U.S. Department of Transportation

National Highway Traffic Safety Administration

Part 573 Safety Recall Report 25V568

Manufacturer Name: Mazda North American Operations
Submission Date: Sep 02, 2025
NHTSA Recall No.: 25V568
Manufacturer Recall No.: 7825I

Manufacturer Information

Manufacturer Name: Mazda North American Operations

Address: 1025 Connecticut Avenue, NW
Suite 910
Washington DC, 20036

Population

Total number of potentially involved: 104,854

Estimated percentage with defect: 100%

Vehicle Information

Vehicle 1: 2024-2025 MAZDA CX-90

Product Category: Light Vehicles

Product Type: Multipurpose Passenger Vehicle

Fuel / Propulsion: Hybrid Electric Vehicle

Production Dates: Dec 27, 2022 - Apr 25, 2025

Number of potentially involved: 88,798

Descriptive Information:

Recall population was determined by using production records of mild hybrid electric vehicles (MHEV) installed with Body Control Module (BCM) units that contain earlier versions of software. Vehicles not included in the recall have BCM units with improved software.

The following is the affected number of vehicles by MY/Make/Model:

MY2024-2025 Mazda CX-90 built at Mazda Motor Corporation in Japan: 88,798 unit.

Vehicle 2: 2025-2025 MAZDA CX-70

Product Category: Light Vehicles

Product Type: Multipurpose Passenger Vehicle

Fuel / Propulsion: Hybrid Electric Vehicle

Production Dates: Dec 05, 2023 - Apr 25, 2025

Number of potentially involved: 16,056

Descriptive Information:

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Recall population was determined by using production records of mild hybrid electric vehicles (MHEV) installed with Body Control Module (BCM) units that contain earlier versions of software. Vehicles not included in the recall have BCM units with improved software.

The following is the affected number of vehicles by MY/Make/Model:

MY2025 Mazda CX-70 built at Mazda Motor Corporation in Japan: 16,056 unit.

Defect / Noncompliance Description

Description of the defect or noncompliance:

The fuel gauge in the instrument cluster may show fuel remaining despite an empty fuel tank.

FMVSS1:

FMVSS2:

Description of the safety risk, including crash, fire, death, injury:

If the vehicle incorrectly indicates an inaccurate fuel level, there is a risk of running out of fuel while driving. This would result in an engine stall and the vehicle cannot be restarted, increasing the risk of a crash.

Description of the cause:

When fuel containing ethanol is used, it may react with materials on the sending unit circuit board in the sub-tank. This reaction can create a buildup that interferes with the gauge's function that may cause the display on the instrument cluster to read an incorrect fuel level.

Identification of any warning that can occur:

None.

Component Manufacturer

Tier of Supplier: Tier 1

Supplier Type: OEM

Name: TI Automotive Japan Limited

Address: 3-9-8 Noritakeshimachi
Nishi-ku
Nagoya Foreign States, 451-0051

Country: Japan

Involved Components

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Component Name 1: Fuel Tank Gauge

Component Description: Fuel Tank Gauge

Component Part Number: KMW7-60970

Chronology

August, 2023: Mazda received the first field report from the U.S. market indicating an engine stall occurred when the fuel gauge showed remaining fuel in the tank.

September 2023: The sub-tank sending unit was recovered and inspected, revealing that the root cause was a decrease in gauge resistance caused by unintended conductivity occurring outside the normal operational range. Since the exact failure mechanism could not be identified, further investigations were initiated to understand why this phenomenon was occurring and to determine the contributing factors.

November 2023: The investigation continued but shifted focus, as the occurrences appeared to be specific to the U.S. and Canadian markets.

March ~ November 2024: A more detailed investigation was launched to better understand the region-specific nature of the root cause. Findings indicated that the failure occurred under varying conditions and involved complex chemical reactions influenced by internal temperature of the fuel tank. In parallel with the detailed investigation, countermeasure studies were initiated focusing on improvements to the control logic governing fuel gauge operation.

December 2024: The investigation and development of enhancements to the fuel gauge operation control logic was successfully completed, incorporating findings from the investigations. These improvements were designed to enhance the accuracy, reliability, and responsiveness of the fuel gauge across a broader range of operating conditions.

January 2025: The root cause of the decreased resistance value in the sub-tank sending unit was determined to be a reaction between fuel containing ethanol and materials on the sending unit circuit board. Over time, this reaction can create a buildup that interferes with the gauge's ability to measure fuel levels accurately, which may cause the fuel gauge to show an incorrect amount of fuel.

February ~ April 2025: Mazda conducted performance, reliability, and robustness evaluations of the improved fuel gauge control logic to ensure consistent functionalities under diverse operating conditions and long-term durability.,

April 2025: Mazda implemented mass production changes to enhance the fuel gauge operation control logic. These improvements ensure accurate display of the remaining fuel, even when unintended conductivity causes the sub-tank fuel gauge to fluctuate. The updated logic monitors and corrects the resistance value by determining remaining fuel volume in the sub-tank, enabling precise calculation and reliable display of the remaining fuel on the instrument cluster.

July 2025: Mazda assessed the potential risk associated with this issue, including impact on vehicle operation and customer safety, and defined the scope of the affected range to better understand the overall extent of the concern. As a result, this issue was escalated for evaluation as a potential safety concern.

August 28 2025: Mazda held a Quality Audit Committee meeting to review all available information to date and approved a field action for affected MY2025 CX70 and MY2024-2025 CX-90 vehicles.

As of August 28, Mazda is not aware of any reports of accidents or injuries related to this concern.

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Related NHTSA Recall Number:

Description of Remedy

Remedy Type: Software

Consumer Advisories: ☐ Do Not Drive ☐ Park Outside

Description of remedy program:

Owners will be notified by mail and instructed to take their vehicle to a Mazda dealer. Dealers will reprogram the BCM with improved software, free of charge.
A reimbursement program will not be offered as all vehicles are under full warranty coverage.

How remedy component differs from recalled component:

The remedy components contain improved software.

Identify how/when recall condition was corrected in production:

The BCM with improved software was implemented on April 25, 2025, at the vehicle assembly plant, Mazda Motor Corporation, in Japan.

Reimbursement Plan

Description of reimbursement program:
A reimbursement program will not be offered as all vehicles are under full warranty coverage.

Period of reimbursement:
N/A

Costs to be reimbursed:
N/A

Address for reimbursement claims:

Recall Schedule

Description of recall schedule:

Notification to dealers is expected to occur on or before September 5, 2025. Mailing of owner notification letters is expected to be completed on or before November 1, 2025.

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Planned Dealer Notification Date: Sep 05, 2025 - Sep 05, 2025 ☐ No Dealers

Planned Interim Owner Notification Date: ☐ No Owners

Planned Remedy Owner Notification Date: Nov 01, 2025 - Nov 01, 2025 ☐ Phased Recall

Date when VIN will be searchable: Sep 05, 2025