

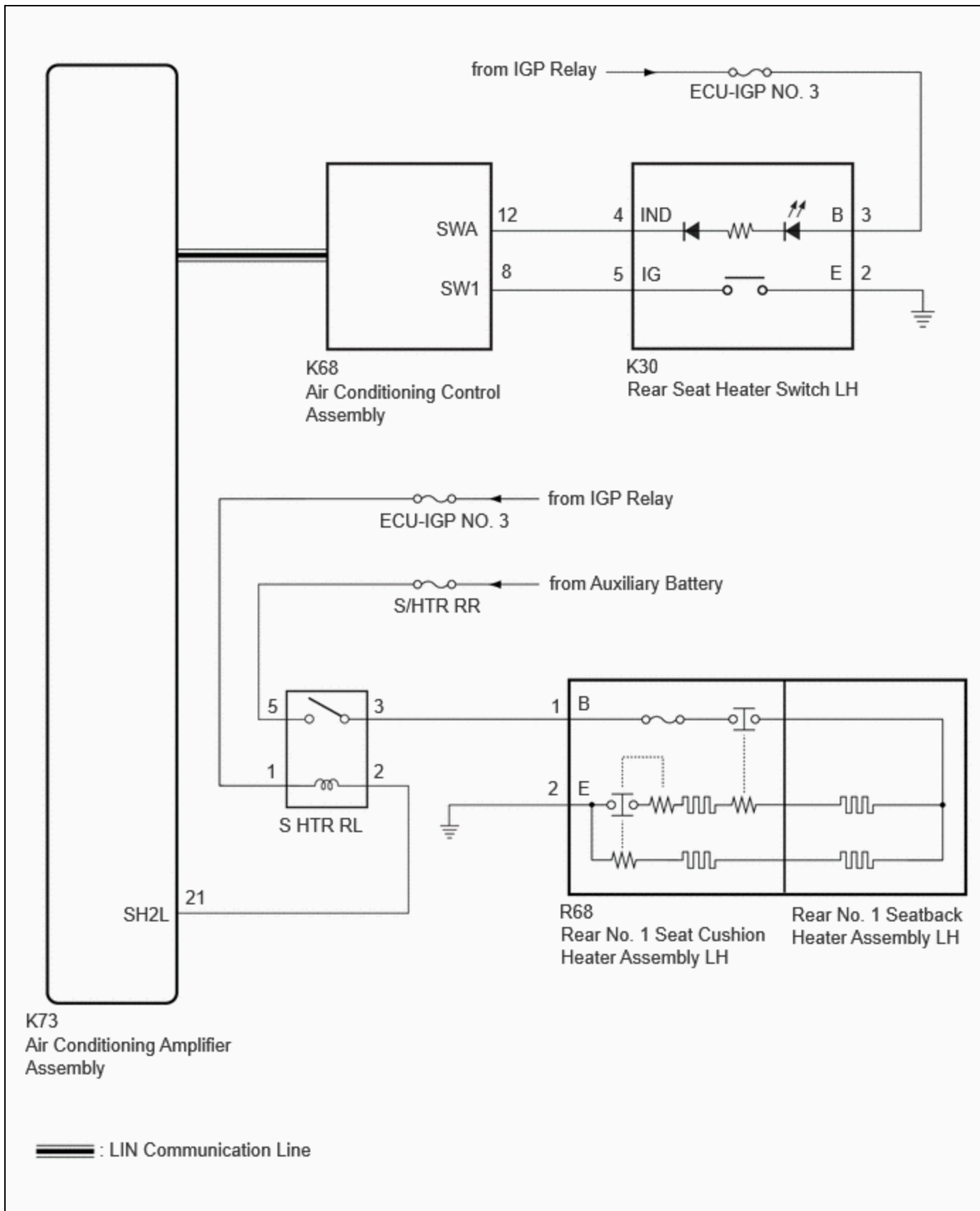
<b>Last Modified:</b> 12-04-2024	6.11:8.1.0	<b>Doc ID:</b> RM100000029X49
<b>Model Year Start:</b> 2023	<b>Model:</b> Prius Prime	<b>Prod Date Range:</b> [12/2022 - ]
<b>Title:</b> SEAT: SEAT HEATER SYSTEM: Seat Heater for Rear Left Seat does not Operate; 2023 - 2024 MY Prius Prius Prime [12/2022 - ]		

[Seat Heater for Rear Left Seat does not Operate](#)

## DESCRIPTION

When the rear seat heater switch LH is operated, the air conditioning amplifier assembly receives the signal from the air conditioning control assembly via the LIN communication line and operates the LH 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 for circuits related to this system before performing the following procedure.

## 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 Left Seat Heater	LH side rear seat heater operation	OFF/ON	-

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

TESTER DISPLAY
Rear Left Seat Heater

OK:

LH side rear seat heater operates normally.

**NG** ► **GO TO STEP 7**

**OK**



### 2. INSPECT REAR SEAT HEATER SWITCH LH

Click here [INFO](#)

**NG** ► **REPLACE REAR SEAT HEATER SWITCH LH**

**OK**



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

- (a) Disconnect the K30 rear seat heater switch LH connector.
- (b) Measure the voltage according to the value(s) in the table below.

Standard Voltage:



[Click Location & Routing\(K30\)](#)

[Click Connector\(K30\)](#)

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
K30-3 (B) - Body ground	Ignition switch ON	11 to 14 V
K30-3 (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\(K30\)](#)

[Click Connector\(K30\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K30-2 (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 LH - AIR CONDITIONING CONTROL ASSEMBLY)</b>
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- (a) Disconnect the K30 rear seat heater switch LH 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\(K30,K68\)](#)

[Click Connector\(K30\)](#)

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

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K30-4 (IND) - K68-12 (SWA)	Always	Below 1 $\Omega$
K30-4 (IND) or K68-12 (SWA) - Body ground	Always	10 k $\Omega$ or higher
K30-5 (IG) - K68-8 (SW1)	Always	Below 1 $\Omega$
K30-5 (IG) or K68-8 (SW1) - 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 LH side rear seat heater operation.

Click here [INFO](#)

OK:

LH side rear seat heater operates normally.

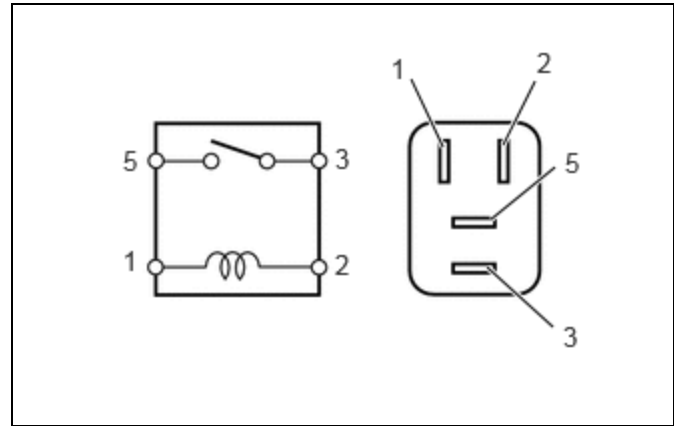
**OK**  **END (AIR CONDITIONING CONTROL ASSEMBLY WAS DEFECTIVE)**

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

[INFO](#)

**7. INSPECT S HTR RL RELAY**

(a) Remove the S HTR RL 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 RL RELAY

**OK**



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

(a) Remove the S HTR RL relay.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
S HTR RL relay terminal 1 - Body ground	Ignition switch ON	11 to 14 V
S HTR RL relay terminal 1 - Body ground	Ignition switch off	Below 1 V
S HTR RL 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 RL RELAY - AIR CONDITIONING AMPLIFIER ASSEMBLY)**

- (a) Remove the S HTR RL 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 RL relay terminal 2 - K73-21 (SH2L)	Always	Below 1 $\Omega$
S HTR RL relay terminal 2 or K73-21 (SH2L) - 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 LH - S HTR RL RELAY AND BODY GROUND)**

- (a) Disconnect the R68 rear No. 1 seat cushion heater assembly LH connector.
- (b) Remove the S HTR RL relay.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(R68\)](#)

[Click Connector\(R68\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R68-1 (B) - S HTR RL relay terminal 3	Always	Below 1 $\Omega$
R68-1 (B) or S HTR RL relay terminal 3 - Body ground	Always	10 k $\Omega$ or higher
R68-2 (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 LH</b>
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Click here [INFO](#)

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

**OK**  
▼

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

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

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

