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IMPLEMENTATION OF VOLVO ENGINE BRAKE AUTO MODE – US10 & ODB13 VEHICLES ACCESSORY KIT: 85150635

Prevost vehicles

DESCRIPTION

This bulletin describes the steps to be followed on your computer to add the Volvo Engine Brake AUTO mode on the vehicle.

The AUTO mode may be added on US10 and OBD13 vehicles that were built before the introduction of the Volvo Engine Brake AUTO mode on the assembly line.

The vehicle must be equipped with the ALLISON TRANSMISSION and VOLVO ENGINE BRAKE (VEB).

To familiarize yourself with the use and behavior of the Volvo Engine Brake AUTO mode, please consult Maintenance Information MI16-06 available on Prevost Technical Publications site at this address:

http://techpub.prevostcar.com/en/

IMPORTANT NOTICE

This modification is recommended by Prevost to increase your vehicle's performance. Note that no reimbursement will be awarded for carrying out this modification.

MODEL YEAR(S) AND VEHICLES INVOLVED

Model	VIN	
US1	10 AND OBD13 v	ehicles equipped with the
ALLISON TR	ANSMISSION an	d VOLVO ENGINE BRAKE (VEB)

EQUIPMENT REQUIRED

Use the following Computer tools:

Part No.	Description	Qty
N/A	PTT (Premium TechTool)	1
N/A	For OBD 13 Vehicles; VPG (Vehicle Program Generator). **Contact your Prevost Service Manager or your Prevost Service Center	1

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Other parts that may be required:

Part No	Description	Qty
564146	VOLVO ENGINE BRAKE BUTTON	1
562698	NGR SWITCH	1

NOTE

Material can be obtained through regular channels.

PROCEDURE FOR OBD13 VEHICLES

PART 1 - RUN ACCESSORY KIT



1. In Premium TechTool, select PROGRAM tab. In PROGRAM tab, select operation <u>1700-22-03-06</u> <u>Accessory Kit</u> then click START (FIGURE 1).





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- 2. Enter the accessory kit number <u>85150635</u> (FIGURE 2).
- 3. Click on PROGRAM button below and then follow the instructions. The programming process will start (FIGURE 2, FIGURE 3).

Tech Tool	
Tech Tool Links Help	🍕 Jean Ruel
Product Product History Diagnose Test Calibrate Program Impact	
Programming Steps Retrieving software part numbers	1700-22-03-06 Accessory kit Enter an accessory kit number and char fogram to apply the kit Kit number: 85150655 Enter an accessory kit number
Reading out transferable parameters from affected Electronic Control Units	
Downloading software from central systems	
Programming Electronic Control Units	
Programming completed	
	Program > Cancel

FIGURE 2

Tech Tool	
Tech Tool Links Help	🍕 Jean Ruel
Product Product History Diagnose Test Calibrate Program Impact	
	1700-22-03-06 Accessory Kit
Programming Steps	Requested Kit involves only parameter changes
Retrieving software part numbers	
Cownloading software from central systems	
Programming Electronic Control Units	
Programming completed	
	Continue >
hassis ID: PREVX 735959 VIN: 2PCG33491GC735959 Work Order: AEBtest	🥥 Product 😴 Online

FIGURE 3



PART 2 – PROGRAM VECU (MID144)

1. In Premium TechTool, select PROGRAM tab. In PROGRAM tab, select operation <u>1700-08-03-39</u> <u>Program Electronic Control Unit</u> then click START (FIGURE 4).



- 2. Select the proper electronic control unit which is VEHICLE ACU MID144 (FIGURE 5).
- 3. Select UPDATE ELECTRONIC CONTROL UNIT WITH LATEST SOFTWARE (FIGURE 5).
- 4. Click on PROGRAM button and then follow the instructions (FIGURE 5).

Tech Tool	
Tech Tool Links Help	🖓 Jean Ruel
Product Product History Diagnose Test Calibrate Program Impact	
	1700-08-03-39 Program Electronic Control Unit
Select an Electronic Control Unit	
Control Unit	Programming Options
Information display (MID 140)	
Vehicle ECU (MID 144)	Update Electronic Control Unit with latest software
Radio (MID 206)	Reload Electronic Control Unit with existing software
Aftertreatment Control Module (ACM)	
Engine Control Module (EMS)	
Telematics GateWay (TGW)	
	Program > Cancel
Chassis ID: PREVX 735959 VIN: 2PCG33491GC735959 Work Order: AEBtest	🥝 Product 🤡 Online

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- 5. <u>If</u> the software present in the VECU is not up to date, the following message will appear. In this case, select YES (FIGURE 6).
- 6. Click CONTINUE and follow the instructions (FIGURE 6).

		1700-08-03-39 Program Electronic Control Unit - Update software				
Programming Steps	trol Units	The following Electronic Control Units will be programmed Vehicle ECU (MID144)				
Retrieving software part numbers	Confirmation					
Downloading software from central systems	Reload software There are no software Unit	a eupdates for the selected Electronic Control				
Testing programming speed	Do you want to reload	d the existing software?				
Programming Electronic Control Units		Yes No				
Programming completed		/				

FIGURE 6

PART 3 – PROGRAMMING DJ PARAMETER

1. In Premium TechTool, select PROGRAM tab. In PROGRAM tab, select operation <u>1700-22-03-03</u> Parameter, programming then click START (FIGURE 7).



FIGURE 7

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- 2. Under CONTROL UNIT, select Vehicle ECU (MID 144) in the drop-down list (FIGURE 8).
- 3. Change the value of DJ parameter. Write in the field: **1.3** if unit is **mph** or **2** if unit is **km/h** then click ENTER on your keyboard (FIGURE 8).
- 4. Click CONTINUE (FIGURE 8).

tch Tool		-													
ech Tool	Links Help														📑 Jear
roduct	Product Histor	y Diagnose	Test	Calibrate	Program	Impa	t								
700-22 Find a par	2-03-03 Parar	neter Progr ter using the optio	ammin ns below of	g r by searching fo	or its ID or name	e. Change	the parameter value directly	in the table. Click C	ontinue to con	firm the char	nged parame	iter value	15.		
Stor	e Values 🛛 🔲 Par	ameter Templates	🔔 inva	alid Parameters											
Filter Para	valid Parameter Va here are one or more ameters Parameter;	lue parameters with	Filter by	es. This may be	caused by seve	eral reaso	ns, and some vehicle functio	ns may not function	properly. Click Parameter Ty	on the Inval	id Paramete	rs button	to see more details Parameter State	8.	
		٩	Control	Unit		•	Vehicle ECU (MID 144)	•	All			٠	All		
	Mana							Malua			Details	-			
DA -	Max vehicle spee	t for High Idle					Min	value 7	9	moh	Details	State			
DB	PTO min vehicle :	ipeed					2	3	7	moh					
DGM	Time before push	is seen as a ramo	152				0.01	0.25	2.49	8					
DHA	Time before PTO	activation is seen	as a ramp				0.00	0.25	2.54	5					
DHB	Max time to activa	ite idle adjust func	tion				0	2000	25500	ms					
DHL	Enable Speed Th	eshold 2 function						Off.			-				
DJ	Brake cruise cont	rol, default speed					1.3	1.3	3.1	mph		🔹 Cha	anged		
DTO	Max vehicle spee	d to activate idle a	djust				0	19	155	mph		1001010			
DXM	Enable engine sp	eed limit when PT	O active (P	TO0)				Off	•						
DZY	Enable brake crui	se						Enabled swi	•						
FOU	Engine Torque Lin	nit Percentage					0	0	100	%		A Rea	ad only		
ECM															

FIGURE 8

5. Click PROGRAM (FIGURE 9).

Tech Tool	8.8.			_		Addings to begin the out has	-			- 0 -×
Tech Tool	Links Help								6	🏅 Jean Ruel
Product	Product History	Diagnose	Test	Calibrate	Program	Impact				
1700-22 Paramete	2-03-03 Parame	ter Progra	ammin	g						
ID	Name					Old	New	Unit	Commercial Part Number	
DJ	Brake cruise control,	default speed				4.3	1.3	mph		
										1
									< Back P	rogram

FIGURE 9

6. Follow the instructions on your screen.

PART 4 – MULTIPLEX PROGRAMMING

You need to make an appointment in a Prevost Service Center or contact your Prevost Service representative to have this part completed as it requires VPG (Vehicle Program Generator) software.

- 1. Connect VPG interface cable to the DB9 connector.
- 2. Change RTDPDL parameter value. Initial value is **NO**, change this value for **YES** using the drop-down list, then click on SELECT (FIGURE 10).

Prevost Vehicle Program Generator (VP ile View Execute ?	PGProd_V2)				
		-	0		
Vehicle ID#: g-5959 Search	Messages:				
General Vehicle Parameters Program Gener	ation Transfer to the	Vehicle Vehicle His	tory		
Compare parameter values betwee	n Rentoue Value	مستا است الع	ا ی میلولا او	<< Back	Next >>
Vehicle Parameters	RTDPDL - Engin	e Retarder on Brake	Pedal appli 🕰		
Para / Description				New Value	
IDI SDE Idle shut down enabled	1			No	-
IDI SDN Idle shut down timer				900 sec	
KNEEAL Kneeling Up Alarm				No	
KNEELI Kneeling		Tes 🗾		Yes	
LMPWSH Head Lamps Washer		1		No	
LUGLUK Remote Luggage Door Lock		¥		Yes	
NEWJER State: New Jersey	Sel	ect Car	icel :	No	
PBKALM Park brake alarm with ignition or				No	
PRCKAC Parcel Rack With A/C	1			No	
RECFMI Disable fmi 5 Pass AC rec damp	er INO	NO	110	No	
RRBUOY Rear High Buey Function	No	No	Ne	No	
RTDPDL Engine Retarder on Brake Pedal	app No		No	No	
STORMX X3 Back lighting 2014	No	Yes	Yes	Yes	e
TPMSSY TPM System	No	Yes	Yes	Yes	
TRASMI Transmission	Allisson	Allisson	Allisson	Allisson	
VEHMOD Vehicle Model	X3	X3	X3	X3	
WCHLIF Wheel Chair Lift	No	No	No	No	
XENONL Head Lamp Xenon	No	Yes	Yes	Yes	

- FIGURE 10
- 3. Select the PROGRAM GENERATION tab and follow instructions according to the usual procedure.
- 4. Select the TRANSFER TO THE VEHICLE tab and follow instructions according to the usual procedure.



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PART 5 – VALIDATION STEP

- 1. In order to validate that the previous steps have successfully added the Volvo Engine Brake (VEB) AUTO mode, perform the following step.
- 2. Set the ignition switch to the ON position and check if the pictogram (A) appears in the DID status line (FIGURE 11). If this is the case, the Automatic control mode is successfully implemented on the vehicle.



FIGURE 11

PART 6 – OPTIONAL STEP, ADDITION OF AN ENGINE BRAKE CANCEL SWITCH

Order the following parts:

Part No	Description	Qty
564146	VOLVO ENGINE BRAKE BUTTON	1
562698	NGR SWITCH	1

NOTE

Material can be obtained through regular channels.

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Engine Brake Cancel Switch (optional)

The vehicle's engine brake is by default set to automatic (AUTO (3) mode). On vehicles equipped with this switch, it is possible to disable the engine brake (OFF mode).

From OFF or AUTO mode, the driver can switch directly to Engine Brake LOW 0 or Engine Brake HIGH 0 mode by using the buttons on the steering wheel.

The switch will have to be clicked again to return from OFF mode to AUTO (2) mode (cycling the ignition will have the same effect).

- 1. Remove the dashboard cover.
- 2. Locate a free switch location on the L.H. dashboard panel (FIGURE 12).



FIGURE 12

- 3. Remove the dummy plate (FIGURE 12) on the free switch location.
- 4. Insert the switch body.
- 5. Mount the button on the switch body.
- 6. From behind the dashboard, located connector **SW16** among the dashboard harness. Connect SW16 to the switch body.



PROCEDURE FOR US10 VEHICLES

PART 1 - RUN ACCESSORY KIT



1. In Premium TechTool, select PRODUCT tab. Enter work order number (FIGURE 13).

Tech Tool							ENE	inglish (Canada) 🛛 😨 Help			_	
Tech Too	Links Help								-		5	Sylvain St-Aman
Product	Product History	Diagnose	Test	Calibrate	Program	Impact	Maidcom	VBC Remote				
Select	ed Product				Work Ord	der Number				1		
G Ref	resh 🔞 Settings	A Manual Sele	ction	Latest Select					_			Finish Work
roduct	Details				6	Charge Ba	tteries (12/24V) 1	while vehicle is in workshop.				
Chassis	ID:			VIN:					and a set of the line is		١	/alidated
PREVH	711884			2PCH3349XC0	Enter a	work order h	umber or select	ecently used work order no	umber in the list.	mose to view DTCs.		2016-09-01 11:10
Model:				Company:	Enter	work order r	number:					
PREVH				Volvo Buses	auto E	En						
Emissio	n Level:				Select	a recently u	used work order					
US10					Work	Order No.	User ID Date					
Electric	al System:				test3		M301885 2016-	09-01 11:06				
Multiples	ed version 2				test2		M301885 2016-	08-30 3:51				
Nork Se	ssion				auto e	n	M301885 2016-	08-30 3:43				
Commu VOCOM	nication Unit: /88890020/88840133				Enter N	lotes:						
onnect	vity											
Status	Description											
0	VOCOM/88890020/8884	0133 (USB) is co	onnected t	to the computer.								
1	Reading product data											
								Start Work	Cancel			
									Garrest			
					_							
											e Product	Central Systems

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2. Premium TechTool should confirm with two green dots that you are properly connected to the vehicle and the central system (FIGURE 14)

Tech Tool Links Help			😼 Sylvain St-Ama
Product Product History Diagnose Test Calil	brate Program Impact Maidcom	VBC Remote	
Selected Product (PREVH 711884)			
😘 Refresh 🛛 🕲 Settings 🔍 Manual Selection 🕲 Late	est Selections		Rinish Wor
Product Details		Product Status	
Chassis ID: VIN:		Status Description	Validated
PREVH 711884 2PCH	13349XCC711884	DTCs with status Active. Click Diagnose to view DTCs.	2016-08-30 3
Model: Comp	any:	Current battery level: 12.0 V.	2016-08-30 3
US10 Electrical System: Multiplexed version 2 Work Session Product Data Retrieved: Centr 2016-08-30 3.16 2016-	al Data Retrieved: 08-30 3:16	Campaigns (0) There are no available campaigns for this product.	Readout Time: 2016-08-30 3
Nexiq USB-Link auto e	in .		
Connectivity			
Status Description			
Nexiq USB-Link driver version is not recommended. Details	\$>>		
The selected product PREVH 711884 is connected.			1
assis ID: PREVH 711884 VIN: 2PCH3349XCC711884 Company: Volv	o Buses Model: PREVH Work Order: auto en		Product 🥥 Central Syste

3. In Premium TechTool, select PROGRAM tab. In PROGRAM tab, select operation <u>1700-22-03-06</u> <u>Accessory Kit</u> then click START (FIGURE 15).



FIGURE 15

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4. Click ▶ (play) (FIGURE 16).



5. Enter the accessory kit number <u>85150635</u> (FIGURE 17) and then click OK.

Product Poduct Poduct Poduct Poduct Maldom VBC Remote Image Image Maldom VBC Remote Image Image Maldom VBC Remote Accession KA Accession KA Accession KA Cathor: Possible damage to electronic components. Truth the ventral systems in progress selectronic equipment damage. Cathor: To prevent electronic dischage (ESD), which may result in permanent damage to electronic components, a wrist grounding stramm discharpe (ESD), which may result in permanent damage to electronic components. The operation ensures that the cortext information about the ventral systems in progress serving accessions. The operation ensures that the cortext information about the ventral systems in the cortext information about the ventral systems in progress serving accession. Accession KA Acces	Tech Tool Links Help		Sylvain St-Amant
Accessory Ka Accessory Ka Aution: Possible damage to electronic components. Turn the vehicle gainton surter OFF before disconnecting or connecting any result in electronic equipment damage. Aution: To prevent electrostatic discharge (ESD), which may damage sensitive electronic components, a wrist grounding stap may result in entrone classory. Failure to use a wrist stap may result in permanent damage to electronic components. The which is insportant bactors equipment (e.g., the instrument classory. Failure to use a wrist stap may result in permanent damage to electronic components. This operation elsupsets that the correct information about the vehicle is programming the new control unit. The tents accessory kit part number. The control unit concerned must be programmed once this operation has been performed. Not: Updating the central systems can take a while.	Product Product History Diagnose Test Calib	te Program Impact Maidcom VBC Remote	
Accessory Kit > Enter accessory kit Caution: Possible damage to electronic components. Turn the vehicle is jointon switch OFF before disconnecting or connecting any electronic components. Failure to de-energize circuits may result in electronic equipment damage. > Enter accessory kit Caution: To prevent electronic components. a wrist grounding strap music buicde when working on electronic components. a wrist grounding strap music buicde when working on electronic components. Swing to a job card Coperation components. Prevent electronic components. Autionization Caution: To prevent electronic components. a wrist grounding strap music buicde when working on electronic components. Accessory kit This operation is used to update vehicle data in the central systems when ordering accessories. Image: Caucie Components and the correct part number. The control unit concerned must be programmed once this operation has been performed. Image: Caucie Components and the correct part number. Note: Updating the central systems can take a write. Image: Caucie	0 ↔ < 0 > = 1 + 1 + 2 < 0 = 4 → 1]*	
	Accessory Kit Caution: Possible damage to electronic components. Turn th vehicle ignition switch OFF before disconnecting or connecting electrical components. Failure to de-energize circuits may resu electronic equipment damage. Caution: To prevent electrostatic discharge (ESD), which may damage sensitive electronic components, a wrist grounding st must be used when working on electronic equipment (e.g., the instrument cluster). Failure to use a wrist strap may result in permanent damage to electronic components. This operation is used to update vehicle data in the central sys when ordering accessories. The operation ensures that the correct information about the v stored in the central system. This is important because the co part number for software/markware must be available when programming the new control unit. Enter the accessory kit part number. The control unit concerned must be programmed once this ope has been performed. Note: Updating the central systems can take a while.	P Enter accessory kit Authorization Communication with the central systems in progress Saving to a job card Operation complete Operation complete Image: Complete in the central systems in progress in progress in the central systems in the central syste	



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6. If this pop up appears, click CLOSE (FIGURE 18).

Accessory Kit	✓ Enter accessory kit
	Authorization
Caution: Possible damage to electronic components. Turn the	Communication with the central systems in progress
electrical components. Eailure to de energize circuits may result in	Saving to a job card
electronic equipment damage.	Operation complete
Caution: To prevent electrostatic discharge (ESD), which may	
damage sensitive electronic components, a wrist grounding strap must be used when working on electronic equipment (e.g., the	Information
instrument cluster). Failure to use a wrist strap may result in	
permanent damage to electronic components.	Error occurred
This operation is used to undate vahicle data in the central sustance	This accessory of does not exist. Make sure that the number is correct
when ordering accessories.	This accessory we does not exact make sure data the humber is conect.
The operation ensures that the correct information about the vehicle is	Show Details Close
stored in the central system. This is important because the correct part number for software/hardware must be available when	
programming the new control unit.	
Enter the accessory kit part number.	
The control unit concerned must be programmed once this operation	
has been performed.	
Note: Updating the central systems can take a while.	
24	

FIGURE 18

PART 2 - PROGRAM VECU (MID144)

 In Premium TechTool, select PROGRAM tab. In PROGRAM tab, select operation <u>3649-22-03-01 –</u> <u>MID 144 ECU, Programming</u> then click START (FIGURE 19).





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2. Click ▶ (play) (FIGURE 20).



3. Click OK (FIGURE 21).

Tech Tool Links Help		5 Sylvain St-Amar
Product Product History Diagnose Test Calibrate	Program Impact Maidcom VBC Remote	
	right apper matching to realize	
MID 144 ECU. Programming	Reading data from the control unit Connection to the control unit	
This operation is used to program the vehicle control unit.	Authorization	
This operation must be used when replacing the control unit. The operation reads the software and parameter settings from the old control module and programs these settings into the new control module.	Communication with the central systems in progress Confirming software status Programming Saving to a job card	
The operation is also used when reprogramming an existing control unit, for example when a conversion kit has been ordered necessitating reprogramming of the control unit.	Confirm software Ownload software and show commercial part number.	
Note: The fault codes in the programmed ECU will be cleared. Read and save all fault codes to the job card before running this operation. Note that after the operation new fault codes may be set. These fault codes should be cleared.	Show only commercial part number. OK Cancel	
In the beginning of the operation you have three options:		
- Use "Replace control unit" ONLY when you change the control unit. All data from the old control unit is transferred to the new control unit.		
 Use "Reprogram control unit with complete software package" ONLY when you need to repair the software in the control unit. 		
 Use "Reprogram control unit with only new parts of software package" when you need to update control unit with new software. Only new parameters or new parts of the software are programmed so 		

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4. Select **REPROGRAM CONTROL UNIT WITH ONLY NEW PARTS OF SOFTWARE PACKAGE** and then click OK (FIGURE 22).

Tech Tool	EN English (Canada) 🕐 Help 📜	09
Programming		🔯 Sylvain St-Ama
Choose action: Choose action: Replace control unit Reprogram control unit with complete software package Reprogram control unit with only new parts of software package OK	vBC Remote rol unit nt nt Cancel Intral systems in progress	
The operation is also used when reprogramming an existing control unit, for example when a conversion kit has been ordered necessitating reprogramming of the control unit. Note: The fault codes in the programmed ECU will be cleared. Read and save all fault codes to the job card before running this operation. Note that after the operation were fault codes may be set. These fault codes should be cleared. In the beginning of the operation you have three options: - Use "Replace control unit" ONLY when you change the control unit. All data from the old control unit is transferred to the new control unit Use "Reprogram control unit with complete software package" ONLY when you need to repair the software in the control unit Use "Reprogram control unit with only new parts of software package" when you need outpate control unit with mere software. Only new parameters or new parts of the software are programmed so	Saving to a job card Operation complete	
		Exit
hassis ID: PREVH 711884 VIN: 2PCH3349XCC711884 Company: Volvo Buses Model	PREVH Work Order: test3	😋 Product 🛛 Central System

5. Validate the conditions shown on the pop up window (FIGURE 23).



FIGURE 23

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6. Click CONTINUE (FIGURE 24).



7. Click OK (FIGURE 25).



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8. Programming is in progress (FIGURE 26 & FIGURE 27).





h Tool	18 A					ENE	nglish (Canada) 🕐 Help 📜		
h Tool	Links Help					2.2		E <mark>å</mark> Syl	Ivain St-Ama
oduct	Product History	Diagnose	Test Ca	librate Program	Impact	Maidcom	VBC Remote		
					_				
					MID 144	ECU, Program	nming		
					1 500	itch the naws	u off		
					. w.	it 10 socon	de		
						itch on the pr	auor nunnhi		
					- Sw	ach on the po a	mei suppry		
					vva	n			
					_				
ID PR	EVH 711884 VIN- 2PC	3349XCC711884	Company: Ve	No Buses Model PREVH	Work Order 1	Ften		Product 😋 C	Central Syste
in the Party	Vite aron		sourcearly. The	ATO GODDE ANODEL PILLTIN	man Gruer. s			V Product V O	Sand Syane

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9. Click 📕 (stop) and then click EXIT (FIGURE 28).



FIGURE 28

PART 3 – PROGRAMMING DJ PARAMETER

1. In Premium TechTool, select PROGRAM tab. In PROGRAM tab, select operation <u>1700-22-03-03</u> <u>Parameter, programming</u> then click START (FIGURE 29).

Product Product History Diagnose Test Calibrate Program Impact Maidcom	VBC Remote
Program	1700-22-03-03 - Parameter, Programming
	To run the operation in simulation mode select Run as simulated
	Run as simulated
1 - Service and maintenance	
1700-08-03-13 - Change Component	
1700-22-03-02 - System Date and Time. Programming	This operation is used to read and program parameter values.
1700-22-03-03 - Parameter, Programming	
1705 12:00 G4 - Comension N	
1700-22-03-06 - Accessory Kit	
2 - Engine, Engine mounting and equipment	
3 - Electrical system and instruments	
4 - Transmission	
5 - Brakes	
6 - Axles, suspension and steering	
7 - Frame, springs, shocks and wheels	
8 - Body, cab and interior	
9 - Miscellaneous	
	Start> Cancel

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2. Click YES on this pop up window (FIGURE 30).

	and precautions must be observed.
compone	ain the venicle is equipped with the appropriate nts and features before resetting any parameters.
The warnin understood	igs and precautions above have been read and

FIGURE 30

3. Click ▶ (play) (FIGURE 31).

9 Tech Tool	El English (Canada) 😧 Help 📜	
Tech Tool Links Help		🛃 Sylvain St-Amant
Product Product History Diagnose Test Ca	alibrate Program Impact Maidcom VBC Remote	
Эни и и и и и и и и и и и и и и и и и и	*	
Parameter, Programming		
Caution: Make certain the vehicle is equipped with the		
appropriate components and matures before resetting any		
parameters.		
This operation is used to read and program parameter valuer	19	
Note: Fault codes may be stored in some of the ECUs during	ing	
programming. These fault codes should be cleared.	ID Name Min Value May Linit	
Note: The following applies only to markets with a legal		
requirement for speed limitation.		
The programmer is responsible for ensuring that all programming is carried out correctly and that the road speed		
limit complies with relevant legislation. Certification from the		
relevant authorities is required to carry out road speed limit		
(RSL) programming.		
Note: The values column has two different types of values.		
One type where any value between the min/max limits		
can be entered, these are aligned to the right in the column. The other type has fixed values to choose from these are		
aligned to the left.		
S 10000		
		Exit

FIGURE 31

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4. Select the icon shown at step (1) on FIGURE 32. Select the proper MID number which is **144 Vehicle ECU** (see step 2). Proper MID number is. locate DJ parameter in the list below (step 3).

ech looi Links Help			2.							Sylvain St-Ar
Product Product History Diagnose Test Calibr	rate	Prog	ram Impact Maidcom VBC	Remote						
		-	(1) SELE	ст т	2IL	-				
Parameter. Programming		1			Min	Max		m		
Caution: Make certain the vehicle is equipped with the appropriate components and features before resetting any parameters.	NN	128 E	ingine ECU information display (2)	ELE	ст	тн	IS	<u>س</u>		
This operation is used to read and program parameter values.	Ē	142 V	/ehicle ECU							
Note: Fault codes may be stored in some of the ECUs during programming. These fault codes should be cleared.										
		ID	Name	Min	Value	1	Max	Unit		
Note: The following applies only to markets with a legal		YO.	Activate PTO output from vehicle		1					
equirement for speed limitation.		~~	control unit		I = Tes					
equirement for speed limitation. The programmer is responsible for ensuring that all	*	I CX	control unit Air Conditioning Installed		0 = No	2			1.00	
equirement for speed limitation. he programmer is responsible for ensuring that all rogramming is carried out correctly and that the road speed	ł		control unit Air Conditioning Installed Brake cruise control, default speed	1.24	0 = No	4.35	3.11	mph	(3)	DJ PARAMETEI
equirement for speed limitation. The programmer is responsible for ensuring that all vogramming is carried out correctly and that the road speed imit complies with relevant legislation. Certification from the burned wither the reserved to the other out and enserved the the	Ľ	DJ	control unit Air Conditioning Installed Brake cruise control, default speed Brake Program delay	1.24	0 = No	4.35	3.11	mph ms	(3)	DJ PARAMETER
squirement for speed limitation. The programmer is responsible for ensuring that all rogramming is carried out correctly and that the road speed mit complies with relevant legislation. Certification from the elevant authorties is required to carry out road speed limit RSL) programming.	2		control unit Air Conditioning Installed Brake cruise control, default speed Brake Program detay Bridge on J 1939 for body builders, enable	1.24	0 = No 0 = Off	4 35	3.11	mph ms	(3)	DJ PARAMETER
equirement for speed limitation. The programmer is responsible for ensuring that all rogramming is carried out correctly and that the road speed mill complies with relevant legislation. Certification from the elevant authorties is required to carry out road speed limit RSL) programming. All the values column has two different types of values.		DJ DJ QIW BYT	control unit Air Conditioning Installed Brake cruise control, default speed Brake Program deay Bridge on J1939 for body builders, enable Clutch cond for High Idle/PTO 0 deact.	1.24	0 = No 0 = Off 2 = Peda depressi	4 35 1000	3.11	mph ms	(3)	DJ PARAMETER
equirement for speed limitation. The programmer is responsible for ensuring that all rogramming is carried out correctly and that the road speed mit complies with relevant legislation. Certification from the elevant authorities is required to carry out road speed limit RSL) programming. Note: The values column has two different types of values. Dre type where any value between the min/max limits an be entered, these are aligned to the right in the column.		DJ DJ QIW BYT CCU	control unit Air Conditioning Installed Brake cruise control, default speed brake Program Belay Bridge on J1939 for body builders, enable Clutch cond for High Idle/PTO 0 deact. Clutch delay before cruise deactivation	1.24	0 = No 0 = Off 2 = Pede depression	4.35 1000 sl ed 5	3.11 65535 10	mph ms	(3)	DJ PARAMETER
equirement for speed limitation. The programmer is responsible for ensuring that all rogramming is carried out correctly and that the road speed mit complies with relevant legislation. Certification from the elevant authorities is required to carry out road speed limit RSL) programming. Note: The values column has two different types of values. One type where any value betwen the min/max limits an be entered, these are aligned to the right in the column. The other type has fixed values to choose from, these are ligned to the left.		DJ DJ QIW BYT CCU MZF	control unit Air Conditioning Installed Brake cruise control, default speed Drake Program deay Bridge on 1939 for body builders, enable Clutch deay before cruise deactivation Cooling fan activation delay, after charging start	1.24 0 0 5	0 = No 0 = Off 2 = Pedz depress	4.35 1000 al ed 5 30	3.11 69535 10 30	mph ms s s	(3)	DJ PARAMETEI
equirement for speed limitation. The programmer is responsible for ensuring that all programming is carried out correctly and that the road speed limit complies with relevant legislation. Certification from the elevant authorities is required to carry out road speed limit RSL) programming. Note: The values column has two different types of values. One type where any value between the min/max limits and be entered, these are aligned to the right in the column. The other type has fixed values to choose from, these are aligned to the left.		DJ DJ QIW BYT CCU MZF AG	control unit Air Conditioning Installed Brake cruise control, default speed brake Program seay Bridge on J 1939 for body builders, enable Clutch cond for High Idle/PTO 0 deact. Clutch delay before cruise deactivation Cooling fan activation delay, after charging start Cruise control	1.24 0 0 5	0 = No 0 = Off 2 = Peda depresson	4.35 1000 sl ed 5 30	3.11 65535 10 30	mph ms S S	(3)	DJ PARAMETER

5. Change DJ parameter Value to 2.00 (FIGURE 33) then press ENTER on your keyboard.



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6. Click on CONTINUE (FIGURE 34).

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Product Product History Diagnose Test Calib	rate	Prog	ram Impact Maidcom VBC	Remote					
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Parameter, Programming	=		1.00						
Caution: Make certain the vehicle is equipped with the appropriate components and features before resetting any parameters.	atata ata	128 E 140 h 142 \	Engine ECU formation display folvo Link folucia ECU		Min Mi	ax			
Note: Fault codes may be stored in some of the ECUs during	2	206 F	Radio			1			
programming. These fault codes should be cleared.	Г	ID	Name	Min	Value	Max	U	nit	
Note: The following applies only to markets with a legal requirement for speed limitation.		xo	Activate PTO output from vehicle control unit		1 = Yes				
The programmer is responsible for ensuring that all	*	CX	Air Conditioning Installed		0 = No				
programming is carried out correctly and that the road speed		DJ	Brake cruise control, default speed	1.24	2	00 3	3.11 m	sh	
limit complies with relevant legislation. Certification from the		LMY	Brake Program delay	0	10	00 65	535 m	1	
relevant authorities is required to carry out road speed limit (RSL) programming.		QIW	Bridge on J1939 for body builders, enable		0 = Off				
Note: The values column has two different types of values.		BYT	Clutch cond for High Idle/PTO 0 deact.		2 = Pedal depressed				
One type where any value between the min/max limits can be entered, these are aligned to the right in the column.		CCU	Clutch delay before cruise deactivation	0		5	10 s		
The other type has fixed values to choose from, these are aligned to the left.	*	MZF	Cooling fan activation delay, after charging start	5		30	30 s		
		AG	Cruise control		1 = Yes				
		AI	Cruise control max speed	18.6	6	8.4 8	87.0 m	2h	
		1000	Cruice Control Min Set Speed	18.6	12	8.6 6	68.4 m	sh	
		BK	Citilae Council mun Ser Speed				120 2000		
	-	BK	Cruise Control Min Speed to Resume	9.3	5	9.3 1	18.6 m	bh	
20		BK BL AST	Cruise Control Min Speed to Resume Cruise control Trim step, resume	9.3	1	9.3 1 .24 6	18.6 m 6.21 m	oh les/h/s	

FIGURE 34

7. Click on PROGRAM button (FIGURE 35).

ameter					×=)
arameter	s to be programmed:				
ID	Name	Old	New	Unit	
DJ	Brake cruise control, default speed	4.35	5 2.00	mph	
		``			

FIGURE 35

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8. Click (stop) (arrow 1) and then EXIT (arrow 2) (FIGURE 36).

Tech Tool Links Help								📑 Syt	vain St-Am
Product Product History Diagnose Test Calib	ate Prop	gram Impact Maidcom VBC	Remote						
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Parameters. Programming Caution: Make certain the vehicle is equipped with the appropriate components and features before resetting any parameters. This operation is used to read and program parameter values.	128 4 140 142 142 142 142 142	Engine ECU Volvo DNA Volvo	e [Min M	ax				
Note: Fault codes may be stored in some of the ECUS during programming. These fault codes should be cleared.			14	11.1			110.5		
Note: The following applies only to markets with a legal requirement for speed limitation.	xo	Name Activate PTO output from vehicle control unit	Min	1 = Yes		Max	Unit		
The programmer is responsible for ensuring that all programming is carried out correctly and that the road speed	M CX	Air Conditioning Installed Brake cruise control, default speed	1.2	0 = No	2.00	3.11	mph		
relevant authorities is required to carry out road speed limit (RSL) programming.	QIW	Brake Program delay Bridge on J1939 for body builders, enable		0 10 0 = Off	000	65535	ms		
Note: The values column has two different types of values.	BYT	Clutch cond for High Idle/PTO 0 deact.		2 = Pedal depressed					
One type where any value between the min/max limits can be entered, these are aligned to the right in the column.	CCU	Clutch delay before cruise deactivation	3	0	5	10	s		
The other type has fixed values to choose from, these are aligned to the left.	MZF	Cooling fan activation delay, after charging start		5	30	30	s	(2)	
	AG	Cruise control		1 = Yes				× 1	
	AI	Cruise control max speed	18.	.6 6	8.4	87.0	mph		
	BK	Cruise Control Min Set Speed	18.	.6 1	8.6	68.4	mph		
		Caulos Control Min Speed to Desuma	9	3	9.3	18.6	mph	1	
	BL	cruise control with Speed to Resume							
2	BL	Cruise control Trim step, resume	0.0	0 1	24	6.21	miles/h/s		¥.

9. Execute the following command shown on your laptop screen (FIGURE 37).





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10. On the PRODUCT tab, click FINISH WORK button (FIGURE 38).

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ech Tool Links Help			Sylvain St-Amant
Product Product History Diagnose Tes	st Calibrate Program Impact Maidcom	VBC Remote	
Selected Product (PREVH 711884)			
S Refresh Settings Q Manual Selection.	G Latest Selections		Finish Work
Product Details		Product Status	1
Chassis ID:	VIN:	Status Description	Validated
PREVH 711884	2PCH3349XCC711884	DTCs with status Active. Click Diagnose to view DTCs.	2016-09-01 10:39
Model:	Company:	Current battery level: 12.1 V.	2016-09-01 10:39
PREVH	Volvo Buses		1
Emission Level: US10			
Electrical System:			
Vork Session		Campaigns (0)	Readout Time: 2016-09-01 10:38
Product Data Retrieved: 2016-09-01 10:38	Central Data Retrieved: 2016-09-01 10:38	There are no available campaigns for this product.	
Communication Unit:	Work Order:		
VOCOM/88890020/88840133	test3		
Connectivity			
Status Description			
VOCOM/88890020/88840133 (USB) is connected	ed to the computer.		
The selected product PREVH 711884 is connect	ted.		

11. Log Premium Tech Tool off (FIGURE 39).

) Tech	n Tool			-		-	EN E	inglish (Canada) 🕐 Help 🚦	
Tec	h Tool Links Help								🖓 Sylvain St-Aman
	Work Offline Update Product Information	nose	Test	Calibrate	Program	Impact	Maidcom	VBC Remote	
	Manage Software Manage Software New								
0	Settings User Preferences	ial Sele	ection	() Latest Sele	ctions 📳	OBD/LVD -			
0	Print Label Print								
2	Log off								
31		3 (USB) is co	and sted t	to the computer					
-	Product PREVH 711884 is c	onnected.	1						
~									😸 Product 😵 Central Systems

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PART 4 – ADDITION OF A JUMPER CABLE

1. Install a jumper cable between the engine brake dashboard switch ground wire and circuit 163B. (FIGURE 40). Doing this will keep the engine brake switch activated.





PART 5 – VALIDATION STEP

- 1. In order to validate that the previous steps have successfully added the Volvo Engine Brake (VEB) AUTO mode, perform the following step.
- 2. Set the ignition switch to the ON position and check if the pictogram (A) appears in the DID status line (FIGURE 42). If this is the case, the Automatic control mode was successfully implemented on the vehicle.



Writer:

Prevost engages in a continuous program of testing and evaluating to provide the best possible product. Prevost, however, is not committed to, or liable for updating existing products.

PARTS / WASTE DISPOSAL

Discard waste according to applicable environmental regulations (Municipal/State[Prov.]/ Federal)

ESTIMATED TIME

The time required to perform this special bulletin is approximately xxx hour.

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