The information contained in this report was submitted pursuant to 49 CFR §573

**Manufacturer Name:** Tesla, Inc.

**Submission Date:** OCT 11, 2023

**NHTSA Recall No.:** 23V-679

**Manufacturer Recall No.:** SB-23-00-005

**Manufacturer Information:**

- **Manufacturer Name:** Tesla, Inc.
- **Address:** 1 Tesla Road
  Austin TX 78725
- **Company phone:** 6506815000

**Population:**

- **Number of potentially involved:** 54,676
- **Estimated percentage with defect:** 98%

**Vehicle Information:**

- **Vehicle 1:** 2021-2023 Tesla Model X
- **Vehicle Type:**
- **Body Style:**
- **Power Train:** NR

- **Descriptive Information:** The subject population includes model year (MY) 2021-2023 Model X vehicles and was based upon a review of manufacturing records.

- **Production Dates:** FEB 11, 2021 - SEP 27, 2023
- **VIN Range:** Begin: NR  End: NR  Not sequential

**Description of Noncompliance:**

- **Description of the Noncompliance:** On certain MY 2021-2023 Model X vehicles, the vehicle controller that detects the sensor voltage that indicates brake fluid level may not have a sufficient threshold range at low fluid levels, which may result in a noncompliance with FMVSS 135, Section 5.5.4.

  - **FMVSS 1:** 135 - Light vehicle brake systems
  - **FMVSS 2:** NR

- **Description of the Safety Risk:** A vehicle controller that does not correctly indicate low brake fluid levels to the customer may impact braking performance and may increase the risk of a collision.

- **Description of the Cause:** The vehicle controller's set threshold range for the sensor may not be set to the correct range at low brake fluid levels.

- **Identification of Any Warning that can Occur:** Low brake fluid levels may alter brake pedal feel or impact braking performance.

**Involved Components:**
Component Name 1: Vehicle Controller - Front
Component Description: Model X Front Vehicle Controller
Component Part Number: 1585663-02-B; 1585663-03-B; 1585663-04-B; 1585663-00-C; 1585663-01-C; 1585663-10-D; and 1585663-20-D

Supplier Identification:

Component Manufacturer
Name: NR
Address: NR
Country: NR

Chronology:
- On September 19, 2023, several Model X vehicles in production were identified as not showing a visual indicator for low brake fluid.

- From September 19, 2023, to September 27, 2023, the Brakes Integration team reviewed data from the state of the sensor, conducted testing to confirm the behavior, and began a review of the design specifications to assess the root cause and potential compliance impact of the condition. A review of vehicle and manufacturing records also commenced to identify the scope of a potentially affected vehicle population.

- On September 27, 2023, the Brakes Integration team identified an incorrect setting of the vehicle controller’s set threshold range for detecting low brake fluid levels.

- On September 28, 2023, in parallel to the ongoing investigation, Tesla began deploying to production and the vehicle fleet the remedy described below, as part of a regularly scheduled over-the-air software update.

- From September 28, 2023, to October 2, 2023, the Engineering and Product Integrity teams further investigated production and field data to potentially identify any field occurrences that may have been caused by the condition. No field occurrences could be identified.

- On October 4, 2023, having completed the investigation and having confirmed the root cause, compliance assessment, and affected vehicle population, Tesla made a voluntary recall determination.

- As of October 10, 2023, Tesla is not aware of any crashes, injuries or deaths that may be related to this condition.
### Description of Remedy:

<table>
<thead>
<tr>
<th>Description of Remedy Program</th>
<th>Software release 2023.32.7 or later corrected the condition by correcting the vehicle controller's set threshold range at low brake fluid levels. The correction ensures that the vehicle controller complies with FMVSS 135, Section 5.5.4. Software release 2023.32.7 began deploying over-the-air (&quot;OTA&quot;) to the vehicle fleet on September 28, 2023. Owners of affected vehicles only need to install OTA software release 2023.32.7 or a later software release, which have all deployed OTA at no cost to owners. No service visit is necessary, and no further action is necessary from owners whose vehicles are equipped with software release 2023.32.7 or a later software release. For vehicles operating FSD Beta software releases, the above remedy will be included in an upcoming regularly scheduled FSD Beta software release. Similarly, no service visit is necessary and owners of affected vehicles operating FSD Beta software releases only need to install the upcoming regularly scheduled FSD Beta software release, again at no cost to owners. Tesla does not plan to include a statement in the Part 577 owner notification about pre-notice reimbursement to owners because there is no paid repair relating to the underlying condition and owners received the remedy free of charge with an OTA software release.</th>
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</thead>
<tbody>
<tr>
<td>How Remedy Component Differs from Recalled Component</td>
<td>Software release 2023.32.7 or later corrected the vehicle controller's set threshold range at low brake fluid levels. The correction ensures that the sensor complies with FMVSS 135, Section 5.5.4.</td>
</tr>
<tr>
<td>Identify How/When Recall Condition was Corrected in Production</td>
<td>Software release 2023.32.100.1 was introduced in production beginning on September 28, 2023. Vehicles that have not yet been delivered will be updated to software release 2023.32.7 or a later release prior to delivery.</td>
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### Recall Schedule:

| Description of Recall Schedule | All Tesla stores and service centers will be notified about this recall on or shortly after October 13, 2023. Owner notification letters will be mailed in accordance with 49 C.F.R. § 577.7. |
| Planned Dealer Notification Date | OCT 13, 2023 - OCT 13, 2023 |
| Planned Owner Notification Date | DEC 12, 2023 - DEC 12, 2023 |

* NR - Not Reported