

Vehicle Refueling Performance

Service Category Engine/Hybrid System

Section Fuel System

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2019 - 2021	RAV4 HV	

REVISION NOTICE

March 03, 2021 Rev1:

- **Applicability has been updated to include 2021 model year Rav4 Hybrid vehicles.**
 - **The Introduction, Production Change Information, and Warranty sections have been updated.**
- Any previous printed versions of this bulletin should be discarded.**

NOTE

This Service Bulletin ONLY applies to vehicles in Campaign Publications [20TE04](#), [20TE05](#), and [20TE06](#).

Introduction

Some 2019 – 2021 model year RAV4 Hybrid vehicles may experience one or both of the following conditions:

- The fuel gauge displays less than full when the fuel nozzle automatically clicks off.
- The total amount of fuel dispensed while refueling is less than expected when the fuel nozzle automatically clicks off.

Additionally, the distance to empty mileage displayed on the Multi-Information Display (MID) may be less than expected. To address these concerns a new fuel tank and fuel sender gauge were developed. Based on production location and timing, some vehicles may already have the updated fuel tank and/or fuel sender gauge installed. In cases where these vehicles exhibit this condition only replace the necessary pre-countermeasure part. Refer to the Production Change Information section in this bulletin to identify which group the vehicle belongs to and follow the Repair Procedure in this bulletin to address these conditions.

Vehicle Refueling Performance

Production Change Information

This bulletin applies to vehicles according to the Production Change Effective information shown below:

- For vehicles produced **BEFORE** the Production Change Effective VINs shown below, replace the fuel tank AND the fuel sender gauge.

Table 1.

MODEL	PLANT	PRODUCTION CHANGE EFFECTIVE VIN
RAV4 HV	Takaoka	JTMDWRFV#LJ042767 JTMEWRFV#LJ043478 JTMRWRFV#LJ042712
	Shokki No.1	JTMDWRFV#LD063538 JTMLWRFV#LD063513 JTMMWRFV#LD063544 JTMRWRFV#LD063546
	Shokki No.2	JTMDWRFV#LD542643 JTMEWRFV#LD542533 JTMLWRFV#LD541626 JTMMWRFV#LD542518 JTMRWRFV#LD542634
	TMMC	2T3B6RFV#MW004318 2T3D6RFV#MW004350 2T3DWRFV#LW099373 2T3E6RFV#MW004417 2T3EWRV#LW099807 2T3L6RFV#MW004452 2T3LWRFV#LW099854 2T3M6RFV#MW004442 2T3MWRV#LW099038 2T3R6RFV#MW004448 2T3RWRFV#LW099982
	TMMK	4T3D6RFV#MU013758 4T3DWRFV#LU010840 4T3E6RFV#MU013711 4T3EWRV#LU010841 4T3L6RFV#MU013680 4T3LWRFV#LU010839 4T3M6RFV#MU013770 4T3MWRV#LU010796 4T3R6RFV#MU013779

Vehicle Refueling Performance

Production Change Information (continued)

This bulletin applies to vehicles produced **BETWEEN** the Production Change Effective VINs shown below:

- For vehicles produced **BETWEEN** the Production Change Effective VIN ranges shown below, replace the fuel sender gauge **ONLY**.

Table 2.

MODEL	PLANT	PRODUCTION CHANGE EFFECTIVE VIN
RAV4 HV	Takaoka	JTME6RFV#LJ001004 – JTME6RFV#LJ002042 JTMR6RFV#LJ001026 – JTMR6RFV#LJ002048 JTMD6RFV#LJ001976 – JTMD6RFV#LJ002051 JTMEWRFV#LJ043345 – JTMEWRFV#LJ050080 JTMDWRFV#LJ043912 – JTMDWRFV#LJ050071 JTMRWRFV#LJ045070 – JTMRWRFV#LJ050248
	Shokki No. 1	JTMD6RFV#LD001003 – JTMD6RFV#LD004832 JTMM6RFV#LD001004 – JTMM6RFV#LD004805 JTMR6RFV#LD001005 – JTMR6RFV#LD004834 JTML6RFV#LD001069 – JTML6RFV#LD004800 JTMMWRFV#LD063545 – JTMMWRFV#LD073405 JTMRWRFV#LD063550 – JTMRWRFV#LD073417 JTMDWRFV#LD063578 – JTMDWRFV#LD073244 JTMLWRFV#LD063751 – JTMLWRFV#LD073356
	Shokki No. 2	JTME6RFV#LD500001 – JTME6RFV#LD502075 JTMD6RFV#LD500003 – JTMD6RFV#LD501845 JTMEWRFV#LD542534 – JTMEWRFV#LD551353 JTMMWRFV#LD542641 – JTMMWRFV#LD551354 JTMDWRFV#LD542646 – JTMDWRFV#LD551352 JTMRWRFV#LD542654 – JTMRWRFV#LD551358 JTMLWRFV#LD542947 – JTMLWRFV#LD551314

Vehicle Refueling Performance

Production Change Information (continued)

This bulletin applies to vehicles produced **BETWEEN** the Production Change Effective VINs shown below:

- For vehicles produced **BETWEEN** the Production Change Effective VIN ranges shown below, replace the fuel tank **ONLY**.

Table 3.

MODEL	PLANT	PRODUCTION CHANGE EFFECTIVE VIN
RAV4 HV	TMMC	2T3B6RFV#MW004523 – 2T3B6RFV#MW006727
		2T3D6RFV#MW005898 – 2T3D6RFV#MW006712
		2T3E6RFV#MW004421 – 2T3E6RFV#MW006699
		2T3L6RFV#MW004463 – 2T3L6RFV#MW006633
		2T3M6RFV#MW004467 – 2T3M6RFV#MW006715
		2T3R6RFV#MW004440 – 2T3R6RFV#MW006730
	TMMK	4T3B6RFV#MU013756 – 4T3B6RFV#MU017850
		4T3D6RFV#MU013605 – 4T3D6RFV#MU017846
		4T3E6RFV#MU013720 – 4T3E6RFV#MU017758
		4T3L6RFV#MU013785 – 4T3L6RFV#MU017829
		4T3M6RFV#MU013761 – 4T3M6RFV#MU017825
		4T3R6RFV#MU013724 – 4T3R6RFV#MU017853

Warranty Information

NOTE

Refer to Campaign Publications [20TE04](#), [20TE05](#), and [20TE06](#) for warranty applicability and claim filing instructions.

Vehicle Refueling Performance

Parts Information

PART NUMBER		PART NAME	QTY
PREVIOUS	NEW		
77001-0R100 77001-42320	04000-15142	Tank Sub-assy, Fuel SSP Kit	1
83320-0R050 83320-42100	04000-16142	Gauge Assy, Fuel Sender	1
04000-15247		Gasket, Fuel Suction Tube Set SSP Kit*	1

*The Gasket, Fuel Suction Tube Set SSP Kit includes the fuel suction gasket and two seat cushion hooks.

Required Tools & Equipment

SPECIAL SERVICE TOOLS (SST) & EQUIPMENT	PART NUMBER	QTY
Fuel Sender Lock Nut Wrench Set*	09808-14031-KIT	1
Gas Caddy	-	1
Support Columns**		-

*Essential SST.

**Support Columns are supplied as part of Campaign Publication No. [20TA02](#) *Safety Recall 20TA02 (Remedy Notice): Multiple Models and Model Years; Vehicle May Stall During Driving at Higher Speed (Technical Instructions)*.

NOTE

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

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
Techstream ADVI*	ADE	TSADVUNIT	1
Techstream 2.0		TS2UNIT	
Techstream Lite		TSLITEPDLR01	
Techstream Lite (Green Cable)		TSLP2DLR01	

*Essential SST.

NOTE

- Only ONE of the Techstream units listed above is required.
- Software version 15.30.027 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.

Vehicle Refueling Performance

Repair Procedure

1. Confirm the customer refueled the vehicle just BEFORE the inspection.

2. Using Techstream, check the fuel input reading by using the combination meter data list. Is the fuel input level less than 12.6 gallons?
 - **YES** — Continue to step 3.
 - **NO** — Go to step 5.

3. Take the vehicle to a gas station and refuel with the trigger fully depressed until the fuel nozzle automatically clicks off.

4. Using Techstream, check the fuel input reading by using the combination meter data list. Is the fuel input level less than 12.6 gallons?
 - **YES** — Go to step 8.
 - **NO** — Continue to step 5.

5. Does the customer complaint include the refueling amount being less than expected?
 - **YES** — Continue to step 6.
 - **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

6. Drain 9.8 gallons of fuel into a measurable container using Techstream Fuel Pump Active Test, which can be found by entering the following menus: *Engine – Active Test – Fuel Pump*.

Vehicle Refueling Performance

Repair Procedure (continued)

7. Perform a meter reset and ensure the low fuel light is illuminated.

NOTICE

Ensure the vehicles is on level ground BEFORE performing meter reset.

- A. Use the odometer or trip button to change the meter display to odometer.
- B. Turn the vehicle OFF.
- C. Hold the odometer or trip button and turn the ignition to the IG-ON position (NOT engine ON).
- D. Continue holding the odometer or trip button for approximately five seconds. The odometer mileage will flash to confirm the reset was successful.
- E. Is the low fuel light illuminated?
 - **YES** — Continue to step 8.
 - **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

NOTE

If this bulletin does NOT apply, refuel the vehicle with the drained fuel AFTER the diagnosis is complete.

8. Based on the Production Change Information section, determine whether the fuel sender gauge, fuel tank, or fuel sender gauge AND fuel tank need to be replaced.
 - If the fuel sender gauge needs to be replaced continue to the [Fuel Sender Gauge Replacement](#) subsection.
 - If the fuel tank needs to be replaced go to the [Fuel Tank Replacement](#) subsection. If the fuel sender gauge AND the fuel tank need to be replaced, continue to the [Fuel Sender Gauge Replacement](#) subsection.

Vehicle Refueling Performance

Repair Procedure (continued)

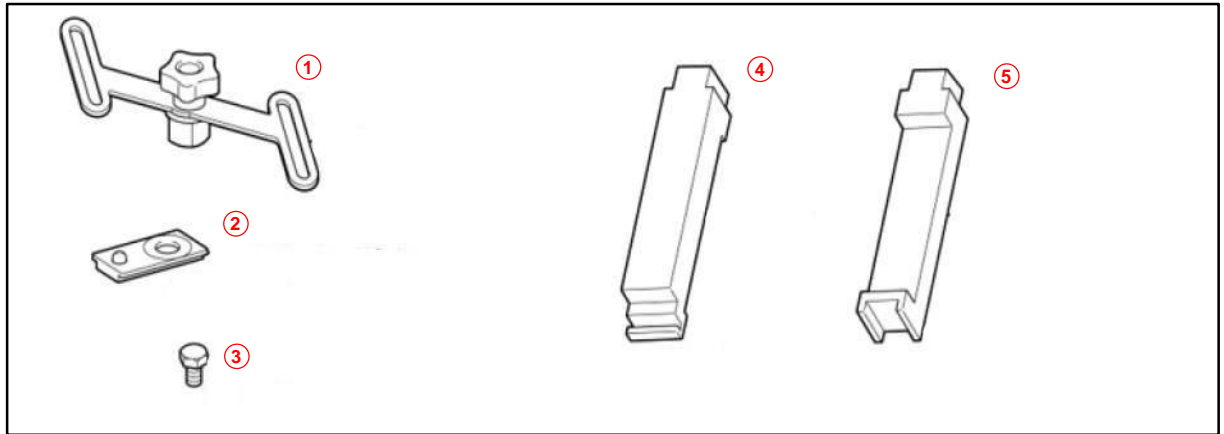
Fuel Sender Gauge Replacement

1. Remove the fuel sender gauge.

NOTICE

- Do NOT damage the wire harness.
- Do NOT damage the cam lock retainers.
- When disengaging each wire harness from the clamp, disengage one wire at a time.
- Be sure to use the tools outlined for cam lock retainers in Campaign Publication No. [20TA02 Safety Recall 20TA02 \(Remedy Notice\): Multiple Models and Model Years; Vehicle May Stall During Driving at Higher Speed \(Technical Instructions\)](#).

Figure 1.



1	Adjuster
2	Adjuster Plate (Four)
3	15-mm Bolt (Four)

4	Claw (Two)
5	Support Column (Two)

Refer to TIS, applicable model and model year Repair Manual:

- 2019 – 2021 RAV4 HV:
Engine/Hybrid System – Fuel System – [“A25A-FXS \(Fuel\): Fuel Sender Gauge Assembly \(W/ Canister Pump Module\): Removal”](#)

Vehicle Refueling Performance

Repair Procedure (continued)

Fuel Sender Gauge Replacement (continued)

2. Install the NEW fuel sender gauge.

NOTICE

- Do NOT damage the wire harness.
- When engaging each wire harness to the clamp, engage one wire at a time.

Refer to TIS, applicable model and model year Repair Manual:

- 2019 – 2021 RAV4 HV:
Engine/Hybrid System – Fuel System – “[A25A-FXS \(Fuel\): Fuel Sender Gauge Assembly \(W/ Canister Pump Module\): Installation](#)”

3. Based on the Production Change Information section, does the fuel tank also need to be replaced?
 - **YES** — Continue to the [Fuel Tank Replacement](#) subsection.
 - **NO** — The repair is complete, confirm the condition no longer exists.

NOTE

If the fuel tank is NOT being replaced, refuel the vehicle with the drained fuel at this time.

Vehicle Refueling Performance

Repair Procedure (continued)

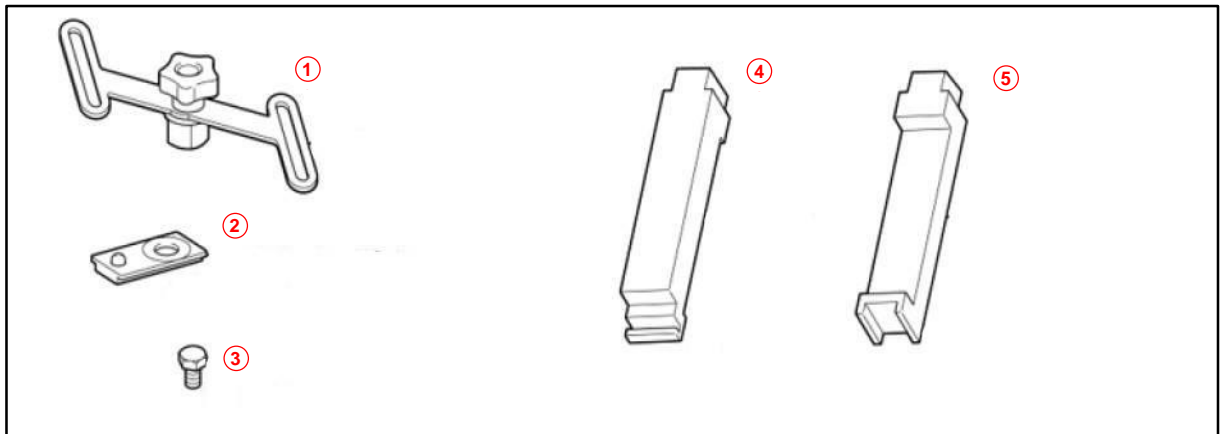
Fuel Tank Replacement

1. Remove the fuel tank.

NOTICE

- Do NOT damage the cam lock retainers.
- Be sure to use the tools outlined for cam lock retainers in Campaign Publication No. [20TA02 Safety Recall 20TA02 \(Remedy Notice\): Multiple Models and Model Years; Vehicle May Stall During Driving at Higher Speed \(Technical Instructions\)](#).

Figure 2.



1	Adjuster
2	Adjuster Plate (Four)
3	15-mm Bolt (Four)

4	Claw (Two)
5	Support Column (Two)

Refer to TIS, applicable model and model year Repair Manual:

- 2019 – 2021 RAV4 HV: *Engine/Hybrid System – Fuel System* – [“A25A-FXS \(Fuel\): Fuel Tank \(W/ Canister Pump Module\): Removal”](#)
2. Install the NEW fuel tank.
Refer to TIS, applicable model and model year Repair Manual:
 - 2019 – 2021 RAV4 HV: *Engine/Hybrid System – Fuel System* – [“A25A-FXS \(Fuel\): Fuel Tank \(W/ Canister Pump Module\): Installation”](#)
 3. Put ANY drained fuel back into the vehicle and take the vehicle to a gas station to refuel with the trigger fully depressed until the nozzle automatically clicks off.
 4. Confirm the condition no longer exists.