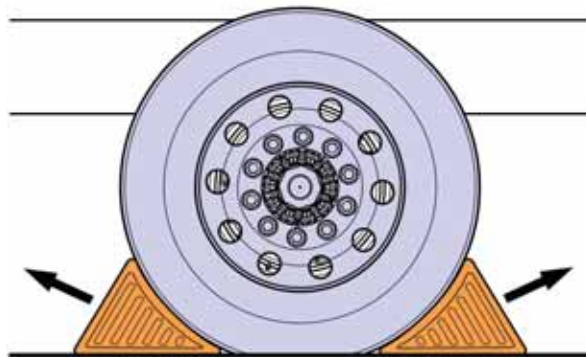
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15 If the software is already updated, this screen opens. Select Yes to reload existing software.



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



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**Reimbursement**

<b>This repair is covered by an authorized Service Program. Reimbursement is obtained via the normal claim handling process.</b>	<b>UHP Reimbursement</b>
<b>Recall Status</b>	
Vehicle inspected, repair not required	1- Inspected OK
Vehicle repaired per instruction	2- Modified per instruction
<b>Labor Code</b>	
Primary Labor Code: Engine Control Module (ECM) and Aftertreatment Control Module (ACM), Software Updates	2841-22-09-20 0.4 hrs
Time to take charge and determine campaign status	1700-16-01-01 0.3 hrs
<b>Causal Part</b>	3092091
<b>Parts Disposition</b>	N/A
<b>SCC Code</b>	S7318
<b>Authorization Number</b>	N/A
<b>Expiration Date</b>	25- JUN - 2019

**Note:** Take Charge Time is not included in the Labor Code for this operation. Take charge may be eligible but can only be used once per repair visit. If vehicle is having other warranty repairs performed, take charge should be charged to the warranty repair, otherwise take charge can be charged to this service program.