

# Part 573 Safety Recall Report

# 23V-719

**Manufacturer Name :** Mazda North American Operations**Submission Date :** OCT 26, 2023**NHTSA Recall No. :** 23V-719**Manufacturer Recall No. :** 6323J**Manufacturer Information :**

Manufacturer Name : Mazda North American Operations

Address : 1025 Connecticut Avenue, NW

Suite 910 Washington DC 20036

Company phone : 800-222-5500

**Population :**

Number of potentially involved : 4,252

Estimated percentage with defect : 1 %

**Vehicle Information :**

Vehicle 1 : 2024-2024 Mazda CX-90

Vehicle Type : LIGHT VEHICLES

Body Style : ALL

Power Train : HYBRID ELECTRIC

**Descriptive Information :** The recall population was determined using the production records of plug-in hybrid-electric vehicles ("PHEV"), which may have the subject powertrain and drive motor control modules installed. Vehicles equipped with the mild hybrid package are not involved in this recall.

The following is the affected number of vehicles by Model Year/Make/Model:  
 MY2024 Mazda CX-90 PHEVs built at Mazda Motor Corporation: 4,252 units

Production Dates : DEC 28, 2022 - JUN 20, 2023

VIN Range 1 : Begin : JM3KKEHA1R1100054 End : JM3KKDHA4R1118462  Not sequential**Description of Defect :**

**Description of the Defect :** The engine and electric motor may shut down with little to no warning in failsafe mode. (Failsafe mode is intended to protect major components from serious damage.)

FMVSS 1 : NR

FMVSS 2 : NR

**Description of the Safety Risk :** An engine and electric motor shutdown can cause a loss of drive power, increasing the risk of a crash.

**Description of the Cause :** An increase in the PHEV system inverter temperature above a specified threshold will activate the failsafe mode. Logic of the failsafe mode is controlled by software in the powertrain control module. The software program stops the engine and electric motor from operating.

**Identification of Any Warning :** There is no warning prior to activation of the failsafe mode. Engine and hybrid

that can Occur : system warning lights will only illuminate once failsafe mode has been activated.

## Involved Components :

Component Name 1 : Module, Powertrain Control

Component Description : Module, Powertrain Control

Component Part Number : MS01-186B1

Component Name 2 : Module, Engine Control

Component Description : Module, Engine Control

Component Part Number : PXGH-18881

## Supplier Identification :

### Component Manufacturer

Name : Mitsubishi Electric Corp. Himeji Works

Address : 840 Chiyoda

Himeji, Hyogo Foreign States 670-8677

Country : Japan

## Chronology :

November 16, 2022: Mazda received the first field report from the Belgium market, indicating that “during driving, the vehicle stopped with no throttle response.” Mazda then began the investigation.

February 13, 2023: Mazda identified the root cause of this defect as improper failsafe software in the powertrain and engine control modules.

February through October 2023: Mazda continued to study this concern and investigated the logic of the software in the powertrain and engine control modules. Mazda further analyzed field data and conducted ongoing testing.

October 23, 2023: Mazda held a Quality Audit Committee meeting to review all available information to date and approved a field action on certain MY2024 CX-90 PHEV vehicles.

As of October 6, 2023, Mazda is not aware of any reports of accident or injury related to this concern. Also, as of this date, no field reports have been received by the United States or Territory markets.

## Description of Remedy :

**Description of Remedy Program :** Owners will be notified by mail and instructed to take their vehicle to an authorized Mazda dealer. Dealers will reprogram the powertrain and engine control modules with updated software. Note: Although there is no defect in the engine control module, reprogramming is necessary to allow it to align with the improved powertrain control software. This will ensure proper communications between both modules. The software update will warn drivers of a malfunction and provide additional time to safely bring the vehicle to a stop in the event of failsafe mode activation. There will be no charge for this service to vehicle owners. Any repairs related to this defect in the subject vehicles are covered under Mazda's new vehicle warranty period. Therefore, a reimbursement plan for repairs made in connection with this defect prior to notification is not being offered to affected vehicle owners.

**How Remedy Component Differs from Recalled Component :** The remedy software program enables these three conditions:

1. If the inverter reaches an abnormal temperature, the engine and hybrid system warning lights will illuminate (prior to activation of failsafe mode) to notify the driver of this condition.
2. It will shut off electric motor driving power in the event of inverter overheating.
3. When the temperature of the inverter rises above a certain threshold, it allows the vehicle to continue driving by switching to an engine-only drive mode.

**Identify How/When Recall Condition was Corrected in Production :** Improved software for the powertrain and engine control modules was installed on vehicles starting June 20, 2023, at the vehicle assembly plant in Japan.

## Recall Schedule :

**Description of Recall Schedule :** Notification to dealers is expected to occur on or before October 31, 2023. Mailing of owner notification letters is expected to be completed on or before December 22, 2023.

**Planned Dealer Notification Date :** OCT 31, 2023 - OCT 31, 2023

**Planned Owner Notification Date :** DEC 22, 2023 - DEC 22, 2023

\* NR - Not Reported