Safety Issue Type: Investigations June 08 2022 NHTSA Action Number: EA22002 OPEN INVESTIGATION Autopilot & First Responder Scenes

NHTSA Action Number EA22002

Components ELECTRICAL SYSTEM

Opened From June 08 2022 - Present

Summary

On August 13, 2021, NHTSA's Office of Defects Investigation (ODI) opened a Preliminary Evaluation (PE21-020) to assess the performance of Tesla's Autopilot system (a system characterized by Tesla as an SAE Level 2 driving automation system designed to support and assist the driver in performing the driving task) available in Tesla vehicles. The investigation opening was motivated by an accumulation of crashes in which Tesla vehicles, operating with Autopilot engaged, struck stationary in-road or roadside first responder vehicles tending to preexisting collision scenes. Upon opening the investigation, NHTSA indicated that the PE would also evaluate additional similar circumstance crashes of Tesla vehicles operating with Autopilot engaged, as well as assess the technologies and methods used to monitor, assist, and enforce the driver's engagement with the dynamic driving task during Autopilot operation.

PE21-020 is upgraded to an Engineering Analysis (EA) to extend the existing crash analysis, evaluate additional data sets, perform vehicle evaluations, and to explore the degree to which Autopilot and associated Tesla systems may exacerbate human factors or behavioral safety risks by undermining the effectiveness of the driver's supervision. In doing so, NHTSA plans to continue its assessment of vehicle control authority, driver engagement technologies, and related human factors considerations.

The attached Detailed Summary further describes NHTSA's review to date and the basis for upgrade to an EA.

Affected Products (21)

Vehicle

MAKE	MODEL	YEAR
TESLA	MODEL 3	2018-2021
TESLA	MODEL S	2014-2021
TESLA	MODEL X	2015-2021
TESLA	MODEL Y	2020-2021

Associated Documents (13)

88794 - EA22-002 MEMO 9-19-2022 TO THE FILE, MEMO - EA22-002 INCOMPLETE PUBLIC FILE POSTING INME-EA22002-88794P.pdf 0.144KB https://static.nhtsa.gov/odi/inv/2022/INME-EA22002-88794P.pdf 90988 - CONFIDENTIALITY - EA22002 - 071923 - TESLA - EA22002 CBI IR RESPONSE MEMO TO PUBLIC 7.19.23 INME-EA22002-90988.pdf 0.105KB https://static.nhtsa.gov/odi/inv/2022/INME-EA22002-90988.pdf

91174 - EA22-002 COPY IN PE21-020 TESLA - LETTER TO TESLA FROM OCC - 07262023-TESLA DMS SPECIAL ORDER FINAL SIGNED INLM-EA22002-91174P.pdf 0.261KB https://static.nhtsa.gov/odi/inv/2022/INLM-EA22002-91174P.pdf

89455 - ODI MEMO 10-12-2022 TO FILE INFORMATION SEND TO OCC INME-EA22002-89455P.pdf 0.143KB https://static.nhtsa.gov/odi/inv/2022/INME-EA22002-89455P.pdf

87973 - MEMO 6-15-2021, TO THE FILE CONFIDENTIAL SEND TO OCC INME-EA22002-87973P.pdf 0.099KB https://static.nhtsa.gov/odi/inv/2022/INME-EA22002-87973P.pdf

88513 - ODI 8/18/2022 IR LETTER TO TESLA INIM-EA22002-88513P.pdf 0.288KB https://static.nhtsa.gov/odi/inv/2022/INIM-EA22002-88513P.pdf

91264 - MEMO TO THE FILE - 08-25-2023 - EA22-002 REQUEST FOR CONFIDENTIALITY - CBI IR RESPONSE OCC FOR SPECIAL ORDERS INME-EA22002-91264P.pdf 0.105KB https://static.nhtsa.gov/odi/inv/2022/INME-EA22002-91264P.pdf

90927 - ODI 7/6/2023 IR LETTER TO TESLA -- UPDATED INIM-EA22002-90927P.pdf 0.207KB https://static.nhtsa.gov/odi/inv/2022/INIM-EA22002-90927P.pdf

88513 - ODI 8/18/2022 IR LETTER TO TESLA INIM-EA22002-88513.pdf 0.288KB https://static.nhtsa.gov/odi/inv/2022/INIM-EA22002-88513.pdf

87961 - TESLA INFORMATION REQUEST LETTER 04-19-2021 INIM-EA22002-87961P.pdf 1.871KB https://static.nhtsa.gov/odi/inv/2022/INIM-EA22002-87961P.pdf

OPENING RESUME APPROVED INOA-EA22002-3184.PDF 0.985KB https://static.nhtsa.gov/odi/inv/2022/INOA-EA22002-3184.PDF

89413 - MEMO 10-12-2022 TO THE FILE, MEMO - EA22-002 REQUEST FOR CONFIDENTIALITY. INME-EA22002-89413P.pdf 0.143KB https://static.nhtsa.gov/odi/inv/2022/INME-EA22002-89413P.pdf

87961 - TESLA INFORMATION REQUEST LETTER 04-19-2021 INIM-EA22002-87961.pdf 4.222KB https://static.nhtsa.gov/odi/inv/2022/INIM-EA22002-87961.pdf

Associated Recalls (2)

Subject Full Self-Driving Software May Cause Crash NHTSA Campaign Number 23V085000 Date received February 15 2023

Summary

Tesla, Inc. (Tesla) is recalling certain 2016-2023 Model S, Model X, 2017-2023 Model 3, and 2020-2023 Model Y vehicles equipped with Full Self-Driving Beta (FSD Beta) software or pending installation. The FSD Beta system may allow the vehicle to act unsafe around intersections, such as traveling straight through an intersection while in a turn-only lane, entering a stop sign-controlled intersection without coming to a complete stop, or proceeding into an intersection during a steady yellow traffic signal without due caution. In addition, the system may respond insufficiently to changes in posted speed limits or not adequately account for the driver's adjustment of the vehicle's speed to exceed posted speed limits.

Subject Autopilot Controls Insufficient to Prevent Misuse NHTSA Campaign Number 23V838000 Date received December 12 2023 Summary

Tesla, Inc. (Tesla) is recalling 2012-2023 Model S, 2016-2023 Model X, 2017-2023 Model 3, and 2020-2023 Model Y vehicles equipped with all versions of Autosteer leading up to the version(s) that contains the recall remedy. In certain circumstances when Autosteer is engaged, the prominence and scope of the feature's controls may not be sufficient to prevent driver misuse of the SAE Level 2 advanced driver-assistance feature.