

Part 573 Safety Recall Report

23V-012

Manufacturer Name : Volvo Car USA, LLC**Submission Date :** FEB 10, 2023**NHTSA Recall No. :** 23V-012**Manufacturer Recall No. :** R10217**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 : 27,457

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2023-2023 Volvo S60

Vehicle Type : LIGHT VEHICLES

Body Style : 4-DOOR

Power Train : GAS

Descriptive Information : The recall population is determined via the serial number of the affected (Hardware) HW of BCM2. The recall products have a different Gated Driver Unit in the (Brake Control Module 2) BCM2. Concerned vehicles are Model Year 2023 S60, V60, V60CC, V90CC, XC60, XC90, XC40 and C40. There are 27,457 total affected vehicles.

Production Dates : SEP 26, 2022 - JAN 11, 2023

VIN Range 1 : Begin : 7JRH60FA1PG235043 End : 7JRL12TXXPG239279 Not sequential

Vehicle 2 : 2023-2023 Volvo V60

Vehicle Type : LIGHT VEHICLES

Body Style : STATIONWAGON

Power Train : GAS

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Production Dates : AUG 11, 2022 - JAN 13, 2023

VIN Range 1 : Begin : YV1H60EPOP1530474 End : YV1H60EPXP1536816 Not sequential

Vehicle 3 : 2023-2023 Volvo V60CC

Vehicle Type : LIGHT VEHICLES

Body Style : STATIONWAGON

Power Train : GAS

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Production Dates : SEP 22, 2022 - JAN 12, 2023

VIN Range 1 : Begin : YV4L12WB8P2109302 End : YV4L12WZXP2109492 Not sequential

Vehicle 4 : 2023-2023 Volvo V90CC

Vehicle Type : LIGHT VEHICLES

Body Style : STATIONWAGON

Power Train : GAS

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Production Dates : OCT 11, 2022 - JAN 13, 2023

VIN Range 1 : Begin : YV4062NB1P1163651 End : YV4062NZXP1163936 Not sequential

Vehicle 5 : 2023-2023 Volvo XC60

Vehicle Type : LIGHT VEHICLES

Body Style : SUV

Power Train : GAS

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Production Dates : NOV 10, 2022 - JAN 13, 2023

VIN Range 1 : Begin : YV4062RA0P1283426 End : YV4L12RXXP1323530 Not sequential

Vehicle 6 : 2023-2023 Volvo XC90

Vehicle Type : LIGHT VEHICLES

Body Style : SUV

Power Train : GAS

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Production Dates : OCT 11, 2022 - JAN 13, 2023

VIN Range 1 : Begin : YV40621A0P1936719 End : YV4L12PVXP1962301 Not sequential

Vehicle 7 : 2023-2023 Volvo XC40

Vehicle Type : LIGHT VEHICLES

Body Style : HATCHBACK

Power Train : GAS

Descriptive Information : The recall population is determined via the serial number of the affected (Hardware) HW of BCM2. The recall products have a different Gated Driver Unit in the (Brake Control Module 2) BCM2. Concerned vehicles are Model Year 2023 S60, V60, V60CC, V90CC, XC60, XC90, XC40 and C40. There are 27,457 total affected vehicles.

Production Dates : AUG 19, 2022 - JAN 13, 2023

VIN Range 1 : Begin : YV4ED3UK0P2005802 End : YV4L12UXXP2993886 Not sequential

Vehicle 8 : 2023-2023 Volvo C40

Vehicle Type : LIGHT VEHICLES

Body Style : HATCHBACK

Power Train : HYBRID ELECTRIC

Descriptive Information : The recall population is determined via the serial number of the affected (Hardware) HW of BCM2. The recall products have a different Gated Driver Unit in the (Brake Control Module 2) BCM2. Concerned vehicles are Model Year 2023 S60, V60, V60CC, V90CC, XC60, XC90, XC40 and C40. There are 27,457 total affected vehicles.

Production Dates : SEP 09, 2022 - JAN 11, 2023

VIN Range 1 : Begin : YV4ED3GK0P2033997 End : YV4ED3GMXP2048850 Not sequential

Description of Defect :

Description of the Defect : A certain diagnostic test case that checks the grounding may put the BCM2 in a faulty state potentially resulting in a loss of brake support functions.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : A reduction in brake support functions can increase the risk of a crash.

Description of the Cause : Lack of robustness in software compatibility with a specific BCM2 HW version.

Identification of Any Warning that can Occur : This deviation may not occur during an ongoing brake event. If the deviation occurs the system will always enter hydraulic fallback ensuring that the vehicle maintain braking capability.

The customer may experience a hard/stiff brake pedal and potential loss of brake support functions such as:

- Brake-by-wire.
- ABS, ESC, and traction control.
- ACC (Adaptive Cruise Control), Pilot assist and OPD (One pedal drive)
- All active safety and city safety functions described in the user manual that involve braking

The driver display will always warn the customer with DIM messages and malfunction indication lamps if this issue occurs.

This is an intermittent issue, and the faulty state will remain through the drive cycle until the vehicle enters deep sleep.

Volvo Cars centrally has not received any reports alleging injuries, fatalities, or crashes related to this condition.

Involved Components :

Component Name 1 : BCM2

Component Description : NR

Component Part Number : NR

Supplier Identification :

Component Manufacturer

Name : Continental Automotive Technologies

Address : Guerickestrasse 7

Frankfurt Foreign States 604 41

Country : Germany

Chronology :

Considered as a critical concern by critical management team 2023.01.11; Field service action decision confirmed by Volvo Car Corporation 2023.01.18; Condition detected by market vehicle report; Number of vehicle reports with the conditions, reported to Volvo Cars from National Sales Company 68; Total number of cars included in Vehicle reports concerning the condition 71; Implementation date of Field Service Action 2023.01.19; In the beginning of October Volvo cars received the first report indicating issues with the brake pedal. In the middle of October one additional report was received indicating a similar issue. The reports increased during November and an investigation was initiated to review the customer symptom and a possible common root cause.

In December the investigation was escalated to the Critical Concern Action Process (CCAP), the issue was concluded as potentially critical and the Critical Concern Management Team (CCMT) initiated a technical investigation to conclude customer symptom, risk assessment, testing, root cause etc.

On the 11th of January the technical investigation was completed, the CCMT team took the decision to start a recall preparation as it was judged as an increased risk towards motor vehicle safety.

Description of Remedy :

Description of Remedy Program : To remedy concerned vehicles, Volvo Cars will update the vehicle software with a new logic in the BCM2. This software update will also be available via OTA release at a later date.

How Remedy Component Differs from Recalled Component : Concerned vehicles are certain model year 2023 S60, V60, V60CC, V90CC, XC60, XC90, XC40 and C40 vehicles. Introduction of the new BCM2 HW occurred on 2022.08.15. The previous HW was depleted therefore the introduction date varies between production plants. The new SW was introduced on 2023.01.12.

Identify How/When Recall Condition was Corrected in Production : The production fix is software and will be implemented on January 31, 2023.

Recall Schedule :

Description of Recall Schedule : Remedy Notices

Planned Dealer Notification Date : JAN 19, 2023 - JAN 19, 2023

Planned Owner Notification Date : MAR 15, 2023 - MAR 15, 2023

* NR - Not Reported