

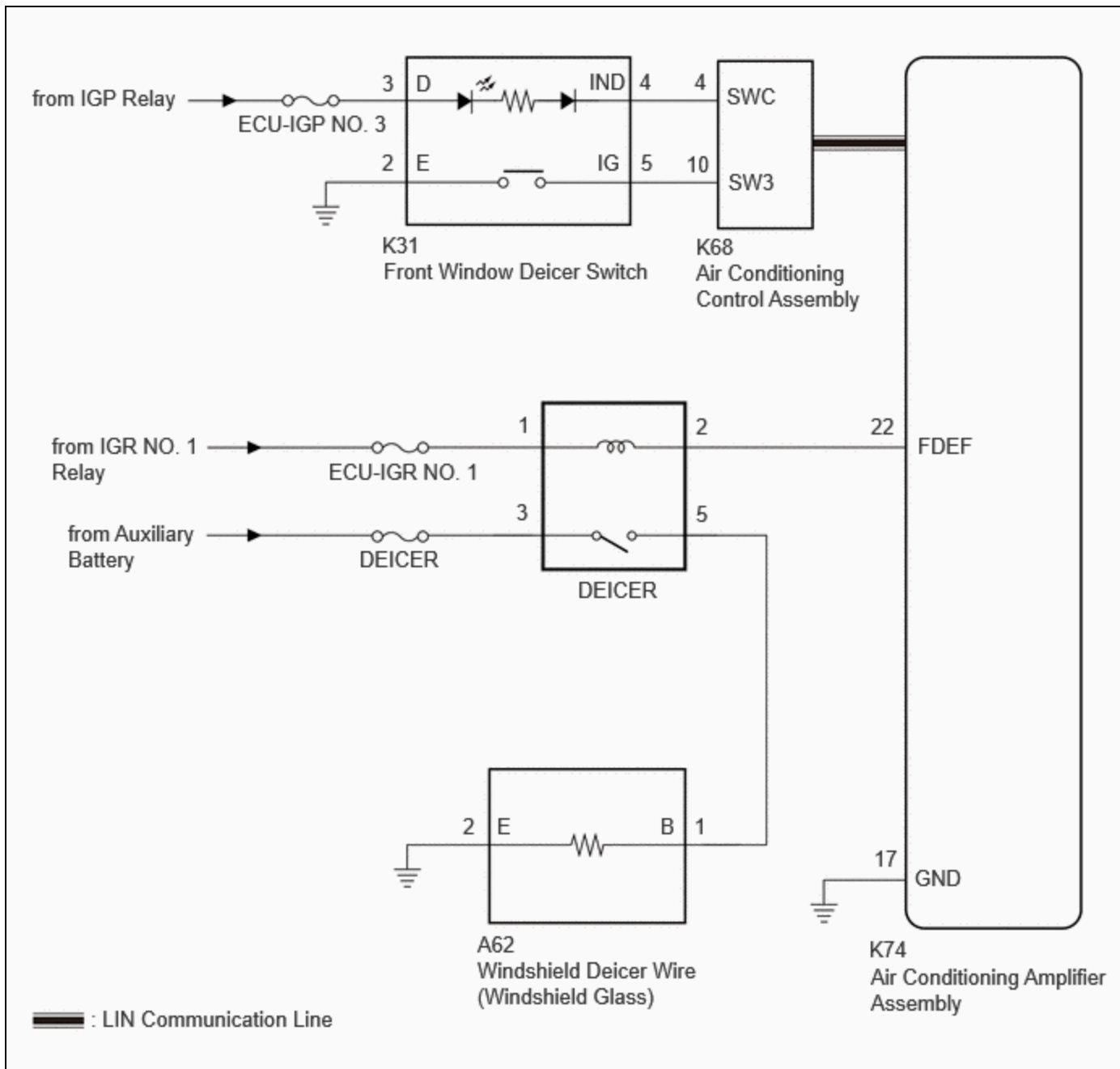
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<b>Model Year Start:</b> 2023	<b>Model:</b> Prius Prime	<b>Prod Date Range:</b> [03/2023 - ]
<b>Title:</b> WINDOW / GLASS: WINDSHIELD DEICER SYSTEM: Windshield Deicer does not Operate; 2023 - 2024 MY Prius Prius Prime [03/2023 - ]		

**Windshield Deicer does not Operate**

## DESCRIPTION

When the front window deicer switch is operated, a switch operation signal is output to the air conditioning control assembly. The air conditioning control assembly sends an operation request signal to the air conditioning amplifier assembly via LIN communication. When the operation request signal is received, the air conditioning amplifier assembly turns the deicer relay on to operate the windshield deicer system.

## WIRING DIAGRAM



## CAUTION / NOTICE / HINT

### NOTICE:

- Inspect the fuses for circuits related to this system before performing the following procedure.
- If the windshield deicer 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 windshield deicer 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](#)

## PROCEDURE

<b>1.</b>	<b>CHECK AIR CONDITIONING SYSTEM</b>
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(a) Check that the air conditioning system.


**HINT:**


Both the windshield deicer system operation signal and airconditioning system operation signal are transmitted to the airconditioning amplifier assembly through same communication line.

OK:

The air conditioning system operates normally.

**NG**  **GO TO AIR CONDITIONING SYSTEM**

for HEV Model: Click here 

for PHEV Model: Click here 

**OK**



**2. 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
Front Deicer Relay	Windshield deicer wire (windshield glass)	OFF or ON	-

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

TESTER DISPLAY
Front Deicer Relay

OK:

The windshield deicer system operates normally.

**NG**  **GO TO STEP 6**

**OK**



**3. INSPECT FRONT WINDOW DEICER SWITCH**

Click here 

**NG**  **REPLACE FRONT WINDOW DEICER SWITCH**

**OK**



<b>4.</b>	<b>CHECK WIRE HARNESS AND CONNECTOR (FRONT WINDOW DEICER SWITCH - POWER SOURCE)</b>
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- (a) Disconnect the K31 front window deicer switch connector.
- (b) Measure the voltage according to the value(s) in the table below.

Standard Voltage:



[Click Location & Routing\(K31\)](#)  
[Click Connector\(K31\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K31-3 (D) - Body ground	Ignition switch off	Below 1 V
	Ignition switch ON	11 to 14 V

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

Standard Resistance:



[Click Location & Routing\(K31\)](#)  
[Click Connector\(K31\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K31-2 (E) - Body ground	Always	Below 1 Ω

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

**OK**



<b>5.</b>	<b>CHECK WIRE HARNESS AND CONNECTOR (FRONT WINDOW DEICER SWITCH - AIR CONDITIONING CONTROL ASSEMBLY)</b>
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- (a) Disconnect the K68 air conditioning control assembly connector.

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

Standard Resistance:



[Click Location & Routing\(K31,K68\).](#)

[Click Connector\(K31\).](#)

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

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K31-4 (IND) - K68-4 (SWC)	Always	Below 1 $\Omega$
K31-4 (IND) or K68-4 (SWC) - Body ground	Always	10 k $\Omega$ or higher
K31-5 (IG) - K68-10 (SW3)	Always	Below 1 $\Omega$
K31-5 (IG) or K68-10 (SW3) - Body ground	Always	10 k $\Omega$ or higher

**OK** ► REPLACE AIR CONDITIONING CONTROL ASSEMBLY

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

<b>6.</b>	<b>INSPECT DEICER RELAY</b>
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Click here [INFO](#)

**NG** ► REPLACE DEICER RELAY

**OK**



<b>7.</b>	<b>CHECK WIRE HARNESS AND CONNECTOR (DEICER RELAY - IG POWER SUPPLY)</b>
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(a) Measure the voltage according to the value(s) in the table below.

Standard Voltage:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
DEICER relay holder terminal 1 - Body ground	Ignition switch ON	11 to 14 V
DEICER relay holder terminal 3 - Body ground	Ignition switch off	11 to 14 V

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



**8. CHECK WIRE HARNESS AND CONNECTOR (DEICER RELAY - AIR CONDITIONING AMPLIFIER ASSEMBLY)**

- (a) Disconnect the K74 air conditioning amplifier assembly connector.
- (b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(K74\)](#)  
[Click Connector\(K74\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
DEICER relay holder terminal 2 - K74-22 (FDEF)	Always	Below 1 Ω
DEICER relay holder terminal 2 or K74-22 (FDEF) - Body ground	Always	10 kΩ higher

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



**9. CHECK AIR CONDITIONING AMPLIFIER ASSEMBLY**

- (a) Reconnect the K74 air conditioning amplifier assembly connector.
- (b) Measure the voltage according to the value(s) in the table below.

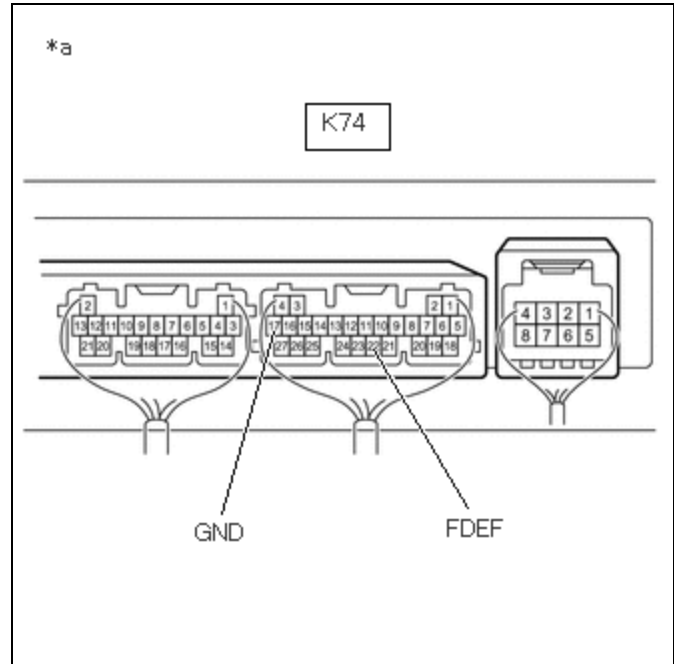
Standard Voltage:



[Click Location & Routing\(K74\)](#)  
[Click Connector\(K74\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K74-22 (FDEF) - K74-17 (GND)	Ignition switch ON, front window deicer switch on	Below 2.2 V

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K74-22 (FDEF) - K74-17 (GND)	Ignition switch ON, front window deicer switch off	11 to 14 V



*a	Component with harness connected (Air Conditioning Amplifier Assembly)
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**NG** ▶ REPLACE AIR CONDITIONING AMPLIFIER ASSEMBLY

**OK**  
▼

**10. CHECK WIRE HARNESS AND CONNECTOR (DEICER RELAY - WINDSHIELD DEICER WIRE (WINDSHIELD GLASS))**

- (a) Disconnect the A62 windshield deicer wire (windshield glass) connector.
- (b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(A62\).](#)

[Click Connector\(A62\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
DEICER relay holder terminal 5 - A62-1 (B)	Always	Below 1 Ω
DEICER relay holder terminal 5 or A62-1 (B) - Body ground	Always	10 kΩ higher

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

**OK**  
▼

<b>11.</b>	<b>CHECK WIRE HARNESS AND CONNECTOR (WINDSHIELD DEICER WIRE (WINDSHIELD GLASS) - BODY GROUND)</b>
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(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(A62\)](#)

[Click Connector\(A62\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A62-2 (E) - Body ground	Always	Below 1 Ω

**OK** ► **REPLACE WINDSHIELD DEICER WIRE (WINDSHIELD GLASS)**

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

