

Engine Control Module (ECM) Software
Update
D11J, D13J, D16J
VAH, VHD, VN

SP 284-051, Engine Control Module (ECM) Software Update

(February 2014)

Information

Software updates with enhancements are available for the engine control module (ECM) for VOLVO D11J, D13J and D16J engines with US2014 emission level on vehicles built before February 7, 2014. Software updates address the following.

- Regenerations in cold climates (below -20°C [-4°F])
- Improved soot level reporting during parked regeneration
- Cold start time delay algorithm
- Piston cooling jet (PCJ) diagnostic fault logic

Tools

Premium Tech Tool version 2.02.80 or higher

Diagnostic Connector 88890304

Communication Interface 88890300 with firmware 1.12.0.2 or higher

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

Procedure



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 Verify service program eligibility by checking service program status in eWarranty.
- 2 Secure the vehicle for service by parking it on a flat level surface, applying the parking brake, chocking the rear wheels, and placing the transmission in neutral.
- 3 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.
- 4 Turn the ignition switch "ON".
- 5 Log in to PTT and Identify Vehicle is displayed.

- 6 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:

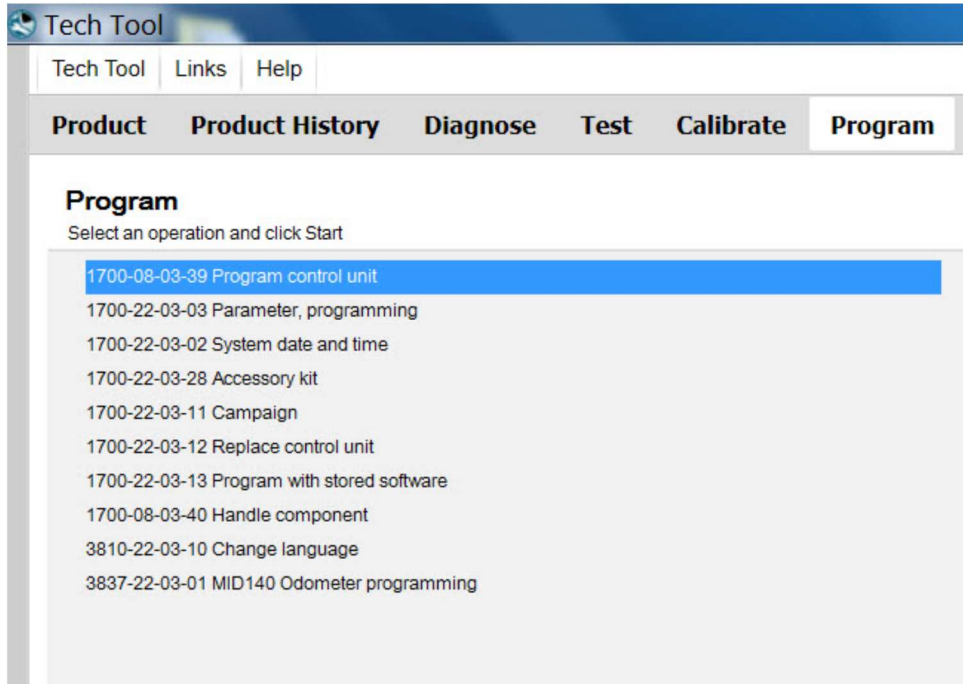
Work Order No	User ID	Date
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Enter Notes:

Start Work **Cancel**

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



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- 8 Select a Control Unit from the list. For this campaign, update the engine control module (EMS).

The screenshot shows the 'Tech Tool' application window. At the top, there is a navigation bar with 'Tech Tool', 'Links', and 'Help'. Below this is a menu bar with 'Product', 'Product History', 'Diagnose', 'Test', 'Calibrate', 'Program', and 'Impact'. The 'Program' tab is selected. The main area contains the text 'Select an Electronic Control Unit' followed by a list of control units:

- Information display (MID 140)
- Vehicle ECU (MID 144)
- Radio (MID 206)
- Gear Selector ECU (MID 223)
- Aftertreatment Control Module (ACM)
- Engine Control Module (EMS)
- Transmission ECU (TECU)

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9 Select Program to update the control unit with the latest software.

Programming options

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

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

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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11 Select "I accept" to agree to the terms and press Continue to proceed.

Note: For North America, 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

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12 When EMS programming is complete, click Exit to return to the main menu.

13 Clear any diagnostic trouble codes (DTC) and Finish Work.

Reimbursement

This repair is covered by an authorized Service Program. Reimbursement is obtained via the normal claim handling process.	
Claim Type (used only when uploading from the Dealer Bus. Sys.)	B
Recall Status	
Vehicle inspected, repair not required	1- Inspected OK
Vehicle repaired per instruction	2- Modified per instruction
Labor Code	
Primary Labor Code	28444-0-01 — 0.4 hrs
Time to take charge and determine campaign status	17003-0-0 — 0.3 hrs
Causal Part	3092091
Authorization Number	SP284-051
Expiration Date	31-AUG- 2014

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.