

Software Update
OBD2013, D11H, D13H, D16H
VHD, VN

SP 284-036, Software Update

(March 2013)

Information

Software updates with enhancements are available for the Engine Control Module (ECM), Instrument Cluster (IC), Vehicle Electronic Control Unit (VECU), Aftertreatment Control Module (ACM) and Transmission Electronic Control Unit (TECU), if equipped.

Note: A Diesel Particulate Filter Service Regeneration is required when programming is complete.

Required Tools

Premium Tech Tool version 2.01.20 or higher

Diagnostic Connector 88890034

Communication Interface 88890300 with firmware 1.12.0.2 or higher

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 Connect Premium Tech Tool (PTT) to the vehicle diagnostics connector using the 16 pin OBD cable 88890034 and Communication Interface 88890300. Connect the PC to a functional LAN or modem connection and a 120 Volt AC source (do not use intermediate storage).
- 3 Turn the ignition switch "ON".
- 4 Log in to PTT and Identify Vehicle is displayed.

- 5 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

W2079940

- 6 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

W2079941

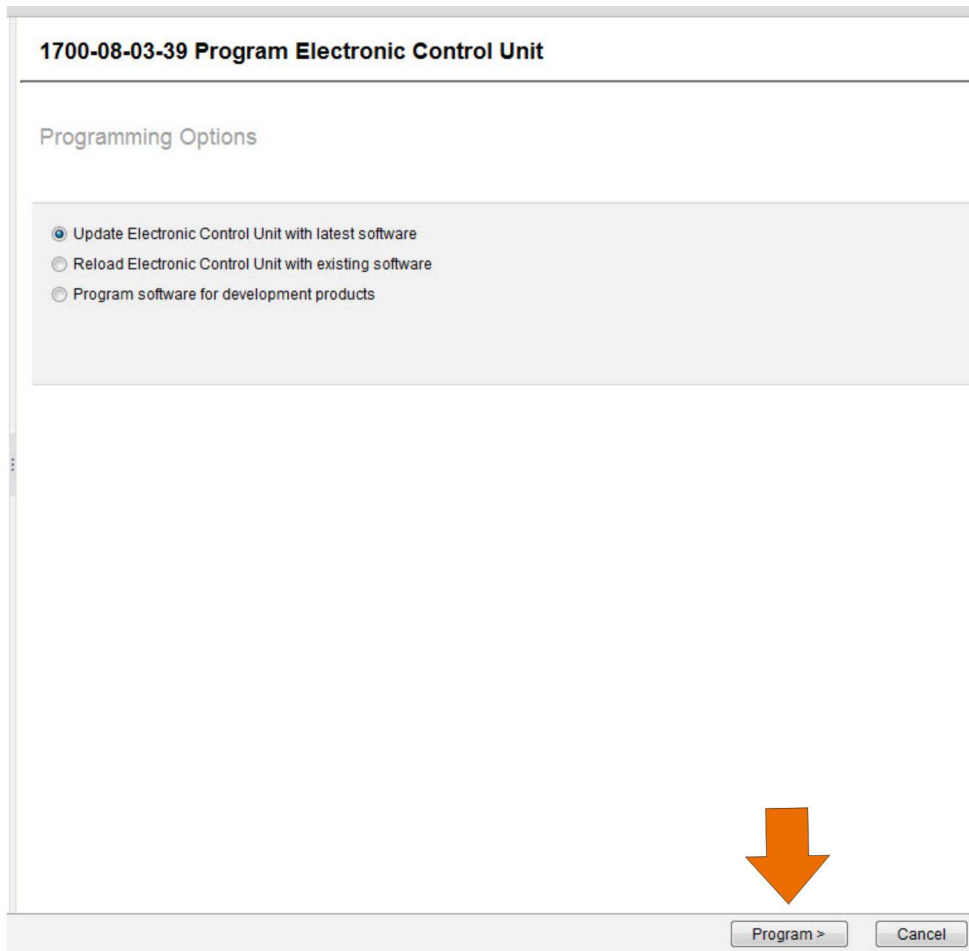
7 Select an electronic control unit from the list.

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 main menu with tabs for 'Product', 'Product History', 'Diagnose', 'Test', 'Calibrate', 'Program', and 'Impact'. The 'Program' tab is selected. The main content area displays the instruction 'Select an Electronic Control Unit' followed by a list of control units under the heading '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)

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8 Select Program to update the electronic control unit with the latest software.



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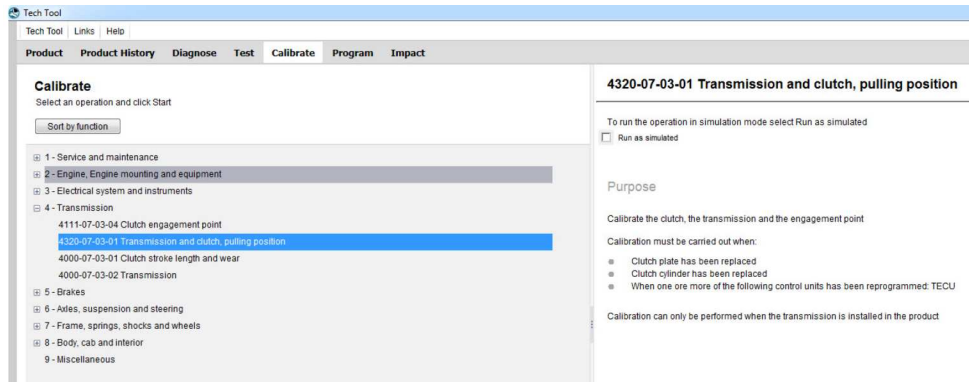
9 Certain conditions must be met to continue with programming: battery voltage above 10v, parking brake applied, and ignition key in ON position with engine not running. When all conditions have been met, click Continue to proceed with programming.



W2080113

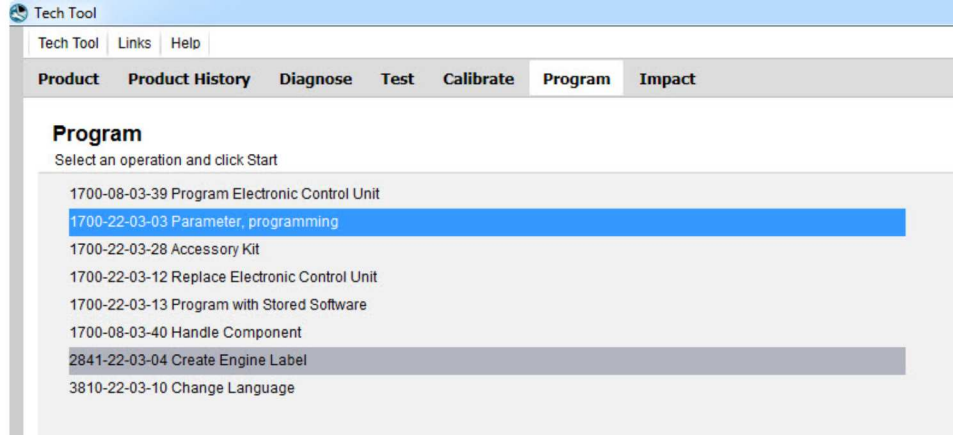
10 When programming is complete, click Exit to return to Main Menu to program the next control unit.

- 11 For this campaign, update the Engine Control Module (EMS), Information display (MID 140), Aftertreatment Control Module (ACM), Vehicle ECU (MID 144) and if vehicle is equipped with I-Shift transmission, Transmission ECU (TECU).
- 12 Once TECU programming is complete, select Calibrate from the Main Menu. Select 4320-07-03-01 Transmission and clutch, pulling position and click on Start



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- 13 If vehicle is equipped with a Body Builder Module (MID 249), select 1700-22-03-03 Parameter, programming.



W2080067

14 Change parameter AHY to 10 km/h and parameter CEC to 30 km/h.

The screenshot shows the 'Tech Tool' interface with the 'Program' menu selected. The main heading is '1700-22-03-03 Parameter Programming'. Below this, there is a table titled 'Parameters to be Programmed'.

ID	Name	Old	New	Unit	Commercial Part Number
CEC	Limit value for RSL3	20	30	km/h	
AHY	Auto Neutral, Vehicle Speed	12	10	km/h	

W2080064

15 When programming is complete, select Test from the Main Menu. Select 2545-08-03-03 Diesel Particulate Filter Service Regeneration and click on Start.

The screenshot shows the 'Tech Tool' interface with the 'Test' menu selected. The main heading is '2545-08-03-03 Diesel Particulate Filter Service Regeneration'. The interface includes a 'Test' section with a 'Sort by function' button and a list of test operations. The selected operation is '2545-08-03-03 Diesel Particulate Filter Service Regeneration'. The right-hand side of the screen displays the 'Purpose' and 'Description' for this operation.

Test
Select an operation and click Start

Sort by function

- 2 - Engine, Engine mounting and equipment
 - 20 - General
 - 21 - Engine
 - 22 - Lubrication and Oil System
 - 23 - Fuel system
 - 25 - Inlet and exhaust system
 - 2500-08-03-02 Intake manifold pressure (IMP), Test drive
 - 2500-08-03-03 Response, test drive
 - 2500-08-03-05 Intake and exhaust system, check
 - 2530-08-03-02 Engine Brake Function
 - 2545-08-03-03 Diesel Particulate Filter Service Regeneration**
 - 2545-08-03-04 Exhaust Aftertreatment System Logged Data
 - 2551-08-03-02 Variable Geometry Turbo Function
 - 2530-08-03-03 Warm-Hold Function
 - 2545-08-03-02 Exhaust Aftertreatment Diagnostics

2545-08-03-03 Diesel Particulate Filter Service Regeneration

To run the operation in simulation mode select Run as simulated
 Run as simulated

Purpose

- Perform a service regeneration (DPF)
- Check that the regeneration functions properly
- Prepare particulate filter for ash cleaning

Description


This operation is used to perform a "service regeneration" of the diesel particulate filter (DPF)
 Operation may take approximately 20 - 30 minute(s) to complete

W2080634

16 Review the advisories, check the box and click on Continue.


2545-08-03-03 Diesel Particulate Filter Service Regeneration

Information >> Conditions >> Execution >> Result

 **WARNING**

Ensure that the vehicle is in a suitable place outdoors. The exhaust outlet must not be directed towards anything that could be damaged by high temperature. If the exhaust is directed towards the ground it is recommended to soak the ground below with water to prevent damage to the surface, or if possible position the vehicle on gravel surface. Ensure that the exhaust is not near flammable material.

A fire-extinguisher should be accessible in case of fire.

 **CAUTION**

Vehicles equipped with an exhaust aftertreatment system generate high exhaust gas temperatures during regeneration of the diesel particulate filter. If regeneration might occur while working with the vehicle, ensure that the exhaust outlet is not directed toward anything that could be damaged by high gas temperatures. Also, do not connect an exhaust vent hose to the vehicle since most exhaust vent hoses are not designed to handle high temperatures. Failure to follow this warning may result in high temperature exhaust gases overheating nearby structures or components resulting in a fire.

I have read and understand the above advisory

W2080637

17 When all conditions are met, check the box and click on Continue.

The screenshot shows the Tech Tool software interface for Diesel Particulate Filter Service Regeneration. The main window displays a list of conditions to be met, with some already checked. The right panel shows the status of these conditions.

Condition	Target	Actual	Status
1	> 10 V	12.8 V	✓
2	(P) (P) (P)	(P) (P) (P)	✓
3	> 400 rpm	0 rpm	✗
4	> 120 °F	70 °F	✗
5	< 0 %	0 %	✓
6	(H) = N	(H) = N	✓
7	Vehicle outdoors	Vehicle outdoors	✓

2545-08-03-03 Diesel Particulate Filter Service Regeneration

Information >> Conditions >> Execution >> Result

Automatically checked conditions

- 1 Battery voltage above 10 V
- 2 Parking brake applied
- 3 Ignition key in ON position. Engine running
- 4 Engine Coolant Temperature (ECT) above 120 °F
- 5 Accelerator pedal position below 0 %

Manual conditions

- 6 Transmission in neutral position
- 7 Vehicle outdoors in a suitable area

Confirmed

W2080638

18 When regeneration is complete, clear any diagnostic trouble codes 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	28437-0-02 — 3.0 hrs.
Time to take charge and determine campaign status	17003-0-0 — 0.3 hrs.
Causal Part	3092091
Authorization Number	SP284036
Expiration Date	31-MAY-2013

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.