

Software Updates  
D11J, D13J, D16J  
VAH, VHD, VN

## SP 284-054, Control Module Software Updates

(September 2014)

### Information

Software updates with enhancements are available for the vehicle ECU (VECU), engine control module (ECM) and aftertreatment control module (ACM) for VOLVO D11J, D13J and D16J engines with US2014 emission level on vehicles built from February 7, 2014 to September 28, 2014. Software updates address the following.

- Exhaust Temperature Plausibility Faults (P2080 / P2084 / P242B)
- P2463 High Soot Load
- P0402 EGR Mass Flow High
- P0401 EGR Mass Flow Low
- Fuel Pressure Low Fault P008A
- Incorrect Urea Heating Valve, Temperature Targets

**Note:** Control modules are required to be programmed in the following order:

- VECU
- ECM
- ACM

### Required Tools

Premium Tech Tool version 2.03.29 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 |
|---------------|---------|------|
|               |         |      |

**Enter Notes:**

**Start Work** **Cancel**

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

**Tech Tool**

Tech Tool | Links | Help

**Product** **Product History** **Diagnose** **Test** **Calibrate** **Program** **Impact**

**Program**

Select an operation and click Start

- 1700-08-03-39 Program Electronic Control Unit**
- 1700-22-03-03 Parameter, programming
- 1700-22-03-28 Accessory Kit
- 1700-22-03-12 Replace Electronic Control Unit
- 1700-22-03-13 Program with Stored Software
- 1700-08-03-40 Handle Component
- 2841-22-03-04 Create Engine Label
- 3810-22-03-10 Change Language

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8 Select Vehicle ECU.

Tech Tool

Tech Tool

Links

Help

Product

Product History

Diagnose

Test

Calibrate

Program

Impact

Select an Electronic Control Unit

Control Unit

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)

- 9 Select Program to update the VECU 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                                                    |  On  = 0 rpm                                                                          |  On 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:** 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

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12 When programming is complete, click Exit to return to Main Menu to program the next control unit.

13 After VECU programming is complete, update the engine control module (ECM) and aftertreatment control module (ACM).

14 When all programming is complete, clear any diagnostic trouble codes (DTC) and Finish Work.

**Reimbursement**

|                                                                                                                                  |                          |                                |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------|
| <b>This repair is covered by an authorized Service Program. Reimbursement is obtained via the normal claim handling process.</b> | <b>UCHPReimbursement</b> | <b>eWarranty Reimbursement</b> |
| <b>Claim Type (used only when uploading from the Dealer Bus. Sys.)</b>                                                           | B                        | 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                                                                                                               | 2841-22-09-01<br>0.7 hrs | 28446-0-01<br>0.7 hrs.         |
| Time to take charge and determine campaign status                                                                                | 1700-16-01-01<br>0.3 hrs | 17003-0-01<br>0.3 hrs          |
| <b>Causal Part</b>                                                                                                               | 3092091                  | 3092091                        |
| <b>Parts Disposition</b>                                                                                                         | N/A                      | N/A                            |
| <b>SCC Code</b>                                                                                                                  | S6650                    | N/A                            |
| <b>Authorization Number</b>                                                                                                      | N/A                      | SP284-054                      |
| <b>Expiration Date</b>                                                                                                           | 28- Feb- 2015            | 28- Feb- 2015                  |

**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.