

Dear Mr. Habib,

On December 13, 2017 I submitted an online complaint regarding Unintended Deceleration in 2010-2014 Toyota Prius Liftbacks and 2012-2014 Toyota Prius V (reference number 11054604). Subsequently, I mailed hard copies of an Unintended Deceleration briefing to a number of NHTSA officials and locations. Those were delivered on December 18, 2017. On December 29, 2017 the Unintended Deceleration briefing was emailed directly to Chief Jeff Quandt who later submitted it to you.

The first briefing I supplied contained the following information:

- A list of 50 post-remedy EOE and FOR inverter failures recorded at Claremont Toyota which included model year, model, VIN number, customer name, date of EOE or FOR recall completion, date of subsequent inverter failure repair, mileage at subsequent inverter failure repair, a list of the parts used during the subsequent inverter failure repair, and part numbers used during subsequent inverter failure repair
- A list of 50 post-remedy EOE and FOR inverter failures recorded at Capistrano Toyota which included model year, model, VIN number, customer name, date of EOE or FOR recall completion, date of subsequent inverter failure repair, mileage at subsequent inverter failure repair, a list of the parts used during the subsequent inverter failure repair, and part numbers used during subsequent inverter failure repair
- A financial analysis of the savings Toyota Motor Corporation would incur by shifting from a preventative remedy to a post-failure repair (approximately \$1,500,000,000 in savings)
- A series of customer complaints from websites such as NHTSA's online customer complaint database regarding unintended deceleration and inverter failure
- Photographs of a post-EOE remedy inverter in which an electrical arc occurred, burned/blasted two holes through the aluminum case, and melted steel bolts
- The vehicle history for the prior mentioned Prius which had less than 35,000 miles on it at the time of inverter failure and electrical arcing
- "Black box" reports from post-EOE and post-FOR remedied vehicles demonstrating speed abnormalities at the time of inverter failure
- Toyota's specs for the 2010 Toyota Prius Liftback and 2012 Toyota Prius V hybrid control system.

On January 5, 2018 we had a lengthy conversation about my findings. I explained that based on my investigation at Claremont at Capistrano Toyota approximately 8%- 10% of applicable Prius liftback vehicles have experienced inverter failures after the EOE and FOR "remedies" have been completed. You stated these numbers were consistent with NHTSA's statistics. Afterwards, you were kind enough to send a list of document requests. On January 16, 2018 I submitted one of them to you at kareem.habib@dot.gov - a letter from Toyota executive Alec Hagey stating that the software re-flash associated with the EOE and FOR safety recalls only, "reduces the likelihood of a failure" and does not cure the defect.

I remain gravely concerned regarding the safety of Toyota Prius drivers and passengers as well as American roads in general. I have taken the liberty of speaking to fellow Toyota dealers inside and outside of California. They are experiencing similar, and at times greater, rates of post-EOE and post-FOR inverter failures.

Toyota's own documentation from its ZE3 Customer Support Program (available only to those customers who have completed safety recall EOE) states that fail-safe mode, or limp-home mode, is a "form of *vehicle self-protection*" which is designed to "reduce vehicle power to *minimize potential component damage*." It is apparent through this explanation written by Toyota that the "fail-safe" operation is not optimized for customer safety, but instead to protect components in the Prius vehicles.

On January 5, 2018 you requested additional evidence to assist you and NHTSA in the assessment of the inadequate software re-flash "remedies" included in the EOE and FOR safety recalls.

Documentation shows post-remedy inverter failures display the same DTC codes referenced on the original EOE and FOR recall documents provided to dealers and customers (P0A94, P324E, P3004, and P0A1A) between 85% and 95% of the time. These DTC codes, and the dangerous conditions they cause, are not being prevented by the re-flash "remedy".

When post-remedy Prius vehicles are brought into Capistrano Toyota for subsequent inverter failure, additional DTC codes causing anti-lock braking, brake assist, traction control, and vehicle stability control to be "prohibited" appear 83% of the time. This is very dangerous as Toyota's own recall documentation states, "motive power" has already been "reduced" via Fail-Safe operations or the hybrid system has been "shut down resulting in the vehicle stopping while being driven." Furthermore, at Capistrano Toyota DTC code U0293, which causes a fail-safe operation resulting in "deterioration of steering assist" or "depression of EPS assist" appears nearly 25% of the time when post "remedy" Prius vehicles are brought in due to inverter failures.

Over 30% of the post "remedy" Prius that experience inverter failure were towed in.

Mr. Habib, on the Defect Information Report submitted by Abbas Saadat on February 12, 2014 for the EOE safety recall, under the February 6, 2014 date of the chronology it states that the software re-flash to the motor/generator control ECU and the hybrid control ECU "will prevent damage to the IGBT." Our findings show that 90% of post-remedy inverter failures are repaired by installing a new Intelligent Power Module -- of which the IGBTs (transistors) are a major component.

In this email and a series to come, you will be receiving additional and substantial requested materials regarding the inadequate EOE and FOR software re-flash "remedy" on 2010-2014 Prius Liftback and 2012-2014 Prius V.

Attached you will find the following materials:

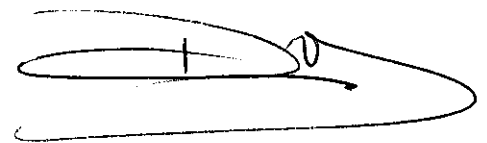
- For Capistrano Toyota, a report including 53 post EOE or FOR "remedy" Toyota Prius inverter failures including: date and mileage at EOE or FOR remedy completion, date and mileage of post remedy inverter repairs/replacements, DTCs registered at time of post EOE and FOR remedy repair, whether or not the post EOE or FOR failures required the Prius to be towed in, and the last known service mileage and date at Capistrano Toyota.
- For Claremont Toyota, a report including 53 post EOE or FOR "remedy" Toyota Prius inverter failures including: date and mileage at EOE or FOR remedy completion, date and mileage of post remedy inverter repairs/replacements, DTCs registered at time of post EOE and FOR remedy repair, whether or not the post EOE or FOR failures required the Prius to be towed in, and the last known service mileage and date at Claremont Toyota.

- For Capistrano Toyota, a DTC analysis for post EOE and FOR “remedied” Prius including: which DTCs appear, a description of the DTCs, how often each DTC was logged, and a description of dangerous “fail-safe” conditions triggered by the DTCs.
- For Capistrano Toyota, a DTC analysis for post EOE and FOR “remedied” Prius including: which DTCs appear, a description of the DTCs, how often each DTC was logged, and a description of dangerous “fail-safe” conditions triggered by the DTCs.
- For Capistrano Toyota, a list of all 2010-2014 Toyota Prius Liftbacks and 2012-2014 Toyota Prius V sold including: model, model year, and warranty start date.
- For Claremont Toyota, a list of all 2010-2014 Toyota Prius Liftbacks and 2012-2014 Toyota Prius V sold including: model, model year, and warranty start date.
- Snapshot examples of repair orders containing customer descriptions of the vehicle performance during post-remedy inverter failures
- Examples of manual allocation email requests sent in massive quantities to Toyota by dealers in need of a post-remedy inverter parts due to inverter failures.
- A documented history of TSBs and Defect Information Reports pertaining to faulty inverter/converter assemblies, common DTC codes, and common heat or current related issues across specific models and recalls
- Technical documentation for DTCs codes appearing on the EOE safety recall, the FOR safety recall, the ZE3 warranty enhancement, the ZF5 warranty enhancement, and frequently appearing when post-remedy Prius vehicles are brought in for repair following inverter failures (POA94, P324E). Other technical information is provided for frequently occurring DTCs POA7A, C1259, C1310, U0293, and U0100.
- Toyota’s own definition of fail-safe mode from the ZE3 warranty enhancement (CSP)
- The letter from Toyota executive Alec Hagey stating the software re-flash represented as a remedy only, “reduces the likelihood of a failure.”

Mr. Habib, if you would like to schedule a date and time to inspect the post-EOE “remedy” inverter in which the electrical arc took place melting steel bolts and blasting through the aluminum casing please let me know. The invitation from my prior letter is open-ended.

Every day that passes without a supplemental recall issued on the applicable Prius vehicles needlessly leaves families in jeopardy on American roads.

Sincerely,



Roger Hogan
 President
 Claremont Toyota
 Capistrano Toyota