



U.S. Department  
of Transportation  
**Federal Transit  
Administration**

# SA-24-1

## Safety Advisory

10/9/2024

Office of Transit Safety and Oversight  
Washington, DC

**Subject:** Proterra Bus/Phoenix Motorcars Safety Recall

**Summary:** The Federal Transit Administration (FTA) issues Safety Advisory 24-1 to advise transit agencies that Phoenix Motorcars (Phoenix) has issued a voluntary safety recall for certain 2019-2021 800V Catalyst and 2020-2022 ZX5 transit buses. The vehicle controller software may allow the electrical circuit for the radiator fan to overheat. Electrical circuits that overheat increase the risk of a fire.

**Background:** On September 5, 2024, Phoenix informed the National Highway Traffic Safety Administration (NHTSA) of a safety defect affecting Proterra 800V Catalyst (Model Year 2019-2021) and Proterra ZX5 (Model Year 2020-2022) transit buses with a certain electrical and software architecture and of their intent to recall the affected vehicles (NHTSA Recall No.: 24V-655). These buses were produced between December 14, 2019 - November 8, 2021, and July 21, 2020 - January 31, 2023, respectively. According to the information provided by Phoenix to NHTSA, the electrical connectors and terminals at one rooftop passthrough at issue in this recall are toward the maximum current limit that the terminals are rated for, with radiator fans running at 100 percent speed. Over time and with higher ambient temperatures, this circuit design can result in excessive heat at the terminals and, eventually, the melting of “wedge locks,” which could result in a thermal event, increasing the risk of a fire.

Software updates were previously released as a technical service bulletin, and Phoenix will redeploy this bulletin as the recall remedy. Per Phoenix, the update will limit the radiator fan speed to 80 percent, which reduces the load of each fan by approximately 46 percent and reduces the temperature at each terminal by approximately 71 percent above ambient without degrading performance of the cooling system. Phoenix will provide this software remedy free of charge to owners of vehicles within the recall population. Version 4.10.2 or above contains the remedy, and this version can be referenced on the vehicle's dashboard.

**Recommended Action:** FTA recommends that bus transit agencies review their fleets to determine if they contain any of the affected transit buses. If so, FTA recommends that transit agencies download and update vehicle software. Bus transit agencies should continue to monitor their fleet for signs of overheating even after the update is complete to ensure the fire risk is mitigated.

**Contact:** Owners may contact Phoenix customer service at 1-909-987-0815. Please direct questions or comments regarding this Safety Advisory to Philip Herbert, Senior Accident Investigator for Transit Safety and Oversight, at (202) 366-5451 or [Philip.Herbert@dot.gov](mailto:Philip.Herbert@dot.gov).