



U.S. Department  
of Transportation

**National Highway  
Traffic Safety  
Administration**

# ODI RESUME

**Investigation:** PE 10-006  
**Date Opened:** 02/03/2010  
**Investigator:** Derek Rinehardt  
**Approver:** Greg Magno  
**Subject:** Braking Performance, Hybrid Vehicle

**Date Closed:** 07/12/2010  
**Reviewer:** Jeff Quandt

## MANUFACTURER & PRODUCT INFORMATION

**Manufacturer:** TOYOTA MOTOR CORPORATION  
**Products:** Model Year 2010 Toyota Prius  
**Population:** 133,459

**Problem Description:** Consumers allege a momentary loss of braking during brake applications while traveling over an uneven road surface such as a pothole or bump in the road

## FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
<b>Complaints:</b>	1,235	192	1,427
<b>Crashes/Fires:</b>	38	24	62
<b>Injury Incidents:</b>	4	7	11
<b>Number of Injuries:</b>	4	8	12
<b>Fatality Incidents:</b>	0	0	0
<b>Other*:</b>	0	2	2

\*Description of Other: Warranty claims

## ACTION / SUMMARY INFORMATION

**Action:** Close this Preliminary Evaluation, Safety Recall 10V-039

### Summary:

The subject vehicles are the first model year of a new design generation of the Prius model line. The vehicles are powered by a hybrid drive system that uses both a regenerative braking system, which converts vehicle momentum into electrical energy to be stored in onboard batteries, and a hydraulic brake system more typical of the brake system used on non-hybrid vehicles. As is the case for other similarly designed hybrid vehicles the interaction and management of the two braking systems during ABS braking is complex and requires a sophisticated control system.

In a February 9, 2010 Defect Information Report, Toyota advised the agency of its plans to conduct a safety recall to address inconsistent brake feel and increased stopping distances that may occur during braking events requiring ABS operation, such as would occur when braking on rough or low friction road surfaces. Toyota will reprogram the ABS control unit with improved software that addresses this condition. Based on Toyota's action the investigation is closed. ODI will continue to monitor the subject vehicles' performance and will take further action as future circumstances dictate.