

# 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	OFF	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

## HVAC - Heater Inoperative

### Required Tools & Equipment

REQUIRED MATERIAL	QUANTITY
DVOM*	1

\*Standard DVOM, not mega ohm tester

### Repair Procedure

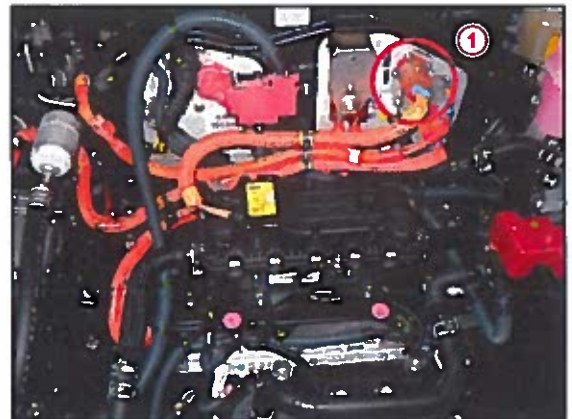
1. Confirm the condition from the Introduction.
2. Remove the service plug.

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**

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).

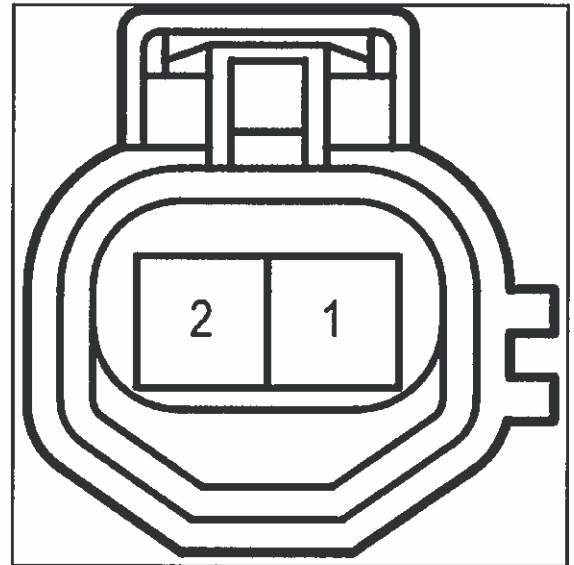
## HVAC - Heater Inoperative

### 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  $500\text{K}\Omega$  the DC/DC converter will need to be inspected. If the resistance is NOT below  $500\text{K}\Omega$  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”*

## HVAC - Heater Inoperative

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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.