

# Part 573 Safety Recall Report

# 22V-793

**Manufacturer Name :** Volvo Car USA, LLC**Submission Date :** MAY 19, 2023**NHTSA Recall No. :** 22V-793**Manufacturer Recall No. :** R10198**Manufacturer Information :**

Manufacturer Name : Volvo Car USA, LLC

Address : 270 Three Point Drive  
Ridgeville SC 29472

Company phone : 201-768-7300

**Population :**

Number of potentially involved : 15,674

Estimated percentage with defect : 100 %

**Vehicle Information :**

Vehicle 1 : 2022-2023 Volvo XC90

Vehicle Type : LIGHT VEHICLES

Body Style : SUV

Power Train : HYBRID ELECTRIC

Descriptive Information : The Estimated cooling flow on the electric drive (ED) cooling circuit has a new concept introduced with the longer range PHEV. The recall only affects the longer ranger PHEVs

Production Dates : MAR 25, 2021 - OCT 08, 2022

VIN Range 1 : Begin : YV4H60CL3N1819302 End : YV4H60CA7P1934230  Not sequential

Vehicle 2 : 2022-2023 Volvo S60

Vehicle Type : LIGHT VEHICLES

Body Style : 4-DOOR

Power Train : HYBRID ELECTRIC

Descriptive Information : The Estimated cooling flow on the electric drive (ED) cooling circuit has a new concept introduced with the longer range PHEV. The recall only affects the longer ranger PHEVs.

Production Dates : APR 26, 2021 - SEP 29, 2022

VIN Range 1 : Begin : 7JRH60FZ7NG178091 End : 7JRH60FA0PG225250  Not sequential

Vehicle 3 : 2022-2023 Volvo XC60

Vehicle Type : LIGHT VEHICLES

Body Style : SUV

Power Train : HYBRID ELECTRIC

Descriptive Information : The Estimated cooling flow on the electric drive (ED) cooling circuit has a new concept introduced with the longer range PHEV. The recall only affects the longer ranger PHEVs

Production Dates : MAR 23, 2021 - OCT 05, 2022

VIN Range 1 : Begin : YV4H60DM3N1005318 End : YV4H60DN1P1267494  Not sequential

Vehicle 4 : 2022-2023 Volvo S90L

Vehicle Type : LIGHT VEHICLES

Body Style : 4-DOOR

Power Train : HYBRID ELECTRIC

Descriptive Information : The Estimated cooling flow on the electric drive (ED) cooling circuit has a new concept introduced with the longer range PHEV. The recall only affects the longer ranger PHEVs.

Production Dates : APR 26, 2021 - OCT 08, 2022

VIN Range 1 : Begin : LVYH60AT8NP265847 End : LVYH60AA7PP320869  Not sequential

Vehicle 5 : 2022-2023 Volvo V60

Vehicle Type : LIGHT VEHICLES

Body Style : STATIONWAGON

Power Train : HYBRID ELECTRIC

Descriptive Information : The Estimated cooling flow on the electric drive (ED) cooling circuit has a new concept introduced with the longer range PHEV. The recall only affects the longer ranger PHEVs.

Production Dates : MAR 25, 2021 - OCT 05, 2022

VIN Range 1 : Begin : YV1H60EP0N1487073 End : YV1H60EP9P1529744  Not sequential

## Description of Defect :

Description of the Defect : The estimated cooling flow on the electrical drive (ED) cooling circuit is set to zero due to faulty software logic when max cooling is requested. When the estimated cooling flow is set to zero, the Inverter Generator Module will set available torque to zero and the combustion engine will not start.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : Customers may experience loss of propulsion, increasing the risk of a crash.

Description of the Cause : The software logic on the estimated cooling flow sets to zero on the electrical drive (ED) cooling circuit when max cooling is requested.

**Identification of Any Warning that can Occur :** If issue occurs customer will experience message in dim (Propulsion System Service Required) at start, customer can start/drive the car on electric propulsion. When any criteria for combustion engagements is fulfilled, second warning will appear (turtle in DIM and speed limited to 75 km/h). If customer ignores visual and mechanical warnings, vehicle will display “stop safely” and loose electric propulsion as high voltage battery is depleted.

## Involved Components :

**Component Name 1 :** Electronic Control Module (ECM)

**Component Description :** NR

**Component Part Number :** NR

## Supplier Identification :

### Component Manufacturer

**Name :** Volvo Car Corporation

**Address :** Gunnar Engellaus Väg 8  
Gothenburg Foreign States 418 78

**Country :** Sweden

## Chronology :

Condition considered as a critical concern by Critical Concern Management Team 10.13.2022; Field Service Action decision confirmed by Volvo Car Corporation 10.19.2022; Condition was detected by Market; 39 vehicle reports with the condition reported to Volvo Cars from National Sales Company from April 1st-August 31st; Total number of cars included in Vehicle Reports concerning this condition 39; Implementation of date of Field Service Action 10.24.2022. During the summer of 2022 Volvo Cars receives reports with various symptoms such as no start and different DIM messages (E.g., reduced performance, charging issues etc.), a preliminary investigation was initiated and on August 22nd Volvo engineers were able to re-create the issue and have a log-file recorded. During the preliminary investigation, the estimated coolant flow issue was identified as a potential root cause and on 12th of September the connection to the customer symptoms was verified. On 28th of September the potential issue was presented to the Critical Concern Management Team (CCMT), who decided to continue the investigation within the Critical Concern Action Process (CCAP), during the investigation it was concluded that cases of stalling were also related to the concern. The concern was then presented to CCMT who determined the issue as critical and decided to start a recall preparation on 12th of October. On 19th of October CCMT decided to launch the recall on all concerned vehicles worldwide.

**Description of Remedy :**

Description of Remedy Program : All vehicles will be covered under the manufacturer's warranty. To remedy the concerned vehicles Volvo Cars will update the Electronic Control Module (ECM) software.

How Remedy Component Differs from Recalled Component : Change of software. Release of new software, 2022-10-17.

Identify How/When Recall Condition was Corrected in Production : New software was introduced in production 2022-10-17

**Recall Schedule :**

Description of Recall Schedule : Remedy Notices

Planned Dealer Notification Date : OCT 20, 2022 - OCT 20, 2022

Planned Owner Notification Date : DEC 08, 2022 - DEC 08, 2022

\* NR - Not Reported