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| Model Year Start: 2023 | Model: Prius Prime | Prod Date Range: [03/2023 -] |
| Title: LIGHTING (EXT): LIGHTING SYSTEM: DATA LIST / ACTIVE TEST; 2023 - 2024 MY Prius Prius Prime [03/2023 -] | | |

DATA LIST / ACTIVE TEST

DATA LIST

NOTICE:

In the table below, the values listed under "Normal Condition" are reference values. Do not depend solely on these reference values when deciding whether a part is faulty or not.

HINT:

Using the GTS to read the Data List allows the values or states of switches, sensors, actuators and other items to be read without removing any parts. This non-intrusive inspection can be very useful because intermittent conditions or signals may be discovered before parts or wiring is disturbed. Reading the Data List information early in troubleshooting is one way to save diagnostic time.

(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 |
|--------------------------------------|---|----------------------------|---|---|
| Auto High Beam Main Switch | Auto high beam switch signal | OFF or ON | OFF: Auto high beam switch not pressed ON: Auto high beam switch pressed | - |
| 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 | - |
| Insolation Amount of Solar Sensor RH | Automatic light control sensor RH condition | 0 to 51100 or SensorFail | Condition can be displayed | - |
| Insolation Amount of Solar Sensor LH | Automatic light control sensor LH condition | 0 to 51100 or SensorFail | Condition can be displayed | - |
| Light Sensor Illuminance | Automatic light control sensor illuminance | 0 to 8191 lx or SensorFail | Value is output according to ambient light level | The displayed value is "0" when no light is detected. |

| TESTER DISPLAY | MEASUREMENT ITEM | NORMAL CONDITION | REFERENCE VALUE | DIAGNOSTIC NOTE |
|-----------------------------------|--|----------------------------|---|--|
| AHS Function | Adaptive high beam system control function | Not Available or Available | Not Available: Adaptive high beam system control unavailable Available: Adaptive high beam system control valid | Although the item is displayed on the GTS, it is not applicable to this vehicle. |
| High Beam Headlights (By AHS ECU) | Adaptive high beam system high beam operation status | Light OFF or Light ON | Light OFF: Adaptive high beam system high beam off Light ON: Adaptive high beam system high beam on | Although the item is displayed on the GTS, it is not applicable to this vehicle. |
| Light Sensor Connection History | Automatic light control sensor connection status | Without or With | Without: Automatic light control sensor has not been connected With: Automatic light control sensor connected or has been connected | - |
| Headlight ECU Function | ECU which controls the lighting system | Not Available or Available | Not Available: Headlight ECU control unavailable Available: Headlight ECU control valid | Although the item is displayed on the GTS, it is not applicable to this vehicle. |
| LDM ECU Function | ECU which controls the lighting system | Not Available or Available | Not Available: Light control LED ECU control unavailable Available: Light control LED ECU control valid | - |

| TESTER DISPLAY | MEASUREMENT ITEM | NORMAL CONDITION | REFERENCE VALUE | DIAGNOSTIC NOTE |
|--|--|---|---------------------------------------|---|
| Automatic High Beam Headlights Sensor Detection Status | Automatic high beam sensor current state | Undetected, N/A, No sens, Headlight, Taillight, Speed, Daytime, Village, Other sens, Change, Out of aim, SAE Mod, Aim adjust or LIN Err | Condition can be displayed* | If the value of this item is not as specified, the automatic high beam sensor system may be malfunctioning. |
| Communication Power Integration No.1 | Connection status between semiconductor power integration ECU and main body ECU (multiplex network body ECU) | STOP or OK | STOP: No connection OK: Connection | Although the item is displayed on the GTS, it is not applicable to this vehicle. |
| Communication Power Integration No.2 | Connection status between No. 2 semiconductor power integration ECU and main body ECU (multiplex network body ECU) | STOP or OK | STOP: No connection OK: Connection | Although the item is displayed on the GTS, it is not applicable to this vehicle. |
| Communication Power Integration No.3 | Connection status between No. 3 semiconductor power integration ECU and main body ECU (multiplex network body ECU) | STOP or OK | STOP: No connection OK: Connection | Although the item is displayed on the GTS, it is not applicable to this vehicle. |
| Communication Power Distribution Box | Connection status between power distribution box assembly and main body ECU (multiplex network body ECU) | STOP or OK | STOP: No connection OK: Connection | When there is a malfunction, a DTC is stored |
| Communication LDM LH | Connection status between light control LED ECU LH and main body ECU (multiplex network body ECU) | STOP or OK | STOP: No connection OK: Connection | Although the item is displayed on the GTS, it is not applicable to this vehicle. |
| Communication LDM RH | Connection status between light control LED ECU RH and main | STOP or OK | STOP: No connection | Although the item is displayed on the GTS, |

| TESTER DISPLAY | MEASUREMENT ITEM | NORMAL CONDITION | REFERENCE VALUE | DIAGNOSTIC NOTE |
|---|--|--|-----------------------------|--|
| | body ECU (multiplex network body ECU) | | OK: Connection | it is not applicable to this vehicle. |
| Tail Remind Buzzer Function | Setting of the tail remind buzzer function on/off | Disable or Enable | Customize setting displayed | - |
| Headlight ON in Conjunction with Wiper Function | Wiper-linked low beam headlight control | Disable or Enable | Customize setting displayed | w/ Wiper-linked Low Beam Headlight Control System |
| Brightness Level Adjust (Lowering) | Ambient brightness level required to dim display lights (combination meter, navigation display, etc.) | Normal, Dark2, Dark1, Light1 or Light2 | Customize setting displayed | - |
| Brightness Level Adjust (Canceling) | Ambient brightness level required to cancel dimming display lights (combination meter, navigation display, etc.) | Normal, Dark2, Dark1, Light1 or Light2 | Customize setting displayed | - |
| Sensitivity Adjust | Sensitivity of the automatic light control system | Normal, Dark2, Dark1, Light1 or Light2 | Customize setting displayed | w/ Automatic Light Control |
| DRL Function | Setting of the DRL function on/off | Disable or Enable | Customize setting displayed | - |
| Light Auto OFF Delay Setting | Light auto OFF delay | OFF, 30sec, 60sec or 90sec | Customize setting displayed | w/ Delay Function |
| Sensitivity Adjust | Sensitivity of the automatic light control system (Driver 1) | Normal, Dark2, Dark1, Light1 or Light2 | Customize setting displayed | w/ Automatic Light Control |
| DRL Function | Setting of the DRL function on/off (Driver 1) | OFF or ON | Customize setting displayed | for vehicles with customize setting "DRL Function" |
| Light Auto OFF Delay Setting | Light auto OFF delay (Driver 1) | OFF, 30sec, 60sec or 90sec | Customize setting displayed | w/ Delay Function |

| TESTER DISPLAY | MEASUREMENT ITEM | NORMAL CONDITION | REFERENCE VALUE | DIAGNOSTIC NOTE |
|------------------------------|--|--|-----------------------------|--|
| Sensitivity Adjust | Sensitivity of the automatic light control system (Driver 2) | Normal, Dark2, Dark1, Light1 or Light2 | Customize setting displayed | w/ Automatic Light Control |
| DRL Function | Setting of the DRL function on/off (Driver 2) | OFF or ON | Customize setting displayed | for vehicles with customize setting "DRL Function" |
| Light Auto OFF Delay Setting | Light auto OFF delay (Driver 2) | OFF, 30sec, 60sec or 90sec | Customize setting displayed | w/ Delay Function |
| Sensitivity Adjust | Sensitivity of the automatic light control system (Driver 3) | Normal, Dark2, Dark1, Light1 or Light2 | Customize setting displayed | w/ Automatic Light Control |
| DRL Function | Setting of the DRL function on/off (Driver 3) | OFF or ON | Customize setting displayed | for vehicles with customize setting "DRL Function" |
| Light Auto OFF Delay Setting | Light auto OFF delay (Driver 3) | OFF, 30sec, 60sec or 90sec | Customize setting displayed | w/ Delay Function |

HINT:

*: The details of each value of the Range are as follows:

| DISPLAY VALUE | CONDITION | CONTROL CONDITION | DIAGNOSTIC NOTE |
|---------------|---|--|--|
| Undetected | Automatic high beam sensor being initialized | Control suspended (low beam headlights illuminated) | - |
| N/A | Automatic high beam sensor temporarily disabled due to high temperature, unclear image (due to dirt, fog, etc.), etc. | Control suspended (previous beam setting maintained) | - |
| No sens | No lights detected | High beam headlights illuminated | Only when vehicle speed within operation speed range |
| Headlight | Headlights of oncoming vehicle, etc. detected | Low beam headlights illuminated | Only when vehicle speed within operation speed range |
| Taillight | Taillights preceding vehicle, etc. detected | Low beam headlights illuminated | Only when vehicle speed within operation speed range |
| Speed | No lights detected and vehicle speed below operation speed | Low beam headlights illuminated | - |

| DISPLAY VALUE | CONDITION | CONTROL CONDITION | DIAGNOSTIC NOTE |
|---------------|---|---|--|
| Daytime | Bright light detected | Low beam headlights illuminated | - |
| Village | Streetlights, etc. detected | Low beam headlights illuminated | Only when vehicle speed within operation speed range |
| Change | Changing between low beams and high beams | Changing between low beams and high beams | Only when vehicle speed within operation speed range |
| Other sens | Not applicable | - | - |
| Out of aim | | | |
| SAE Mod | | | |
| Aim adjust | | | |
| LIN Err | | | |

Chassis > Steering Angle Sensor > Data List

| TESTER DISPLAY | MEASUREMENT ITEM | RANGE | NORMAL CONDITION | DIAGNOSTIC NOTE |
|--------------------------------|---|---------------|---|-----------------|
| Total Distance Traveled | Actual driven distance | 0 to 16777215 | Roughly the same as the actual driven distance | - |
| Total Distance Traveled - Unit | Actual driven distance unit | km or mile | Displays the current actual driven distance unit | - |
| 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 | - |

| TESTER DISPLAY | MEASUREMENT ITEM | RANGE | NORMAL CONDITION | DIAGNOSTIC NOTE |
|--|---|-----------|--|--|
| | | | 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 | - |
| Auto High Beam Main Switch | Auto high beam switch signal | OFF or ON | OFF: Auto high beam switch off ON: Auto high beam switch on | Although the item is displayed on the GTS, it is not applicable to this vehicle. |
| Turn Signal Switch (Right) | Turn signal switch (right turn position) signal | OFF or ON | OFF: Turn signal switch not in right turn position ON: Turn signal switch in right turn position | - |
| Turn Signal Switch (Left) | Turn signal switch (left turn position) signal | OFF or ON | OFF: Turn signal switch not in left turn position ON: Turn signal switch in left turn position | - |
| Cornering Light/Front Side Illuminate Light Switch | Turn signal switch (full turn) signal | OFF or ON | OFF: Turn signal switch not in left or right turn position ON: Turn signal switch in left or right full turn position | - |
| Front Fog Light Switch | Front fog light switch signal | OFF or ON | OFF: Front fog light switch off | Although the item is displayed on the GTS, it is |

| TESTER DISPLAY | MEASUREMENT ITEM | RANGE | NORMAL CONDITION | DIAGNOSTIC NOTE |
|-----------------------------------|--|--------------------------|--|--|
| | | | ON: Front fog light switch on | not applicable to this vehicle. |
| Rear Fog Light/Bad Weather Switch | Rear fog light switch signal | OFF or ON | OFF: Rear fog light switch off ON: Rear fog light switch on | Although the item is displayed on the GTS, it is not applicable to this vehicle. |
| Automatic Light Equipped Info | Automatic light control system specification information | Unknown, With or Without | Unknown: Specification not stored With: Automatic light control system equipped Without: Automatic light control system not equipped | - |
| Bad Weather Mode Equipped Info | Bad weather specification information | Unknown, Without or With | Unknown: Specification not stored Without: Bad weather specification not equipped With: Bad weather specification equipped | Although the item is displayed on the GTS, it is not applicable to this vehicle. |

*1: w/ DRL OFF Switch

*2: w/ OFF Switch

*3: w/ Automatic Light Control

*4: w/o Automatic Light Control

Body Electrical > Combination Meter > Data List

| TESTER DISPLAY | MEASUREMENT ITEM | RANGE | NORMAL CONDITION | DIAGNOSTIC NOTE |
|----------------------------|-----------------------------------|-----------|---|--|
| Turn Signal Switch (Left) | Turn signal switch (left) signal | OFF or ON | OFF: Turn signal switch not in left turn position ON: Turn signal switch in left turn position | Although the item is displayed on the GTS, it is not applicable to this vehicle. |
| Turn Signal Switch (Right) | Turn signal switch (right) signal | OFF or ON | OFF: Turn signal switch not in right turn position ON: Turn signal switch in right turn position | Although the item is displayed on the GTS, it is not applicable to this vehicle. |

| TESTER DISPLAY | MEASUREMENT ITEM | RANGE | NORMAL CONDITION | DIAGNOSTIC NOTE |
|-----------------------------------|---|----------------------|---|--|
| Turn Switch Signal (Full Turn) | Turn signal switch (full turn) signal | OFF or ON | OFF: Turn signal switch not in left or right turn position ON: Turn signal switch in left or right turn position | Although the item is displayed on the GTS, it is not applicable to this vehicle. |
| Hazard Flasher Switch | Hazard warning signal switch signal | OFF or ON | OFF: Hazard warning signal switch off ON: Hazard warning signal switch on | - |
| Lane Change Flashing Times Adjust | Condition of the lane change flashing times | OFF, 3, 4, 5, 6 or 7 | Customize setting displayed | - |

Body Electrical > Power Distribution Box > Data List

| TESTER DISPLAY | MEASUREMENT ITEM | NORMAL CONDITION | REFERENCE VALUE | DIAGNOSTIC NOTE |
|--|-------------------------------------|------------------|---|---------------------------------|
| Back-up Light Input Signal | Back-up light input | OFF or ON | OFF: Shift lever in any position other than R ON: Shift lever in R | - |
| Back-up Light Output Signal | Back-up light output | OFF or ON | OFF: Back-up light off ON: Back-up light on | - |
| Back-up Light Output Current | Back-up light circuit current | 0.0 to 255.0 A | Below 5.3 A | Back-up light when output is on |
| Back-up Light Fuse Shut Off Status | Back-up light fuse shut off status | OFF or ON | OFF: Fuse has no shut off history ON: Fuse has shut off history | - |
| Back-up Light Fuse Shut Off Count | Back-up light fuse shut off history | 0 to 255 | 0 | - |
| Tail Light Internal Relay Input Signal | Taillight internal relay input | OFF or ON | OFF: Taillights off ON: Taillights on | - |

| TESTER DISPLAY | MEASUREMENT ITEM | NORMAL CONDITION | REFERENCE VALUE | DIAGNOSTIC NOTE |
|---|---------------------------------|------------------|--|-----------------|
| Tail Light Internal Relay Output Signal | Taillight internal relay output | OFF or ON | OFF: Taillights off ON: Taillights on | - |

Powertrain > Plug-in Control > Data List

| TESTER DISPLAY | MEASUREMENT ITEM | NORMAL CONDITION | REFERENCE VALUE | DIAGNOSTIC NOTE |
|----------------------------|-------------------------------|---------------------|---|-----------------|
| Charging Lid Switch Status | EV Charging lid switch status | OFF or ON | ON: Charging port lid open (push lifter of EV charger lid switch assembly extended) OFF: Charging port lid close (push lifter of EV charger lid switch assembly pushed in) | for PHEV Model |
| Charging Lid Lamp Status | Charging lid light status | OFF / Fade Out / ON | OFF: Charging lid light assembly off Fade Out: Charging lid light assembly fading out ON: Charging lid light assembly on | for PHEV Model |

ACTIVE TEST

HINT:

Using the GTS to perform Active Tests allows relays, VSVs, actuators and other items to be operated without removing any parts. This non-intrusive functional inspection can be very useful because intermittent operation may be discovered before parts or wiring is disturbed. Performing Active Tests early in troubleshooting is one way to save diagnostic time. Data List information can be displayed while performing Active Tests.

(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 |
|--|---------------------------------------|---------------|-----------------|
| Headlight Relay / Light Power Supply Relay | Low beam headlights | OFF or ON | - |
| High Beam Headlight | High beam headlights | OFF or ON | - |
| Daytime Running Light | Daytime running lights | OFF or ON | - |
| Automatic High Beam Switch Light | Auto high beam switch indicator light | OFF or ON | - |

| TESTER DISPLAY | MEASUREMENT ITEM | CONTROL RANGE | DIAGNOSTIC NOTE |
|-----------------------------|---------------------------|---------------|--|
| Dimmer Signal | Dimmer signal | OFF or ON | State where circumference illumination is bright. |
| Rear Fog Light | Rear fog lights | OFF or ON | Although the item is displayed on the GTS, it is not applicable to this vehicle. |
| Taillight / Clearance Light | Taillights/parking lights | OFF or ON | - |

