U.S. Department of Transportation

National Highway Traffic Safety Administration

ODI RESUME

OFFICE OF DEFECTS INVESTIGATION

NHTSA

Authentic US Government Information
National Highway Traffic Safety Administration
uses a *digital certificate* to ensure
the content has remained unchanged

Investigation: DP 21-005
Prompted by: Defect Petition
Date Opened: 12/23/2021
Investigator: Ryan Rahimpour **Reviewer:** Joshua Neff
Approver: Stephen Ridella
Subject: SAE J1939 Data Bus Vulnerability

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Generic Manufacturer
Products: 2001 School Bus and 2006 Class-8 Semi-Tractor
Population: 1,000,000 (Estimated)

Problem Description: A petitioner identified a University of Michigan report alleging that a vulnerability exists in the Society of Automotive Engineers (SAE) J1939 Data Bus standard with respect to 2001 school buses and 2006 Class-8 semi-tractors, enabling vehicle critical safety functions, such as the accelerator control system or braking system, to be susceptible to unauthorized access and control.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	1	TBD	TBD
Crashes/Fires:	0	TBD	TBD
Injury Incidents:	0	TBD	TBD
Number of Injuries:	0	TBD	TBD
Fatality Incidents:	0	TBD	TBD
Number of Fatalities:	0	TBD	TBD

ACTION / SUMMARY INFORMATION

Action: Further evaluation of the Defect Petition in order to determine whether to grant or deny the petition.

Summary:

The Office of Defects Investigation (ODI) received a petition, dated September 27, 2021, requesting an investigation into the potential hacking susceptibility of the SAE J1939 Data Bus standard.
In support of the petition, the petitioner cited a study from University of Michigan researchers alleging a SAE J1939 Data Bus vulnerability in a Mode Year (MY) 2001 school bus and a MY2006 Class-8 semi-tractor. No specific school bus or semi-tractor manufacturer, or equipment supplier was identified in the petition or study. The study alleges that, due to the vulnerability, vehicle critical safety functions such as the accelerator control or braking systems are susceptible to unauthorized access and control, increasing motor vehicle safety risks. The petition itself can be reviewed at NHTSA.gov under ODI Number 11439679.

NHTSA is further evaluating the claims made in the Defect Petition in order to determine whether to grant or deny it.