

**DEPARTMENT OF TRANSPORTATION**

National Highway Traffic Safety Administration

Denial of Motor Vehicle Defect Petition, DP13-002

**AGENCY:** National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

**ACTION:** Denial of petition for a defect investigation.

**SUMMARY:** This notice states the reasons for denying a Defect Petition (DP) (DP 13-002) submitted under 49 CFR Parts 552 by Ms. Jessie A. Powell of Middleboro, MA (petitioner) in a January, 2013 letter to the Administrator of NHTSA (the “Agency”). The petitioner requested that the Agency open an investigation into software and brake failures on model year (MY) 2012 Toyota Prius C vehicles (the “Subject Vehicles”).

After reviewing materials in-hand, those furnished by the petitioner, and upon completing an inspection of her vehicle, NHTSA sees no indication that additional investigation would lead to a finding that a defect related to motor vehicle safety exists. NHTSA has concluded that further investigation of the issue raised in the petition is not warranted. The Agency accordingly has denied the petition.

**FOR FURTHER INFORMATION CONTACT:** Mr. Jeff Price, Office of Defects Investigation (ODI), NHTSA; 1200 New Jersey Avenue, SE, Washington, DC 20590. Telephone: (202) 366-5410. E-mail: jeffrey.price@dot.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Introduction**

Pursuant to 49 CFR 552.1, interested persons may petition NHTSA requesting that the Agency initiate an investigation to determine whether a motor vehicle or item of replacement equipment does not comply with an applicable motor vehicle safety standard or contains a defect that relates to motor vehicle safety. Upon receipt of a properly filed petition, the Agency conducts a technical review (§ 552.6) of the petition, material submitted with the petition, and any appropriate additional information. After considering the technical review and taking into account appropriate factors, which may include, among others, allocation of Agency resources, Agency priorities, and the likelihood of success in litigation that might arise from a determination of noncompliance or a defect related to motor vehicle safety, the Agency will grant or deny the petition (§ 552.8).

### **Background Information**

#### *Petition Overview*

On January 3, 2013, NHTSA received a letter (ODI No. 10487746) from Ms. Jessie A. Powell petitioning the agency to investigate drivability and braking concerns in the subject vehicle.

#### *Petition Main Points*

The petition expressed two concerns:

1. “The first software problem was when the vehicle shifted from battery to motor and caused such impact, I initially believed the vehicle had been struck in the rear.”
2. “The next more alarming problem was NO BRAKES. The brake pedal traveled to the floor and a dashboard warning light flashed.”

This symptom occurred twice, leading to the vehicle being towed to the dealership, the second time in the dealership parking lot after diagnostics of the first incident.

### **ODI Analysis of the Defect Petition Request**

ODI's petition review included the following;

- Review of the petition and its enclosures;
- Assessment of petition vehicle history;
- Inspection of the Petitioners vehicle on April 4, 2013;
- Inspection of an additional complaint vehicle in June of 2013; and

Review of potentially related VOQs.

#### *Powell Vehicle History*

Mar 3, 2012	Build Date (DTC History)
Apr 23, 2012 10 mi	Date of First Use (DTC History / Vehicle History Report)
Apr 27, 2013 110 mi	Passed Safety Inspection (Vehicle History Report)
May 8, 2012	Rough transition from battery to motor (Petition)
May 15, 2012	Brake pedal to floor, dashboard warning light, behavior repeated at home, and vehicle towed to dealership (Petition) <sup>1</sup>
May 17, 2012 841 mi	DTC pulled: U0151, U0293, U0100, P3000, U0101
	Same brake symptoms as previous, at dealership (Petition)
Apr 4, 2013 831 mi	Vehicle inspection by NHTSA and Toyota representatives

On Apr 4, 2013, ODI met with the petitioner, representatives from Toyota, and legal counsel for both parties at a Toyota dealership. Included in the visit were an interview of the

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<sup>1</sup> Note – Improper mileage of 841 entered by Dealership on May 15, 2012. Correct mileage 831 miles on May 15, 2012 and inspection date Apr 4, 2013.

petitioner, basic inspection of the subject vehicle, and test drives of the subject vehicle and an exemplar.

Ms. Powell was interviewed to collect specific details concerning her complaint and then accompanied by NHTSA personnel while she test-drove her vehicle in the same dealership parking lot, duplicating the complaint condition. NHTSA personnel also drove the vehicle with Ms. Powell present and experienced the complaint condition. Specifically, the vehicle was test driven according to the same driving cycle described by the owner. The condition was found to be normal operation of the “hill holder” feature of the vehicle. The dashboard warning light Ms. Powell referred to in her complaint was the flashing light described in the “Hill Holder” operation section of the owner’s manual. This function allows the vehicle brake system to apply brakes to keep the vehicle from rolling backwards while on a hill. This vehicle feature was explained to Ms. Powell by NHTSA personnel. Ms. Powell neither accepted nor denied the explanation of what was occurring in her vehicle. At no time was there any “jolt” from the battery during the transition from battery to gas engine operation. The vehicle was then put on a hoist where the vehicle powertrain, brake systems and complete electrical system were checked. All computer systems were checked for Diagnostic Trouble Codes. The codes found were due to a discharged battery. This vehicle had been parked and unused for many months, requiring a jump start to move it into position for the inspection.

Hill Assist Control (HAC), a feature intended to prevent the vehicle from rolling backwards when starting from a stationary position on an incline, is described in the Prius C Quick Start Guide and Owner’s Manual:

Quick Start Guide (p. 23):

#### Hill-start Assist Control (HAC)

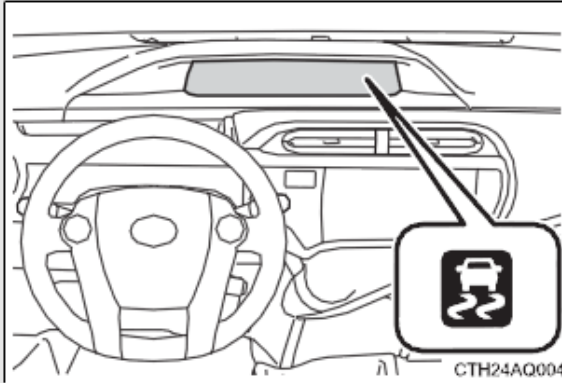


HAC helps prevent rolling backwards on an incline. To engage, push further down on brake pedal while at a complete stop until a beep sounds and slip indicator illuminates. HAC holds for approximately two seconds after releasing brake pedal.

Refer to the *Owner's Manual* for more details.

Owner's Manual (p. 222 – 223):

Assists with starting off and temporarily maintains braking power even if the foot is removed from the brake pedal when starting off on an incline or a slippery slope.



To engage hill-start assist control, further depress the brake pedal when the vehicle is stopped completely.

A buzzer will sound once to indicate the system is activated. The slip indicator will also start flashing.

#### ■ Hill-start assist control operating conditions

- The system operates in the following situations:
  - The shift lever is in a position other than P.
  - The parking brake is not applied.
  - The accelerator pedal is not depressed.
- Hill-start assist control cannot be operated while the slip indicator light is illuminated.

#### ■ Hill-start assist control

- While hill-start assist control is operating, the brakes remain automatically applied after the driver releases the brake pedal. The stop lights and the high mounted stoplight turn on.
- Hill-start assist control operates for about 2 seconds after the brake pedal is released.
- If the slip indicator does not flash and the buzzer does not sound when the brake pedal is further depressed, slightly reduce the pressure on the brake pedal (do not allow the vehicle to roll backward) and then firmly depress it again. If the system still does not operate, check that the operating conditions explained above have been met.

### ■ Hill-start assist control buzzer

- When hill-start assist control is activated, the buzzer will sound once.
- In the following situations, hill-start assist control will be canceled and the buzzer will sound twice.
  - No attempt is made to drive the vehicle within approximately 2 seconds of releasing the brake pedal.
  - The shift lever is moved to P.
  - The parking brake is applied.
  - The brake pedal is depressed again.
  - The brake pedal has been depressed for more than approximately 3 minutes.
- If a buzzer other than the hill-start assist control buzzer is sounding, the hill-start assist control buzzer may not sound.

### ■ If the slip indicator comes on

It may indicate a malfunction in the system. Contact your Toyota dealer.

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When driving

### ⚠ CAUTION

#### ■ Hill-start assist control

- Do not overly rely on hill-start assist control. Hill-start assist control may not operate effectively on steep inclines and roads covered with ice.
- Unlike the parking brake, hill-start assist control is not intended to hold the vehicle stationary for an extended period of time. Do not attempt to use hill-start assist control to hold the vehicle on an incline, as doing so may lead to an accident.

### *VOQs Pertaining to the 2012 Prius*

All 133 consumer complaints filed with NHTSA as of July 16, 2014 for the three MY 2012 Prius variants<sup>2</sup> (only four pertained to the Prius C variant subject to this petition) were reviewed for signs of the jolting symptom cited early in the petition. None of them indicated experiencing jolting sensations in routine driving similar to those reported by the petitioner.

<sup>2</sup> Prius, Prius C, Prius V

Further review identified no trend of the brake behavior reported by the petitioner (brake pedal to the floor along with the VSC light).

### *Discussion*

After a test drive and vehicle inspection, no actionable problem was found within the petitioner's vehicle. The braking concern reported turned out to be normal vehicle operation. Broader review of the consumer complaints reported for all variants of the subject vehicle showed no indication that either the reported jolting sensation or the brake performance concerns reported are occurring in this vehicle population at a level that would require investigative action by NHTSA.

The petitioner identified other complaints of poor braking performance and low brake pedal received by NHTSA concerning Prius models. The following recalls by Toyota were to address many of these complaints. Neither of these recalls is applicable to Ms. Powell's 2012 Prius C.

1. Recall 10V-039 March 5, 2010 – Reprogramming ABS ECU – Improve Antilock brake function over bumpy surfaces.
2. Recall 13V-235 August 7, 2013 – Replace Brake Booster / Pump assembly – Low brake pedal due to nitrogen bubble in hydraulic portion of brake system.

### **Conclusion**

In the Agency's view, additional investigation is unlikely to result in a finding that a defect related to motor vehicle safety exists. Therefore, in view of the need to allocate and prioritize NHTSA limited resources to best accomplish the Agency's safety mission, the petition is denied. This action does not constitute a finding by NHTSA that a safety-related defect does not exist. The Agency will take further action if warranted by future circumstances.

**Authority:** 49 U.S.C. 30162(d); delegations of authority at CFR 1.95 and 501.8.

Issued on:

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Nancy Lummen Lewis  
Associate Administrator for Enforcement

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