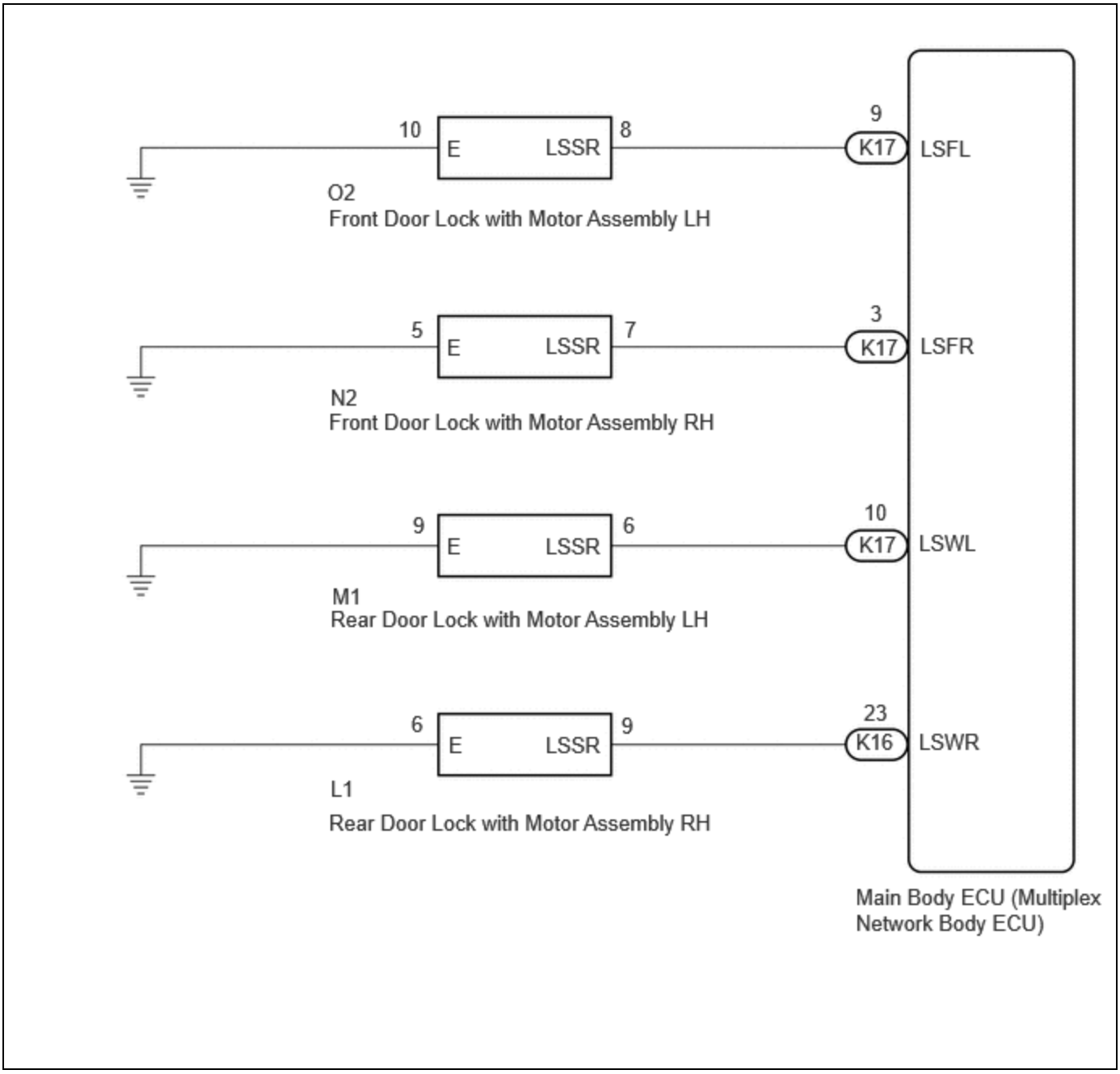
Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM1000000029IMG
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: LIGHTING (INT): LIGHTING SYSTEM: Door Unlock Detection Switch Circuit; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

Door Unlock Detection Switch Circuit

DESCRIPTION

The main body ECU (multiplex network body ECU) detects the condition of each door unlock detection switch.

WIRING DIAGRAM



CAUTION / NOTICE / HINT

NOTICE:

Before replacing the main body ECU (multiplex network body ECU), refer to Registration.

Click here INFO

PROCEDURE

1.	**READ VALUE USING GTS**

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

Body Electrical > Main Body > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
FR Door Lock Position Switch Status	Front door RH unlock detection switch signal	LOCK or UNLOCK	LOCK: Front door RH locked UNLOCK: Front door RH unlocked	-
FL Door Lock Position Switch Status	Front door LH unlock detection switch signal	LOCK or UNLOCK	LOCK: Front door LH locked UNLOCK: Front door LH unlocked	-
RR Door Lock Position Switch Status	Rear door RH unlock detection switch signal	LOCK or UNLOCK	ON: Rear door RH unlocked OFF: Rear door RH locked	-
RL Door Lock Position Switch Status	Rear door LH unlock detection switch signal	LOCK or UNLOCK	ON: Rear door LH unlocked OFF: Rear door LH locked	-

Body Electrical > Main Body > Data List

TESTER DISPLAY
FR Door Lock Position Switch Status
FL Door Lock Position Switch Status
RR Door Lock Position Switch Status

TESTER DISPLAY
RL Door Lock Position Switch Status

OK:
Normal conditions listed above are displayed.

RESULT	PROCEED TO
OK	A
NG ("FR Door Lock Position Switch Status" is not normal)	B
NG ("FL Door Lock Position Switch Status" is not normal)	C
NG ("RR Door Lock Position Switch Status" is not normal)	D
NG ("RL Door Lock Position Switch Status" is not normal)	E

A ▶ **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE** INFO

C ▶ **GO TO STEP 4**

D ▶ **GO TO STEP 6**

E ▶ **GO TO STEP 8**

B
▼

2.	**INSPECT FRONT DOOR LOCK WITH MOTOR ASSEMBLY RH**

Click here INFO

NG ▶ **REPLACE FRONT DOOR LOCK WITH MOTOR ASSEMBLY RH** INFO

OK
▼

3.	**CHECK HARNESS AND CONNECTOR (FRONT DOOR LOCK WITH MOTOR ASSEMBLY RH - MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU) OR BODY GROUND)**

(a) Disconnect the K17 main body ECU (multiplex network body ECU) connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(N2,K17)
Click Connector(N2)
Click Connector(K17)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
N2-7 (LSSR) - K17-3 (LSFR)	Always	Below 1 Ω
N2-7 (LSSR) or K17-3 (LSFR) - Body ground	Always	10 kΩ or higher
N2-5 (E) - Body ground	Always	Below 1 Ω

OK ▶ **REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)** INFO

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

4.	**INSPECT FRONT DOOR LOCK WITH MOTOR ASSEMBLY LH**

Click here INFO

NG ▶ **REPLACE FRONT DOOR LOCK WITH MOTOR ASSEMBLY LH** INFO

OK ▼

5.	**CHECK HARNESS AND CONNECTOR (FRONT DOOR LOCK WITH MOTOR ASSEMBLY LH - MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU) OR BODY GROUND)**

(a) Disconnect the K17 instrument panel junction block assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(O2,K17)
Click Connector(O2)
Click Connector(K17)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
O2-8 (LSSR) - K17-9 (LSFL)	Always	Below 1 Ω
O2-8 (LSSR) or K17-9 (LSFL) - Body ground	Always	10 kΩ or higher
O2-10 (E) - Body ground	Always	Below 1 Ω

OK ▶ **REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)** INFO

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

6.	**INSPECT REAR DOOR LOCK WITH MOTOR ASSEMBLY RH**

Click here INFO

NG ▶ **REPLACE REAR DOOR LOCK WITH MOTOR ASSEMBLY RH** INFO

OK ▼

7.	**CHECK HARNESS AND CONNECTOR (REAR DOOR LOCK WITH MOTOR ASSEMBLY RH - MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU) OR BODY GROUND)**

(a) Disconnect the K16 main body ECU (multiplex network body ECU) connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(L1,K16)
Click Connector(L1)
Click Connector(K16)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L1-9 (LSSR) - K16-23 (LSWR)	Always	Below 1 Ω
L1-9 (LSSR) or K16-23 (LSWR) - Body ground	Always	10 kΩ or higher

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L1-6 (E) - Body ground	Always	Below 1 Ω

OK ▶ **REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)** INFO

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

8.	**INSPECT REAR DOOR LOCK WITH MOTOR ASSEMBLY LH**

Click here INFO

NG ▶ **REPLACE REAR DOOR LOCK WITH MOTOR ASSEMBLY LH** INFO

OK ▼

9.	**CHECK HARNESS AND CONNECTOR (REAR DOOR LOCK WITH MOTOR ASSEMBLY LH - MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU) OR BODY GROUND)**

(a) Disconnect the K17 instrument panel junction block assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(M1,K17)
Click Connector(M1)
Click Connector(K17)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M1-6 (LSSR) - K17-10 (LSWL)	Always	Below 1 Ω
M1-6 (LSSR) or K17-10 (LSWL) - Body ground	Always	10 kΩ or higher
M1-9 (E) - Body ground	Always	Below 1 Ω

OK ▶ **REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)** INFO

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