

HVAC Drain Hose Disconnected From HVAC Case and/or Oil/Grease Odor From Vents

Service Category Vehicle Interior

Section Heating/Air Conditioning

Market USA

Toyota Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2020 - 2022	Highlander, RAV4	
2022	Tundra	

REVISION NOTICE

August 21, 2023 Rev1:

The Parts Information section has been updated.

Any previous printed versions of this bulletin should be discarded.

Introduction

Some 2020 – 2022 model year Highlander and RAV4 vehicles, and 2022 model year Tundra vehicles equipped with a start/stop switch may exhibit water entry to the vehicle from the HVAC drain hose being disconnected from the air conditioning radiator assembly and/or a grease/oil odor emitting from the vents. This condition may be caused by paraffin wax leaking from the evaporator. Follow the repair procedure in this bulletin to address this condition.

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Production Change Information

This bulletin applies to:

- All 2020 model year RAV4 vehicles.
- All 2021 model year RAV4 vehicles produced by Takaoka* and TMMC*.
- All 2021 model year RAV4 vehicles produced by Shokki Nagakusa* **BEFORE** the Production Change Effective VIN shown below.
- All 2022 model year RAV4 vehicles produced by Takaoka* and TMMC* **BEFORE** the Production Change Effective VINs shown below.
- All 2020 – 2021 model year Highlander vehicles.
- All 2022 model year Tundra and Highlander vehicles produced **BEFORE** the Production Change Effective VINs shown below.

MODEL	MODEL YEAR	PLANT*	DRIVETRAIN**	VIN
RAV4	2021	Shokki Nagakusa (D)	FWD	JTM#1RFV#MD084963
			AWD	JTM#1RFV#MD084913
	2022	Takaoka (J)	FWD	JTM#1RFV#NJ024345
			AWD	JTM#1RFV#NJ040396
		TMMC Cambridge (C)	2WD	2T3#1RFV#NC207902
			AWD	2T3#1RFV#NC313526
		TMMC Woodstock (W)	2WD	2T3#1RFV#NW230598
			AWD	2T3#1RFV#NW317011

*The plant is determined by the 11th digit of the VIN: D = Shokki Nagakusa, J = Takaoka, C = TMMC Cambridge, and W = TMMC Woodstock.

**The drivetrain is determined by the 4th digit of the VIN: C or W = FWD and A, B, F, G, R, or P = AWD.

MODEL	MODEL YEAR	PLANT*	LINE**	DRIVETRAIN	VIN
Highlander	2022	TMMI (S)	Line 1	2WD	5TD#ZRAH#NS112708
				AWD	5TD#ZRBH#NS199947
			Line 2	2WD	5TD#ZRAH#NS546859
				AWD	5TD#ZRBH#NS571677

*The plant is determined by the 11th digit of the VIN: S = TMMI.

**The line is determined by the 12th digit of the VIN: 0 – 4 = Line 1 and 5 – 9 = Line 2.

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Production Change Information (continued)

MODEL	MODEL YEAR	PLANT*	DRIVETRAIN	CAB	BED LENGTH	VIN
Tundra	2022	TMMTX (X)	2WD	Double Cab	6.5 ft.	5TF##5AA#NX007791
					8.1 ft.	5TF##5CD#NX001184
				Crew MAX	5.5 ft.	5TF##5AB#NX007791
					6.5 ft.	5TF#A5BC#NX001595
			4WD	Double Cab	6.5 ft.	5TF##5DA#NX024925
					8.1 ft.	5TF##5GD#NX001416
				Crew MAX	5.5 ft.	5TF##5DB#NX024925
					6.5 ft.	5TF#A5EC#NX005221

*The plant is determined by the 11th digit of the VIN: X = TMMTX.

Warranty Information

OP CODE	MODEL	DESCRIPTION	TIME	OFF	T1	T2
883621	RAV4	R & R the Air Conditioner Radiator Assy & Drain Hose	5.4	87050-####*	66	14
	Highlander		5.1			
	Tundra		6.0			

*Warranty claim MUST be submitted with the correct 10-digit OFF. Choose the correct OFF for the vehicle being repaired by searching for the parts in the Electronic Parts Catalog using the VIN filter.

APPLICABLE WARRANTY

- This repair is covered under the Toyota Basic Warranty. This warranty is in effect for 36 months or 36,000 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.

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Parts Information

PART NUMBER	PART NAME	QTY
870500R160	Radiator Assy, Air Conditioner	1
870500R161		
870500R110		
870500R120		
870500E280		
870500C210		
870500C200		
870500R320		
885390R050	Hose, Drain Cooler	1
885390E100		
885390C080		

Required Tools & Equipment

REQUIRED TOOLS & MATERIAL	QTY
Robinair R1234YF A/C Machine	1

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.
- GTS+ software version 2023.03.001.02 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.

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Repair Procedure

1. Is the vehicle equipped with a start/stop switch?

NOTE

ALL 2022 model year Tundra vehicles are equipped with a start/stop switch.

- **YES** — Continue to step 2.
- **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

Figure 1. Highlander Start/Stop Switch Location

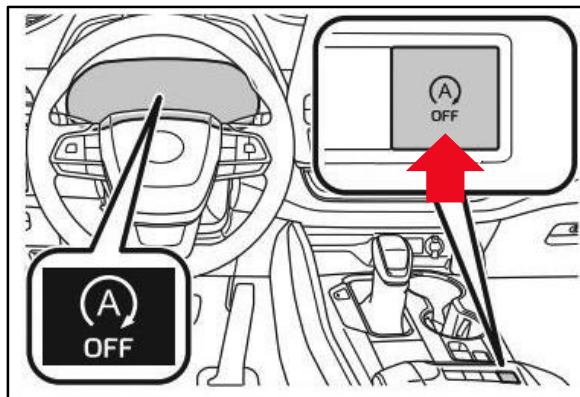
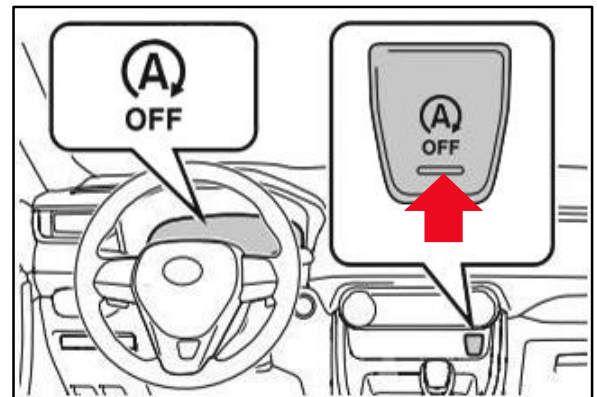


Figure 2. RAV4 Start/Stop Switch Location



2. Is the drain cooler hose detached from the air conditioning radiator assembly and/or a grease/oil odor emitting from the vents?
 - **YES** — Continue to step 3.
 - **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

NOTE

If there is evidence of water intrusion or a musty smell is present in the vehicle interior, follow the procedures outlined in [T-SB-0094-21](#) *Odor Remediation After Water Intrusion*, to remediate the odor and address this concern.

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Repair Procedure (continued)

3. Remove the air conditioning radiator assembly and drain cooler hose.
Refer to TIS, applicable model and model year Repair Manual:
 - 2020 – 2022 Highlander:
Vehicle Interior – Heating/Air Conditioning – “[Heating/Air Conditioning: Front Air Conditioning Unit \(for Gasoline Model\): Removal](#)”
 - 2020 RAV4:
Vehicle Interior – Heating/Air Conditioning – “[Heating/Air Conditioning: Air Conditioning Unit \(for A25A-FKS\): Removal](#)”
 - 2021 – 2022 RAV4:
Vehicle Interior – Heating/Air Conditioning – “[Heating/Air Conditioning: Air Conditioning Unit \(for A25A-FKS\): Removal](#)”
 - 2022 Tundra:
Vehicle Interior – Heating/Air Conditioning – “[Heating/Air Conditioning: Front Air Conditioning Unit: Removal](#)”

4. Install the NEW air conditioning radiator assembly and drain cooler hose.
Refer to TIS, applicable model and model year Repair Manual:
 - 2020 – 2022 Highlander:
Vehicle Interior – Heating/Air Conditioning – “[Heating / Air Conditioning: Front Air Conditioning Unit \(for Gasoline Model\): Installation](#)”
 - 2020 RAV4:
Vehicle Interior – Heating/Air Conditioning – “[Heating / Air Conditioning: Air Conditioning Unit \(for A25A-FKS\): Installation](#)”
 - 2021 – 2022 RAV4:
Vehicle Interior – Heating/Air Conditioning – “[Heating / Air Conditioning: Air Conditioning Unit \(for A25A-FKS\): Installation](#)”
 - 2022 Tundra:
Vehicle Interior – Heating/Air Conditioning – “[Heating / Air Conditioning: Front Air Conditioning Unit: Installation](#)”

5. Confirm the condition no longer exists.