



Drexel Hamilton

A Service-Disabled Veteran Owned & Operated Business

Drexel GPS: Tech Update Tesla Recalls Two Million Vehicles 12/13/23



Today's technological landscape opens up with a significant announcement from the current leader in the electric vehicle (EV) space. Tesla issued a recall covering almost all of the cars it has sold in the U.S. over a software defect in a system that's meant to monitor whether drivers are paying attention while using the vehicle's Autopilot feature. [Tesla Recalls 2 Million Vehicles](#)

Drexel GPS Assessment:

- It is important and should be noted that while this recall affects most Tesla's that have been sold and are on the road in the U.S. today, the use of the word "recall" in this case should be clarified.
- In the US automotive world, a "recall" is issued when a manufacturer or National Highway Traffic Safety Administration (NHTSA) determines that a vehicle or particular equipment creates an unreasonable safety risk or fails to meet minimum safety standards.
- Manufacturers are required to fix the problem by repairing it, replacing it, offering a refund, or even repurchasing the vehicle.
- The Tesla autopilot issue will largely be addressed using an Over-The-Air (OTA) software update which will be transparent to most and will be sent wirelessly and not require the overwhelming majority of owners to ever visit a dealership.

- Many, if not most of the negative connotations that normally are associated to the announcement of an automotive recall are related to the anticipated loss of time by owners needing to visit the service center at a dealership (time off from work, vehicle downtime, etc.), and the financial cost to the manufacturer to perform the service (labor, parts, etc.).

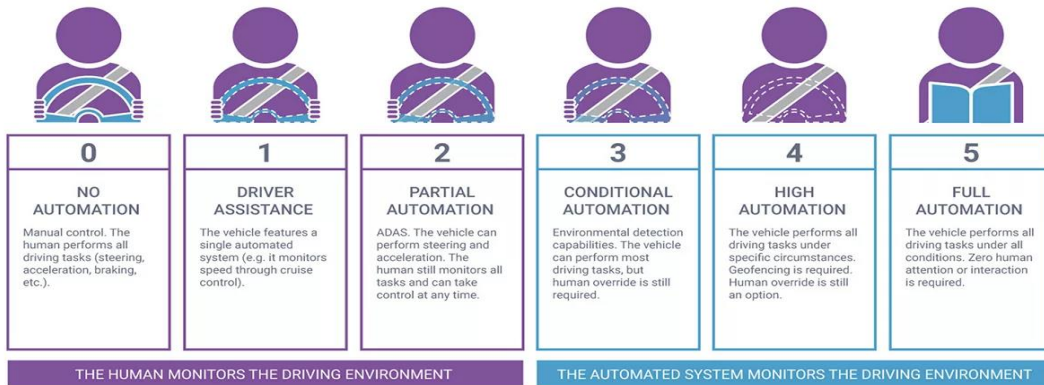
The use of OTA updates can be a game-changer for automotive manufacturers. They offer a faster, more customer-friendly, and efficient way to implement safety-related and legally relevant corrective measures than traditional recall practices.

Additionally, as the infrastructure for 5G & 6G networks matures and continues to improve with significant data and bandwidth capabilities, OTA innovation will help reduce vehicle warranty and recall costs in the future and also reduce the time-gap for exposure to legal liability for manufacturers that currently exists.

Drexel GPS Assessment:

- The two primary sources of collisions in traditional forms of transportation are a) vehicle malfunction and b) human (driver) error.
- There is a disproportionately higher percentage of fatal crashes based on the latter – human error. According to the National Highway Traffic Safety Administration (NHTSA), over 3,000 deaths a year are caused by distracted driving stemming from driver fatigue, driver distraction, and unlawful speed.
- Automated transportation seeks to mitigate these issues by reducing the human element and maintaining driving conditions that are consistent with the driving environment and what is prescribed by the law.
- Additionally, studies have shown that automated vehicles equipped with modern collision avoidance technology have improved reaction times relative to vehicles operated by humans.
- The ultimate goal touted by Tesla and others in the automotive industry especially in the EV market, is safe and reliable Level 4 and Level 5 autonomous vehicles (AV's). Most passenger vehicles on the road operate to some degree between Levels 1-2. Forms of Level 3 are available on some models but are still far off from truly being considered fully operational as a Level 3.
- Industry experts remain bullish on the ability to improve further in this area, given the use of machine learning, AI, and other modern techniques to augment traditional means, coupled with an increased level of venture capital attention to this space.
- Among other technologies, the over-the-air- software updating capabilities for Tesla's and other vehicles utilizing AV technologies inherently opens them up to a range of related cyber liability risks. Expect to see increased legal ramifications (privacy, liability, and contractual) surrounding the inevitable scaled-up usage of autonomous vehicles.

LEVELS OF DRIVING AUTOMATION



Drexel GPS will continue to monitor this situation as it develops.

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