Part 573 Safety Recall Report 21V-650

Manufacturer Name : General Motors, LLC
Submission Date : AUG 20, 2021
NHTSA Recall No. : 21V-650
Manufacturer Recall No. : N212345940

Manufacturer Information :

Manufacturer Name : General Motors, LLC
Address : 29427 Louis Chevrolet Road
MAIL CODE 480-210-2V WARREN MI 48093
Company phone : 586-596-1733

Population :

Number of potentially involved : 52,403
Estimated percentage with defect : 1 %

Vehicle Information :

Vehicle 1 : 2020-2022 Chevrolet Bolt EV
Vehicle Type :
Body Style :
Power Train : NR
Descriptive Information : Manufacturing records were used to identify vehicles built and shipped to dealers as of August 19, 2021. 2019 and earlier model years are addressed under NHTSA Recall 21V560 and are not included here.

There are 45,039 Bolt EV vehicles included in this recall.

Production Dates : MAY 02, 2019 - AUG 02, 2021
VIN Range 1 : Begin : NR End : NR ☐ Not sequential

Vehicle 2 : 2022-2022 Chevrolet Bolt EUV
Vehicle Type :
Body Style :
Power Train : NR
Descriptive Information : Manufacturing records were used to identify vehicles built and shipped to dealers as of August 19, 2021.

There are 7,364 Bolt EUV vehicles included in this recall.

Production Dates : FEB 18, 2021 - AUG 12, 2021
VIN Range 1 : Begin : NR End : NR ☐ Not sequential

Description of Defect :

Description of the Defect :	This is an expansion of NHTSA Recall 21V560. General Motors has decided that a defect which relates to motor vehicle safety exists in 2020 – 2022 model year Chevrolet Bolt EV vehicles and 2022 model year Chevrolet Bolt EUV vehicles. The high voltage batteries in some vehicles may pose a risk of fire when charged to full, or very close to full, capacity.
FMVSS 1 :	NR
FMVSS 2 :	NR
Description of the Safety Risk :	If the batteries in certain vehicles within this population are charged to full capacity, or very close to full capacity, the batteries may pose a risk of fire.
Description of the Cause :	The root cause is the simultaneous presence of two rare manufacturing defects in the same battery cell. The condition appears to be aggravated by routinely charging the battery to a full or nearly full state of charge after it has been substantially depleted.
Identification of Any Warning that can Occur :	The battery may emit smoke or heat, and the condition may melt or damage the battery and other vehicle components.

Involved Components :

Component Name 1 :	BATTERY ASM-HIGH VLTG
Component Description :	High Voltage Battery Pack
Component Part Number :	24042761, 24044172, 24044527, 24045067, 24046112, 24291628, 24291804-05, 24295647-49, 24298413,

Component Name 2 :	BATTERY ASM-HIGH VLTG
Component Description :	High Voltage Battery Pack
Component Part Number :	24299513-14, 24299554, 24299915, 24299930-31, 24298412

Component Name 3 :	MODULE ASM-CELL BAT
Component Description :	High Voltage Battery Cell Module
Component Part Number :	19419565-68, 24042763-70, 24295651-58, 24297682-85, 24298418-21, 24299922-29

Supplier Identification :

Component Manufacturer

Name : LG Electronics
Address : 363-8 Gyeongseo-dong, Seo-gu,
Incheon Foreign States
Country : Korea, Republic of

Chronology :

On July 23, 2021, GM filed a part 573 report for NHTSA recall 21V560. This safety recall covered 2017 to 2019 model year vehicles built with design level N2.1 battery cells produced at LG Ochang, Korea plant. GM defined the scope of its July 2021 recall based on data and analysis provided to GM by LG, which indicated that the underlying defect was specific to this vehicle population.

GM continued to monitor field data and investigate potential battery fires. On July 26, 2021, GM became aware, through its Customer Assistance Center, of an alleged battery fire in a vehicle outside of the recall population. GM conducted an inspection on this vehicle on August 6, 2021. Based on the physical evidence, GM determined that the probable origin of the fire was the vehicle's high-voltage battery pack, and GM shipped the vehicle's Hybrid Propulsion Control Module 2 (HPCM2) to its Milford Proving Grounds for further analysis.

In parallel, LG continued to conduct teardowns and physical inspections on high-voltage battery cells. This work included used cells returned from the field and new cells never installed into vehicles; cells of different design levels; and cells produced and assembled into cell-module assemblies at different LG facilities. On August 3 and August 12, 2021, LG provided GM with updated teardown data and analysis indicating that both defects could be present in cells installed into vehicles outside of the original recall population.

On August 16, 2021, after GM's safety engineering team conducted a detailed analysis of this new data, GM's Safety and Field Action Decision Authority decided to expand NHTSA recall 21V560 to include all 2019 model year Chevrolet Bolt EV vehicles not covered by the prior recall, plus all 2020 – 2022 model year Chevrolet Bolt EV vehicles and all 2022 model year Chevrolet Bolt EUV vehicles.

Description of Remedy :

Description of Remedy Program :	The remedy will be the replacement of defective battery modules in the recall population. Until the updated recall remedy is performed, customers should take the following interim steps: 1. Customers should set their vehicle's high-voltage battery system to a 90% state of charge limitation using Target Charge Level mode. If customers are unable to successfully make these changes, or do not feel comfortable making these changes, customers should visit their dealer to have these adjustments completed. 2. Additionally, we ask that customers charge their vehicle more frequently and avoid depleting their battery below approximately 70 miles (113 KM) of remaining range, where possible. 3. Out of an abundance of caution, customers should park their vehicles outside immediately after charging and not leave their vehicles charging indoors overnight. Pursuant to 49 C.F.R. § 573.13(d)(1), all covered vehicles are under warranty, so reimbursement is not offered.
How Remedy Component Differs from Recalled Component :	Replacement components were produced after manufacturing process corrections implemented by LG.
Identify How/When Recall Condition was Corrected in Production :	NR

Recall Schedule :

Description of Recall Schedule :	Dealers will be notified on August 20, 2021. Interim owner notification is estimated to mail on October 4, 2021. GM will provide estimated mailing dates for the final remedy when available.
Planned Dealer Notification Date :	AUG 20, 2021 - AUG 20, 2021
Planned Owner Notification Date :	OCT 04, 2021 - OCT 04, 2021

* NR - Not Reported