

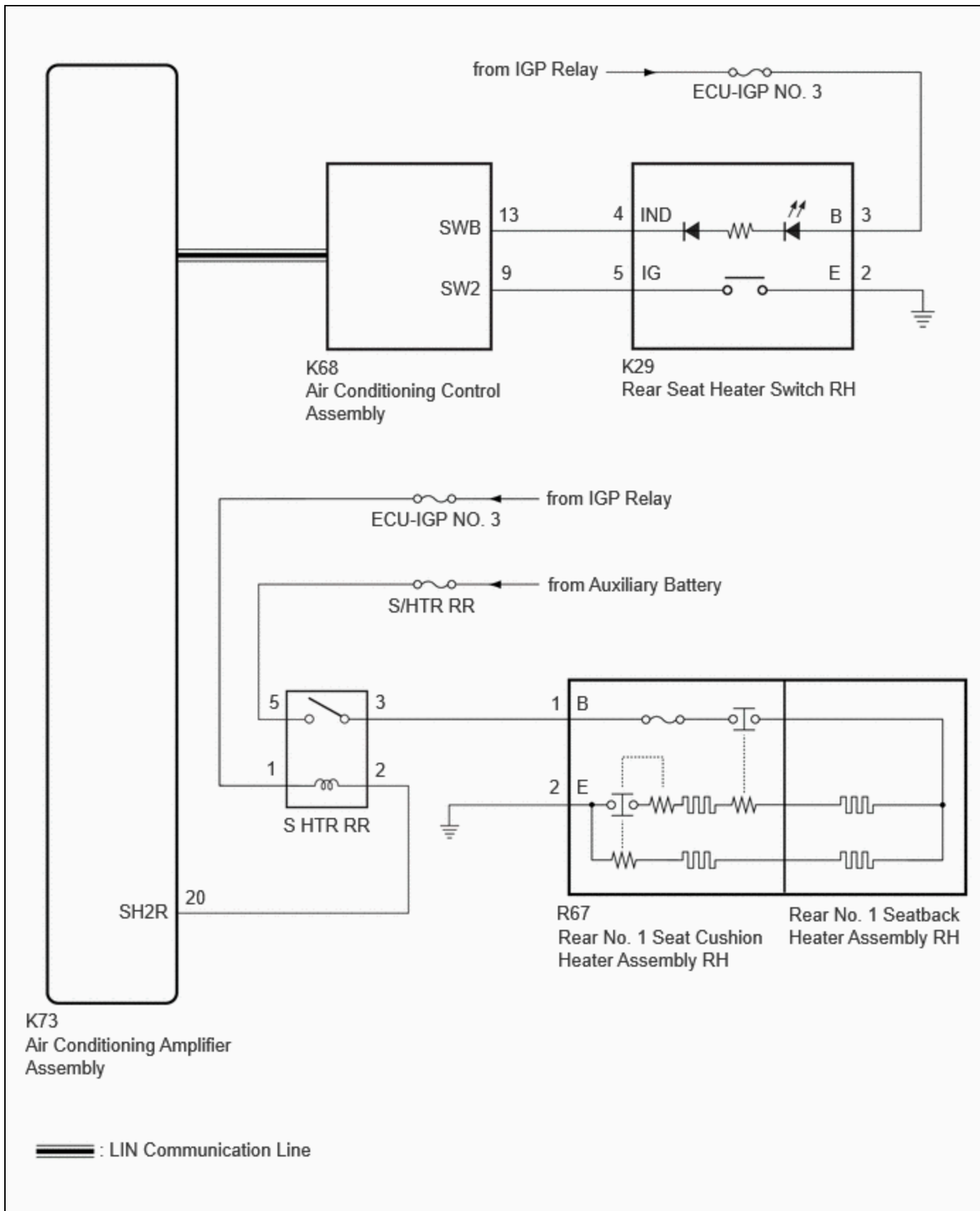
<b>Last Modified:</b> 12-04-2024	6.11:8.1.0	<b>Doc ID:</b> RM100000029X48
<b>Model Year Start:</b> 2023	<b>Model:</b> Prius Prime	<b>Prod Date Range:</b> [12/2022 - ]
<b>Title:</b> SEAT: SEAT HEATER SYSTEM: Seat Heater for Rear Right Seat does not Operate; 2023 - 2024 MY Prius Prius Prime [12/2022 - ]		

**Seat Heater for Rear Right Seat does not Operate**

## **DESCRIPTION**

When the rear seat heater switch RH is operated, the air conditioning amplifier assembly receives the signal from the air conditioning control assembly via the LIN communication line and operates the RH side rear seat heater.

## **WIRING DIAGRAM**



## CAUTION / NOTICE / HINT

### NOTICE:

- If the seat heater system is operated when the auxiliary battery voltage is low, due to the electrical load limit control that gives voltage supply priority to the power steering system, the seat heater system may not

operate. In this case, check the vehicle control history (RoB) of the power steering system and check that "Battery Voltage Drop: X208F" is not stored before proceeding with troubleshooting.

Click here [INFO](#)

- Inspect the fuses related to this system before inspecting the suspected areas below.

## PROCEDURE

### 1. PERFORM ACTIVE TEST USING GTS

(a) Perform the Active Test according to the display on the GTS.

**Body Electrical > Air Conditioner > Active Test**

TESTER DISPLAY	MEASUREMENT ITEM	CONTROL RANGE	DIAGNOSTIC NOTE
Rear Right Seat Heater	RH side rear seat heater operation	OFF/ON	-

**Body Electrical > Air Conditioner > Active Test**

TESTER DISPLAY
Rear Right Seat Heater

OK:

RH side rear seat heater operates normally.

**NG**  **GO TO STEP 7**

**OK**



### 2. INSPECT REAR SEAT HEATER SWITCH RH

Click here [INFO](#)

**NG**  **REPLACE REAR SEAT HEATER SWITCH RH**

**OK**



### 3. CHECK HARNESS AND CONNECTOR (REAR SEAT HEATER SWITCH RH - POWER SUPPLY)

- (a) Disconnect the K29 rear seat heater switch RH connector.
- (b) Measure the voltage according to the value(s) in the table below.

Standard Voltage:



[Click Location & Routing\(K29\).](#)

[Click Connector\(K29\).](#)

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
K29-3 (B) - Body ground	Ignition switch ON	11 to 14 V
K29-3 (B) - Body ground	Ignition switch off	Below 1 V

- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(K29\).](#)

[Click Connector\(K29\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K29-2 (E) - Body ground	Always	Below 1 $\Omega$

**NG** **REPAIR OR REPLACE HARNESS OR CONNECTOR**

**OK**



<b>4.</b>	<b>CHECK HARNESS AND CONNECTOR (REAR SEAT HEATER SWITCH RH - AIR CONDITIONING CONTROL ASSEMBLY)</b>
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- (a) Disconnect the K29 rear seat heater switch RH connector.
- (b) Disconnect the K68 air conditioning control assembly connector.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(K29,K68\).](#)

[Click Connector\(K29\).](#)

[Click Connector\(K68\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K29-4 (IND) - K68-13 (SWB)	Always	Below 1 $\Omega$
K29-4 (IND) or K68-13 (SWB) - Body ground	Always	10 k $\Omega$ or higher
K29-5 (IG) - K68-9 (SW2)	Always	Below 1 $\Omega$
K29-5 (IG) or K68-9 (SW2) - Body ground	Always	10 k $\Omega$ or higher

**NG**  **REPAIR OR REPLACE HARNESS OR CONNECTOR**

**OK**



**5. REPLACE AIR CONDITIONING CONTROL ASSEMBLY**

(a) Replace the air conditioning control assembly with a new or known good one.

Click here [INFO](#)

**NEXT**



**6. CHECK REAR SEAT HEATER OPERATION**

(a) Check the RH side rear seat heater operation.

Click here [INFO](#)

OK:

RH side rear seat heater operates normally.

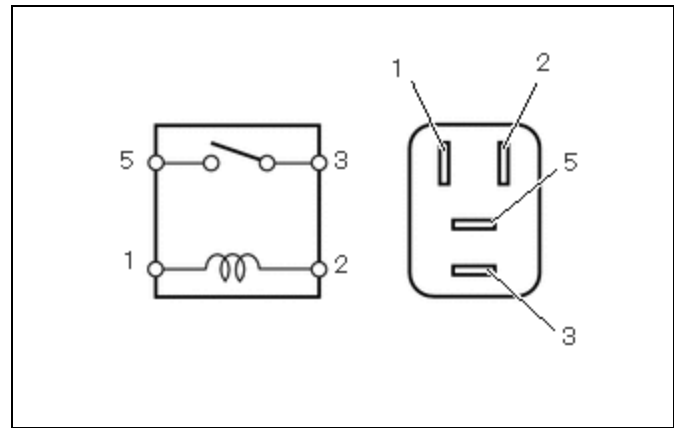
**OK**  **END (AIR CONDITIONING CONTROL ASSEMBLY WAS DEFECTIVE)**

**NG**  **REPLACE AIR CONDITIONING AMPLIFIER ASSEMBLY**

[INFO](#)

**7. INSPECT S HTR RR RELAY**

(a) Remove the S HTR RR relay.



(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
3 - 5	Auxiliary battery voltage not applied between terminals 1 and 2	10 k $\Omega$ or higher
3 - 5	Auxiliary battery voltage applied between terminals 1 and 2	Below 1 $\Omega$

**NG** ▶ REPLACE S HTR RR RELAY

**OK**



**8. CHECK HARNESS AND CONNECTOR (S HTR RR RELAY - POWER SUPPLY)**

(a) Remove the S HTR RR relay.

(b) Measure the voltage according to the value(s) in the table below.

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
S HTR RR relay terminal 1 - Body ground	Ignition switch ON	11 to 14 V
S HTR RR relay terminal 1 - Body ground	Ignition switch off	Below 1 V
S HTR RR relay terminal 5 - Body ground	Ignition switch off	11 to 14 V

**NG** ▶ REPAIR OR REPLACE HARNESS OR CONNECTOR

**OK**



**9. CHECK HARNESS AND CONNECTOR (S HTR RR RELAY - AIR CONDITIONING AMPLIFIER ASSEMBLY)**

- (a) Remove the S HTR RR relay.
- (b) Disconnect the K73 air conditioning amplifier assembly connector.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(K73\)](#)

[Click Connector\(K73\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
S HTR RR relay terminal 2 - K73-20 (SH2R)	Always	Below 1 $\Omega$
S HTR RR relay terminal 2 or K73-20 (SH2R) - Body ground	Always	10 k $\Omega$ or higher

**NG** **REPAIR OR REPLACE HARNESS OR CONNECTOR**

**OK**



**10. CHECK HARNESS AND CONNECTOR (REAR NO. 1 SEAT CUSHION HEATER ASSEMBLY RH - S HTR RR RELAY AND BODY GROUND)**

- (a) Disconnect the R67 rear No. 1 seat cushion heater assembly RH connector.
- (b) Remove the S HTR RR relay.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(R67\)](#)

[Click Connector\(R67\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R67-1 (B) - S HTR RR relay terminal 3	Always	Below 1 $\Omega$
R67-1 (B) or S HTR RR relay terminal 3 - Body ground	Always	10 k $\Omega$ or higher
R67-2 (E) - Body ground	Always	Below 1 $\Omega$

**NG** **REPAIR OR REPLACE HARNESS OR CONNECTOR**

**OK**  
▼

<b>11.</b>	<b>INSPECT REAR NO. 1 SEAT CUSHION HEATER ASSEMBLY RH</b>
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Click here [INFO](#)

**NG** ▶ **REPLACE REAR NO. 1 SEAT CUSHION HEATER ASSEMBLY RH** [INFO](#)

**OK**  
▼

<b>12.</b>	<b>INSPECT REAR NO. 1 SEATBACK HEATER ASSEMBLY RH</b>
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Click here [INFO](#)

**OK** ▶ **REPLACE AIR CONDITIONING AMPLIFIER ASSEMBLY** [INFO](#)

**NG** ▶ **REPLACE REAR NO. 1 SEATBACK HEATER ASSEMBLY RH**

