



N202311730 Safety Recall DUE to NHTSA: Friday November 13, 2020

Title: High Voltage Battery May Melt or Burn

Title is not part of the 573 submission, but may appear on VIN lookup, Global Warranty, bulletins, or submissions to other agencies

Information must be submitted by the due date at NHTSA's recall portal <https://map.safercar.gov/mportal/signin>

Note: Cell entries over 2000 characters will have to be entered as attachments

☐ **Yes - Petition for Inconsequential Noncompliance 49 CFR 556**

Vehicle Information

573.6 (c) (1) (2) (3) (4)

Model Year(s), Make, Model	Descriptive Information - The basis for how the recall population was determined and - How the recalled products differ from products that were not included in the recall - Identify the number of affected products related to this specific make/model/model year combination, where available	Beginning Production Date (mm/dd/yyyy)	Ending Production Date (mm/dd/yyyy)
2017 – 2019 Chevrolet Bolt EV	The condition is specific to battery cells produced at LG Chem's Ochang, Korea plant that are design level N2.1. Manufacturing records were used to identify vehicles built with battery cells of this design level that were produced at this facility. All 2017-2018 Bolts are affected as well as certain 2019 Bolts with design level N2.1 batteries manufactured at the LG Chem's Ochang plant.	07/26/2016	09/10/2019

Total Population

Number Potentially Involved	50,932	Estimated Percentage of Involved With Defect	1%
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Defect / Noncompliance Description

573.6 (c) (5)

Describe the defect or noncompliance:

General Motors has decided that a defect which relates to motor vehicle safety exists in certain 2017-2019 model year Chevrolet Bolt EV vehicles. A certain number of these vehicles were built with high voltage batteries produced at LG Chem's Ochang, Korea facility that may pose a risk of fire when charged to full, or very close to full, capacity. While our investigation into this condition continues, GM has developed software that will limit vehicle charging to 90% of full capacity to mitigate this risk.

Describe 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.



(Optional) Describe the cause:

General Motors and LG Chem are currently investigating the cause of this condition.

(Optional) Identify any warning which can precede or occur:

The battery may emit smoke or heat, and the condition may melt or damage the battery and other vehicle components.

Does this recall only affect products in certain geographic regions?

No

Manufacturer of Defective Component

If applicable, identify the manufacturer of the defective or noncompliant component.

If the manufacturer of the component is unknown, provide information for the company that supplied the subject component.

☒ Information is for Component Manufacturer

☐ Component manufacturer is unknown, information is for our supplier

Company Name, Address:	Company Contact (Name, Position, Phone, email):
LG Chem 363-8 Gyeongseo-dong, Seo-gu, Incheon, South Korea	Sean Kim Senior Manager, Sales and Business Development 248-444-5385 sungkook1.kim@lge.com



Involved Components

49 U.S.C. §30119(g)

Describe the defect/noncompliance remedy program, including the manufacturer's plan for reimbursement:

Recalled Component Name:	Battery ASM-High VLTG
Recalled Component Description:	High Voltage Battery Pack
Recalled Component Part Number:	24285164, 24286670, 24286783, 24289545, 24290235, 24289548, 24291630, 24295959, 24289549, 24291802, 24295962, 24288644

Chronology of Defect / Noncompliance Determination

573.6 (c) (6) (7)

Describe the chronology of events leading up to the defect decision or test data for the noncompliance decision:

From July 20, 2020 through August 26, 2020, GM received four claims alleging that the high-voltage battery pack in a Chevrolet Bolt vehicle caused a fire. GM opened a product investigation on August 26, 2020 to investigate these claims.

From August 26, 2020 through November 5, 2020, GM's product investigation team conducted field- and warranty-data searches and onsite vehicle inspections to investigate the origin of the alleged fires. GM also worked with LG Chem, the supplier of the high-voltage battery pack, to identify a potential root cause. In total, GM has identified 12 fire-related allegations involving 2017 through 2019 model year Chevrolet Bolt vehicles that may be battery-related.

Of these 12 claims, GM has, to date, confirmed that a battery-related fire appears to have occurred in five cases. GM has pre-incident battery state-of-charge data on four of these incidents; in all four cases, the vehicle's high-voltage battery pack appears to have been at a high state of charge, according to the available data, just before the fire occurred.

GM updated NHTSA regarding the status of its investigation on September 2, 2020; September 16, 2020; September 30, 2020; and October 21, 2020. On November 5, 2020, GM's Safety and Field Action Decision Authority decided to conduct a safety recall.

Identify the Remedy

573.6 (c) (8)

Describe the defect/noncompliance remedy program, including the manufacturer's plan for reimbursement:

Remedy:

As an interim remedy, dealers will reprogram the hybrid propulsion control module 2 (HPCM2) to limit full charge to 90%. Until this interim remedy is completed, customers should enable either "Hilltop Reserve" (for 2017-18 model year vehicles) or "Target Charge Level" (for 2019 model year vehicles) using their vehicle's infotainment center. These two features will limit the vehicle's state of charge to 90% until the HPCM2 software recalibration is applied. If customers are unable to successfully make these changes, or do not feel comfortable making these changes, they will be advised to not park their car in their garage or carport until after they have visited their dealer.

Reimbursement Plan:

Pursuant to 49 C.F.R. § 573.13(d)(1), all covered vehicles are under warranty, so reimbursement is not offered.

Describe what distinguishes the remedy component from the recalled component.

The revised software will limit the vehicle's full charge to 90% of the battery's capacity.

(Optional) Identify and describe how and when the recall condition was corrected in production:

Design level N2.1 battery cells were no longer used in production after 2019 model year.



Identify the Recall Schedule

Describe the recall schedule for notifications:

Dealers will be notified on November 13, 2020. GM will notify customers pursuant to the customer notification strategy that GM reviewed with NHTSA on November 12, 2020. GM will provide estimated owner notification dates for a final remedy when available.

Planned Dealer Notification Begin Date (mm/dd/yyyy):	11/13/2020
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Planned Dealer Notification End Date (mm/dd/yyyy):	11/13/2020
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Planned Owner Notification Begin Date (mm/dd/yyyy):	11/23/2020
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Planned Owner Notification End Date (mm/dd/yyyy):	11/23/2020
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Manufacturer's identification code for this recall:	N202311730
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(Optional) Manufacturer's Comment to NHTSA Staff: