

Last Modified: 12-04-2024	6.11:8.1.0	Doc ID: RM100000002A153
Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: LIGHTING (EXT): LIGHTING SYSTEM: Headlight Dimmer Switch Circuit; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

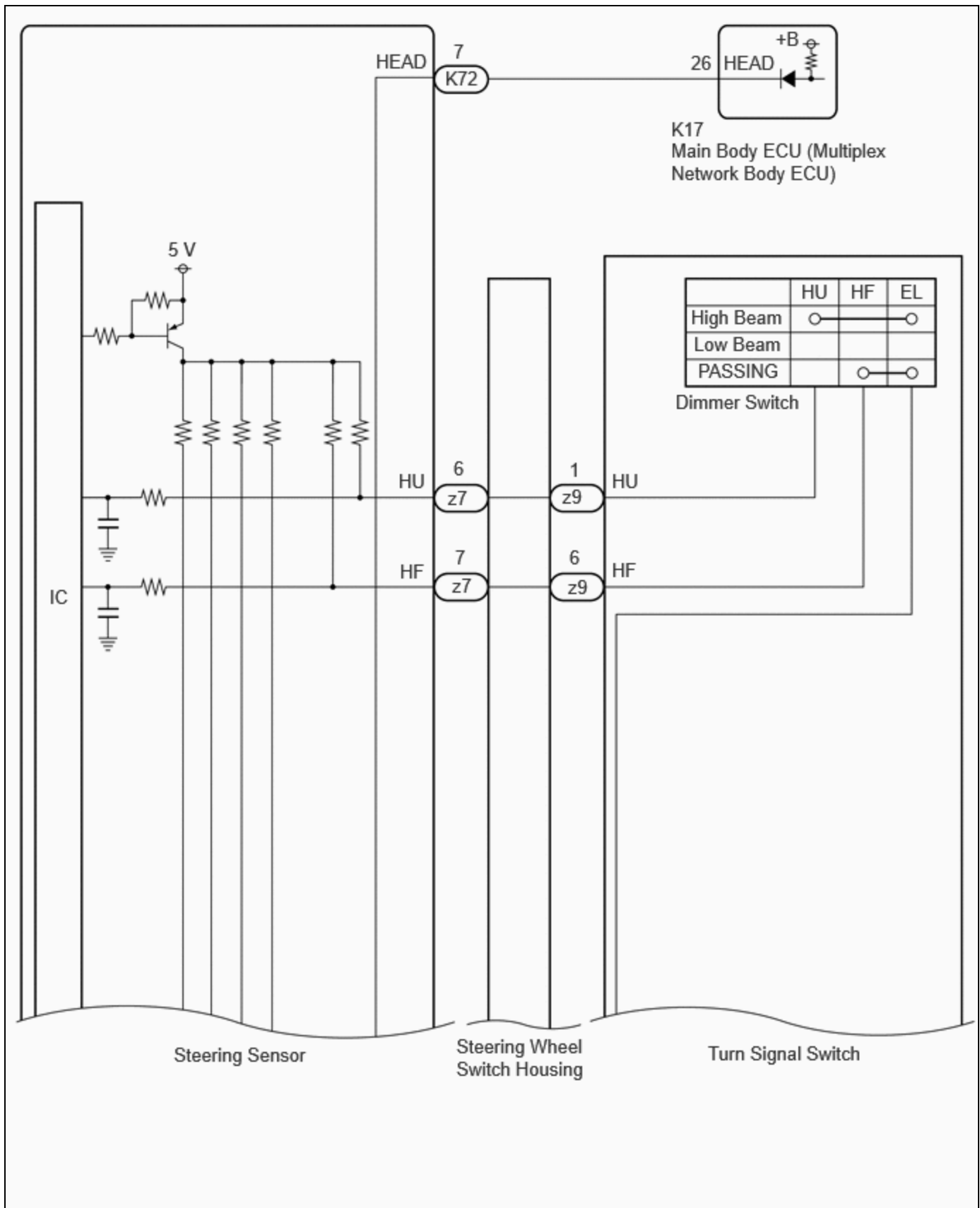
Headlight Dimmer Switch Circuit

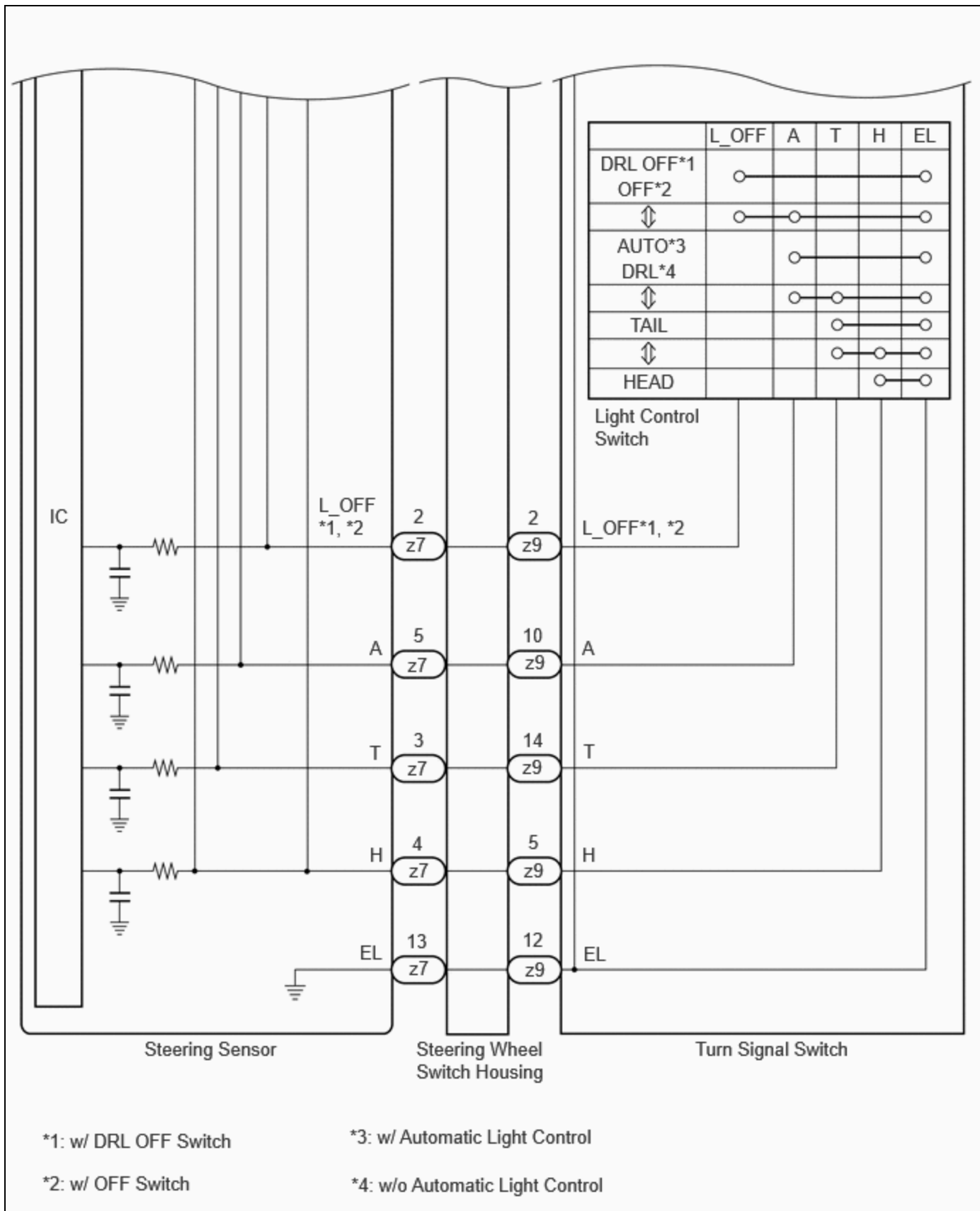
DESCRIPTION

The steering sensor receives the following switch information:

- Light control switch in DRL OFF*1, OFF*2, tail, head, AUTO*3 or DRL*4 position
- Dimmer switch in high, low or high flash (pass) position
 - *1: w/ DRL OFF Switch
 - *2: w/ OFF Switch
 - *3: w/ Automatic Light Control
 - *4: w/o Automatic Light Control

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.

Chassis > Steering Angle Sensor > Data List

TESTER DISPLAY	MEASUREMENT ITEM	NORMAL CONDITION	REFERENCE VALUE	DIAGNOSTIC NOTE
Light OFF Switch	Light control switch DRL OFF*1 or off*2 position signal	OFF or ON	OFF: Light control switch not in DRL OFF*1 or off*2 position ON: Light control switch in DRL OFF*1 or off*2 position	*1, *2
Auto Light Switch	Light control switch AUTO*3 or DRL*4 position signal	OFF or ON	OFF: Light control switch not in AUTO*3 or DRL*4 position ON: Light control switch in AUTO*3 or DRL*4 position	-
Head Light Switch (Tail)	Light control switch tail position signal	OFF or ON	OFF: Light control switch in neither tail nor head position ON: Light control switch in tail or head position	-
Head Light Switch (Head)	Light control switch head position signal	OFF or ON	OFF: Light control switch not in head position ON: Light control switch in head position	-
High Beam Main Switch	Dimmer switch high position signal	OFF or ON	OFF: Dimmer switch not in high position ON: Dimmer switch in high position	-
Passing Light Switch	Dimmer switch high flash position (pass) signal	OFF or ON	OFF: Dimmer switch not in high flash position ON: Dimmer switch in high flash position	-

Chassis > Steering Angle Sensor > Data List

TESTER DISPLAY
Light OFF Switch
Auto Light Switch
Head Light Switch (Tail)
Head Light Switch (Head)
High Beam Main Switch
Passing Light Switch

OK:

Normal conditions listed above are displayed.

*1: w/ DRL OFF Switch

*2: w/ OFF Switch

*3: w/ Automatic Light Control

*4: w/o Automatic Light Control

NG  **GO TO STEP 5**

OK



2.	READ VALUE USING GTS
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(a) Read the Data List according to the display on the GTS.

Body Electrical > Main Body > Data List

TESTER DISPLAY	MEASUREMENT ITEM	NORMAL CONDITION	REFERENCE VALUE	DIAGNOSTIC NOTE
Light Control Switch (HEAD)	Light control switch head position signal	OFF or ON	OFF: Light control switch not in head position ON: Light control switch in head position	-

Body Electrical > Main Body > Data List

TESTER DISPLAY
Light Control Switch (HEAD)

OK:
Normal conditions listed above are displayed.

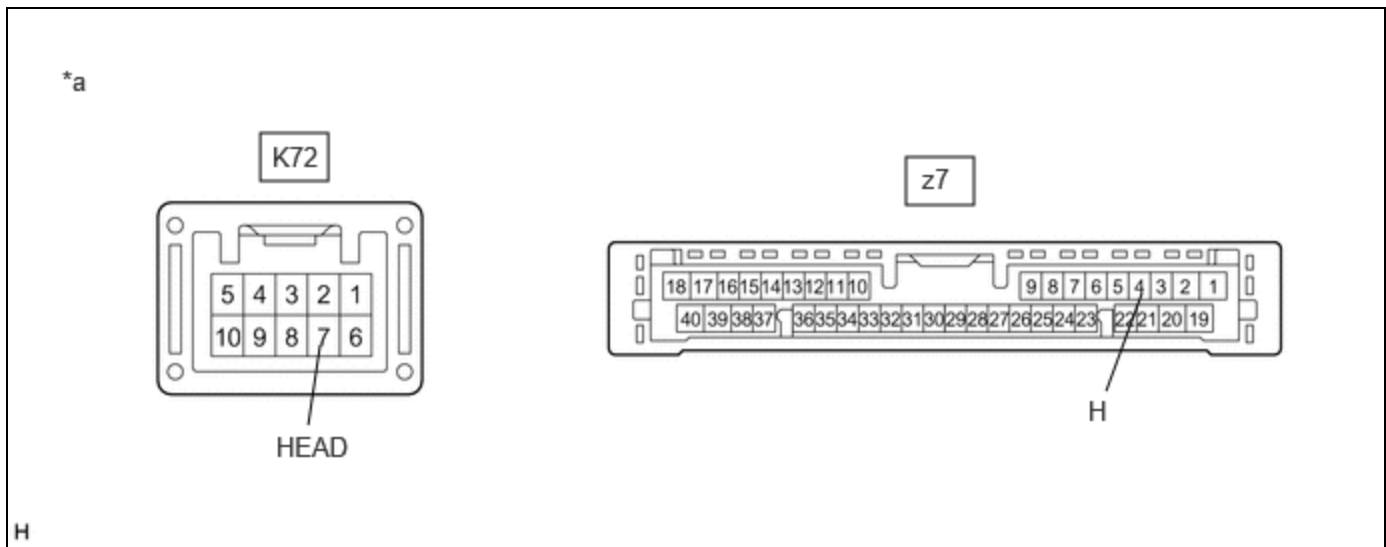
OK ▶ **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE**

Click here [INFO](#)

NG



3. INSPECT STEERING SENSOR



*a	Component without harness connected (Steering Sensor)	-	-
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(a) Remove the steering sensor.

Click here [INFO](#)

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

Standard Resistance:



[Click Location & Routing\(K72,z7\).](#)

[Click Connector\(K72\).](#)

[Click Connector\(z7\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K72-7 (HEAD) - z7-4 (H)	Always	Below 1 Ω

NG  **REPLACE STEERING SENSOR**

Click here 

OK



4.	CHECK HARNESS AND CONNECTOR (STEERING SENSOR - MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU))
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(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:



[Click Location & Routing\(K72,K17\).](#)

[Click Connector\(K72\).](#)

[Click Connector\(K17\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K72-7 (HEAD) - K17-26 (HEAD)	Always	Below 1 Ω
K72-7 (HEAD) or K17-26 (HEAD) - Body ground	Always	10 k Ω or higher

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

Click here 

NG  **REPAIR OR REPLACE HARNESS OR CONNECTOR**

5.	INSPECT TURN SIGNAL SWITCH
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Click here 

NG  **REPLACE TURN SIGNAL SWITCH**

OK



6.	INSPECT STEERING WHEEL SWITCH HOUSING
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Click here [INFO](#)

OK ▶ **REPLACE STEERING SENSOR**

Click here [INFO](#)

NG ▶ **REPLACE STEERING WHEEL SWITCH HOUSING**

Click here [INFO](#)

