Original sent to Dealers 6/29/11

Lonnie Peterson / TMS Toyota Customer Services Product Quality and Service Support, Quality Compliance June 29, 2011

Approved By: Bob Waltz

To: All Toyota Dealers

From: Toyota Customer Services

Safety Recall B0J – (B1J) Preliminary Notice
Certain 2006 and 2007 Model Year Highlander HV Vehicles
Intelligent Power Module (IPM) Replacement
\*\*\*\*\*\*\*\*URGENT\*\*\*\*\*\*

On June 29, 2011, Toyota will file a Defect Information Report (DIR) with the National Highway Traffic Safety Administration (NHTSA) informing the agency of our intent to conduct a voluntary Safety Recall on Certain 2006 and 2007 Model Year Highlander HV Vehicles.

This preliminary information is being provided to keep you informed of the filing. Toyota is currently working on obtaining the necessary replacement parts and additional information will be provided at a later date.

#### **Condition**

The Intelligent Power Module (IPM) is located inside of the Hybrid System Inverter and contains a control board with transistors. Certain transistors on the control boards of some of the subject vehicles were inadequately soldered and could be damaged from heat caused by a large current during high-load driving. If this occurs, various warning lamps will be illuminated on the instrument panel. In most cases the vehicle will enter a fail-safe driving mode, resulting in reduced motive power in which the vehicle can still be driven for short distances. In limited instances, the fuse of the power supply circuit could blow when the transistor is damaged. If this occurs, the hybrid system will stop while the vehicle is being driven and the vehicle will coast to a stop increasing the risk of a rear collision.

## **Covered Vehicles**

- There are approximately 45,500 Highlander HV (Certain 2006 and 2007 model year) vehicles covered by this Safety Recall.
- The vehicles were produced from mid-February, 2005 through late August, 2006.

#### **Status**

- B0J ("B1J" until the remedy is launched) Preliminary Notification documents will be posted on TIS starting the morning of Wednesday, June 29, 2011. *For reference purposes* only, VINs covered by this Safety Recall will be searchable on TIS starting Wednesday morning, June 29, 2011 (Pacific Time).
- Toyota is currently working on obtaining the necessary replacement parts. Toyota anticipates it will take several months to prepare enough replacement parts.
- The remedy will involve disassembly of the Hybrid System Inverter, inspection of the IPM and replacement of the IPM based upon the inspection. As the Hybrid System Inverter has historically not been disassembled, Toyota is developing specialized instructions. These instructions will be provided before the parts become available.

#### **Interim Owner Notification**

To assure transparency with owners, Toyota will mail an Interim owner notification to owners of covered vehicles by first class mail. The *Interim* owner notification letter will advise owners: (1) of this safety recall, (2) of the fact they will receive a future notice once the replacement parts are available, (3) of what to do if they experience this condition in the interim period, and (4) actions the driver may take to minimize the possibility of this condition from occurring.

- Dealers will receive a Safety Recall Interim Dealer package in mid-July, 2011.
- Owner notification letters sent by first class mail will begin mailing in mid-July, 2011.
- The attached Dealer Daily Message will be sent to all dealerships informing them of the DIR filing.

#### **Pre-Owned Vehicles in Dealer Inventory**

Toyota generally requests that dealers do not deliver any pre-owned vehicles in dealer inventory that are covered by a Safety Recall until the vehicle has been remedied. However, in this case, until the remedy is available dealers can deliver pre-owned vehicles if they disclose to the customer that the vehicle is subject to a Safety Recall and Toyota will send them a notification when the remedy is available.

#### **Customer Handling**

For customers who have not experienced this condition but do not feel comfortable driving the vehicle:

- We request that dealers work with the customers and answer any questions they may have based on the information in the Q&A.
- In the event the customer's concerns are not alleviated, on a case-by-case basis, please refer the customer to the Customer Experience Center.

The Toyota Customer Experience Center can be reached at 1-888-270-9371 Monday through Friday, 5:00 am to 6:00 pm, or Saturday 7:00 am through 4:00 pm Pacific Time.

## **Handling of Vehicles Exhibiting this Condition**

If a customer contacts your dealership and has experienced the condition described above, please assist them by setting up an appointment to diagnose the condition.

If the condition is verified, Toyota has a very limited number of full Hybrid System Inverter assemblies available. The parts have been placed on Manual Allocation (MAC) to ensure availability in the event a customer vehicle requires replacement before the second owner notification (remedy) letter is mailed. *Please note that only the IPM will be replaced when the remedy becomes available.* 

In the event you need to order a Hybrid System Inverter assembly that has been placed on MAC, please place the order for the part and send an email to QA\_Powertrain@Toyota.com with the following information.

- Subject Line: B0J MAC Release Request (Dealer Code)
- Dealer Code
- VIN Number
- Part Number and Qty
- Order Reference Number
- Order Date
- DTC(s)
- Description of Condition

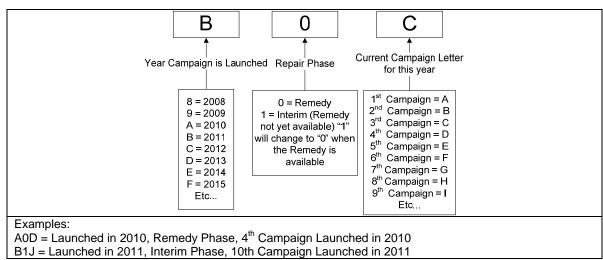
Model	Drive train	Part Number	Description	Qty
Highlander	4WD	G92A0-48080	INVERTER ASSY, HV MOTOR CONTROL	1 (As Needed)
HV	2WD	G92A0-48090	INVERTER ASSY, HV MOTOR CONTROL	1 (As Needed)

Once a representative confirms the information provided, the part will be released. If there is a concern regarding the information provided, a representative will contact the dealership. Please allow 2-3 days for part release after providing the requested information. All parts replaced for this Safety Recall are subject to Warranty Parts Recovery. Any inappropriate replacements will be subject to claim debit.

<u>Important Note:</u> Once you have placed your order DO NOT Upgrade or change your order status. Failure to provide the information listed above will result in the part not being released.

Warranty Reimbursement Procedures will be provided in the near future.

## Campaign Designation Decoder



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## **Media Contacts**

• It is imperative that all media contacts (local and national) receive a consistent message. In this regard, all media contacts must be directed to Brian Lyons (310) 468-2552 in Toyota Corporate Communications. (Please do not provide this number to customers. Please provide this contact to only media associates.)

Dealership associates that have any questions are requested to contact their District Service/Parts Manager.

Please review this preliminary notification with your staff to assure that all relevant personnel have been briefed regarding this subject.

Thank you for your cooperation.



Safety Recall B0J - (B1J) Preliminary Notice Certain 2006 and 2007 Model Year Highlander HV Vehicles Intelligent Power Module (IPM) Replacement - Q&A

#### **Background**

On June 29, 2011, Toyota will file a Defect Information Report (DIR) with the National Highway Traffic Safety Administration (NHTSA) informing the agency of our intent to conduct a voluntary Safety Recall on certain 2006 and 2007 model year Highlander HV vehicles.

<u>Toyota is currently working on obtaining the necessary replacement parts.</u> We will notify dealerships and owners again when the replacement parts are available.

#### Q1: What is the condition?

A1: The Intelligent Power Module (IPM) is located inside of the Hybrid System Inverter and contains a control board with transistors. Certain transistors on the control boards of some of the subject vehicles were inadequately soldered and could be damaged from heat caused by a large current during high-load driving. If this occurs, various warning lamps will be illuminated on the instrument panel. In most cases the vehicle will enter a fail-safe driving mode, resulting in reduced motive power in which the vehicle can still be driven for short distances. In limited instances, the fuse of the power supply circuit could blow when the transistor is damaged. If this occurs, the hybrid system will stop while the vehicle is being driven and the vehicle will coast to a stop.

## Q1a: What is the Hybrid System Inverter?

A1a: The hybrid system inverter converts high-voltage DC, stored in the HV battery, into AC for the motor generator. It also converts AC into DC during regenerative braking for storage in the HV battery.

# <u>Q2: Which Warning Lamps are illuminated on the instrument panel when the vehicle enters fail-safe driving mode?</u>

A2: All of the following warning lights and messages will be illuminated on the instrument panel when the vehicle enters the fail-safe driving mode. The fail-safe driving mode will result in reduced motive power in which the vehicle can still be driven for short distances.

	Warning lights
<u> </u>	Master Warning Light
₹ <b>3</b>	Slip Indicator
<b>₩</b> ☐	Check Engine Warning Light
(yellow indicator)	Electronically Controlled Brake System Warning Light

	Warning messages	
CHECK	Malfunction of VSC function is	
VSC SYSTEM	detected.	
CHECK	Hybrid system malfunction is	
HYBRID SYSTEM	detected.	
CHECK	All Wheel Drive system	
AWD SYSTEM	malfunction is detected.	

# Q2a: How long and what distance can a vehicle be driven when the vehicle enters fail-safe driving mode?

A2a: The distance a vehicle will continue to travel in fail-safe driving mode will vary based upon the hybrid battery state of charge and the road conditions. If a vehicle enters fail-safe driving mode, the driver should pull-over and stop the car in a safe area. The driver should immediately contact his/her local Toyota dealer for assistance.

## Q3: What is Toyota going to do?

A3: **Toyota is currently working on obtaining the necessary replacement parts.** Once the replacement parts are available, we will notify owners.

In the Interim, owners of covered vehicles will be notified by first class mail in mid-July, 2011. The interim owner notification letter will advise owners: (1) of this safety recall, (2) of the fact they will receive a future notice once the replacement parts are available, (3) of what to do if they experience this condition in the interim period, and (4) actions the driver may take to minimize the possibility of this condition from occurring.

Once the replacement parts have been produced in sufficient quantities, Toyota will send (consistent with parts availability and repair capacity) a second owner notification by first class mail advising owners to make an appointment with his/her authorized Toyota dealer to have the Intelligent Power Module inspected and if necessary replaced at **no charge**.

## Q3a: When does Toyota anticipate the second owner notification (remedy) to begin?

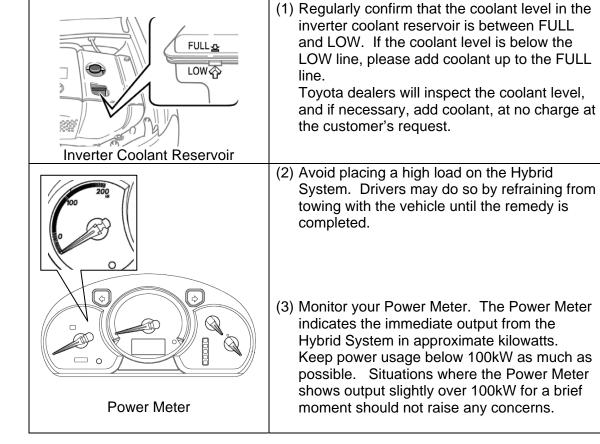
A3a: Toyota anticipates it will take several months to prepare parts in sufficient quantities.

## Q3b: What if this condition occurs before the replacement parts are available?

A3b: If this condition occurs before the replacement parts are available, the owner should contact an authorized Toyota dealership for diagnosis and an appropriate repair as soon as possible. If the problem is related to the identified condition, the repair will be performed at no charge.

# Q4: What steps can owners take to reduce the possibility of this condition from occurring prior to the availability of the remedy?

A4: Owners may take the following steps to reduce the possibility of this condition from occurring until the remedy is completed.



## Q4a: Will this condition occur if the Power Meter shows usage above 100kW?

A4a: Situations where the Power Meter shows output slightly over 100kW for a brief moment should not raise any concerns. Drivers should refrain from driving conditions where power output exceeds 100kW continuously and/or substantially. Drivers may do so by refraining from towing with the vehicle until the remedy is completed.

## Q5: Which and how many vehicles are covered?

A5: There are approximately 45,500 Toyota Highlander HV and approximately 36,700 Lexus RX 400h vehicles covered by this Safety Recall in the U.S.

Model Name	Model Year	Production Period	Number of Vehicles
Toyota	Certain 2006 and 2007	Mid February 2005 through late August	Approximately 45,500 units
Highlander HV		2006	45,500 units
	Certain 2006 and 2007	Mid February 2005	Approximately
Lexus RX 400h		through late August 2006	36,700 units

## Q5a: Are there any other Toyota or Lexus models covered by this Safety Recall?

A5a: No. There are no other Toyota or Lexus models covered by this Safety Recall.

## Q6: Have there been any reports of accidents?

A6: There have been no reports of accidents related to this condition.

# Q7: What if a customer has previously paid for repairs to their vehicle for the condition described above?

A7: Reimbursement consideration instructions will be provided in the owner letter.

## Q8: What if a customer is not willing to drive the vehicle until the remedy has been completed?

- A8: For customers who have not experienced this condition but do not feel comfortable driving the vehicle
  - We request that dealers work with the customers and answer any questions they may have based on the information in these Q&As.
  - In the event the customer's concerns are not alleviated, on a case-by-case basis, please refer the customer to the Customer Experience Center.

The Toyota Customer Experience Center can be reached at 1-888-270-9371 Monday through Friday, 5:00 am to 6:00 pm, or Saturday 7:00 am through 4:00 pm Pacific Time.

TOYOTA Fast Facts

## June 28, 2011

*Toyota Fast Facts* is an update on Toyota and industry news. Please feel free to share this information with family and friends. For more news, visit www.toyotanewsroom.com.

## 1. Toyota Announces Voluntary Safety Recall of Certain 2006 and 2007 Model Year Highlander Hybrid and RX 400h Vehicles

Toyota Motor Sales, U.S.A., Inc. today announced that it will conduct a voluntary safety recall involving approximately 45,500 Highlander Hybrid and 36,700 Lexus RX 400h vehicles sold in the U.S. No other Toyota or Lexus vehicles are involved.

The Intelligent Power Module (IPM) located inside the Hybrid System Inverter contains a control board with transistors. Certain transistors on the control boards in some of the subject vehicles were inadequately soldered and could be damaged from heat caused by a large current flow during high-load driving.

If this were to occur, various warning lamps will illuminate on the instrument panel. In most cases the vehicle will enter a fail-safe driving mode, resulting in reduced power in which the vehicle can still be driven for short distances. In limited instances, the power supply circuit fuse could blow when the transistor is damaged. If the fuse blows, the hybrid system will stop and the vehicle will coast to a stop.

Toyota is currently working on obtaining the necessary replacement parts. Once the replacement parts are available, we will notify owners. In the Interim, owners of the involved vehicles will be notified of the recall by first class mail in mid-July, 2011.

Once the replacement parts have been produced in sufficient quantities, Toyota will send a second owner notification by first class mail advising owners to make an appointment with an authorized Toyota dealer to have the IPM inspected and if necessary replaced at no charge.

Detailed information and answers to questions are available to customers at <a href="www.toyota.com/recall">www.toyota.com/recall</a> and the Toyota Customer Experience Center (1 800-331-4331) or <a href="www.lexus.com/recall">www.lexus.com/recall</a> and Lexus Customer Satisfaction (1 800-255-3987).

## 2. Toyota Announces National Expansion of Safety Program for African American and Hispanic Families

Toyota today announced a \$1 million commitment to support the national expansion of Buckle Up for Life, a safety program developed by Cincinnati Children's Hospital Medical Center, to help address the extraordinarily high number of African American and Hispanic children, teens and adults killed or injured in automobile crashes.

With this commitment, Buckle Up for Life will expand to Chicago, Denver and San Antonio in 2011/2012, to provide safety measures and education designed to greatly reduce the number of fatalities resulting from vehicle crashes within the Hispanic and African-American communities. Cincinnati Children's will

simultaneously continue to implement the program in the Greater Cincinnati community. Other key U.S. cities will follow in 2013.

To learn more, please check out the press release at <a href="http://pressroom.toyota.com/releases/toyota+national+expansion+buckle+up+safety+program+2011.htm?">http://pressroom.toyota.com/releases/toyota+national+expansion+buckle+up+safety+program+2011.htm?</a> view id=39890

## 3. Toyota Launches National Program to Help Schools, Hospitals and Community Organizations Make the Most of Every Dollar

Toyota today announced the launch of a national program to donate its Toyota Production System (TPS) expertise to help schools, hospitals and nonprofits improve their operations, extend their reach and increase their impact. The company will be working with up to 20 community organizations across the United States in the first year to help improve performance, beginning with the St. Bernard Project, a New Orleans recovery organization that employs returning war veterans, AmeriCorps members and volunteers to rebuild homes devastated by Hurricane Katrina.

Toyota's initiative to support community organizations is being led by the Toyota Production System Support Center (TSSC), which was originally established in 1992 to give back to North America by sharing the techniques of the Toyota Production System with Toyota-related suppliers and other companies nationwide. TSSC's work is focused on helping to make substantial improvements by increasing productivity, safety and quality and decreasing costs, always with a unique focus on ensuring job retention. A sought after resource for some of America's most successful for-profit companies, TSSC's expertise is now being made available more broadly to nonprofits and other community organizations.

Toyota also announced today that TSSC will now operate as a not-for-profit entity.

Toyota's commitment also builds on its long-standing focus on supporting local communities. Over the past 20 years, the company has donated more than half a billion dollars to nonprofit organizations across the U.S.

To read more, please visit the Toyota USA Newsroom at <a href="http://pressroom.toyota.com/releases/toyota+production+system+june+2011.htm">http://pressroom.toyota.com/releases/toyota+production+system+june+2011.htm</a>