

HVAC - Heater Inoperative

Service Category Vehicle Interior

Section Heating/Air Conditioning

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2012 – 2014	RAV4 EV	

Introduction

Some 2012 – 2014 model year RAV4 EV vehicles may experience a lack of heat from the HVAC system. An updated PTC heater is available to address this condition.

Production Change Information

This bulletin applies to vehicles produced **BEFORE** the Production Change Effective VIN shown below.

MODEL	PLANT	PRODUCTION CHANGE EFFECTIVE VIN
RAV4 EV	TMMC	2T3YL4DV#EW003299

Warranty Information

OP CODE	DESCRIPTION	TIME	OPF	T1	T2
AC1401	Heater Sub-Assy, Electric	2.6	87101-42010	72	73

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.

Parts Information

PART NUMBER	PART NAME	QTY
87101-42010	Heater Sub-Assy, Electric	1
G9270-0R011	DC/DC Converter Assy	1

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Required Tools & Equipment

REQUIRED MATERIAL	QUANTITY
DVOM*	1

*Standard DVOM, not mega ohm tester

Repair Procedure

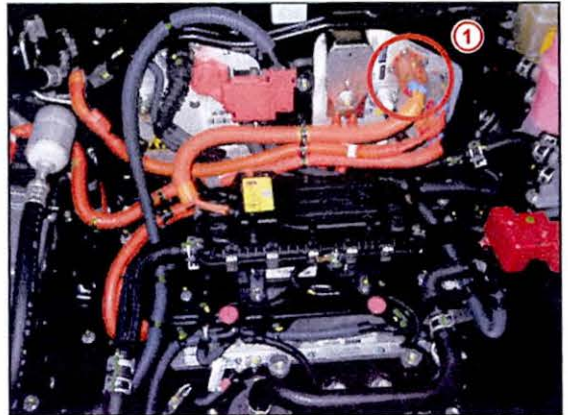
1. Confirm the condition from the Introduction.
2. Remove the service plug.

Refer to the Technical Information System (TIS), applicable model and model year Repair Manual:

- [2012](#) / [2013](#) / [2014](#) RAV4 EV:
Engine/Hybrid System – Hybrid/Battery Control System – “Hybrid/Battery Control: Service Plug Grip: Removal”

3. Disconnect the PTC Cabin Heater connector.

Figure 1.



1	PTC Cabin Heater Connector
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4. Inspect the resistance of the Heater Sub-Assembly between pins 1 and 2 using a standard DVOM (do not use a mega ohm tester).

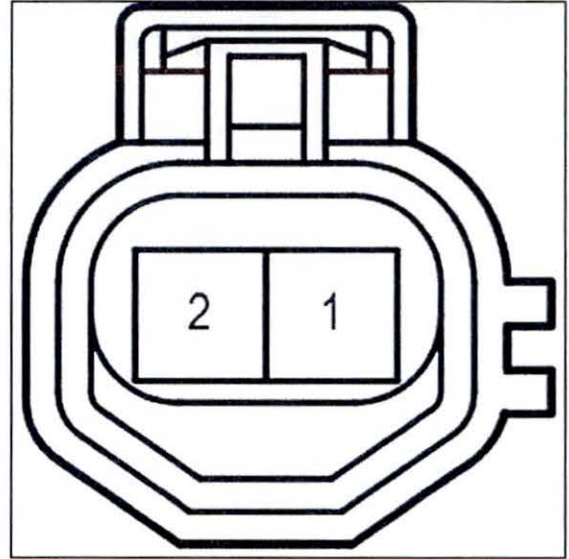
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Repair Procedure (Continued)

5. Check the Heater Sub-Assembly resistance by placing the positive lead of the DVOM on terminal #2 and the negative lead on terminal #1 of the PTC connector.

NOTE

Incorrect polarity will give an inaccurate reading.

Figure 2.

6. If the resistance is below $500K\Omega$ the DC/DC converter will need to be inspected. If the resistance is NOT below $500K\Omega$ this bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
7. Check the resistance of the DC/DC Converter between the "+" terminal of the cabin heater and the "+" terminal of the HV power supply.

Figure 3.

8. If the circuit is open (O/L) then the Heater Sub-Assembly AND the DC/DC Converter need to be replaced. If the circuit is NOT open (O/L) this bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

Refer to the Technical Information System (TIS), applicable model and model year Repair Manual:

- [2012](#) / [2013](#) / [2014](#) RAV4 EV:
Vehicle Interior – Heating/Air Conditioning – “Heating/Air Conditioning: Heater Assembly: Removal”

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Repair Procedure (Continued)

- [2012](#) / [2013](#) / [2014](#) RAV4 EV:
Vehicle Interior – Heating/Air Conditioning – “Heating/Air Conditioning: Heater Assembly: Installation”
 - [2012](#) / [2013](#) / [2014](#) RAV4 EV:
Engine/Hybrid System – Hybrid/Battery Control System – “Hybrid/Battery Control: DC-DC Converter: Removal”
 - [2012](#) / [2013](#) / [2014](#) RAV4 EV:
Engine/Hybrid System – Hybrid/Battery Control System – “Hybrid/Battery Control: DC-DC Converter: Installation”
9. Verify the vehicle operates normally.