

ECM and ACM Software Updates
OBD2013, D11H, D13H, D16H
VAH, VHD, VN

SP 284-047, ECM and ACM Software Updates

(October 2013)

Information

Software updates with enhancements are available for the engine control module (ECM) and aftertreatment control module (ACM) **for vehicles built from May 11, 2013 to October 2, 2013.**

Note: For vehicles built from the start of OBD2013 production to May 10, 2013, refer to SP 284-042.

Software updates are to resolve the following diagnostic trouble codes (DTC).

- DTC P1086, Oil Level Moderately Low, low oil level light coming on during start up
- DTC P0420, NOx Catalyst: Missing SCR, catalyst system efficiency below threshold
- DTC P205B, Aftertreatment Diesel Exhaust Fluid (DEF) Tank Temperature Sensor: Rationality Low
- DTC P2002, PM Filter Efficiency Monitor, aftertreatment diesel particulate filter (DPF) efficiency fault
- D11 engine stumble with low coolant temperature and light load

Note: A Crystal Sublimation is required when programming is complete.

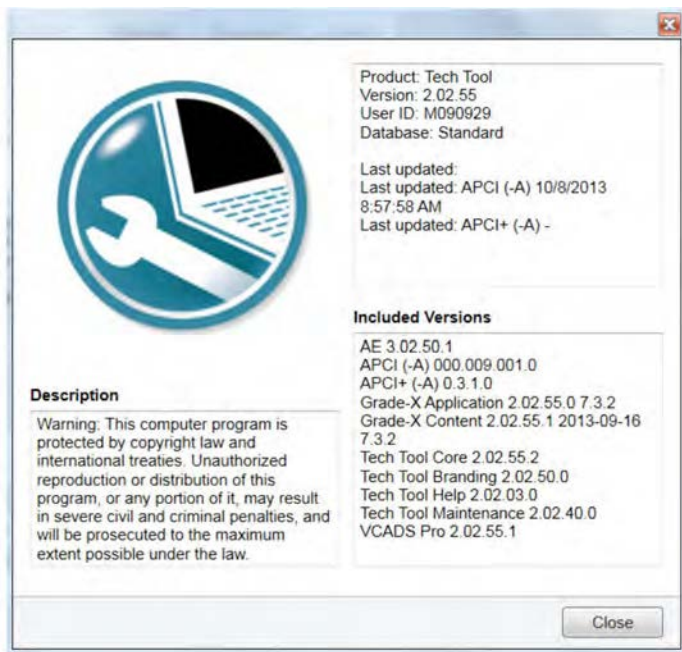
Tools

Premium Tech Tool version 2.02.55 or higher

Diagnostic Connector 88890304

Communication Interface 88890300 with firmware 1.12.0.2 or higher

Check Premium Tech Tool version by clicking on Help tab and then click on “About Tech Tool”.



W2085456

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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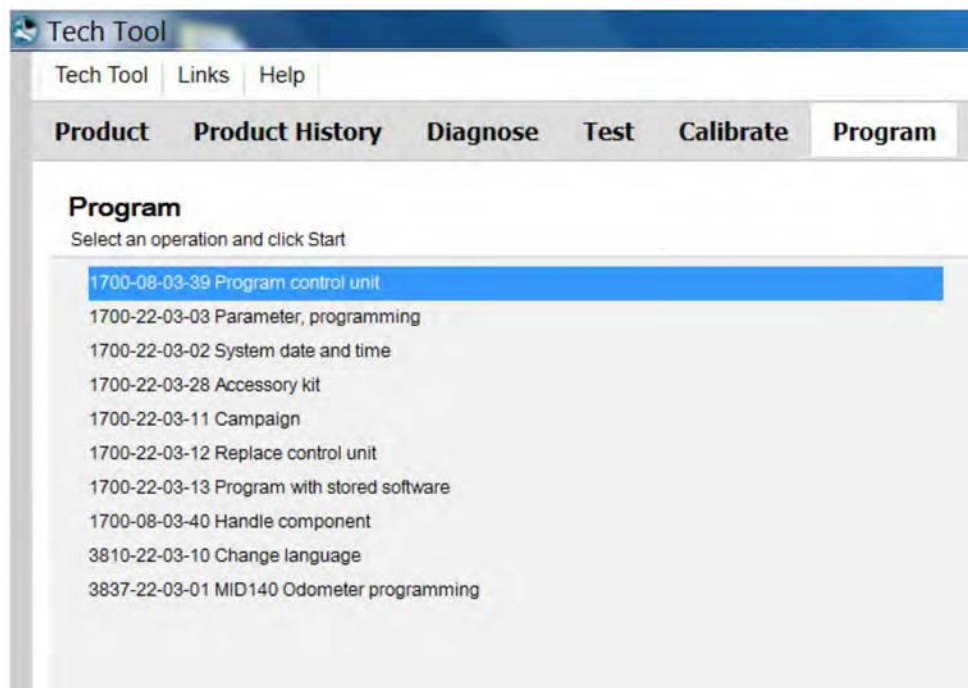
Enter Notes:

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) and aftertreatment control module (ACM).

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 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	 (P)	 (P)	
3	 On	0 rpm	

Automatically checked conditions

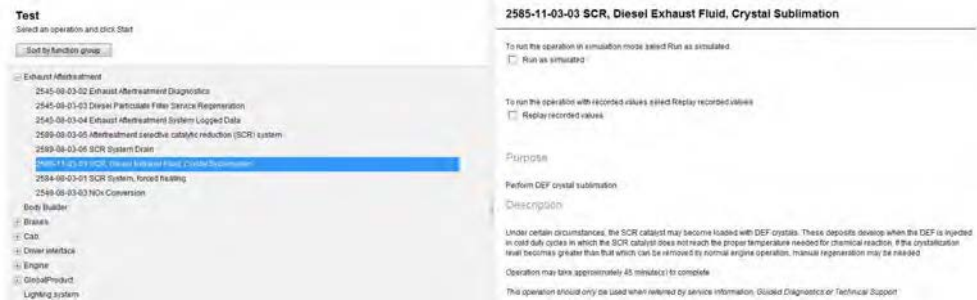
- 1 Battery voltage above 10 V
- 2 Parking brake applied
- 3 Ignition key in ON position. Engine not running

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11 When EMS programming is complete, click Exit to return to Main Menu to program the ACM.

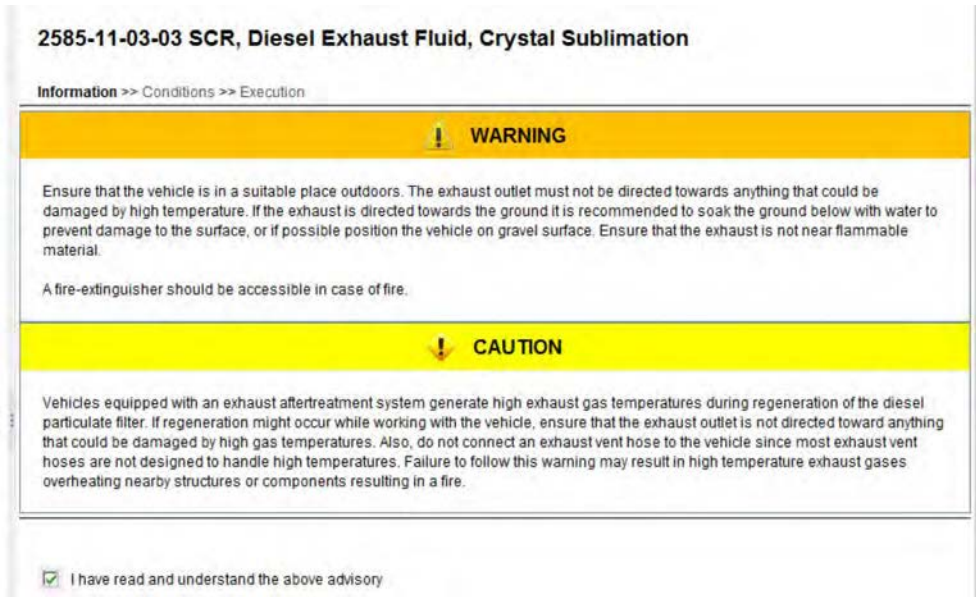
Note: Engine hours will be lost once modules have been programmed.

12 When ACM programming is complete, select Test from the Main Menu. Select 2585-11-03-03 SCR, Diesel Exhaust Fluid, Crystal Sublimation and click on Start.



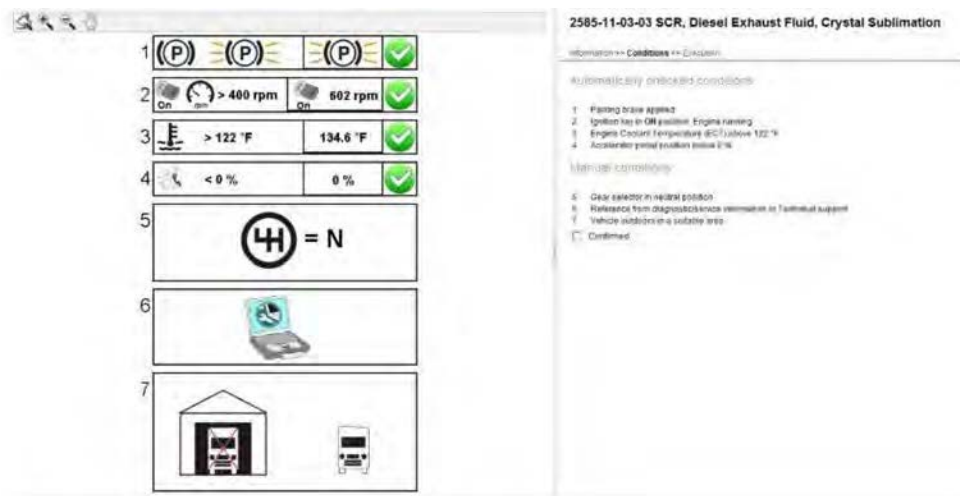
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13 Review the advisories, check the box and click on Continue.



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



2585-11-03-03 SCR, Diesel Exhaust Fluid, Crystal Sublimation

Information < Conditions > Execution

Automatic preconditions

1. Parking brake applied
2. Ignition key in ON position. Engine running
3. Engine Coolant Temperature (ECT) above 122 °F
4. Accelerator pedal position below 5 %

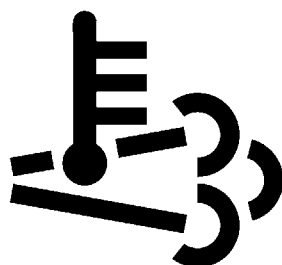
Manual preconditions

5. Gear selector in neutral position
6. Reference from diagnostic/service information or Technical support
7. Vehicle outdoors in a suitable area

☒ Confirmed

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15 When sublimation is complete, allow engine to idle until HEST light goes off.



W3007444

High Exhaust System Temperature (HEST)

16 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	28441-0-02 — 1.5 hrs
Time to take charge and determine campaign status	17003-0-0 — 0.3 hrs
Causal Part	3092091
Authorization Number	SP284-047
Expiration Date	31-OCT- 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.