

V O L V O

Volvo Car USA LLC

Technical Journal

Technical Journal Title SW Updates for High Voltage Battery Balancer (Information Only)		Ref. No. TJ 35755.1.3	
Issuer (Dept.) Technical Service		Issue Date 5/7/25	Status Date 5/15/25
Car Market United States and Canada	Partner 3 US 7510 Volvo Car USA	Function Group 3119	
Function Description Miscellaneous		Page Page 1 of 10	

Attachment

File Name	File Size
ST-238-2022-02-28.pdf	3.3357 MB

Rows beginning with * are modified

Note! If using a printed copy of this Technical Journal, first check for the latest online version.

DESCRIPTION:

*Updated Vehicle Type

*Updated Service information

Definitions:

HV = High Voltage

SW = Software

The HV Battery Module Balancer (part number 9814249) is designed to receive software updates. In order for the HV Battery Module Balancer to work properly it must have the latest software as per the instructions outlined in ST-238-2022-02-23 (attached).

See Service section for more details.

CSC Customer Symptom Codes

Code	Description
3L	Technician information/Repair information/Not for warranty use

DTC Diagnostic Trouble Codes

Vehicle Type

Type	Eng	Eng Desc	Sales	Body	Gear	Steer	Model Year	Plant	Chassis range	Struc Week Range
224	BK						2019-2022		-	201917-999952
224	BR	B1FPHEV					2019-2022		-	201917-999952
224	H6	BH6PHEV					2022-9999		-	202147-999952

Technical Journal 35755.1.3

Type	Eng	Eng Desc	Sales	Body	Gear	Steer	Model Year	Plant	Chassis range	Struc Week Range
225	BK						2019-2022		-	201917-999952
225	BR	B1FPHEV					2019-2022		-	201917-999952
225	H6	BH6PHEV					2022-9999		-	202147-999952
238	BC	B1BPHEV					2018-2022		-	201717-999952
238	BR	B1FPHEV					2018-2022		-	201717-999952
238	H6	BH6PHEV					2022-9999		-	202147-999952
246	BK	B1LPHEV					2020-2022		-	201917-999952
246	BR	B1FPHEV					2018-2022		-	201717-999952
246	H6	BH6PHEV					2022-9999		-	202147-999952
256	BC	B1BPHEV					2016-2017		-	201546-999952
256	BK	B1LPHEV					2020-2022		-	201917-999952
256	BR	B1FPHEV					2018-2022		-	201717-999952
256	H6	BH6PHEV					2022-9999		-	202147-999952

SERVICE:

The Balancer software must be upgraded to version OTG_192-411899-H00-029 or higher.

Failure to perform the necessary software update prior to attempting communication with an HV module from one of the vehicles listed above may result in damage to the HV Battery Module Balancer and/or HV battery module and will require the unit to be taken out of service for repair.

Please refer to ST-238-2022-02-23 (attached) for full update instructions.

*The latest software is available at the Midtronics homepage.

<https://europe.midtronics.com/software-updates/>

Use the following login credentials:

Username: volvo

Password: Volvo

Note: the username and password are case sensitive.

VEHICLE REPORT:

Yes, please submit a Vehicle Report if the service solution described in this TJ has no effect. Use concern "Vehicle Report," sub concern area "Support Needed," and function group 3119.

To view TJ attachment continue to next page. This TJ has one attachment.

Special Tools Bulletin

TITLE:

High Voltage (HV) Module Balancer Tool

NO: 238	ISSUE DATE: 2020-03-18	CAR MARKET: United States and Canada	Page 1 of 8
	STATUS DATE: 2022-02-28		

“Right first time in Time”

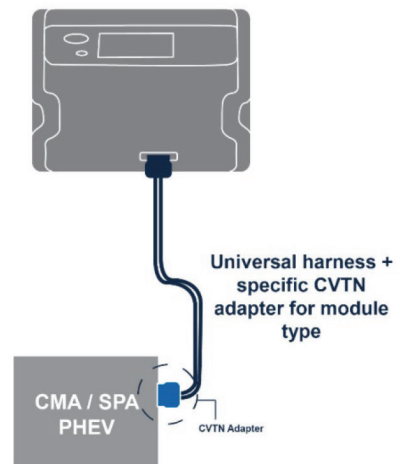
All tools have been classified as required, and will be allocated and billed to all U.S. and Canadian retailers by Volvo.

Tool orders are being handled by the Volvo Parts Operations and the Volvo Parts DC’s.

When purchased new, balancer tool 9814249 may require a software update. Verify the new unit has the latest software installed. Failure to do so could result in the balancer requiring service. See Software Update section (Page 4) for latest version and instructions on how to update.

- 9989915 3m US Power Cord (Warranty and Repair see SMB 00-437)
- 9513162 (A720 Cable Kit) (Warranty and Repair see SMB 00-437)
- 9513192 BEV Adapter (IME 2404 see page 7) (Warranty and Repair see SMB 00-437)

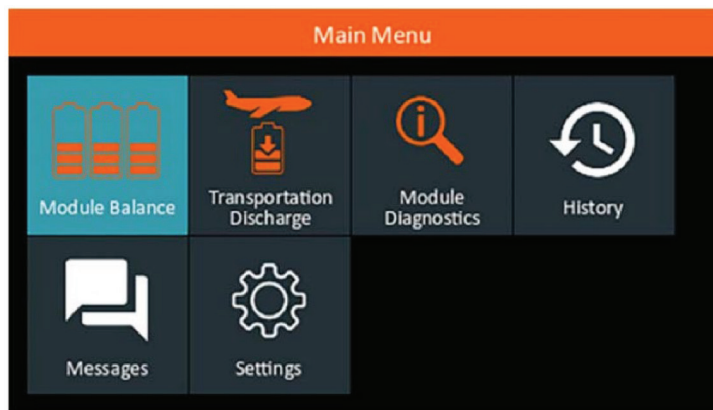
- 2M Charging Cable (15A)
- 2M Cell Monitoring Cable
- PHEV SPA Battery Interface
- PHEV CMA Battery Interface



Service Personnel: Read and initial	SERVICE MANAGER	PARTS MANAGER	WORKSHOP FOREMAN	SERVICE TECHNICIANS								

Special Tools Bulletin 238

Usability



Module Balance

- Technician enters target voltage
- Technician connects to module
- xMB charges/discharges to set voltage to match other modules in pack

Transportation Discharge

- Technician connects to module
- xMB charges/discharges to preset voltage (under 30% SOC)

Module Diagnostics

- Technician connects to module
- xMB reads cell voltages/temperatures for tech to confirm cell issue

Product Specifications

Power:

- Input: 100 – 240, 50/60 Hz; 12A max.
- Output: 80 V, 15A
- Charge Cables
- 2m
- Power Cord: Accepts C19 locking connector for region-specific
- United States: NEMA 5-15 termination, rated 15A/125V UL CSA
- Lithium ion battery chemistry

Operating Parameters

- Humidity: 15% to 85% R.H., non-condensing

Weight: 17.84 KG (39 LBS)
44 CM (L) X 43.5 CM (W) X 23 CM (H)

Operating temperature range: (32°F to +140°F)

Storage temperature range: (14°F to 185°F)

Certifications

UL 2871	IEC 62477-1
CE	IEC 61000-4-2
RCM	IEC 61000-4-3
RoHS	IEC 61000-4-4
CSA 22.2 #107.1	IEC 61000-4-5
CU EAC	IEC 61000-4-6
KC	IEC 61000-4-11
FCC	IEC 61000-6-4

Connectivity

- USB 2.0 connection

Protection Features

- Reverse polarity

User Interface

- Advanced navigation and charge applications
- 5" Screen

Warranty and Repair (9814249 Only)

- Administration:

Administered by Midtronics, Inc.

- Warranty Period:

Five (5) years from date of purchase on the High Voltage (HV) Module Balancer #9814249 only.

- Repairs:

Contact Midtronics Customer Support for more information: 1-800-776-1995

Special Tools Bulletin 238

Software Upgrade

It is necessary to upgrade the balancer to accommodate the PHEV-LR battery (Long Range).

The software is backwards compatible to accommodate prior models as well.

The new software contains upgrades and has new logic to choose a module to balance.

The revision is OTG_192-411899-H00-029, which can be uploaded in the same way as previous cellmodule balancer software.


Extract software according to the attached instructions - (same method as previous software upgrade)

Locating software

Software is found at <https://volvocarstools.volvocars.biz/>

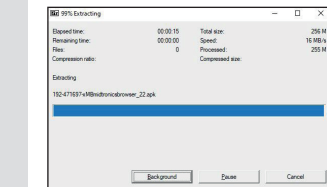
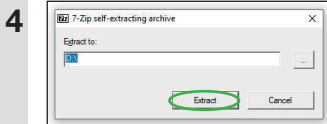
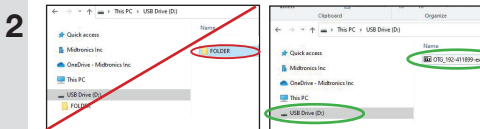
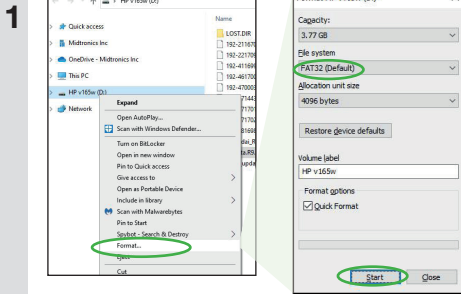
- In the search area type in 9814249 for the Battery Balancer Part Number.
- Click on the magnifying glass.
- Click on the download icon (see image below).
- Do not extract to your hard drive – Extract window will prepopulate a drive, erase it and extract only to a FAT32 thumb drive.
 - 32Gb drive or smaller



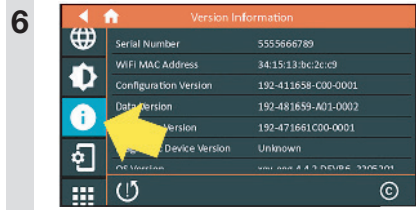
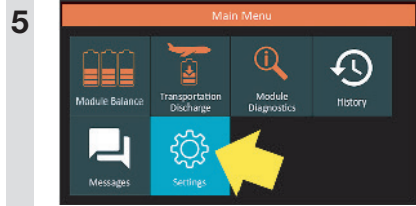
Image	Tool Number	Standard	Newsletter	Title	ToolStatus
	9814249	C-Equipm			Published

Continue to page 5 for illustrated and further instructions.

Software update



Name	Date modified	Type	Size
192-211678001-0001.xMB	8/26/2020 8:25 PM	xMB File	327 KB
192-221988007-0002.BP1	8/27/2020 12:49 PM	BP1 File	757 KB
192-221988008-0006.IAM	8/26/2020 8:42 PM	IAM File	389 KB
192-411899009-0020.IAM	8/21/2020 9:32 PM	IAM File	3 KB
192-461660000-0001-Bootloader.apk	7/20/2020 8:42 AM	APK File	154 KB
192-470030000-0010-PrintAndScanService-12.apk	7/20/2020 8:42 AM	APK File	862 KB
192-471620000-0001-PrintAndScanService-12.10.apk	7/20/2020 8:42 AM	APK File	821 KB
095_192-411899-000-0005.exe	8/15/2020 11:50 AM	Application	230,988 KB
192-471610000-0000-Launcher.apk	8/11/2020 9:13 AM	APK File	37,910 KB
192-471610000-0001-PrintAndScanService-12.apk	7/20/2020 8:42 AM	APK File	42,807 KB
192-481659-882-0010.apk	7/20/2020 8:42 AM	Compressed (zipped)...	6,002 KB
ken-ota13.zip	8/6/2020 8:25 PM	Compressed (zipped)...	131,420 KB
xMB_update_12.apk	5/16/2020 8:08 PM	APK File	33,847 KB



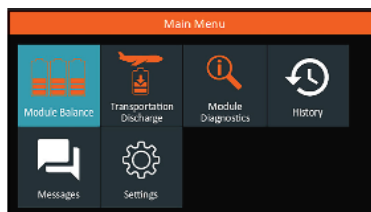
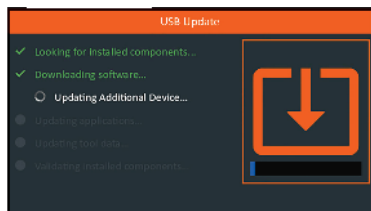
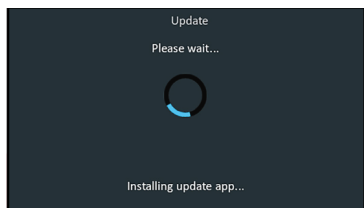
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9



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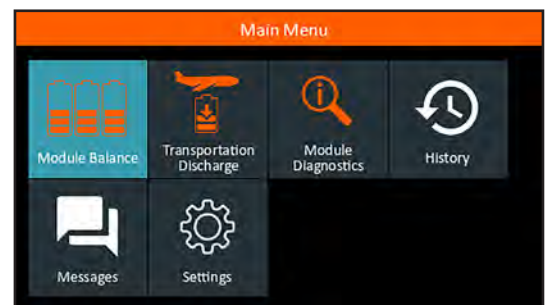
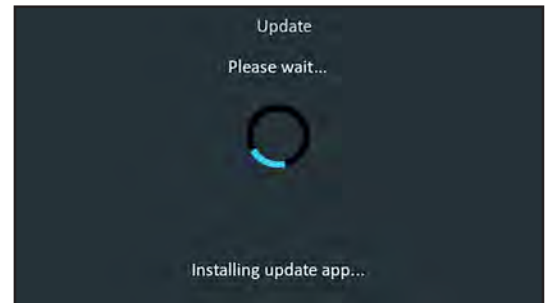
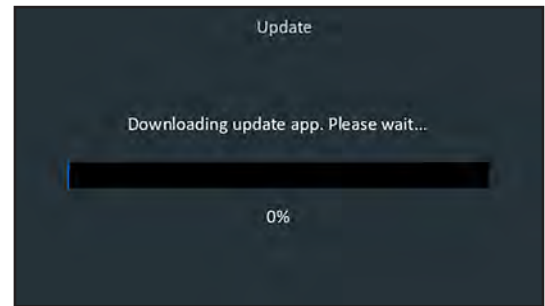
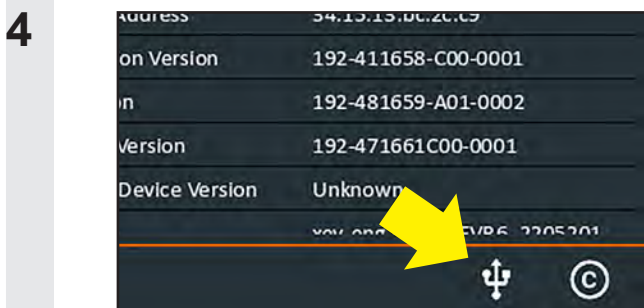
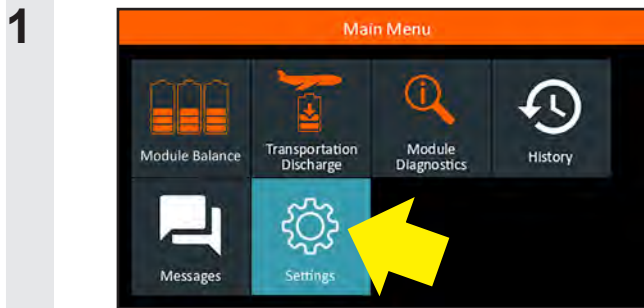
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Software Update

STOP
PERFORM SOFTWARE UPDATE PRIOR TO INSTALLING IME-2404.
FAILURE TO DO SO WILL RESULT IN PRODUCT SERVICE REQUIREMENT
STOP



5

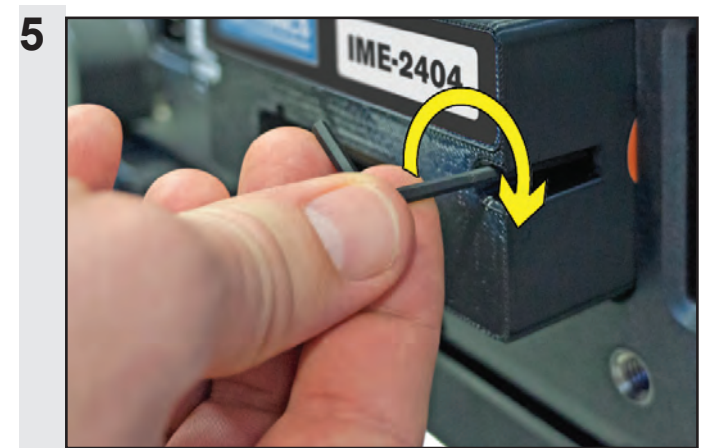
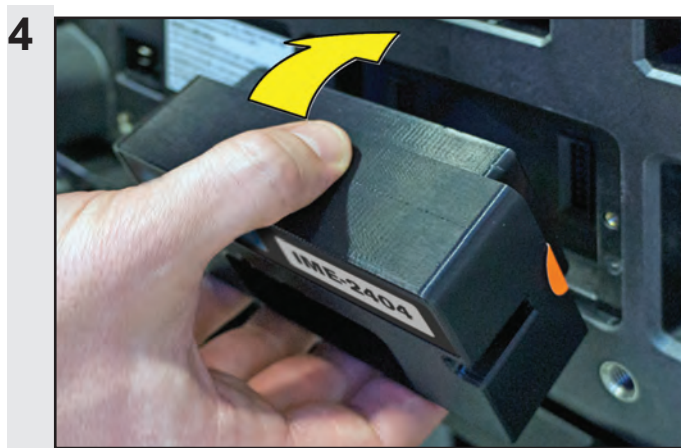
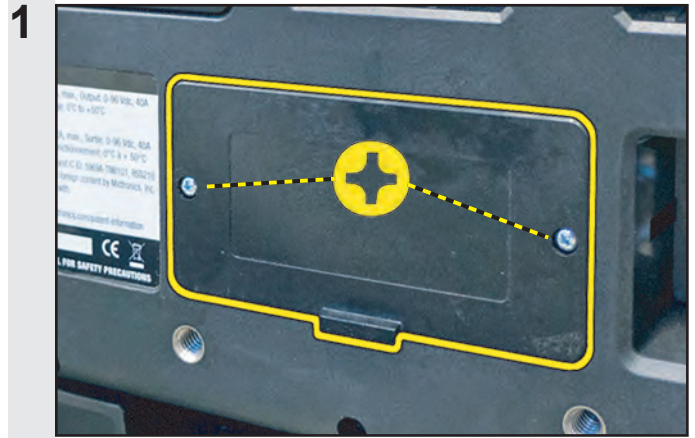




**PERFORM SOFTWARE UPDATE PRIOR TO INSTALLING IME-2404.
FAILURE TO DO SO WILL RESULT IN PRODUCT SERVICE REQUIREMENT**



Contents



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