Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM1000000029IMZ
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: LIGHTING (INT): LIGHTING SYSTEM: Footwell Light Circuit; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

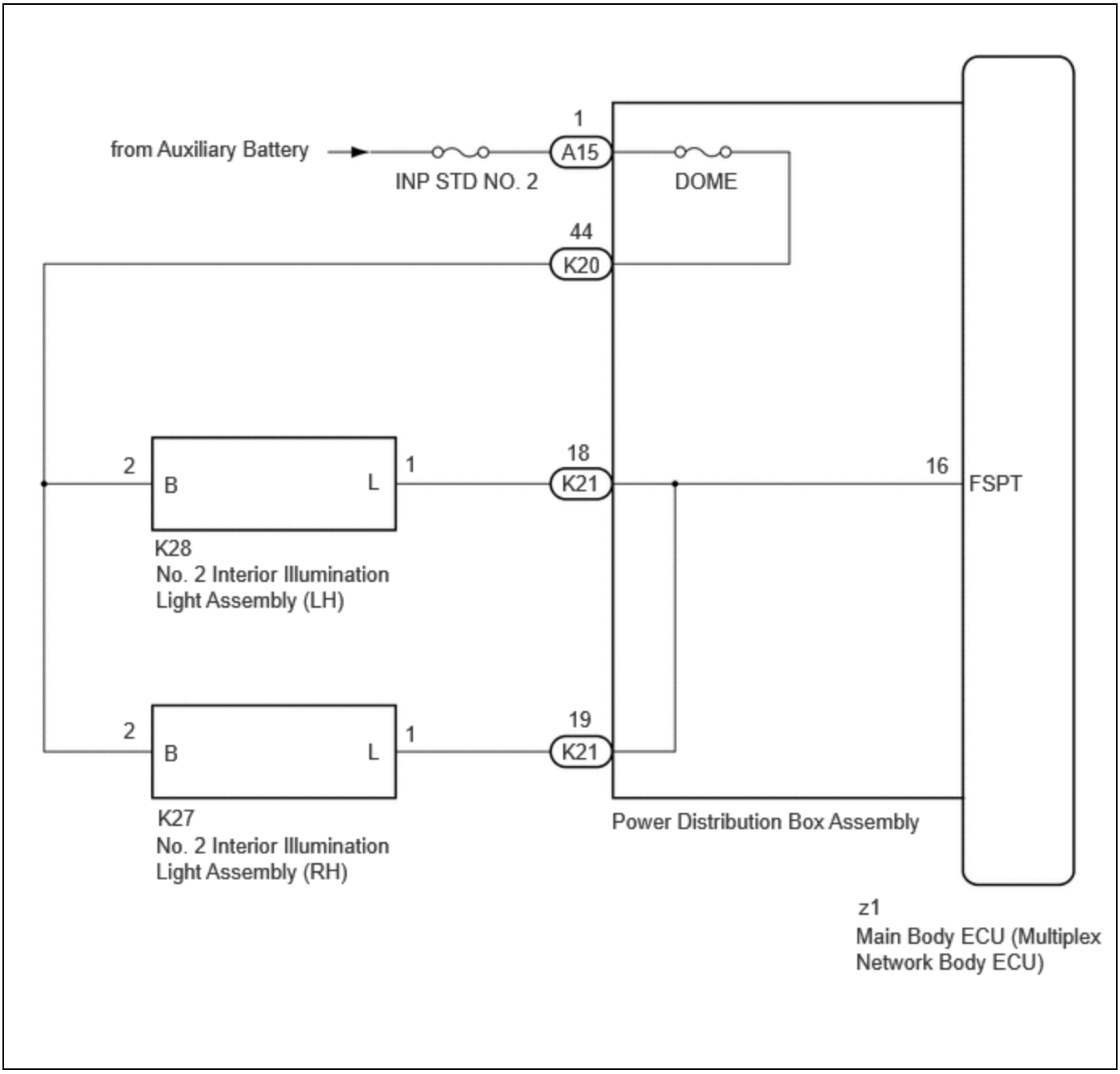
Footwell Light Circuit

DESCRIPTION

The main body ECU (multiplex network body ECU) controls the operation of the following lights:

- No. 2 Interior Illumination Light Assembly (LH)
- No. 2 Interior Illumination Light Assembly (RH)

WIRING DIAGRAM



CAUTION / NOTICE / HINT

NOTICE:

- Inspect the fuses for circuits related to this system before performing the following procedure.
- Before replacing the main body ECU (multiplex network body ECU), refer to Registration.

Click here INFO

PROCEDURE

1.	**PERFORM ACTIVE TEST USING GTS**

(a) Perform the Active Test according to the display on the GTS.

Body Electrical > Main Body > Active Test

TESTER DISPLAY	MEASUREMENT ITEM	CONTROL RANGE	DIAGNOSTIC NOTE
Front Footwell Lights	No. 2 interior illumination light assembly (LH/RH)	OFF or ON	Perform the Active Test with the vehicle stopped, ignition switch OFF and lock all doors.

Body Electrical > Main Body > Active Test

TESTER DISPLAY
Front Footwell Lights

OK:
Footwell lights come on.

RESULT	PROCEED TO
OK	A
NG (Footwell light LH does not come on)	B
NG (Footwell light RH does not come on)	C
NG (Footwell light LH and RH do not come on)	D

A ▶ **USE SIMULATION METHOD TO CHECK**

C ▶ **GO TO STEP 5**

D ▶ **GO TO STEP 8**

B ▼

2.	**INSPECT NO. 2 INTERIOR ILLUMINATION LIGHT ASSEMBLY (LH)**

Click here INFO

NG ▶ **REPLACE NO. 2 INTERIOR ILLUMINATION LIGHT ASSEMBLY (LH)**

OK

3.	**CHECK HARNESS AND CONNECTOR (NO. 2 INTERIOR ILLUMINATION LIGHT ASSEMBLY (LH) - POWER DISTRIBUTION BOX ASSEMBLY)**

(a) Disconnect the K21 power distribution box assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K28,K21)
Click Connector(K28)
Click Connector(K21)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K28-1(L) - K21-18	Always	Below 1 Ω
K28-1(L) or K21-18 - Body ground	Always	10 kΩ or higher

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

OK

4.	**CHECK HARNESS AND CONNECTOR (NO. 2 INTERIOR ILLUMINATION LIGHT ASSEMBLY (LH) - POWER DISTRIBUTION BOX ASSEMBLY)**

(a) Disconnect the K20 power distribution box assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K28,K20)
Click Connector(K28)
Click Connector(K20)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K28-2 (B) - K20-44	Always	Below 1 Ω
K28-2 (B) or K20-44 - Body ground	Always	10 kΩ or higher

OK ▶ **REPLACE POWER DISTRIBUTION BOX ASSEMBLY** INFO

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

5.	**INSPECT NO. 2 INTERIOR ILLUMINATION LIGHT ASSEMBLY (RH)**

Click here INFO

NG ▶ **REPLACE NO. 2 INTERIOR ILLUMINATION LIGHT ASSEMBLY (RH)**

OK ▼

6.	**CHECK HARNESS AND CONNECTOR (NO. 2 INTERIOR ILLUMINATION LIGHT ASSEMBLY (RH) - POWER DISTRIBUTION BOX ASSEMBLY)**

(a) Disconnect the K21 power distribution box assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K27,K21)
Click Connector(K27)
Click Connector(K21)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K27-1 (L) - K21-19	Always	Below 1 Ω
K27-1 (L) - K21-19 - Body ground	Always	10 kΩ or higher

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

OK ▼

7.	**CHECK HARNESS AND CONNECTOR (NO. 2 INTERIOR ILLUMINATION LIGHT ASSEMBLY (RH) - POWER DISTRIBUTION BOX ASSEMBLY)**

(a) Disconnect the K20 power distribution box assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K27,K20)
Click Connector(K27)
Click Connector(K20)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K27-2 (B) - K20-44	Always	Below 1 Ω
K27-2 (B) or K20-44 - Body ground	Always	10 kΩ or higher

OK ▶ **REPLACE POWER DISTRIBUTION BOX ASSEMBLY**
INFO

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

8.	**INSPECT POWER DISTRIBUTION BOX ASSEMBLY**

(a) Remove the main body ECU (multiplex network body ECU) from the power distribution box assembly.

Click here INFO

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

Standard Resistance:

EWD INFO

Click Location & Routing(K21,z1,A15,K20)
Click Connector(K21)
Click Connector(z1)
Click Connector(A15)
Click Connector(K20)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K21-18 - z1-16 (FSPT)	Always	Below 1 Ω
K21-19 - z1-16 (FSPT)	Always	Below 1 Ω
A15-1 - K20-44	Always	Below 1 Ω

NG ▶ **REPLACE POWER DISTRIBUTION BOX ASSEMBLY**
INFO

OK

9.	**CHECK HARNESS AND CONNECTOR (NO. 2 INTERIOR ILLUMINATION LIGHT ASSEMBLY - POWER DISTRIBUTION BOX ASSEMBLY)**

(a) Disconnect the K20 power distribution box assembly connector.

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

Standard Resistance:

EWD INFO

Click Location & Routing(K28,K20,K27)
Click Connector(K28)
Click Connector(K20)
Click Connector(K27)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K28-2 (B) - K20-44	Always	Below 1 Ω
K27-2 (B) - K20-44	Always	Below 1 Ω
K28-2 (B) or K20-44 - Body ground	Always	10 kΩ or higher
K27-2 (B) or K20-44 - Body ground	Always	10 kΩ or higher

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

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