2011 Toyota Truck Tundra 4WD V8-5.7L (3UR-FE)
Vehicle > Lighting and Horns > Description and Operation > Components

LIGHTING SYSTEM

LIGHTING: LIGHTING SYSTEM: SYSTEM DIAGRAM
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SYSTEM DESCRIPTION

1. ILLUMINATED ENTRY SYSTEM

(a) When the doors are unlocked by a key or door control transmitter operation, or when a door is opened or closed, the illuminated entry system turns on the room light, map light, foot light and ignition key cylinder light.

(1) The main body ECU receives the following signals (A).

   - Door control switch signal
   - Door detection switch signal
   - Ignition switch signal

(2) The main body ECU controls the following signal based on the signals listed in A.

   - Illumination operation signal

(3) The main body ECU controls the on/off and fade-in/fade-out operation of the following parts.

   - Room light
   - Map light
   - Foot light
   - Ignition key cylinder light

2. BATTERY SAVE SYSTEM

(a) When the ignition switch is turned OFF and any of the doors is open continuously for 20 minutes, the main body ECU turns the illumination operation
signal off. As a result, the room light, map light, foot light and ignition key cylinder light turn off.

(1) The main body ECU receives the following signals (B).

- Door courtesy light switch signal
- Ignition switch signal

(2) The main body ECU controls the following signal based on the signal listed in B (C).

- Illumination operation signal

(3) The main body ECU controls the illumination period of the following parts based on the signal listed in C.

- Room light
- Map light
- Foot light
- Ignition key cylinder light
- Cargo light

3. MANUAL LIGHT CONTROL SYSTEM

(a) This system functions when lights such as the headlight, taillight and front fog light are illuminated by manual operation of the light control switch.

(1) The main body ECU receives the following signals (D).

- Light control switch signal
- Headlight dimmer switch signal
- Front fog light switch signal

(2) The main body ECU controls the following signals based on the signals listed in D (E).
Headlight relay operation signal
Taillight relay operation signal
Front fog light relay operation signal

(3) The main body ECU controls the on/off operation of the following parts based on the signal listed in E.

Headlight (Low)
Headlight (High)
Front fog light

4. LIGHT AUTO TURN OFF SYSTEM

(a) When the headlight and taillight are both illuminated by the operation of the light control switch, if the ignition switch is turned OFF, this system continues illuminating the headlight and taillight for approximately 30 seconds, and then turns them off. However, when all the doors are locked using the door control switch, key or transmitter OFF switch within 30 seconds, this system turns the headlight and taillight off immediately. Also, when only the taillight is illuminated by the operation of the light control switch, if the ignition switch is turned OFF and the driver door is opened, this system turns the taillight off immediately.

(1) The main body ECU receives the following signals (F).

Door courtesy light switch signal
Ignition switch signal

(2) The main body ECU controls the following signals based on the signals listed in F (G).

Headlight relay operation signal
Taillight relay operation signal
Daytime running light relay operation signal
(3) The main body ECU controls the on/off operation of the following parts based on the signal listed in G.

- Headlight (Low)
- Headlight (High)
- Taillight

5. DAYTIME RUNNING LIGHT SYSTEM

(a) This system is directly connected to the turn signal light and is designed to automatically activate the daytime running lights in order to increase the visibility of the vehicle.

(1) The main body ECU receives the following (H).

- Ignition switch signal
- Engine speed signal
- Parking brake switch signal
- Light control switch signal

(2) The main body ECU and turn signal flasher controls the following signal based on the signals listed in H (I).

- Daytime running light relay operation signal

(3) The main body ECU and turn signal flasher controls the on/off operation of the following part based on the signal listed in I.

- Turn signal light

6. MANUAL HEADLIGHT BEAM LEVEL CONTROL SYSTEM

(a) When the vehicle posture changes in accordance with the number (weight) of passengers, cargo, or towing tongue weight, this system enables the adjustment of the low beam level (11 steps) of the headlights manually to the appropriate level based on the position of the headlight leveling switch.

The beam level of the headlight can be adjusted by the headlight leveling motor that is installed in the headlight assembly.
The headlight leveling switch allows the driver to control this system.