

Technical Journal

TITLE:

Diagnose of HV system after HVCH malfunction

REF NO: TJ 35721.4.0	ISSUING DEPARTMENT: Technical Service	CAR MARKET: United States and Canada	
PARTNER: 3 US 7510 Volvo Car USA		ISSUE DATE: 2020-11-24	STATUS DATE: 2020-11-24
FUNC GROUP: 8760	FUNC DESC: Auxiliary heater, electrically operated	Page 1 of 3	

Attachment

File Name	File Size
TJ 35721.jpg	0.3609 MB

Rows beginning with * are modified

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

DESCRIPTION:

* Added CSC code

If confirmed HVCH malfunction, please follow advice under service.

CSC Customer Symptom Codes

Code	Description
BE	Starting/Engine does not start/Engine does not turn/Unsure when/at all times
BJ	Starting/Engine does not start/Unsure when/at all times
KK	Temperature control/Heater not hot enough

DTC Diagnostic Trouble Codes

Vehicle Type

Type	Eng	Eng Desc	Sales	Body	Gear	Steer	Model Year	Plant	Chassis range	Struc Week Range
534							2021-2021	19	0000001-9999999	202007-999952

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SERVICE:

If a defect is found with the HVCH causing an isolation warning, before replacement of the HVCH perform a test of high voltage battery pre-charge contactor. This is to determine if the pre-charge resistor has been damaged. If the result confirms the pre-charge resistor is damaged, also replace the complete BDU.

High voltage battery contactor test found in Vida as follow: Planning & Diagnostics->Components->ECUs->Battery Energy Control Module->Diagnostic Sequences

If high voltage battery contactor test result is ok, please remove the MSD to prevent further stress on pre-charge resistor.

After HVCH replacement please test the 3-phase AC Charging circuit to determine if the OBC has been damaged. This has to be done on an 11kW and above power charge station to utilize 3-phase charging. If a red indication is present in the EVI Charging Inlet, please follow fault tracing according to VIDA.

HVCH = High Voltage Coolant Heater

BDU = Battery Disconnect Unit

MSD = Manual Service Disconnecter

OBC = On Board Charger

EVI = Electrical Vehicle Inlet

Warranty claim info:

To get warranty claim accepted for a job described in this TJ, please use following data:

VST OP number: 36050-2

VST OP number: 31130-2

36050-2 Calibrating/Identifying with VIDA

31130-2 High Voltage Battery, disconnecting and connecting

VST Operation Number

VST Operation Number	Description
36050-2	Calibrating/Identifying with VIDA
31130-2	High Voltage Battery, disconnecting and connecting

VEHICLE REPORT:

Yes, please submit a Vehicle Report if the service solution described in this TJ has no effect. Use concern area "Vehicle Report Polestar" and sub concern area "Support needed Polestar", use function group 3113.

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

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The screenshot shows a diagnostic software interface for a vehicle. At the top, there is a navigation bar with 'Home', 'Planner 2.2', 'VIN', 'ICOM', and 'List'. Below this, the vehicle information is displayed: VIN LP5VSECCDA001106, Model/Year/Class: Polestar 2, 2021, BEV. The interface is divided into several sections:

- Left Sidebar:** Contains navigation options like 'Powering', 'Customer Symptom (CSM)', 'Claim Types', 'Technical Journal', 'Service Programs', 'Operations and Packages', 'Parts', 'Software', 'Diagnostics', 'Harmon', 'Fault Tracking', 'Loggers', and 'Service Functions'. A red callout '2' is placed over the 'Loggers' icon.
- Top Bar:** Shows 'Connection' status as 'Virtual #1' and 'Inactive'. A red callout '1' is placed over the 'Virtual #1' text.
- ECUs Table:** A table listing various Electronic Control Units (ECUs) with columns for 'ID' and 'Name'. A red callout '3' is placed over the 'ECUs' header, and a red callout '4' is placed over the 'Subtle Energy Control Module (SECM, Default)' row.
- Diagnostic Sequences:** A list of diagnostic tasks. A red callout '5' is placed over the 'Test of high voltage battery contacts, pre-charge' sequence, which is highlighted with a red box.

A black box with the text 'TJ 35718' is located in the lower right area of the screenshot.