

## Chronology of Defect Determination

- Beginning on December 23, 2021, during routine HTOE (High Temperature Operation Endurance) testing on the Model 3 and Model Y vehicle platform CPU, throttling was detected from thermal protections being engaged. An investigation commenced.
- On January 3, 2022, a CPU from a 2021 Model S vehicle was replaced in Service for an overheating condition that caused the center screen display to reboot when the vehicle was supercharging. The replaced CPU was shipped to Tesla Engineering for teardown and failure analysis.
- Through the remainder of January 2022, any other CPUs that were replaced in Service for the same overheating condition were also shipped to Tesla Engineering for teardown and failure analysis.
- Beginning in mid-January 2022, an investigation into thermal management was initiated using vehicle alerts to facilitate diagnostic of the condition in the field.
- From February through mid-March 2022, to understand the potential root cause, Tesla Engineering worked on a series of controlled test experiments. The design of the series was based on identified potential causes of the overheating condition. From the potential cause matrix, materials were ordered, and units were later assembled with different configurations and placed through HTOE testing to understand the effect of each potential cause on the overheating condition.
- By the end of March 2022, the test experiments were completed. Improvements to vehicle software were identified for development, and an evaluation was initiated to manage the condition via the vehicle thermal system. In addition, using thermal resistance modeling and CPU temperature signals remotely received from the vehicle fleet, a fleet analysis was then designed and developed to identify a potential rate frequency and potentially affected vehicle population.
- On April 10, 2022, the improvements to vehicle software and the evaluation to manage the condition via the vehicle thermal system were preliminarily completed. Based on results received from the fleet analysis, a preliminary rate frequency was also determined.
- On April 21st, 2022, Tesla completed its investigation and confirmed the suspected root cause, risk assessment, and affected vehicle population. The findings were reviewed and a recall determination was made on April 26, 2022.
- As of May 2, 2022, Tesla identified 59 warranty claims and 59 field reports (received between January 5, 2022, and May 2, 2022) that have been received for U.S. vehicles and that are related to or may be related to this condition. Tesla is not aware of any crashes, injuries, or deaths related to this condition.