

# ECU Software Update: Charging System Improvement

**Service Category** Engine/Hybrid System

**Section** Hybrid/Battery Control System

**Market** USA

Toyota Supports  
ASE Certification



## Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2012	RAV4 EV	

### REVISION NOTICE

**July 29, 2013 Rev1:**

- The **Warranty Information** and **Calibration Information** sections have been updated.
- Any previous printed versions of this bulletin should be discarded.

## Introduction

The EV Gateway Control ECU logic has been updated to improve vehicle operation and charging timer operation. Use the following procedure to reprogram the ECU.

## Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
EL1310	Reprogram EV Gateway Control ECU	0.5	89881-0R011	99	99

### APPLICABLE WARRANTY

- This repair is covered under the **Toyota Powertrain Warranty**. This warranty is in effect for **60 months or 60,000 miles, whichever occurs first, from the vehicle's in-service date.**
- **Warranty application is limited to occurrence of the specified condition described in this bulletin.**

## Calibration Information

MODEL	PREVIOUS CALIBRATION ID	NEW CALIBRATION ID
RAV4 EV	1.3.57	1.3.62

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### Parts Information

PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
89881-0R011	Same	Computer, EV Gateway Control	-
00451-00001-LBL	Same	Authorized Modification Labels	1

#### NOTE

- The ECU should NOT be replaced as part of the repair procedure.
- Authorized Modification Labels may be ordered in packages of 25 from the Materials Distribution Center (MDC) through *Dealer Daily – Dealer Support Materials Orders*.

### Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
Techstream 2.0*	ADE	TS2UNIT	1

#### NOTE

- Only Techstream 2.0 should be used for this update.
- Techstream Software version 8.20.019 or later is required.
- Tesla Powertrain Service Diagnostic Software version 0.5.23 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
GR8 Battery Diagnostic Station*	<u>00002-MCGR8</u>	1
EV HV Powertrain Diagnostic Cable Kit**	82824-36150-01	1

#### NOTE

Additional SSTs may be ordered by calling 1-800-933-8335.

\* Essential SST.

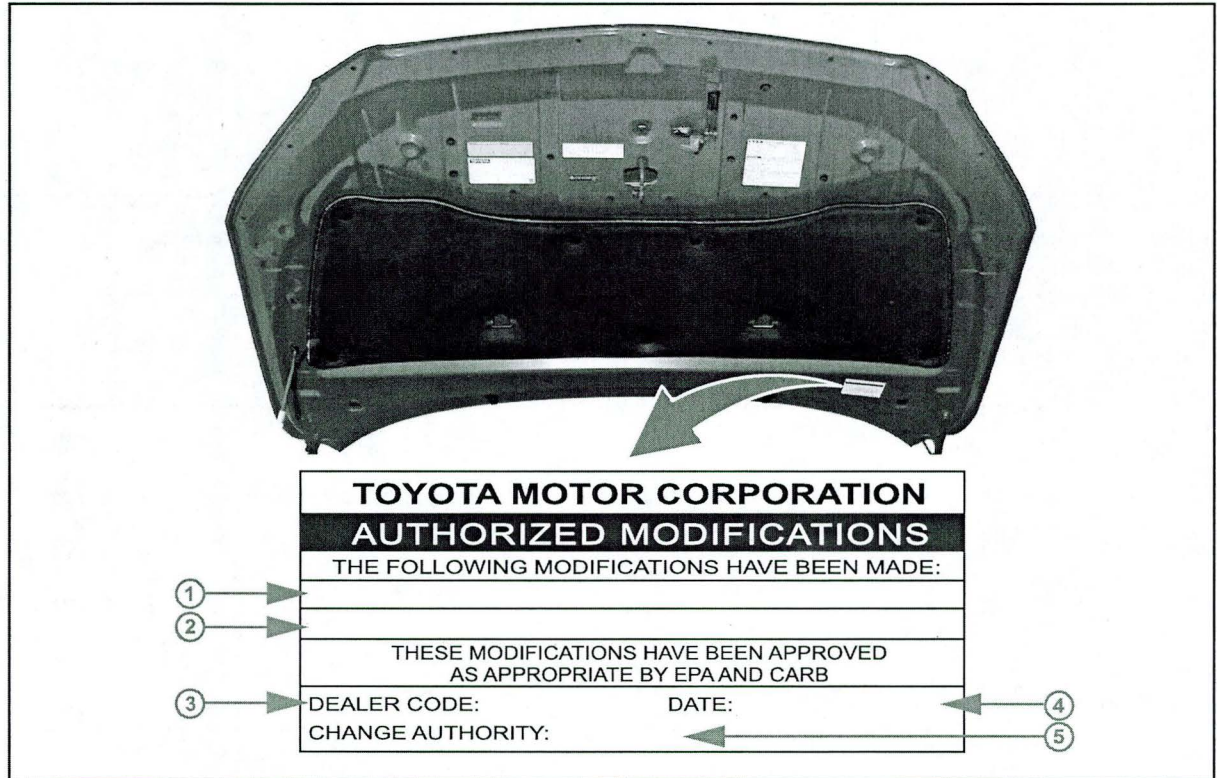
\*\* Special order.

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## Repair Procedure

1. Check for the Authorized Modifications Label affixed to the vehicle in the location shown in Figure 1. Confirm if the ECU calibration has been updated. If the calibration ID listed is NOT the latest ECU calibration — go to step 2.

Figure 1. Location of Authorized Modifications Label on 2012 RAV4 EV



1	Replacement ECU Part Number (i.e., 89881-0R011)
2	New Calibration ID(s) (i.e., 1.3.62)
3	Dealer Code

4	Date Completed
5	This SB Number



## ECU Software Update: Charging System Improvement

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### Repair Procedure (Continued)

2. Flash reprogram the EV Gateway Control ECU.

#### NOTE

- The GR8 Battery Diagnostic Station **MUST** be used in Power Supply Mode to maintain battery voltage at 13.5 volts while flash reprogramming the vehicle.
- For details on how to use the GR8 Battery Diagnostic Station, refer to the GR8 Instruction Manual located on the Technical Information System (TIS), *Diagnostics – Tools & Equipment – Battery Diagnostics*.

Follow the procedures outlined in Service Bulletin No. T-SB-0043-13, "RAV4 EV ECU Flash Reprogramming Procedure", and flash reprogram the ECU with the NEW calibration file update.

3. Install the Authorized Modifications Label.
  - A. Using a permanent marker, enter the following information on the label:
    - ECU part number [Refer to the **Parts Information** section for the **CURRENT PART NUMBER**]
    - Calibration ID(s) [Refer to the **Calibration Information** chart for the **NEW CALIBRATION ID**]
    - Dealer Code
    - Repair Date
    - Change Authority [**This SB number**]
  - B. Affix the Authorized Modifications Label to the vehicle at the location shown in Figure 1. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.
4. Test drive the vehicle to confirm proper vehicle operation.



# TOYOTA VENZA

## 2014 PRE-DELIVERY SERVICE CHECK SHEET

July 2013

### BEFORE INSPECTION

01 Install antenna .....

### FUNCTIONAL OPERATION

Apply parking brake and cycle ignition "IG-ON"; place gear selector in reverse; turn on lights and rear defogger. Unlock doors; release fuel door.

- 01 Check dome, courtesy, map, and sun visor lights\* .....
- 02 Check warning/indicator lights, gauges, and horn .....
- 03 Check windshield wipers and washers .....
- 04 Check headlights, instrument lights, turn signals, emergency flashers, and brake lights .....
- 05 Check inside/outside rear view mirror operation/adjustment .....
- 06 Check cigarette lighter\* and power outlets .....
- 07 Check audio/navigation\*/backup camera\* systems and set clock .....
- 08 Verify Entune/Navigation software version (Display Audio, Non-HDD Type only)\* .....
- 09 Check sliding roof\* .....
- 10 Install shift-lock override button cover .....
- 11 Check Rear Seat Entertainment System operation\* .....

### WALKAROUND INSPECTION

Start at left front door. Check window and door lock operation (from master power switch, if equipped). Continue around vehicle in a counterclockwise direction checking each door and window operation, child door locks, seat belts, interior condition, all lights, luggage compartment contents. Finish by checking headlight aim and continue into UNDER HOOD checks.

- 01 Check Smart Key System\* .....
- 02 Check door and door lock operation, including each wireless remote control/theft deterrent system\* .....
- 03 Check window operation .....
- 04 Check that engine starts with all keys .....
- 05 Check that child safety door locks are in normal (unlocked) position .....
- 06 Check seats and seat belt operation .....
- 07 Check rear defogger/rear view mirror defogger\* .....
- 08 Check side marker, tail, backup, and license plate lights .....
- 09 Check luggage compartment light\* and trim appearance .....
- 10 Adjust spare tire pressure, inspect for damage, and check jack and tool installation .....
- 11 Check headlight aim .....

### UNDER HOOD

- 01 Check engine oil level .....
- 02 Check brake fluid level .....
- 03 Check engine coolant level .....
- 04 Check windshield washer fluid level .....
- 05 Check battery state-of-charge using Digital Battery System Analyzer (SOC Reading: \_\_\_\_\_ %) .....
- 06 Inspect for fuel, oil, coolant, and other fluid leaks .....

### UNDER VEHICLE (ON HOIST)

- 01 Remove disc brake anti-rust covers/anti-corrosion wheel film\* .....
- 02 Inspect tires for defects/damage .....
- 03 Verify Tire Pressure Warning System (TPWS) (see page 2) .....
- 04 Install wheel covers/caps/spare tire wheel covers\* .....
- 05 Inspect for fuel, oil, coolant, and other fluid leaks .....
- 06 Inspect under the vehicle for damage, rust, etc. ....
- 07 Visually check bolts and nuts on chassis and powertrain for looseness .....
- 08 Install rubber body plugs\* (stored in glove box or center console) .....

### ROAD TEST

A complete road test helps assure customer satisfaction. Drive vehicle over a variety of road surfaces and driving conditions. Check for unusual noise and driving performance.

Enter Odometer Readings  
Reading Before Test: \_\_\_\_\_ Reading After Test: \_\_\_\_\_

- 01 Check cold engine operation .....
- 02 Check engine operation during warm-up .....
- 03 Check engine at normal operating temperature .....
- 04 Check automatic transmission operation .....
- 05 Check brake and parking brake operation .....
- 06 Check steering operation & off-center/vehicle pull/flutter .....
- 07 Inspect for abnormal noise and vibration .....
- 08 Inspect for squeaks and rattles .....
- 09 Check front and rear\* heater and A/C operation .....
- 10 Check cruise control operation\* .....
- 11 Check front seat heater/ventilation operation\* .....
- 12 Set/calibrate compass\* (see page 2) .....

### FINAL INSPECTION AND CLEANING

- 01 Remove interior protective covers, unnecessary labels, tags, etc. (Remove just before delivery to customer) .....
- 02 Visually inspect all interior parts for installation, damage, fit, dirt, etc. ....
- 03 Verify floor mat application and install using retaining clips\* .....
- 04 Remove Rappard™ and clear protective bumper film\* ....
- 05 Wash and clean vehicle .....
- 06 Inspect paint finish for scratches, chips, rust, dents, damage, etc. ....
- 07 Inspect exterior body parts for proper installation, damage, rust, etc. ....
- 08 Place oil change sticker on inside of windshield, top left corner .....
- 09 Place Owner's Guide & first aid kit portfolio\* in glove box .....
- 10 Perform Techstream Health Check .....
- 11 Install front license plate and mounting bracket\* (see page 2) .....

\* Inspect or install when equipped/required.

Completion and retention of this form is required to comply with Toyota's Warranty Policy.

TECHNICIAN'S SIGNATURE \_\_\_\_\_ SERVICE MANAGER'S SIGNATURE \_\_\_\_\_  
 NAME (PLEASE PRINT) \_\_\_\_\_ NAME (PLEASE PRINT) \_\_\_\_\_

*We hereby certify that all items on this form have been checked and corrected for proper operation as required.*

Date \_\_\_\_\_ Dealer Name \_\_\_\_\_ Dealer Code \_\_\_\_\_ Vehicle Identification Number (Sticker) \_\_\_\_\_

## TPWS VERIFICATION

1. Connect Techstream to DLC3.
2. Adjust all tires (except the spare tire) to the standard tire inflation pressure, as indicated on the tire and loading information label on the vehicle.
3. Cycle the ignition switch to the "IG-ON" mode.

### NOTE

To adjust the tire pressure correctly when the outside temperature is significantly colder than shop temperature, perform a Health Check using Techstream and select the "Compensation Tire Pressure" checkbox. Compensation pressures will be displayed on the Health Check results screen. Adjust the tire pressure when the tires are cold.

4. Check the tire pressure of all tires using Techstream. If the tire pressure values cannot be displayed, the system is not operating properly. Refer to the Repair Manual.
5. Remove the ID number labels that are attached to each wheel and discard.

### NOTE

If the tire pressure values are not properly displayed (example: showing -14 psi, -100 kPa, etc.) the data from the transmitter has not been received.

## COMPASS CALIBRATION

Refer to the Repair Manual for the Calibration procedure for vehicles equipped with a compass in the rear view mirror.

### NOTE

- Do NOT perform calibration of the compass in a place where the Earth's magnetic field is subject to interference (underground parking, under a steel tower, between buildings, roof parking, near a railroad crossing, near a large vehicle, etc.).
- During calibration, do NOT operate electric systems (moon roof, power windows, etc.) as they may interfere with the calibration.

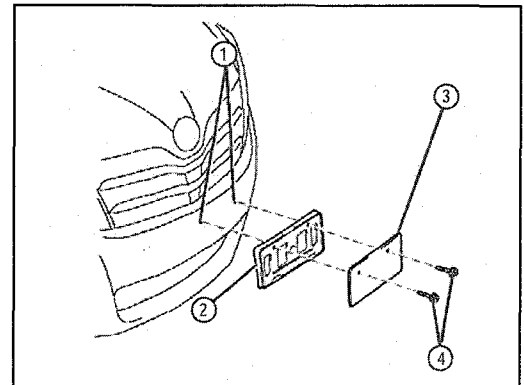
## FRONT LICENSE PLATE AND MOUNTING BRACKET INSTALLATION\*

Front License Plate Bracket: P/N 75101-0T010

1. Insert the front license plate into the mounting bracket.
2. Align the installation holes on the mounting bracket and front license plate with the dimples on the front bumper.
3. Screw in the 2 self-tapping screws directly into the dimples to install the front license plate and mounting bracket.

### NOTICE

- Do NOT pre-drill holes into the bumper.
- Do NOT overtighten the self-tapping screws.



- 1 Dimples
- 2 Front License Plate Mounting Bracket
- 3 License Plate
- 4 Self-Tapping Screws