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<b>Model Year Start:</b> 2023	<b>Model:</b> Prius Prime	<b>Prod Date Range:</b> [12/2022 - ]
<b>Title:</b> MIRROR (EXT): POWER MIRROR CONTROL SYSTEM: Mirror Heater does not Operate with Rear Defogger Switch; 2023 - 2024 MY Prius Prius Prime [12/2022 - ]		

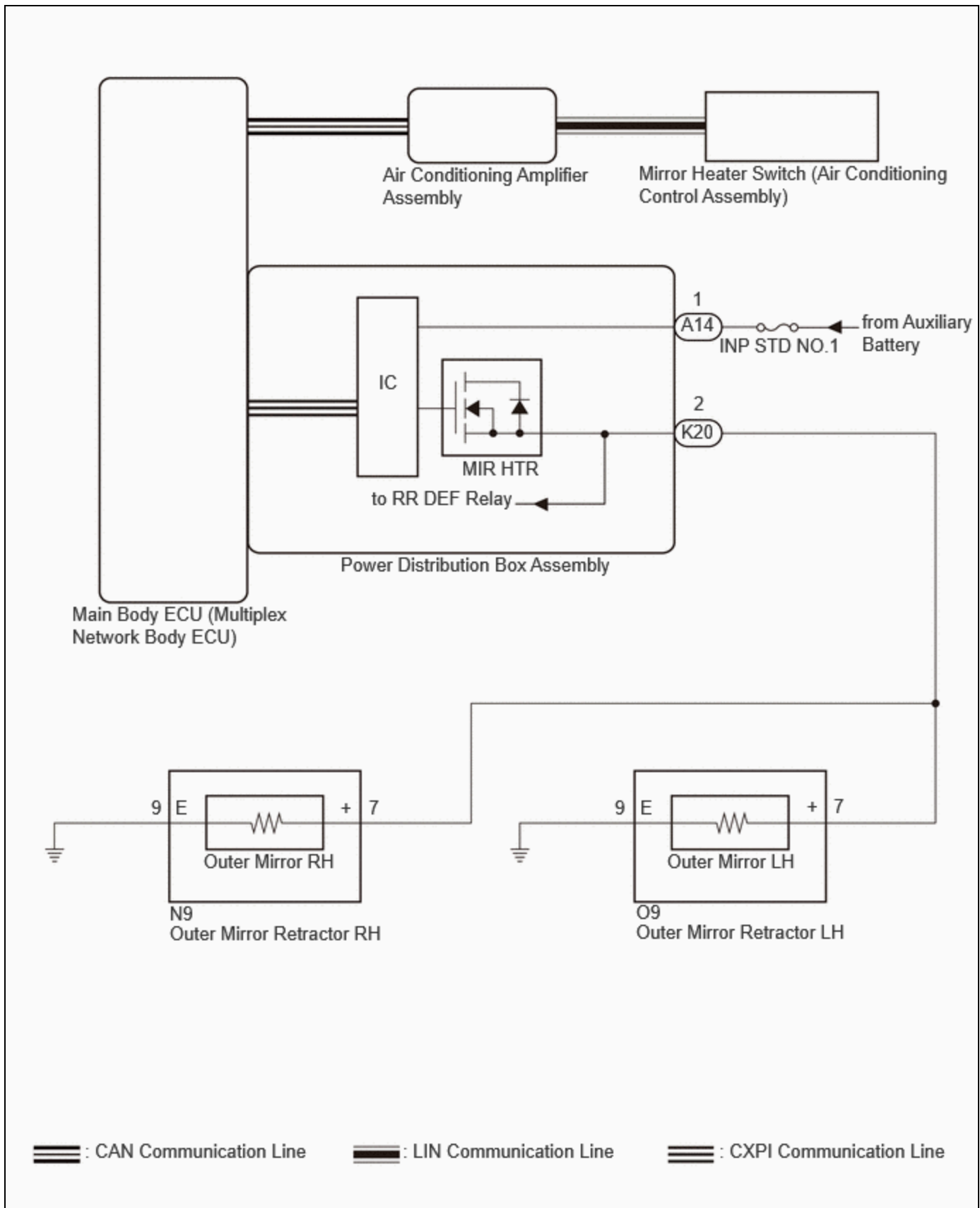
### **Mirror Heater does not Operate with Rear Defogger Switch**

## **DESCRIPTION**

When the mirror heater switch (rear window defogger switch) is operated, the MIR HTR relay drive request signal is sent to the air conditioning amplifier assembly and then to main body ECU (multiplex network body ECU) via CAN communication. When the main body ECU (multiplex network body ECU) receives the MIR HTR relay drive request signal, it sends a mirror heater operation signal to the power distribution box assembly.

Based on this signal, the power distribution box assembly operates the mirror heaters.

## **WIRING DIAGRAM**



## CAUTION / NOTICE / HINT

### NOTICE:

- Inspect the fuses for circuits related to this system before performing the following procedure.

- The power mirror control system uses the CAN communication system, LIN communication system and CXPI communication system. Inspect the communication function by following How to Proceed with Troubleshooting. Troubleshoot the power mirror control system after confirming that the communication system is functioning properly.

Click here [INFO](#)

## PROCEDURE

<b>1.</b>	<b>CHECK VEHICLE CONDITION</b>
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(a) Check vehicle condition.

RESULT	PROCEED TO
Both mirror heaters do not operate	A
LH side mirror heater does not operate	B
RH side mirror heater does not operate	C

**B**  **GO TO STEP 7**

**C**  **GO TO STEP 9**

**A**



<b>2.</b>	<b>CHECK WINDOW DEFOGGER SYSTEM</b>
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(a) Check the window defogger system operation.

Click here [INFO](#)

OK:

The window defogger system operates normally.

**NG**  **GO TO WINDOW DEFOGGER SYSTEM** [INFO](#)

**OK**



### 3. CHECK HARNESS AND CONNECTOR (POWER DISTRIBUTION BOX ASSEMBLY - POWER SOURCE)

- (a) Disconnect the A14 power distribution box assembly connector.  
 (b) Measure the voltage according to the value(s) in the table below.

Standard Voltage:



[Click Location & Routing\(A14\)](#)

[Click Connector\(A14\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A14-1 - Body Ground	Ignition switch off	11 to 14 V

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

**OK**



### 4. CHECK HARNESS AND CONNECTOR (OUTER MIRROR RETRACTOR LH/RH - POWER DISTRIBUTION BOX ASSEMBLY AND BODY GROUND)

- (a) Disconnect the O9 outer mirror retractor LH connector.  
 (b) Disconnect the N9 outer mirror retractor RH connector.  
 (c) Disconnect the K20 power distribution box assembly connector.  
 (d) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(O9,K20,N9\)](#)

[Click Connector\(O9\)](#)

[Click Connector\(K20\)](#)

[Click Connector\(N9\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
O9-7 (+) - K20-2	Always	Below 1 $\Omega$
O9-9 (E) - Body ground	Always	Below 1 $\Omega$
N9-7 (+) - K20-2	Always	Below 1 $\Omega$
N9-9 (E) - Body ground	Always	Below 1 $\Omega$

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
O9-7 (+), N9-7 (+) or K20-2 - Body ground	Always	10 kΩ or higher

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

**OK**



<b>5.</b>	<b>INSPECT OUTER MIRROR RETRACTOR LH</b>
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Click here [INFO](#)

**NG** ► **GO TO STEP 8**

**OK**



<b>6.</b>	<b>INSPECT OUTER MIRROR RETRACTOR RH</b>
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Click here [INFO](#)

**OK** ► **REPLACE POWER DISTRIBUTION BOX ASSEMBLY**

[INFO](#)

**NG** ► **GO TO STEP 10**

<b>7.</b>	<b>CHECK HARNESS AND CONNECTOR (OUTER MIRROR RETRACTOR LH - POWER DISTRIBUTION BOX ASSEMBLY AND BODY GROUND)</b>
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- (a) Disconnect the O9 outer mirror retractor LH connector.
- (b) Disconnect the K20 power distribution box assembly connector.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(O9,K20\)](#)

[Click Connector\(O9\)](#)

[Click Connector\(K20\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
O9-7 (+) - K20-2	Always	Below 1 Ω
O9-9 (E) - Body Ground	Always	Below 1 Ω

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

**OK**  
▼

**8. INSPECT OUTER MIRROR LH**

Click here [INFO](#)

**OK** ► REPLACE OUTER MIRROR RETRACTOR LH

**NG** ► REPLACE OUTER MIRROR LH

**9. CHECK HARNESS AND CONNECTOR (OUTER MIRROR RETRACTOR RH - POWER DISTRIBUTION BOX ASSEMBLY AND BODY GROUND)**

- (a) Disconnect the N9 outer mirror retractor RH connector.
- (b) Disconnect the K20 power distribution box assembly connector.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(N9,K20\).](#)

[Click Connector\(N9\).](#)

[Click Connector\(K20\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
N9-7 (+) - K20-2	Always	Below 1 Ω
N9-9 (E) - Body Ground	Always	Below 1 Ω

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

**OK**  
▼

<b>10.</b>	<b>INSPECT OUTER MIRROR RH</b>
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Click here 

**OK**  **REPLACE OUTER MIRROR RETRACTOR RH**

**NG**  **REPLACE OUTER MIRROR RH**

