



Toyota Motor Sales, U.S.A., Inc.
19001 South Western Avenue
Torrance, CA 90501
(310) 468-4000

To: All Toyota Dealer Principals, Service Managers, and Parts Managers

Subject: Safety Recall F01 – **Remedy Notice**
2012-2014 Model Year RAV4 Electric Vehicle (EV)
EV Traction Motor Assembly

On March 11, 2015, Toyota filed 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 2012-2014 Model Year RAV4 Electric Vehicles.

Toyota has completed remedy preparations and will begin notifying owners.

Condition

In the involved RAV4 EV's, components in the Electric Vehicle Traction Motor Assembly, which is part of the propulsion system, may cause the vehicle to shift to "neutral" due to a software issue. This condition will also trigger a "Check EV System" warning message on the instrument panel and turn on a malfunction indicator lamp. If the vehicle shifts to "neutral", this will result in a complete loss of drive power, which can increase the risk of a crash.

Remedy

Toyota dealers will update the drive inverter ECU software. This update will be performed at **No Charge** to the vehicle's owner. For additional information on the remedy procedures, please refer to TIS.

This following information is being provided to keep you informed of the filing and your degree of involvement.

1. Owner Letter Mailing Date

Toyota has completed remedy preparations and will begin to notify owners in early September, 2015.

Toyota makes significant effort to obtain current customer name and address information when mailing owner letters. In the event your dealership receives a notice for a vehicle that was sold prior to the Safety Recall announcement, it is the dealership's responsibility to forward the owner letter to the customer who purchased the vehicle.

Please note that only owners of the covered vehicles will be notified. If a dealer is contacted by an owner who has not yet received the notification, please instruct the dealer to **verify coverage by confirming through TIS**. Dealers should perform the procedure as outlined in the Technical Instructions located on TIS.

2. Pre-Owned Vehicles in Dealer Inventory

Toyota requests that dealers do not deliver any pre-owned vehicles in dealer inventory that are covered by a Safety Recall unless the vehicle has been remedied.

Also, as a reminder, Toyota Certified Used Vehicle (TCUV) policy prohibits the certification of any vehicle with an outstanding Special Service Campaign or Safety Recall. Thus, no affected units should be sold or delivered as a TCUV until the Safety Recall has been completed on that vehicle.

3. **Number and Identification of Covered Vehicles**

There are approximately 2,500 vehicles covered by this Safety Recall in the U.S.

Model	Model Year	Production Period	Approx. UIO
RAV4 EV	2012-2014	July 2012 through August 2014	2,500

Please note that only owners of the covered vehicles will be notified. If a dealer is contacted by an owner who has not yet received the notification, please instruct the dealer to **verify coverage by confirming through TIS**. Dealers should perform the procedure as outlined in the Technical Instructions located on TIS.

4. **Parts Ordering**

Because this Safety Recall involves only a software update, no service parts are required. Please refer to the Technical Instructions located on TIS for additional details.

5. **Campaign Special Service Tools**

Authorized RAV4 EV selling dealers have the required EV HV Powertrain Diagnostic Cable Kit needed to perform the remedy procedure. If you are not a selling dealer or you do not have the EV HV Powertrain Diagnostic Cable Kit, please contact your region representative.

6. **Technician Training Requirements**

The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this repair are required to successfully complete the most current version of the E-Learning course "Safety Recall and Service Campaign Essentials". To ensure that all vehicles have the repair performed correctly; technicians performing this repair are required to currently hold the following certification levels and attended the following instructor led class:

- **Hybrid Expert Technician**
- **Master Technician**
- **Master Diagnostic Technician**

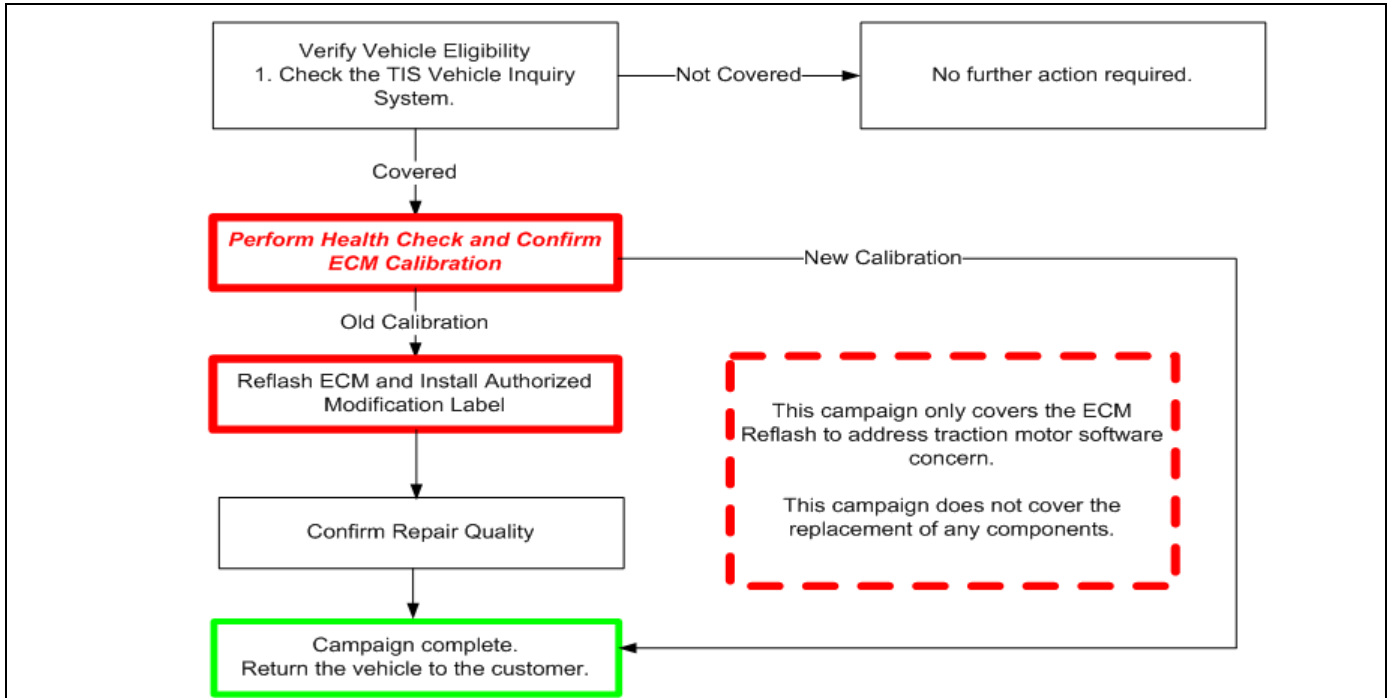
- **Rav4 EV New Model Technical Introduction (Course 012D- Instructor Led)**

It is the dealership's responsibility to select technicians with the above certification level or greater to perform this Safety Recall repair. Carefully review your resources, the technician skill level, and ability before assigning technicians to this repair. It is important to consider technician days off and vacation schedules to ensure there are properly trained technicians available to perform this repair at all times.

7. **Remedy Procedure**

Please refer to TIS for Technical Instructions on the repair process. Conduct all applicable, non-completed Safety Recall and Service Campaigns on the vehicle during the time of appointment.

8. Warranty Reimbursement Procedure



Model	Op. Code	Description	Flat Rate Hour
RAV4 EV	BGG14A	Perform Software Update to the Drive Inverter ECU	0.4 hr/vehicle

- The flat rate times include 0.1 hours for administrative cost per unit for the dealership.
- Note: Warranty claim filing will be available starting Tuesday, September 1, 2015.

9. Repair Quality Confirmation

The repair quality of covered vehicles is extremely important to Toyota. To help ensure that all vehicles have the repair performed correctly, please designate at least one associate (someone other than the individual who performed the repair) to verify the repair quality of every vehicle prior to customer delivery.

10. Media Contacts

If you are a dealership associate and have any questions, please contact your District Service/Parts Manager. ***In the event you are contacted by the News media***, it is imperative that all media contacts (local and national) receive a consistent message. In this regard, all media contacts must be directed to Cindy Knight (310) 468-2170 in Toyota Corporate Communications. (Please do not provide this number to customers.)

11. Customer Contacts

A FAQ is attached to help respond to any customer concerns. If the customer has any further questions, they are requested to contact the Toyota 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 to 4:00 pm Pacific Time.

Please note the attached FAQ is published on the www.Toyota.com website for customer viewing.

Please review this entire package with your Service and Parts staff to familiarize them with the proper step-by-step procedures required to implement this Safety Recall.

Thank you for your cooperation.
TOYOTA MOTOR SALES, U.S.A., INC.



Safety Recall F01 – Remedy Available
2012-2014 Model Year RAV4 Electric Vehicle (EV)
EV Traction Motor Assembly

Customer Frequently Asked Questions

Published late August, 2015

We at Toyota care greatly about your safety. We are providing the following information to keep you informed of the recall details. Please check back frequently as this document will be updated.

Q1: What is the condition?

A1: In the involved RAV4 EV's, components in the Electric Vehicle Traction Motor Assembly, which is part of the propulsion system, may cause the vehicle to shift to "neutral" due to a software issue. This condition will also trigger a "Check EV System" warning message on the instrument panel and turn on a malfunction indicator lamp. If the vehicle shifts to "neutral", this will result in a complete loss of drive power, which can increase the risk of a crash.

Q1a: What is the Electric Vehicle (EV) Traction Motor Assembly?

A1a: The Electric Vehicle (EV) Traction Motor Assembly is part of the propulsion system, which contains a drive inverter, electric motor, shift control actuator, speed sensor, and transaxle assembly. The assembly as a whole receives input signals from various sources (such as the accelerator pedal) to determine the necessary speed and power of the vehicle. The EV Traction Motor Assembly then uses energy from the battery to provide power at the drive wheels.

The EV Traction Motor Assembly also acts as a generator to produce high-voltage electricity to recharge the EV battery assembly. This is done when the vehicle is in motion and the driver depresses the brake pedal or releases the accelerator pedal.

Q2: What is the cause of this condition?

A2: The speed sensor detects the electric motor speed and rotational position, and sends this information as a signal to the drive inverter ECU. Due to a software issue, the drive inverter ECU may not be able to determine the rotational position of the motor, which causes a speed sensor error code, causing the vehicle to shift to "neutral".

Q3: Are there any warnings or indicators before this condition occurs?

A3: There are no advanced warnings prior to the existence of this condition. However, if the condition is present, one or more of the following could occur:

- Display of the "Check EV System" warning message
- Illumination of the Malfunction Indicator Light (MIL)
- Loss of drive power

Q4: What if I experience the condition before the remedy is available?

A4: If you experience the condition or warnings described above, please stop the vehicle in a safe manner and contact your local authorized Toyota dealer for diagnosis and repair. If the condition is related to this Safety Recall, the repair will be performed at **No Charge** to you.

In regards to the Malfunction Indicator Light (MIL) please note: During normal operating conditions the MIL is designed to come on when the "POWER" switch is turned to the "ON" mode during the system cycle check, and then it goes off after the EV system is started, or after few seconds. The MIL turning off after the check period means the system is operating as designed. If the MIL illuminates or remains illuminated after the few second check period, please contact your local authorized Toyota dealer for diagnosis and appropriate repair. If the MIL illumination is related to the condition covered by this Safety Recall, the repair will be performed at **no charge** to you.

Q4a: Can my vehicle be driven if this condition occurs?

A4a: Due to the possibility of a loss of drive power, Toyota does not recommend the vehicle be driven if this condition occurs.

Q5: What is Toyota going to do?

A5: In early September, 2015, Toyota will begin mailing owner notification letters by first class mail to owners of vehicles covered by this Safety Recall.

Toyota dealers will update the drive inverter ECU software. This update will be performed at **NO CHARGE** to the customer.

Q5a: How does Toyota obtain my mailing information?

A5a: Toyota uses an industry provider who works with each state's Department of Motor Vehicles (DMV) to receive registration or title information, based upon the DMV records. Please make sure your registration or title information is correct.

Q6: Which and how many vehicles are covered by this Safety Recall?

A6: There are approximately 2,500 vehicles covered by this Safety Recall in the U.S.

Model	Model Year	Production Period	Approx. UIO
RAV4 EV	2012-2014	July 2012 through August 2014	2,500

Q6a: Are there any other Toyota, Lexus or Scion vehicles covered by this Safety Recall in the U.S.?

A6a: No, there are no other Toyota, Lexus, or Scion vehicles covered by this Safety Recall.

Q7: What if I have additional questions or concerns?

A7: If you have additional questions or concerns, please contact the Toyota Customer Experience Center 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.

2012-2014 Model Year RAV4 Electric Vehicle (EV)
EV Traction Motor Assembly
SAFETY RECALL NOTICE (Remedy Notice)
[VIN]

URGENT SAFETY RECALL
This is an important Safety Recall.
The remedy will be performed at
NO CHARGE to you.

Dear Toyota Customer:

This notice is being sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. Toyota has decided that a defect, which relates to motor vehicle safety, exists in 2012-2014 Model Year RAV4 Electric Vehicles (EV).

You received this notice because our records, which are based primarily on state registration and title data, indicate that you are the current owner.

What is the condition?

The Electric Vehicle Traction Motor Assembly, which is part of the propulsion system, may cause the vehicle to shift to “neutral” due to a software issue. This condition will also trigger a “Check EV System” warning message on the instrument panel and turn on a Malfunction Indicator Lamp (MIL). If the vehicle shifts to “neutral”, this will result in a complete loss of drive power, which can increase the risk of a crash.

What will Toyota do?

Any authorized Toyota dealer will update the software at **NO CHARGE** to you.

What should you do?

This is an important Safety Recall

Toyota strongly recommends that you have this remedy performed immediately. Please contact any authorized Toyota dealer to schedule an appointment. If you are uncomfortable driving the vehicle to the dealership, please contact your local authorized Toyota dealer who will arrange for vehicle pick up.

The repair will take approximately 30 minutes. However, depending on the dealer’s work schedule, it may be necessary to make your vehicle available for a longer period of time.

If you experience the condition or warnings described above, please stop the vehicle in a safe manner and contact your local authorized Toyota dealer for diagnosis and repair. Due to the possibility of a loss of drive power, Toyota does not recommend the vehicle be driven if this condition occurs. If the condition is related to this Safety Recall, the repair will be performed at **No Charge** to you.

During normal operating conditions the MIL is designed to come on when the “POWER” switch is turned to the “ON” mode during the system cycle check, and then it goes off after the EV system is started, or after few seconds. The MIL turning off after the check period means the system is operating as designed. If the MIL illuminates or remains illuminated after the few second check period, please contact your local authorized Toyota dealer for diagnosis and appropriate repair.

Please note that the MIL could illuminate for reasons unrelated to this condition.

If you would like to update your vehicle ownership or contact information, you may do so by registering at www.toyota.com/ownersupdate. You will need your full 17-digit Vehicle Identification Number (VIN) to input the new information.

What if you have other questions?

- **Your local Toyota dealer will be more than happy to answer any of your questions.**
- If you require further assistance, you may contact the Toyota Customer Experience Center at 1-888-270-9371 Monday through Friday, 5:00 am to 6:00 pm, Saturday 7:00 am through 4:00 pm Pacific Time.

If you believe that the dealer or Toyota has failed or is unable to remedy the defect within a reasonable time, you may submit a complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue S.E., Washington, D.C. 20590, or call the toll free Vehicle Safety Hot Line at 1-888-327-4236 (TTY: 1-800-424-9153), or go to <http://www.safercar.gov>.

If you are a vehicle lessor, Federal Law requires that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within ten days.

We have sent this notice in the interest of your continued satisfaction with our products, and we sincerely regret any inconvenience this condition may have caused you.

Thank you for driving a Toyota.

Sincerely,

TOYOTA MOTOR SALES, U.S.A., INC.

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