

**TOYOTA**  
**TOYOTA MOTOR NORTH AMERICA, INC.**

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July 18, 2006

06V-266

Mr. Daniel C. Smith  
Associate Administrator for Enforcement  
National Highway Traffic Safety Administration  
400 Seventh Street, S.W., Room 5321  
Washington, D.C. 20590

RECEIVED  
NHTSA  
JUL 19 3 29 PM '06

Re: 2001 - 2002 MY Toyota Echo and Prius  
Part 573, Defect Information Report


Dear Mr. Smith:

In accordance with the requirements of the National Traffic and Motor Vehicle Safety Act of 1966 and 49 CFR Part 573, on behalf of Toyota Motor Corporation ["TMC"], we hereby submit the attached Defect Information Report concerning a voluntary safety recall of certain Toyota Echo and Prius vehicles to address an issue with the crankshaft position sensor.

Should you have any questions about this report, please contact Mr. Chris Santucci at (202) 775-1707.

Sincerely,

TOYOTA MOTOR NORTH AMERICA, INC.

  
for Chris Tinto  
Vice President

CT:es  
Attachment

## DEFECT INFORMATION REPORT

1. Vehicle Manufacturer Name:

Toyota Motor Corporation ["TMC"]  
1, Toyota-cho, Toyota-city,  
Aichi-ken, 471-8571, Japan

Affiliated U.S. Sales Company

Toyota Motor Sales, USA, Inc. ["TMS"]  
19001 South Western Avenue, Torrance, CA 90509

2. Identification of Affected Vehicles:

Based on production records, we have determined the affected vehicle population as in the table below.

Make/ Car Line	Model Year	Manufac- turer	VIN		Production Period
			VDS	VIS	
Toyota/ Echo	2001 through 2002	TMC	AT123	0149234 - 0212637	January 31, 2001 through October 12, 2001
			AT183	0165684- 0201725	
			BT123	0149214- 0212671	
			BT183	0149297- 0203430	
Toyota/ Prius	2001 through 2002	TMC	BK12U	0024312 - 0044297	January 31, 2001 through October 12, 2001
			BK18U	0024333- 0044288	

Note: Although the involved vehicles are within the above VIN range, not all vehicles in this range were sold in the U.S.

3. Total Number of Vehicles Potentially Affected:

34,771

4. Percentage of Vehicles Estimated to Actually Experience Malfunction:

Unknown

5. Description of Problem:

Due to improper molding of the resin body of the crankshaft position sensor installed on the engine block, engine oil may penetrate the seal and enter the sensor wiring connector. In addition, the wire harness connector may not be sufficiently attached to the locking tab of the sensor wiring connector. In this condition, engine oil inside the sensor wiring connector could cause expansion due to the heat of the engine and could deform the sensor wiring connector. In the worst case, the connector may become disconnected, which could cause the engine to stall while driving and not be able to be restarted.

6. Chronology of Principal Events:

October 2003 – May 2005

Toyota received some field information which indicated that the engine had stalled and could not be restarted. Toyota began an investigation and found oil in the connector of the recovered crankshaft position sensor and identified an irregularity in the shape of the O-ring groove at the seal. Comprehensive tests were conducted using the sensor and oil, but the phenomenon could not be duplicated.

May 2005 – late June 2006

In order to identify the cause of the engine stall, Toyota inspected some vehicles which had experienced the problem. As a result, it was found that the crankshaft position sensor sent an abnormal signal only when the engine was at a hot operating temperature. Toyota also investigated the production records and found that the molding die had some damage due to an improper setting of the connector terminal before the molding of the sensor body. This could cause a dent on the sealing surface of the O-ring groove. Also, it was found that a spare molding die was used during a specific period and the shape of the locking tab of the sensor wire connector made during that period could cause the wire harness connector to be unlocked easier than those made with the permanent molding die.

As a result of the further investigation, it was discovered that if the O-ring surface had the aforementioned dent, engine oil could penetrate the seal by the repeated heating and cooling cycles in the engine compartment and could enter the sensor wire connector. In this condition, oil inside the connector could expand due to the heat of the engine, causing the wire harness connector to be deformed which could lead to a deterioration of the engagement between the locking claw and tab. Consequently, the wire harness connector could become disconnected.

Early July 2006

As a result of the investigation above, Toyota decided to conduct a voluntary safety recall of all affected vehicles.

This campaign will also be conducted in Canada, Taiwan, Europe and other countries.

7. Description of Corrective Repair Action:

All known owners of the subject vehicles will be notified by first class mail to return their vehicles to any Toyota dealer for replacement of the crankshaft position sensor.

Reimbursement Plan for pre-notification remedies

The owner letter will instruct vehicle owners that have had their crankshaft position sensor repaired for a similar condition prior to this campaign to seek reimbursement by mailing a copy of their repair order, proof-of-payment, and proof-of-ownership for reimbursement consideration.

- (i) The beginning date of the Toyota reimbursement plan will be:  
The reimbursement plan will cover repairs made no earlier than January 31, 2001, when the first vehicles were manufactured.

- (ii) The ending date of Toyota reimbursement plan will be:  
The ending date shall be at least 10 calendar days after the date on which the last owner notification was mailed, however Toyota will further review requests for reimbursement from involved vehicle owners on a case-by-case basis.
- (iii) Toyota may exclude reimbursement, if:
  - a. the pre-notification repair was not of the same type (repair, replacement, or refund of purchase price) as the recall remedy;
  - b. the pre-notification repair was not reasonably necessary to correct the defect or noncompliance that led to the recall or a manifestation of the defect or noncompliance;
  - c. the pre-notification remedy was not reasonably necessary to correct the defect or noncompliance; or;
  - d. the repair was conducted as a result of vehicle accident, debris or another reason not specifically related to the defect or noncompliance.
- (iv) Toyota will reimburse eligible customers for at least the cost of the crankshaft position sensor and the installation labor. Other costs may be reimbursed on a case-by-case basis.
- (v) Owners requesting reimbursement must submit the appropriate documentation: repair order, reason for replacement, proof-of-payment, and proof-of-ownership to Toyota for reimbursement consideration.

8. Recall Schedule:

Mailing of the owner notifications will commence in early August, 2006, and will be completed in early September, 2006.

Copies of the owner notification and dealer instructions will be submitted as soon as they are available.

9. Distributor/Dealer Notification Schedule:

Notifications to distributors/dealers will be sent in late July, 2006.