



**SAFETY
RECALL**


SR19-31

DATE :	December 2019	SECTION :	01 ENGINE
SUBJECT:	ENGINE CONTROL MODULE (ECM) SOFTWARE UPDATE - Engine Cooling Strategy in High Altitude Operation		

First Release

12-13-20

APPLICATION

IMPORTANT NOTICE TO SERVICE CENTERS <i>Verify vehicle eligibility by checking warranty bulletin status with SAP or via ONLINE WARRANTY SYSTEM available on Parts and Service / Warranty tab of PrevoSt's website.</i>	
Model	VIN 
X3-45 VIP motorhomes Model Year: 2017 & 2019	2PCBS349XHC7 [REDACTED] 2PCBS3499KC7 [REDACTED]
X3-45 VIP commercial use Model Year: 2017 - 2020	Specific vehicles within the following range From 2PCCS3498HC73 [REDACTED] up to 2PCCS3492LC7 [REDACTED] incl.
X3-45 coaches Model Year: 2017 - 2020	Specific vehicles within the following range From 2PCG33491HC7 [REDACTED] up to 2PCG33494LC7 [REDACTED] incl. From 4RKG33494J97 [REDACTED] up to 4RKG33490L97 [REDACTED] incl. and 2PCS33496JC7 [REDACTED]
X3-45 Commuter Model Year: 2019	2PCJ33491KC7 [REDACTED]
H3-41, H3-45 coaches Model Year: 2018 - 2020	Specific vehicles within the following range From 2PCH33493JC7 [REDACTED] up to 2PCH33494LC7 [REDACTED] incl.
H3-45 VIP motorhomes Model Year: 2019 - 2020	2PCVS3498KC [REDACTED] 2PCVS3494KC [REDACTED] 2PCVS3491KC7 [REDACTED] 2PCVS3497LC [REDACTED] 2PCVS349XKC [REDACTED]
This Safety Recall does not necessarily apply to all the above-mentioned vehicles, some vehicles may have been modified before delivery. The owners of the vehicles affected by this recall will be advised by a letter indicating the Vehicle Identification Number (VIN) of each vehicle concerned.	

PART 1 – ENGINE SOFTWARE UPDATE

DESCRIPTION – PART 1

Part 1 of this safety recall applies to all the vehicles listed in the application table of the front page on which a notification identified SR19-31: PART 1- ENGINE SOFTWARE UPDATE exists.

On determined vehicles equipped with Green House Gas 17 (GHG17) or OBD18 Volvo D13 engine, perform the latest software update of the Engine Control Module.

Please contact your nearest Prevest Service Center or Prevest service manager and schedule an appointment to have the required software update applied.

SOFTWARE TOOL NEEDED

Description
Latest version of Premium Tech Tool (PTT) with appropriate communication interface equipment

PROCEDURE



DANGER

Park vehicle safely, apply parking brake, stop the engine.

Lock out & Tag out (LOTO) must be performed during set-up, maintenance or repair activities. Refer to your local procedure for detailed information regarding the control of hazardous energy.

1. Connect the vehicle's battery charger to a 120-Volt outlet.

2. Connect Premium Tech Tool (PTT) to the vehicle On-Board Diagnostics connector (OBD). Connect the PC to a functional LAN or Wi-Fi connection and a power source.

3. Turn the ignition switch to "ON". Activate the hazard warning flashers to prevent the vehicle from

entering sleep mode.

4. Log in to PTT.

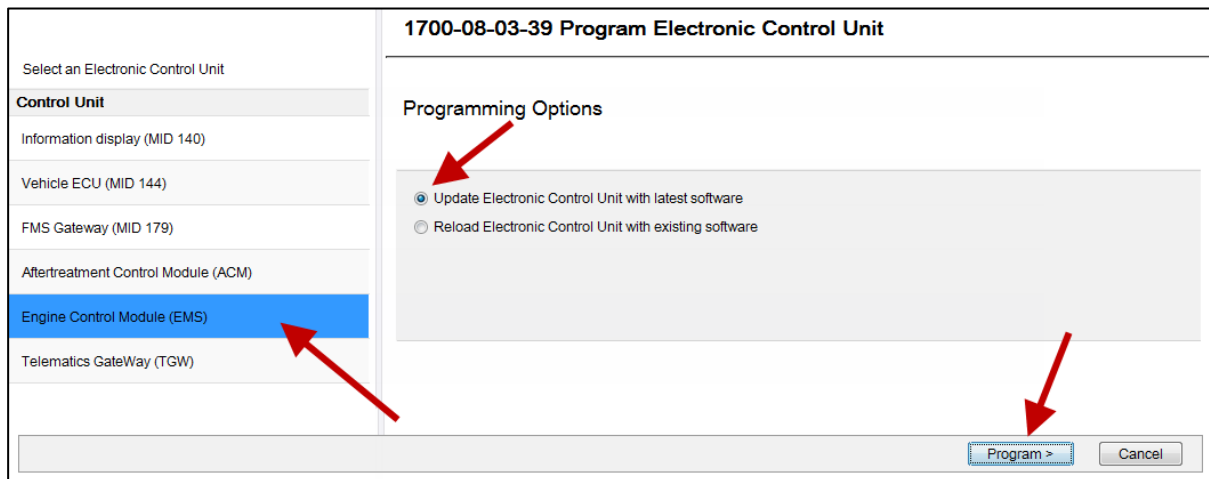
5. On **Product** tab (item A), identify the vehicle (item B).

The screenshot shows the 'Product' tab interface. At the top, there are navigation tabs: Product, Product History, Diagnose, Test, Calibrate, Program, and Impact. The 'Product' tab is active. Below the tabs, the 'Selected Product (PREVH 720635)' section is highlighted with a red arrow labeled 'A'. This section includes a 'Refresh' button, a 'Settings' button, a search bar for 'Manual Selection...', a 'Latest Selections...' button, and an 'OBD/LVD' dropdown menu. Below this, the 'Product Details' section is shown, containing fields for Chassis ID (PREVH 720635), Model (PREVH), VIN (2PCH33493KC), and Company (Volvo Buses). A red arrow labeled 'B' points to the VIN field. To the right of the product details is the 'Product Status' section, which includes a table with columns 'Status' and 'Description'. The table contains three rows: 'No DTCs with status Active.', 'Control unit information. Details >>', and 'Current battery level: 14.1 V.'. Below the product details is the 'Connectivity' section, which includes a table with columns 'Status' and 'Description'. The table contains three rows: 'VOCOM I (USB) is connected to the computer.', 'The selected product PREVH 720635 is connected. Product Data Retrieved: 2019-05-21 14:30:17', and 'Central Data Retrieved: 2019-05-21 14:30:22'. To the right of the connectivity section is the 'Campaigns (0)' section, which states 'There are no available campaigns for this product.'

6. Select **Program** tab and then **1700-08-03-39 Program Electronic Control Unit**. Click **Start**.

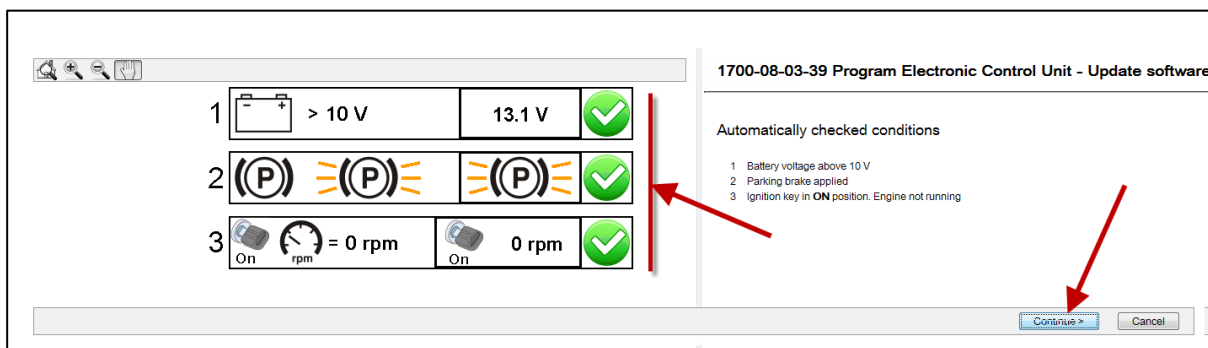
The screenshot shows the 'Program' tab interface. The left-hand pane is titled 'Program' and contains a list of operations. The operation '1700-08-03-39 Program Electronic Control Unit' is selected and highlighted with a red arrow. The right-hand pane is titled '1700-08-03-39 Program Electronic Control Unit' and contains the following information: 'To run the operation in simulation mode, select Run as simulated' with a checkbox for 'Run as simulated'. Below this is the 'Description' section, which states 'This operation is used to program a selected Electronic Control Unit. Parameter values will be transferred to the new software'. There are two notes: 'Note: DTCs in the programmed Electronic Control Units will be cleared' and 'Note: It may be necessary to perform calibrations after an Electronic Control Unit has been programmed. It is necessary to perform a DTC readout on the complete product after the operation in order to secure that no new active DTC has occurred'. At the bottom right of the right-hand pane, there is a 'Start >' button, which is highlighted with a red arrow.

7. Select **ENGINE CONTROL MODULE (EMS)**.
8. Select the following programming option "Update Electronic Control Unit with latest software".
9. Click **Program** button.



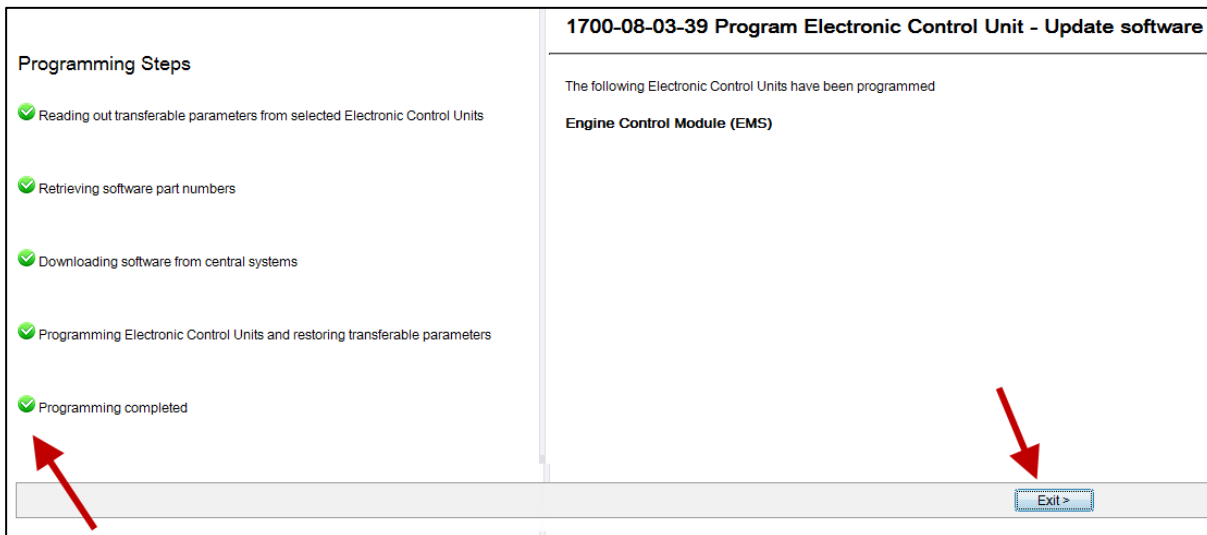
10. Certain conditions must be met to allow programing:
 - I. battery voltage above 10 Volts;
 - II. parking brake applied;
 - III. ignition key in ON position and the engine is not running.

When all conditions have been met, click **Continue** to proceed with programming.



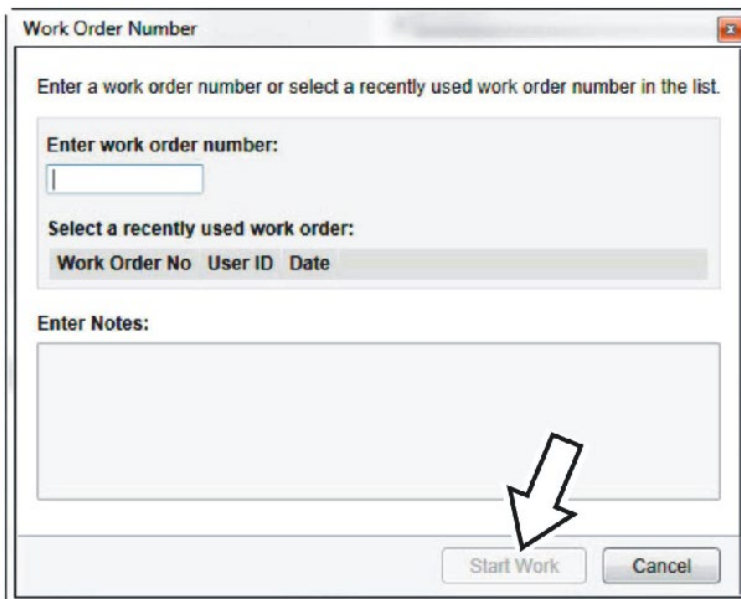
11. Wait until all Programming Steps check turn to green color (Programming completed).

12. When the programming is complete, click **Exit** button.



13. Clear any diagnostic trouble codes (DTC).

14. Enter the Work Order Number information and then click Start Work.



WARRANTY – PART 1

Part 1 of this safety recall is covered by Prevost's normal warranty. We will reimburse 1/2 hour (0.5) of labor upon receipt of a warranty claim. Please submit claims via our Online Warranty System, available at www.prevostcar.com (under Service \ Warranty section). Use Claim Type: "Bulletin/Recall" and select "Warranty Bulletin SR19-31".

OTHER

VBC Bulletin	N/A
Fail Code	01.00-2
Defect Code	49
Syst. Cond	R
Causal Part	3092091

Access all our Service Bulletins on
<http://techpub.prevostcar.com/en/>
or scan the QR-Code with your smart phone.

Are you a vehicle owner? E-mail us at
technicalpublications_prev@volvo.com and type "ADD" in the
subject to receive warranty bulletins applicable to your vehicle(s)
by e-mail.



PART 2 – CYLINDER LINER AND PISTON REPLACEMENT

DESCRIPTION – PART 2

PART 2 of this safety recall applies only to the vehicles listed in the application table of the front page on which a notification identified SR19-312*: PART 2-LINERS & PISTONS REPLAC exists. These vehicle mileage equals or exceeds 100 000 miles (160 000 km) at the launch of this campaign.

* SR19-312 stands for SR19-31Part2

IMPORTANT NOTICE TO SERVICE CENTERS

*Verify vehicle eligibility by checking warranty bulletin status with **SAP** or via **ONLINE WARRANTY SYSTEM** available on Parts and Service / Warranty tab of Prevost's website.*

On determined vehicles equipped with Green House Gas 17 (GHG17) or OBD18 Volvo D13 engine, perform the replacement of the **liner and piston of all six (6) cylinders**.

Refer to Impact for the procedures, torque and good practice guidelines.

Suggested procedures:

ID 2171-03-02-01 Oil Pan, Replacement

ID 2131-03-03-01 Cylinder Liners and Pistons, Replacement (All)

ID 2111-03-03-03 Cylinder Head, Replacement

Other procedures found on Impact that may be useful:

2515-03-03-02 Exhaust Manifold, Replacement

2115-03-03-01 Sealing Strip, Valve Cover, Replacement

2373-08-03-04 Common Rail, Fuel Leak Test

Kit SR19-31 includes the following parts:

#	STEP	DESCRIPTION	PART NO	QTY
OIL PAN		Use the following Impact procedure for reference: 2171-03-02-01 Oil Pan, Replacement		
1	3	oil pan seal	21293367	1
2		gasket, magnetic plug	20579690	1
LINERS & PISTONS		Use the following Impact procedure for reference: 2131-03-03-01 Cylinder Liners and Pistons, Replacement (All)		
3	6	cylinder liner kit (for 6 cylinders)	22724238 or 23775630	1
		or cylinder liner kit (for 1 cylinder)	22565407	6
4	23	bolt, piston jet	994445	6
5	25	fastener, stiffening frame	969445	24
6	25	gasket, oil pickup tube	22275838	2
7	25	fastener, oil pickup tube	994451	3
8	25	sealing ring, oil circuit, pipe on stiffening frame	21092243	4
CYLINDER HEAD		Use the following Impact procedure for reference: 2111-03-03-03 Cylinder Head, Replacement		
9	187	gasket, cylinder head	21510072	1
10	196	screw, cylinder head	21345131	38
11	209	seal, engine brake control valve	20526428	1
12	227	screw, sensor wheel	8192804	8
13	236	O-ring, injector kit (upper groove O-ring violet)	276948	6
14	241	screw, injector	21344774	6
15	268	pressure pipe, common rail	23000880	1
16	270	pressure pipe, common rail right	23000879	3
17	268	pressure pipe, common rail left	23000870	3
18	281	gasket, timing gear cover	21447682	1
19	295	O-ring, impulse sensor cam speed sensor	20966752	1
20	301	pipe, Volvo engine brake	22782247	1
21	339	gasket, valve cover & spacer	22777560	2
22	350	seal, thermostat	21503575	1
23	350	seal, thermostat I-Shift	975675	2
24	356	gasket, water manifold	21298915	1
25		sealing ring, water manifold	1547254	2

#	STEP	DESCRIPTION	PART NO	QTY
26	365	plane gasket, starter element, mixing camber	3979639	2
27	381	gasket, EGR valve	20850815	1
28	381	sealing ring, EGR valve	20841816	2
29	383	screw & sleeve, EGR valve	21528673	4
30	385	O-ring, EGR valve oil return hose	976014	1
31	385	seal/gasket, EGR valve oil supply hose	976014	1
32		O-ring, EGR coolant return pipe	1547253	2
33	389	V-clamp, EGR valve	20755169	2
34	392	seal, oil return pipe	21940615	1
35	395	turbocharger installation kit	85137676	1
36		seal, banjo coolant turbo act supply	947281	2
37		sealing ring, rubber (use as required)	1547252	1
38		sealing ring, banjo fitting (use as required)	20852765	2
39		V-clamp EGR crossover hot side	20504408	2
40		O-ring EGR crossover hot side	967343	2
41		V-clamp turbo to CAC pipe interface	20592787	1
42		O-ring, V-clamp turbo to CAC pipe interface	21096684	1
43		seal, transmission dipstick	571662	1
44		straight coupling, EGR crossover pipe	22889034	1
OTHER PARTS				
45		V-clamp, on Prevost exhaust pipe at flexible & at DPF	21021850	3
46		seal ring, on Prevost exhaust pipe at flexible & at DPF	21095726	3
47		oil filter, bypass	21707132	1
48		oil filter, long life	21707133	2
49		cable tie, nylon BLK (STD)	504637	30
50		cable tie, nylon (50 POUNDS)DOUBLE LOOP	507664	20
51		cable tie, nylon	G5007996	40
52		V-clamp, turbo outlet diffuser interface with Prevost pipe	21060426	1
53		gasket, turbo outlet diffuser interface with Prevost pipe	21095721	1
54		gasket, inlet elbow interface with mixing box	1675066	1
55		V-clamp inlet elbow interface with mixing box	20592783	1

NOTE

Material can be obtained through regular channels.

PART DISPOSITION

DO NOT RETURN THE REPLACED PARTS. Discard waste according to applicable environmental regulations (Municipal/State[Prov.]/ Federal)

WARRANTY – PART 2

This modification is covered by Prevost's normal warranty. We will reimburse you the parts and up to 50 hours of labor upon receipt of a completed A.F.A. Please submit claim via our Online Warranty System, available at www.prevostcar.com (under service \ warranty section). Use Claim Type: "Bulletin/Recall" and select "Safety Recall SR19-31".

Should you only wish to close the safety recall (without reimbursement), fill-in the "Safety Recall Certification Sheet" provided with this bulletin and return it to our warranty department by email at prevost.onlinewarranty@volvo.com or by fax at 418-831-9301.

OTHER

VBC Bulletin	N/A
Fail Code	01.00-2
Defect Code	09
Syst.Cond	R
Causal Part	22724238

Access all our Service Bulletins on <http://techpub.prevostcar.com/en/> or scan the QR-Code with your smart phone.
E-mail us at technicalpublications_prev@volvo.com and type "ADD" in the subject to receive our warranty bulletins by e-mail.





**Safety Recall
Certification Sheet
(Ref: SR19-31)**

VEHICLE SERIAL NUMBER:

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PERFORMED BY		OWNER/OPERATOR	
We hereby certify that Safety Recall Instructions with regard to Safety Recall SR19-31 have been performed.			
Name: _____		Name: _____	
Add: _____		Add: _____	
Phone: _____		Phone: _____	
Fax: _____		Fax: _____	
Signature : _____	_____	Signature : _____	_____
Date: _____	_____	Date: _____	_____

If the information mentioned above is incorrect or you are not the owner of this vehicle anymore, please fill this section and return to sender.

NEW OWNER:

BUSINESS:

ADDRESS (including County):

TELEPHONE:

FAX:

Please return this completed document with your A.F.A. form