

Preview Solution CBR-2484-4

Volvo Chassis - Battery Power Management Unit DTC U300049 - VN (4)

Published 4 August 2025

Valid For

Volvo Chassis - VN (4)

Model Year - 2025 to current

The Purpose of this CBR is to assist with diagnostics for fault code U300049 on the Battery Power Management Unit (BPMU).

- **Overview**

1. If you encounter fault code U300049 for BPMU please follow the steps in this CBR. **DO NOT CREATE AN ESERVICE CASE INITIALLY**. There are two options that are available currently. There is a Over-The-Air update or using PTT to update unit. If the truck has OTA available please perform OTA, If not, please use PTT to perform update.

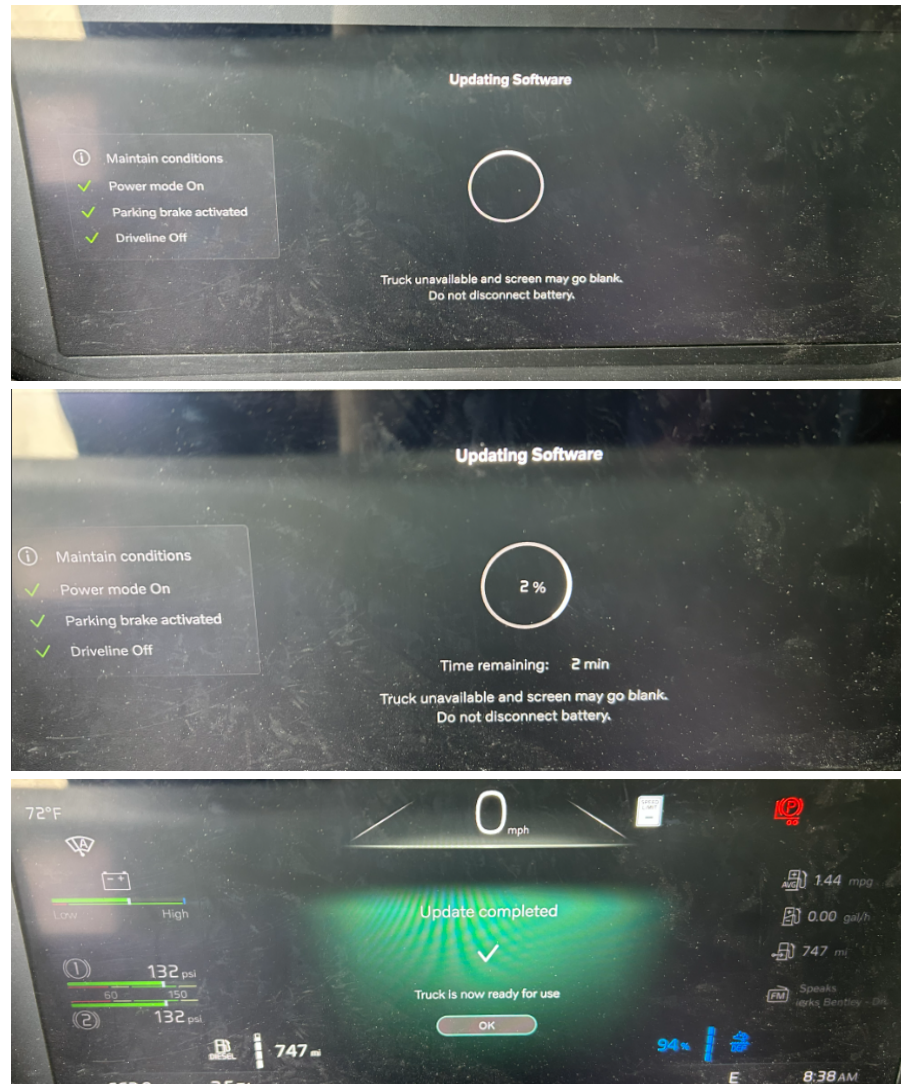
- **Option A: Over - The - Air**

- Check the dash to see if there is Over-The-Air available. If there is one please perform the update through the dash.
 1. Make sure unit is outside and select Proceed in dash.



Live UI

2. Once update starts, wait till the update completes.



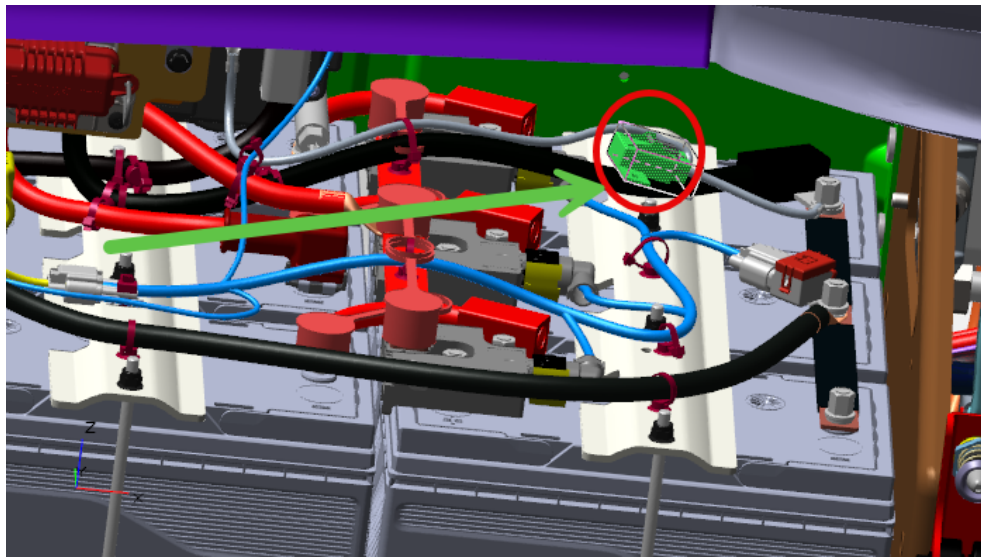
3. Once update is completed, clear faults. **If U300049 returns please follow Guided Diagnostics in PTT.**

NOTE: If you see a pop-up for Truck Brake Malfunction please perform a **Maintenance Disconnect Switch (MDS)** cycle. (turn MDS off, wait 60 seconds, turn MDS back on.)

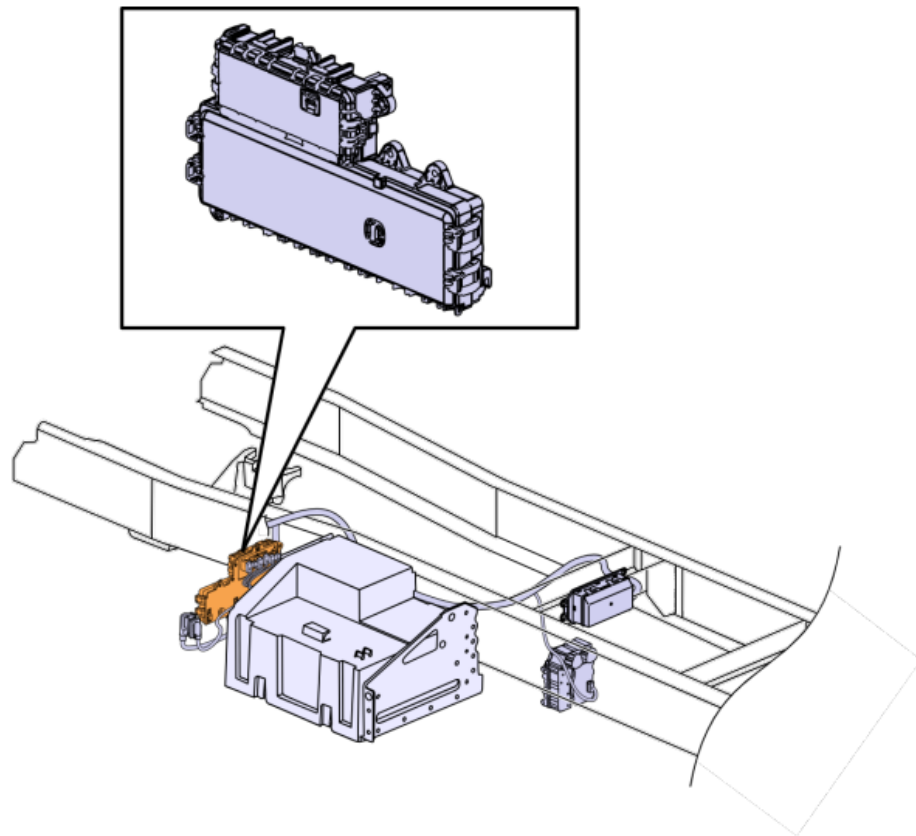
NOTE: Once completed please verify the UltraCapacitor is charging before releasing vehicle. Please follow steps below.

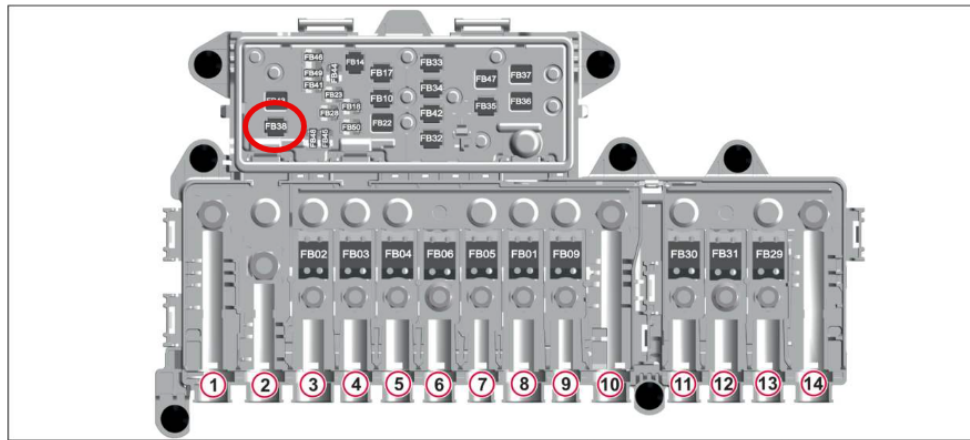
1. Perform three consecutive engine starts with 30 seconds of runtime in between. If the truck starts a fourth time the Ultracapacitor is charging.
2. Please also verify the 40A fuse on the UC is intact, also verify FB38 is intact.

40A location



FB38 location





- **Option B: Service Pack with PTT (If OTA is not available)**

1. Check if there is a service pack available for the unit.
 - a. If there is a service pack available, install the service pack and retest to see if fault code U300049 returns. If U300049 returns please follow PTT .
 - b. If there is no service pack available, follow PTT instructions. Follow the normal warranty process for the diagnostic outcome.
2. If there is a service pack that needs to be loaded please follow steps below.
 - a. Required Tools:
 - i. PTT updated to latest update
 - ii. Vocom II Tough: 88894000
 - iii. USB cable 88890313
 - iv. 16-Pin OBD cable: 88894001 (Ensure the BLUE cable end)
 - b. Recommended Internet Speed at the device being used for programming.
 - i. No lower then 100MBPS
 - ii. Better speeds would be 1 GBPS this will decrease time to download the service pack and help speed up repairs. (standards referenced in AIDER documentation within TDP)

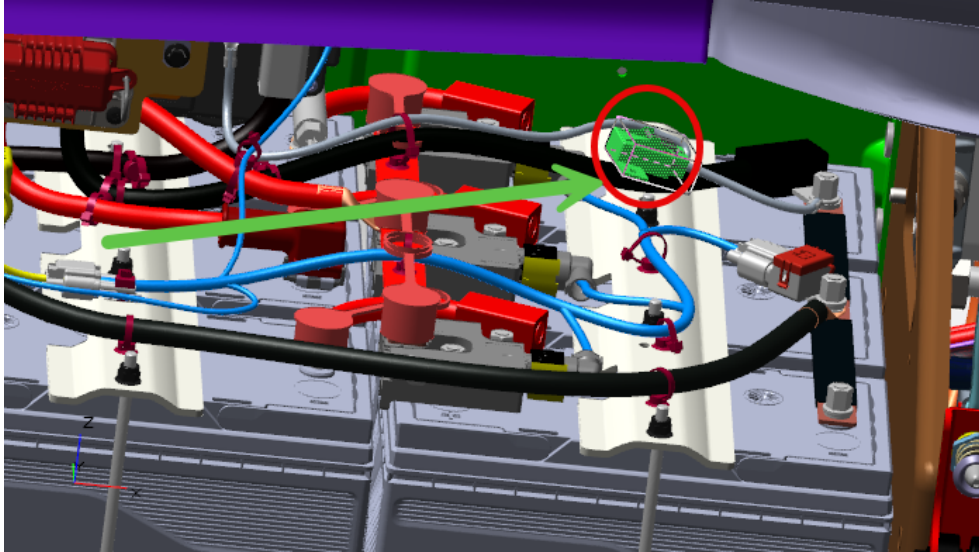
NOTE: Once completed please verify the UltraCapacitor is charging before releasing vehicle. Please follow steps below.

1. Perform three consecutive engine starts with 30 seconds of runtime in between. If the truck starts the fourth time the

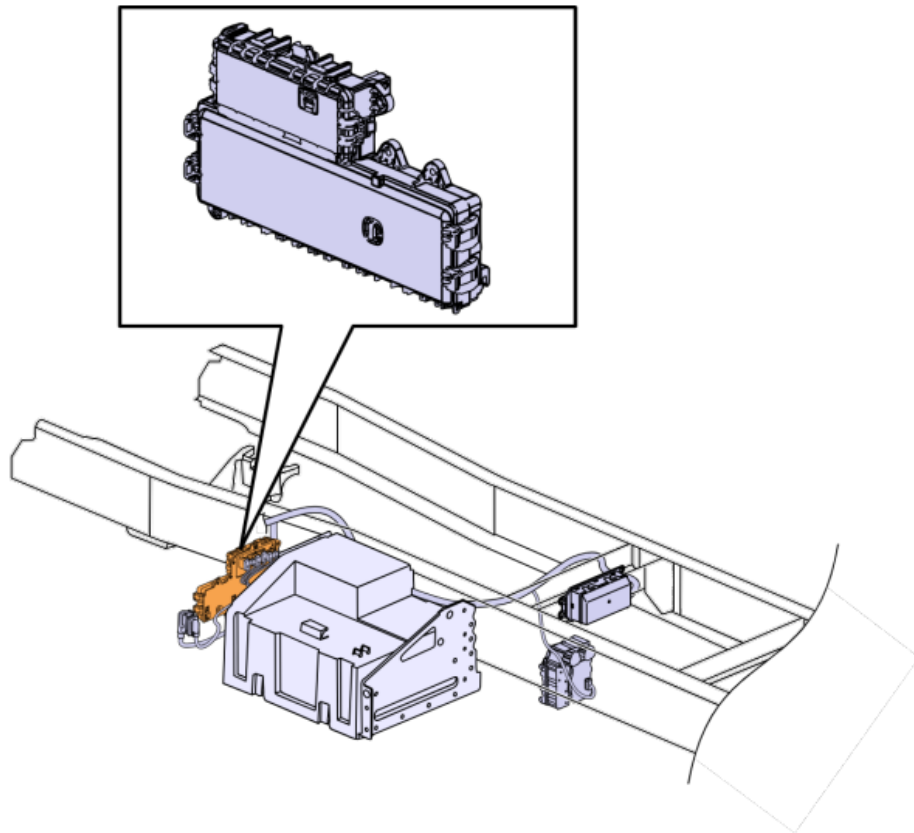
Ultracapacitor is charging.

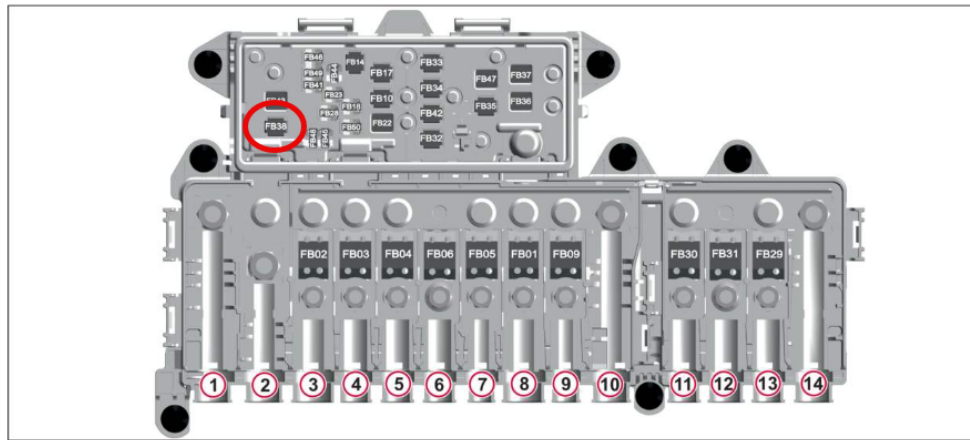
2. Please also verify the 40A fuse on the UC is intact, also verify FB38 is intact.

40A location



FB38 location





NOTE: If you follow the CBR and Guided Diagnostic and this does not solve the issue, please capture a freeze frame (see below) and open a Eservice case to Reliability with the screenshot attached.

Product Product History Diagnose Test Calibrate Program

1. View DTC information (Step 1 of 3)

Refresh Clear Filter

DTC List (23 items) Product Time: 22/05/2025, 12:05:12 Engine Hours: 1297 060 Readout Time: 22/05/2025, 12:07:26

Control Unit	DTC	Status	Count	First Occurrence	Last Occurrence
Air Production Modulator (APM)	U100C87: Lost Communication With CCIOM, Missing Message	Inactive	2	06/05/2025, 11:49:04	06/05/2025, 11:51:04
Air Production Modulator (APM)	U114913: Backup Power Supply, Circuit Open	Inactive	4	06/05/2025, 09:15:11	06/05/2025, 11:51:05
Battery Power Management Unit (BPMU)	U200049: Electronic Control Unit, Internal Electronic Failure	Inactive	7	19/05/2025, 10:30:51	21/05/2025, 10:09:26
Electronic Brake System (EBS)	C10B116: Voltage Regulator, Power Supply, Circuit Voltage Below Threshold	Inactive	8	19/05/2025, 20:36:50	-
Electronic Brake System (EBS)	U014087: Lost Communication With VMCU, Missing Message	Inactive	4	22/05/2025, 11:43:34	22/05/2025, 11:51:20
Electronic Brake System (EBS)	U114087: Lost Communication With APM, Missing Message	Inactive	0	-	-
Electronic Brake System (EBS)	U115787: Lost Communication With CCIOM, Missing Message	Inactive	2	22/05/2025, 11:49:17	22/05/2025, 11:51:19
Instrument Cluster (IC)	R100438: Instrument Cluster Illumination Channels, Signal Frequency Increment	-	-	-	-

Electronic Control Unit

Detailed Status Information

Freeze Frame Information

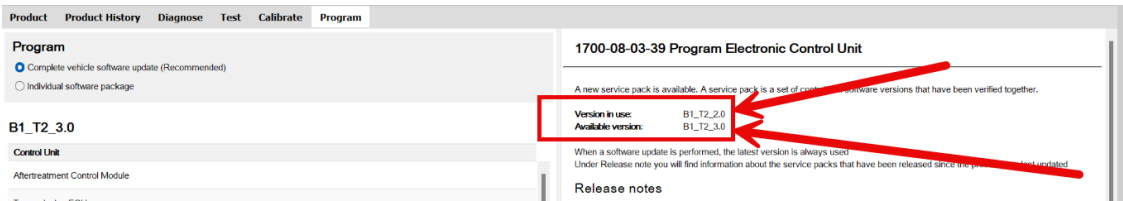
Parameter	ID	Value	Unit
Battery Power Management Unit, Equalizer and Jump Charge, Func...	P11VN	0	
Battery Power Management Unit, Starter Battery Charging, Func...	P11VO	7	
Battery Power Management Unit, Supplementary Fault Information Ind	P11IQ	Bitfield: 00000000000000000000000000000000	
Battery Power Management Unit, Supplementary Fault Information Ind	P11VL	Bitfield: 00000000000000000000000000000000	
Cabin, Low Side Battery, Output Voltage	P11VR	12580	mV
Jump Charge Interface Voltage	P11VQ	338	mV
Living Battery Voltage	P11VJ	25386	mV

1. View DTC information Continue >

• Claiming Instructions.

1. If the service pack that needs to be installed is **BELOW** 4.0 to service pack 4.1 (has 20 + ECU's that need to be programmed), claim 1700-08-03-39 Program Control Unit (See CBR-2477 for details)
2. If the service pack that needs to be installed is currently at 4.0 to 4.1 (has 1 to 2 ECU's that need to be programmed), claim 1700-22-03-11 Campaign, Programming x 2 (=4)

Example of identifying service pack.



Related links and attachments

No links or attachments available



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