

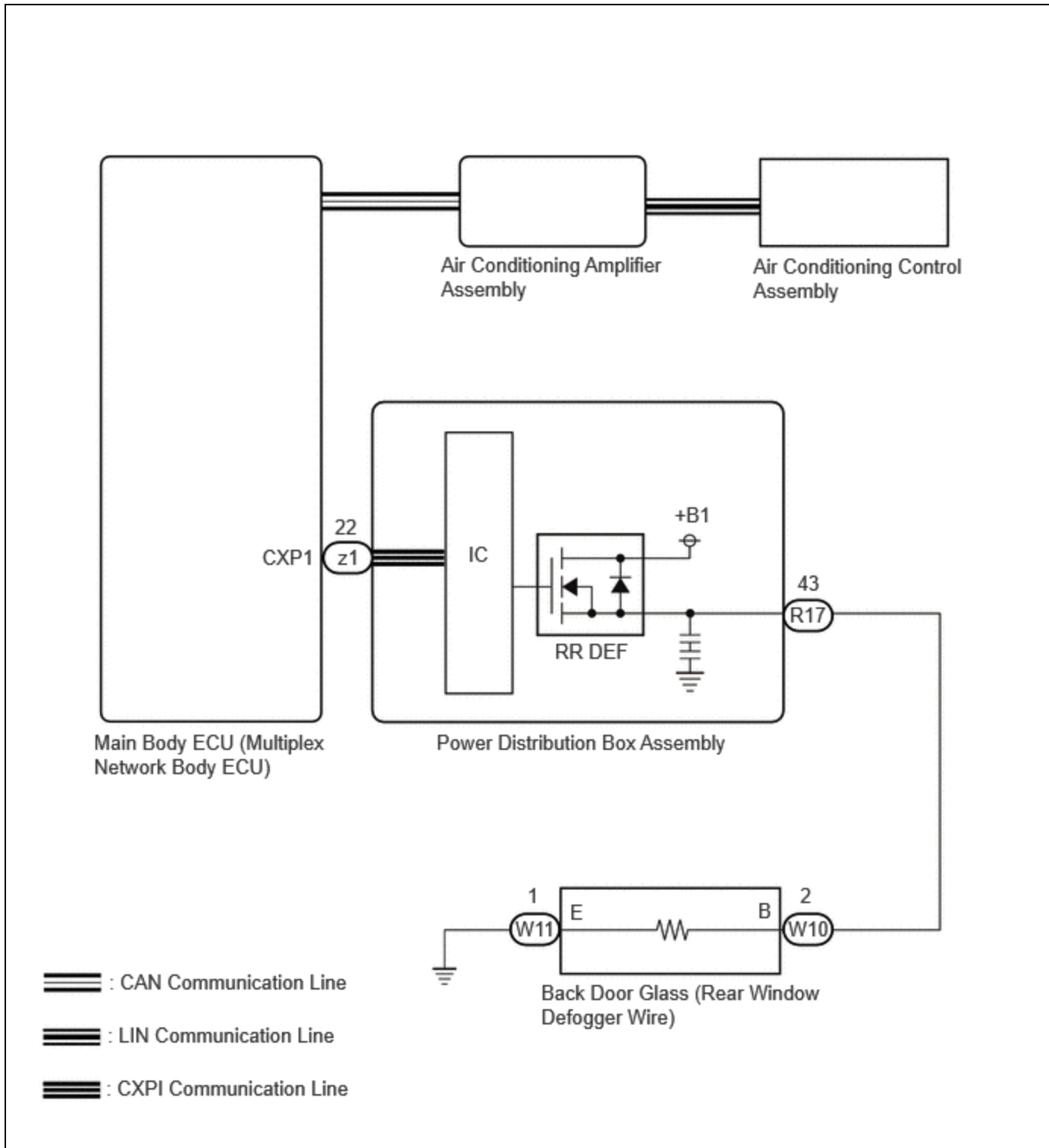
Last Modified: 12-04-2024	6.11:8.1.0	Doc ID: RM10000002BNH4
Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [03/2023 -]
Title: WINDOW / GLASS: WINDOW DEFOGGER SYSTEM: Rear Window Defogger System does not Operate; 2023 - 2024 MY Prius Prius Prime [03/2023 -]		

Rear Window Defogger System does not Operate

DESCRIPTION

When the rear defogger switch on the air conditioning control assembly is operated, an operation request signal is sent to the air conditioning amplifier assembly via LIN communication. When the air conditioning amplifier assembly receives an operation request signal, an operation request signal is sent to the main body ECU (multiplex network body ECU) via CAN communication. The main body ECU (multiplex network body ECU) turns on the RR DEF relay through the IC of the power distribution box assembly and the window defogger operates.

WIRING DIAGRAM



CAUTION / NOTICE / HINT

NOTICE:

- If the window defogger 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 window defogger 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](#)

- The window defogger system uses the CAN communication system and CXPI communication system. First, confirm that there are no malfunctions in the CAN communication system and CXPI communication system. Refer to How to Proceed with Troubleshooting.

[Click here](#) **INFO**

PROCEDURE

1. READ VALUE USING GTS (REAR DEFOGGER INPUT SIGNAL)

(a) Read the Data List according to the display on the GTS.

Body Electrical > Power Distribution Box > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Rear Defogger Input Signal	Window defogger switch signal input condition	OFF or ON	OFF: Window defogger switch is off ON: Window defogger switch is on	-

Body Electrical > Power Distribution Box > Data List

TESTER DISPLAY
Rear Defogger Input Signal

OK:

On the GTS screen, ON or OFF is displayed accordingly.

NG  **GO TO STEP 4**

OK



2. READ VALUE USING GTS (REAR DEFOGGER OUTPUT SIGNAL)

(a) Read the Data List according to the display on the GTS.

Body Electrical > Power Distribution Box > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Rear Defogger Output Signal	Window defogger output condition	OFF or ON	OFF: Window defogger does not operate ON: Window defogger operates	-

Body Electrical > Power Distribution Box > Data List

TESTER DISPLAY
Rear Defogger Output Signal

OK:

On the GTS screen, ON or OFF is displayed accordingly.

NG  **REPLACE POWER DISTRIBUTION BOX ASSEMBLY**

OK



3.	CHECK HARNESS AND CONNECTOR (BACK DOOR GLASS (REAR WINDOW DEFOGGER WIRE) - POWER DISTRIBUTION BOX ASSEMBLY AND BODY GROUND)
-----------	--

(a) Disconnect the W10 and W11 back door glass (rear window defogger wire) connectors.

(b) Disconnect the R17 power distribution box assembly connector.

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

Standard Resistance:



[Click Location & Routing\(W10,R17,W11\)](#)

[Click Connector\(W10\)](#)

[Click Connector\(R17\)](#)

[Click Connector\(W11\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
W10-2 (B) - R17-43	Always	Below 1 Ω
W10-2 (B) or R17-43 - Body ground	Always	10 kΩ or higher
W11-1 (E) - Body ground	Always	Below 1 Ω

OK  **REPLACE BACK DOOR GLASS (REAR WINDOW DEFOGGER WIRE)**

NG  **REPAIR OR REPLACE HARNESS OR CONNECTOR**

4.	CHECK AIR CONDITIONING SYSTEM
-----------	--------------------------------------

(a) Check the air conditioning system.

for HEV Model: Click here [INFO](#)

for PHEV Model: Click here [INFO](#)

HINT:

Both the window defogger system operation signal and air conditioning system operation signal are transmitted to the air conditioning amplifier assembly via the same communication line.

OK:

The air conditioning system operates normally.

NG ▶ GO TO AIR CONDITIONING SYSTEM

for HEV Model: Click here [INFO](#)

for PHEV Model: Click here [INFO](#)

OK



5. CHECK AIR CONDITIONING CONTROL ASSEMBLY

(a) Check that the indicator illuminates when the window defogger switch is on.

OK:

Defogger indicator illuminates.

NG ▶ REPLACE AIR CONDITIONING CONTROL ASSEMBLY

OK



6. 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 Defogger Relay	Rear window defogger wire (Back door glass)	OFF or ON	-

Body Electrical > Air Conditioner > Active Test



OK:

The window defogger system operates normally.

OK ► REPLACE AIR CONDITIONING CONTROL ASSEMBLY

NG ► REPLACE AIR CONDITIONING AMPLIFIER ASSEMBLY

