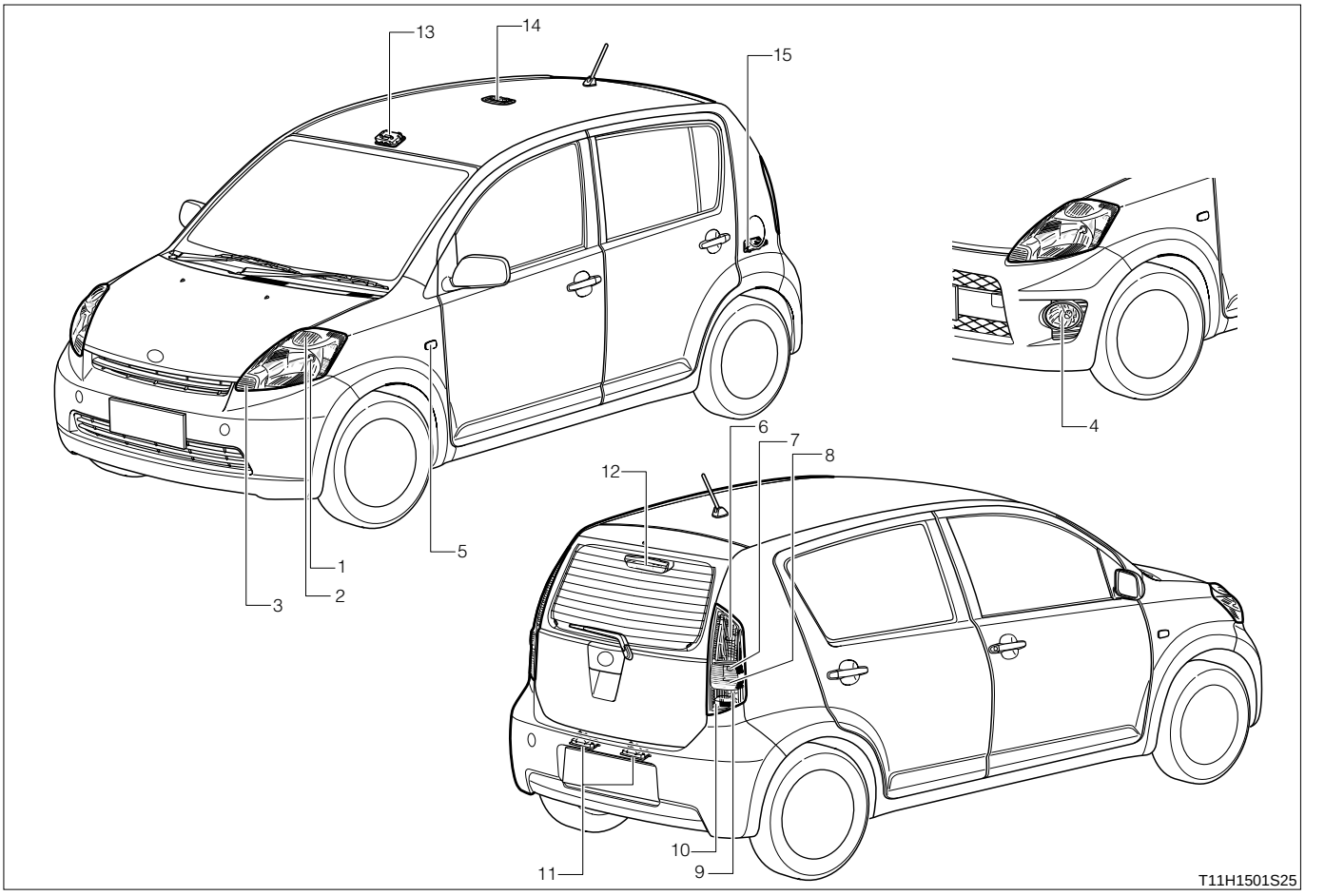
TO INDEX

J1 LIGHTING

1 OUTLINE

1. Two-headlamp type halogen headlamps have been selected.
2. For the headlamps, unconventional multi-reflector type that has enhanced the photometric performance has been employed.
3. The manual headlamp leveling mechanism is provided on some specifications.
4. An excellent appearance has been achieved by employing clear lenses for outer lenses of the front, side and rear turn signal lamps. In addition to the employment of the clear lens, amber bulbs have been employed for the front, and rear turn signal lamps and amber caps for the interior of the side turn signal lamps.
5. High-mount stop lamps equipped on the back door have been set in some specifications.
6. An excellent appearance has been achieved by employing clear lenses for the outer lenses of the rear combination lamp.
7. The rear fog lamp has been set in some specifications and is provided in the driver seat side rear combination lamp.



Specification table

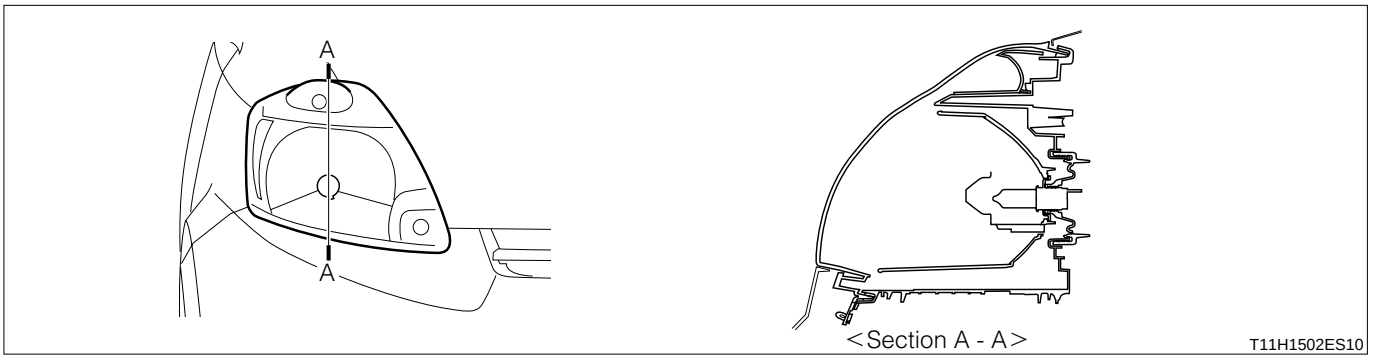
No.	Nomenclature	Category	Capacity (W)
1	Headlamp	H4	60/55
2	Clearance lamp	T10	5
3	Front turn signal lamp	S25 (Amber)	21
4	Front fog lamp	HB4	51
5	Side turn signal lamp	T10	5
6	Tail and stop lamp	T20	21/5
7	Rear turn signal lamp	T20 (Amber)	21
8	Backup lamp	T16	16
9	Rear fog lamp	T20	21
10	Reflex reflector	—	—
11	License plate lamp	T10	5
12	High-mount stop lamp	T16	16
13	Front map lamp	—	8
14	Room lamp	—	8
15	Luggage room lamp	—	5

2 CONSTRUCTION AND OPERATION

2-1 HEADLAMP

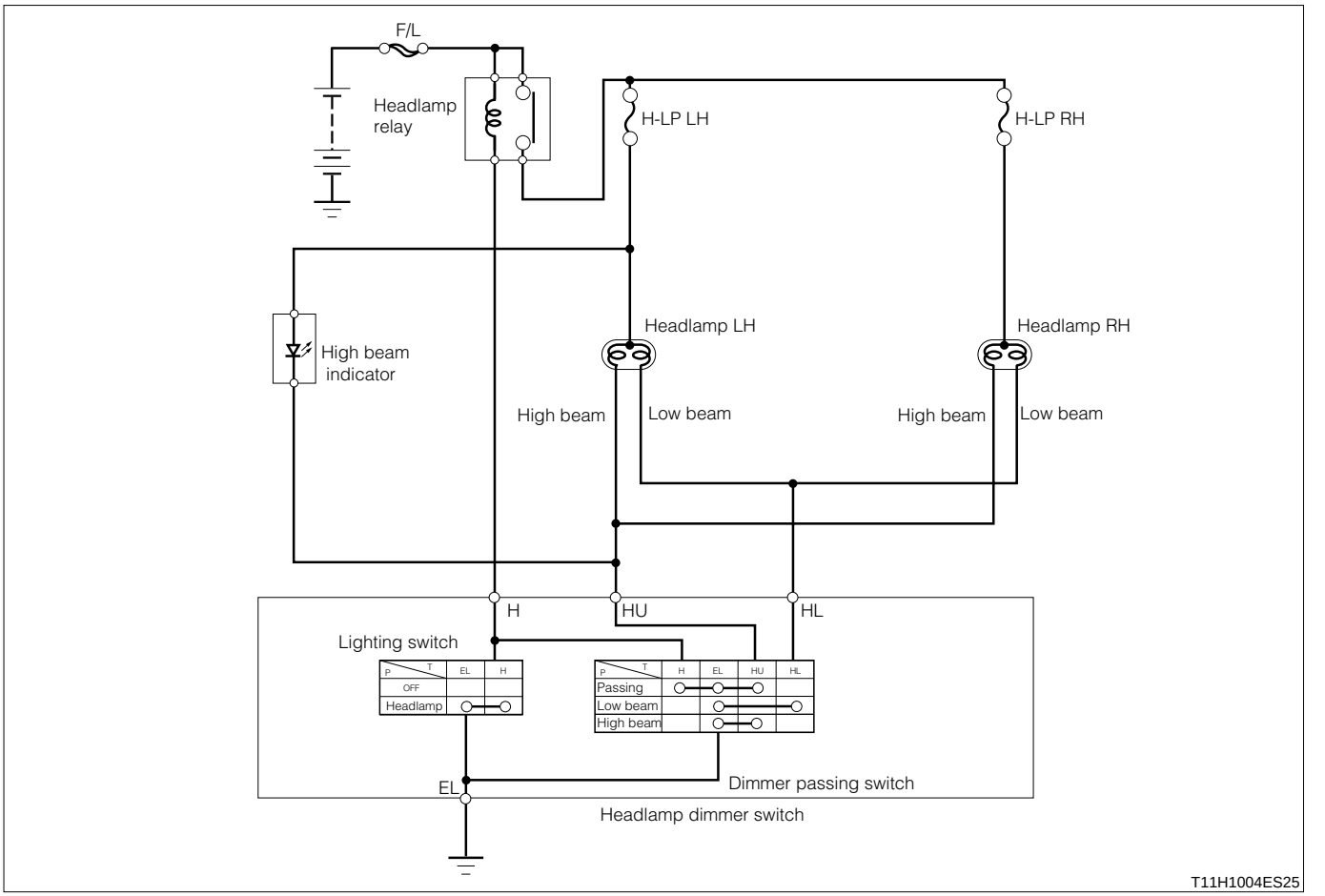
2-1-1 DESCRIPTION

1.Two-headlamp type halogen headlamps have been selected.
2.The multi-reflector type that has enhanced the photometric performance has been employed.
3.A combination lamp that has integrated the front turn signal lamp and the clearance lamp has been employed.
4.The manual headlamp leveling mechanism is provided on some specifications.

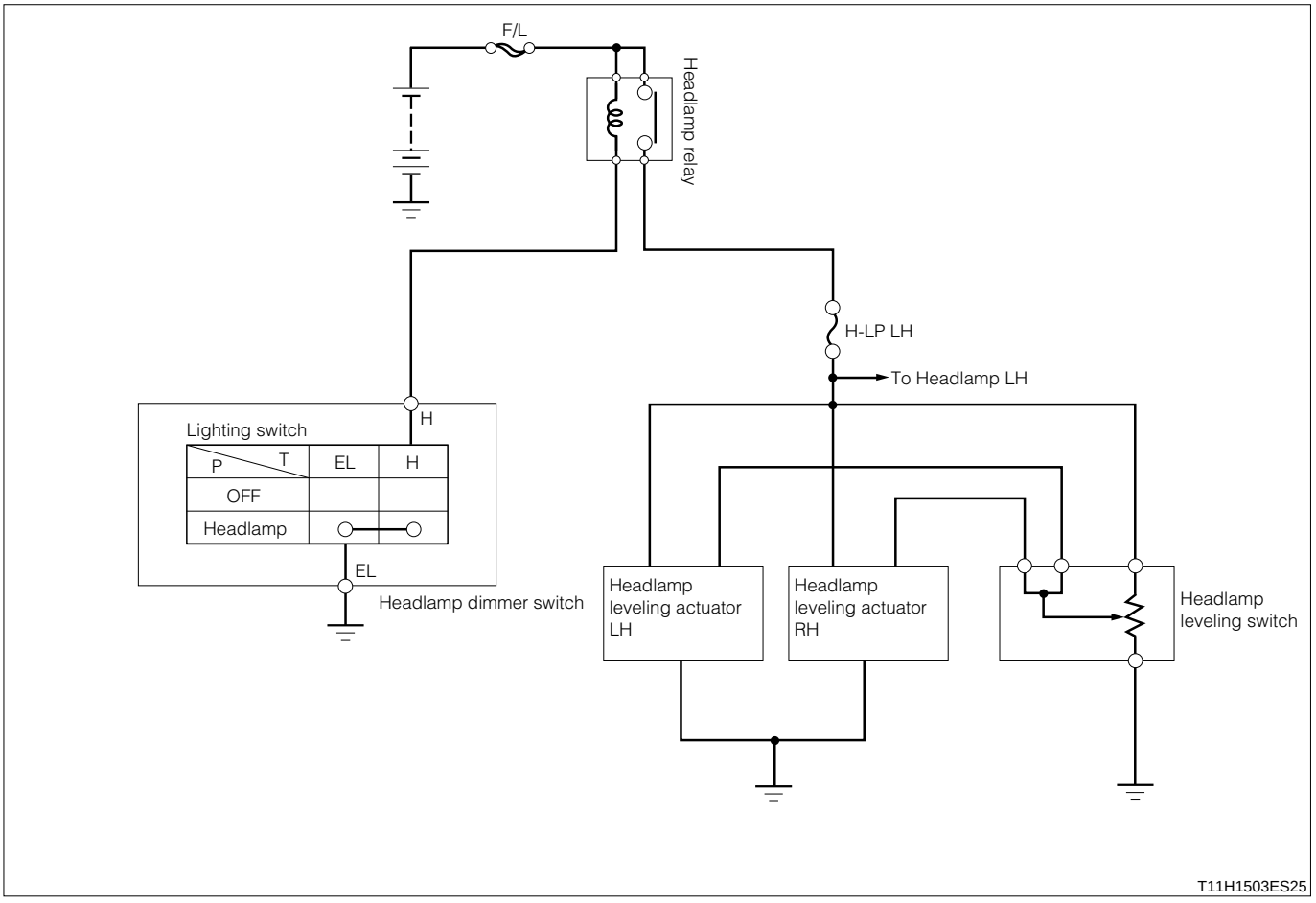


2-1-2 SYSTEM WIRING DIAGRAM

(1) Headlamp

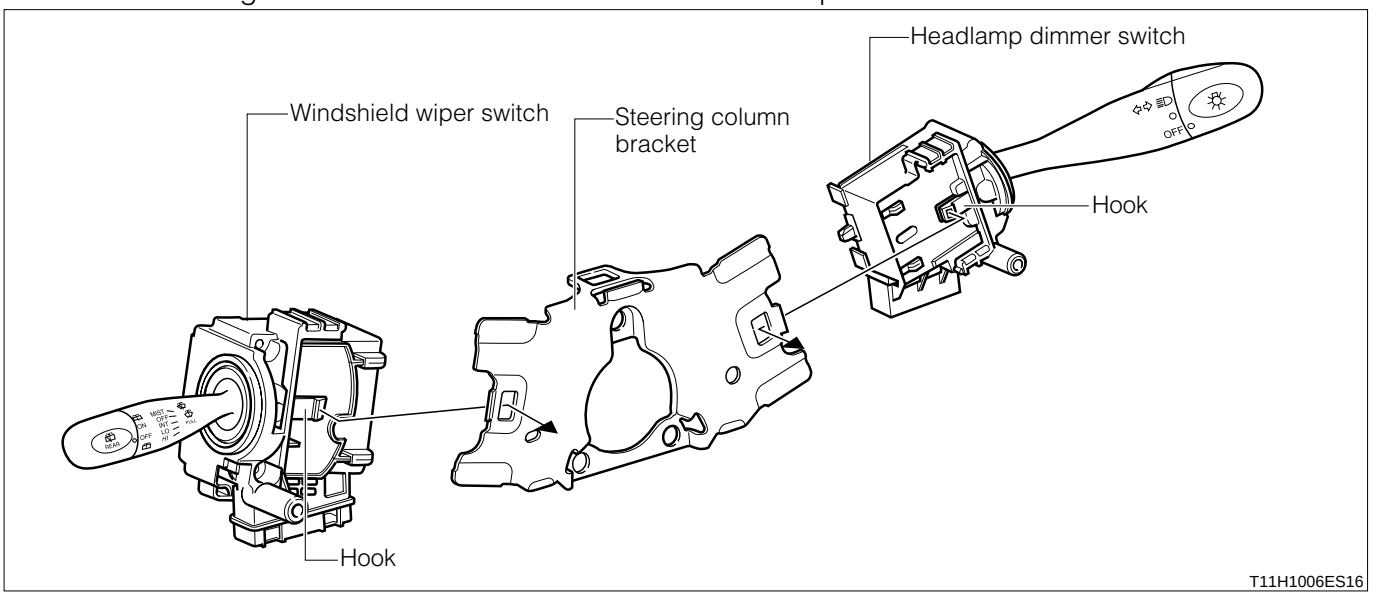


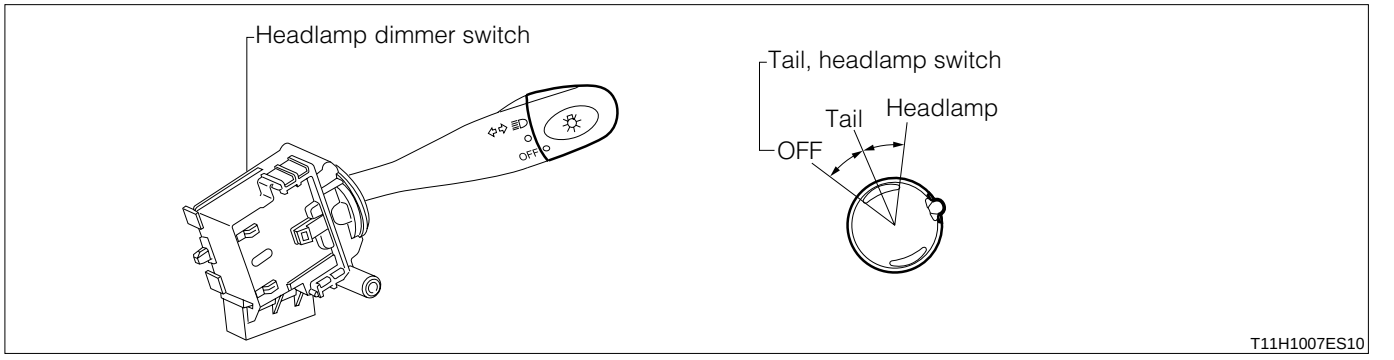
(2) Manual headlamp leveling mechanism



2-1-3 HEADLAMP DIMMER SWITCH

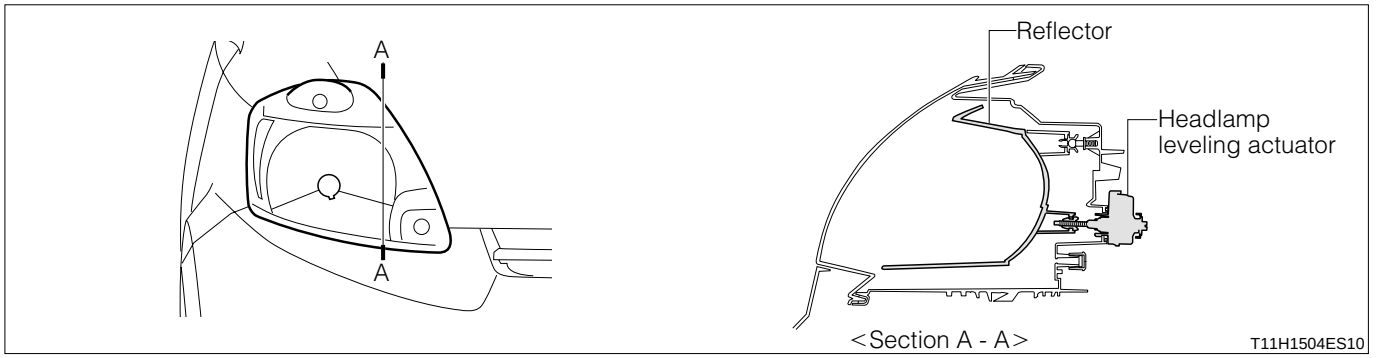
1.Replacement of the headlamp dimmer switch has been made possible without removing the steering wheel by positioning the headlamp dimmer switch and the windshield wiper switch independently.
2.A mechanism in which the headlamp dimmer switch is directly fixed to the steering column bracket with a hook has been employed. This has enhanced serviceability.
3.A turn canceling mechanism has been built in the headlamp dimmer switch.





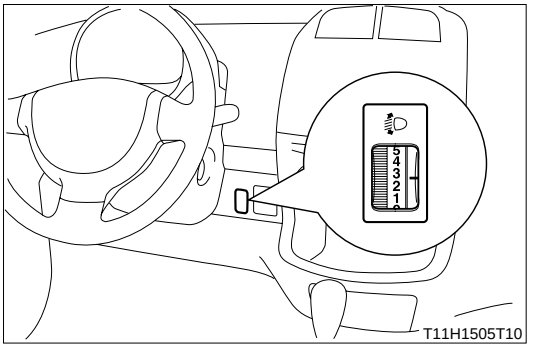
2-1-4 MANUAL HEADLAMP LEVELING MECHANISM

1.Some specifications employ the manual headlamp leveling mechanism whereby the vertical direction of the photometric axis can be adjusted from the vehicle interior as the vehicle posture changes due to a loaded state. This mechanism can help avoiding dazzling the coming vehicles and vehicles running ahead.
2.Depending upon the state signal of the headlamp leveling switch in the vehicle interior (the highest direction in the level 0, the lowest direction in the level 5), the headlamp leveling actuator is driven. Thus, the reflector direction is changed vertically so as to adjust the photometric axis.
3.The headlamp leveling actuator is provided at the rear of the headlamp.



2-1-5 HEADLAMP LEVELING SWITCH

It is installed at the side of the steering column.

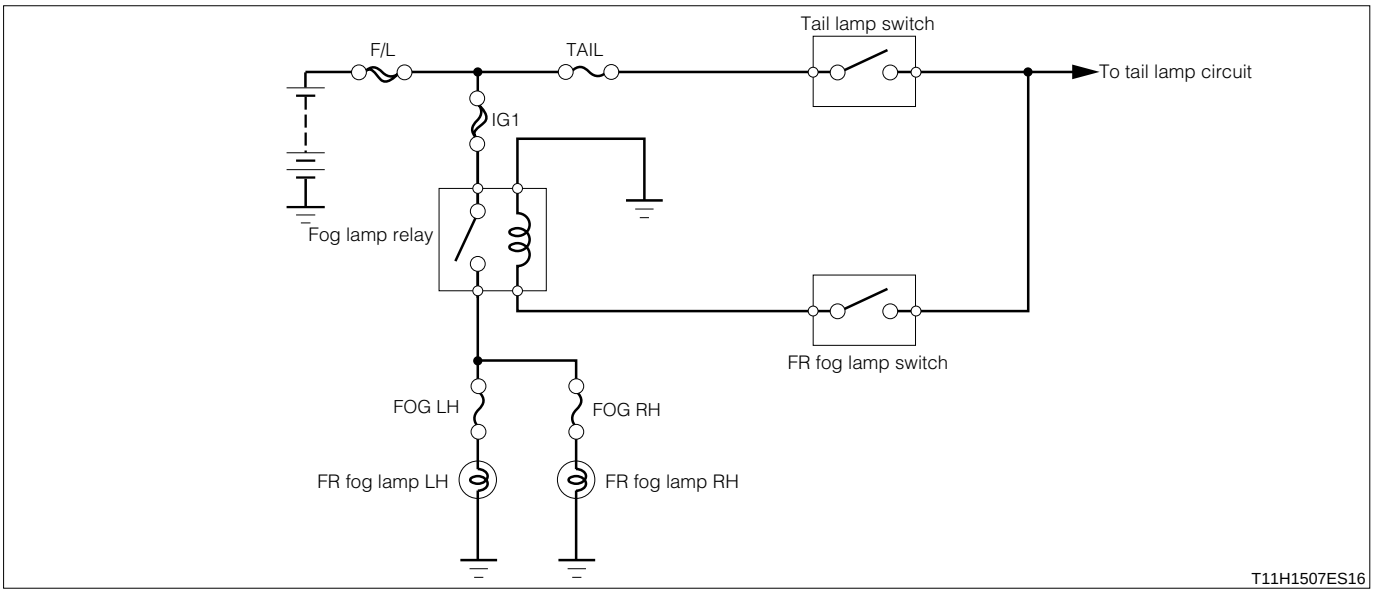


2-2 FRONT FOG LAMP

2-2-1 DESCRIPTION

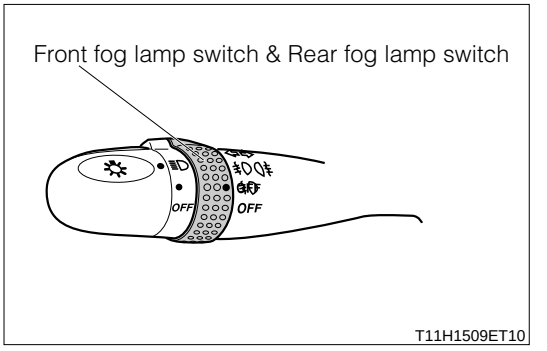
The round shaped front fog lamp is provided on some specifications.

2-2-2 SYSTEM WIRING DIAGRAM



2-2-3 FRONT FOG LAMP SWITCH

For easy operation, this switch has been integrated with the headlamp dimmer switch.

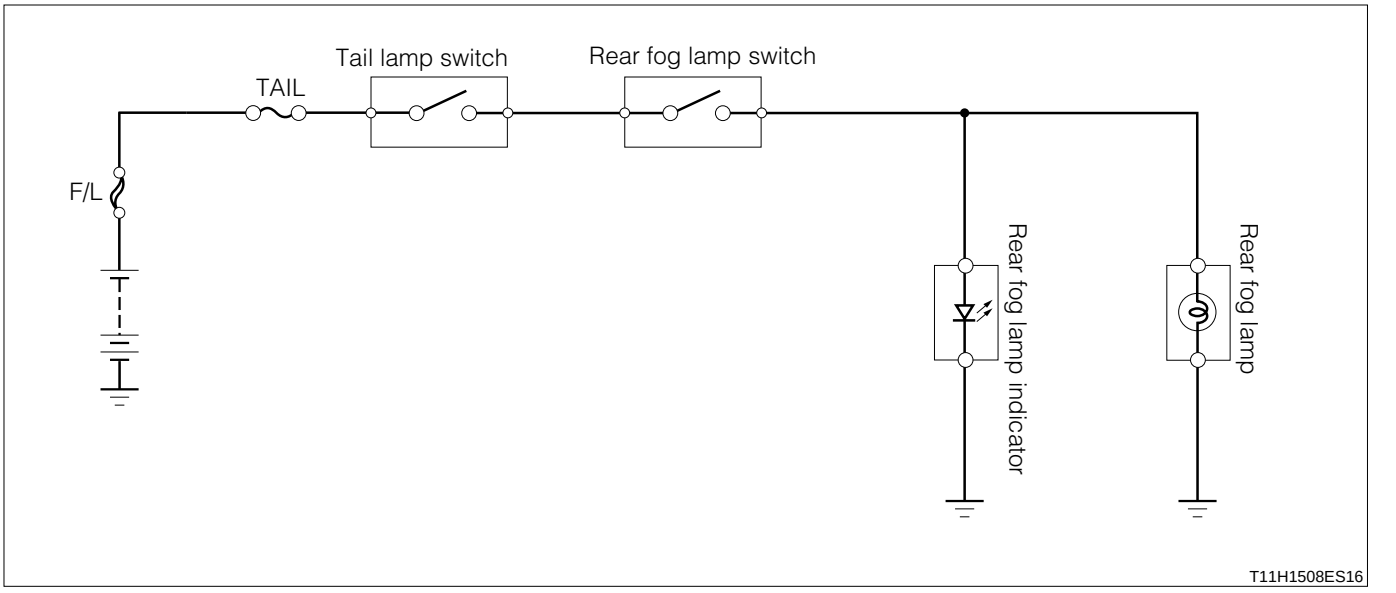


2-3 REAR FOG LAMP

2-3-1 DESCRIPTION

The rear fog lamp has been set in some specifications and is built in the driver seat side rear combination lamp.

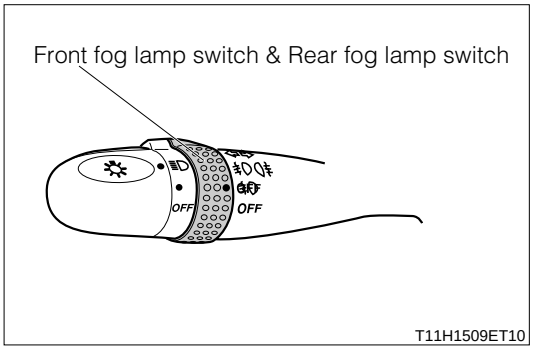
2-3-2 SYSTEM WIRING DIAGRAM



The rear fog lamp switch can be turned ON only when the headlamp or front fog lamp is illuminated.

2-3-3 REAR FOG LAMP SWITCH

For easy operation, this switch has been integrated with the headlamp dimmer switch.



2-4 TURN SIGNAL AND HAZARD LAMP

2-4-1 DESCRIPTION

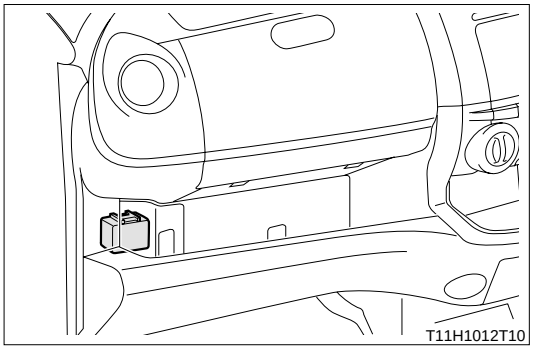
1.The front turn signal lamp has been built in the combination headlamp.
2.Other than its primary usage, the hazard lamp serves as an answer back function for the keyless entry system*.

*

Refer to Page I4-6.

2-4-2 HAZARD SWITCH

1.The switch has employed a push type that incorporates night illumination.
2.For easier operation, it is provided at the central section of the heater control panel.

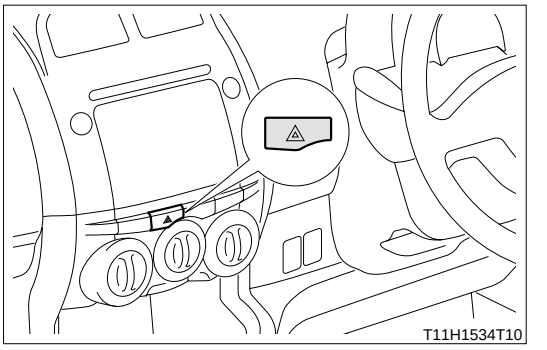


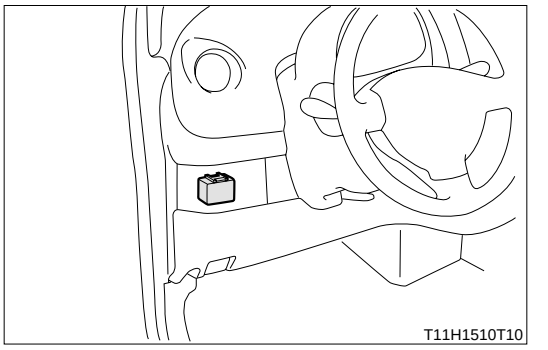
2-4-3 FLASHER RELAY

This is of an insertion type into the fuse block.

Specification table

Number of flashing during normal operation	85±10 (times/minute)
Number of flashing when one lamp is burnt out	140 - 250 (times/minute)


T11H1534T10

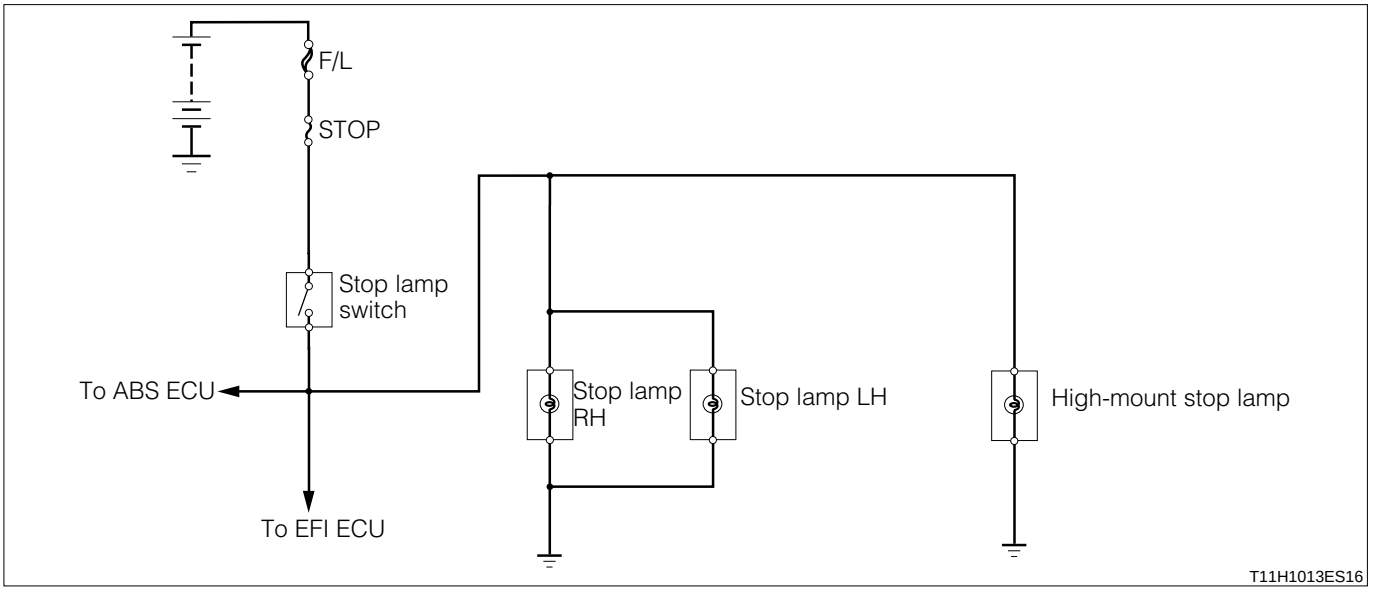

T11H1510T10

2-5 STOP LAMP

2-5-1 DESCRIPTION

A high-mount stop lamp equipped on the back door has been set in some specifications.

2-5-2 SYSTEM WIRING DIAGRAM

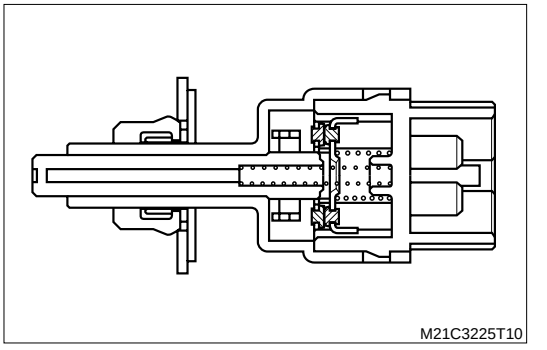


T11H1013ES16

2-5-3 STOP LAMP SWITCH

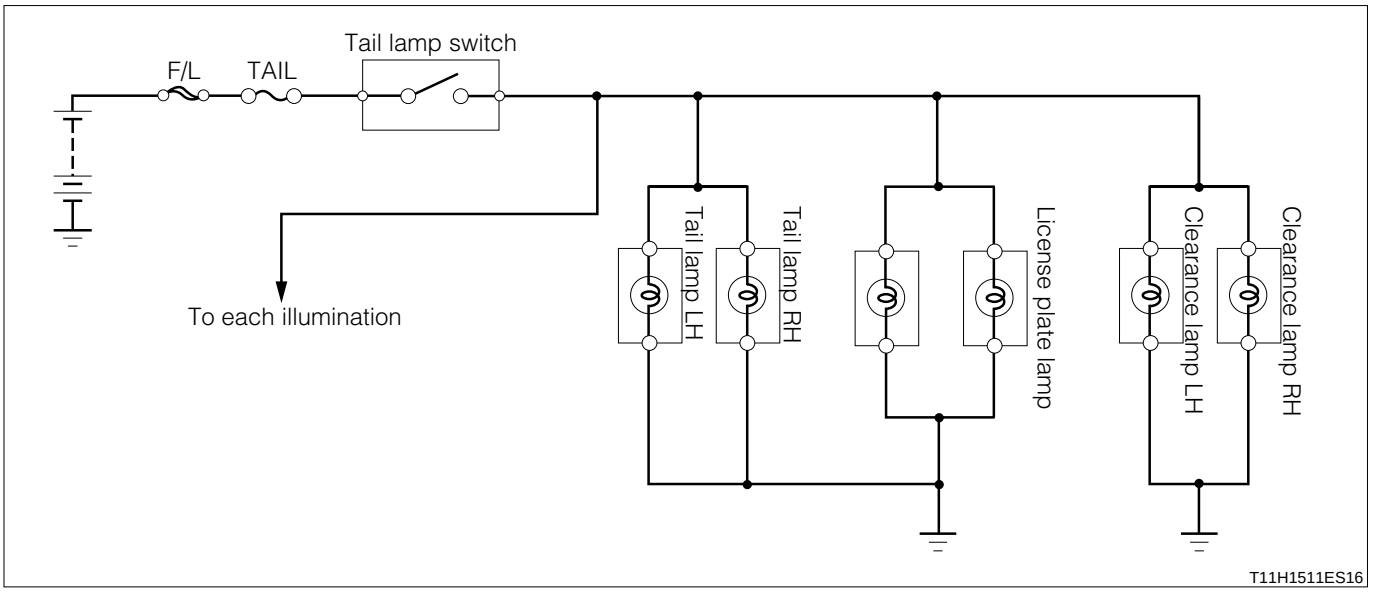
1.The stop lamp switch is installed in the upper part of the brake pedal and it detects that the brake pedal is depressed.

2.It becomes "ON" when the brake pedal is depressed.


M21C3225T10

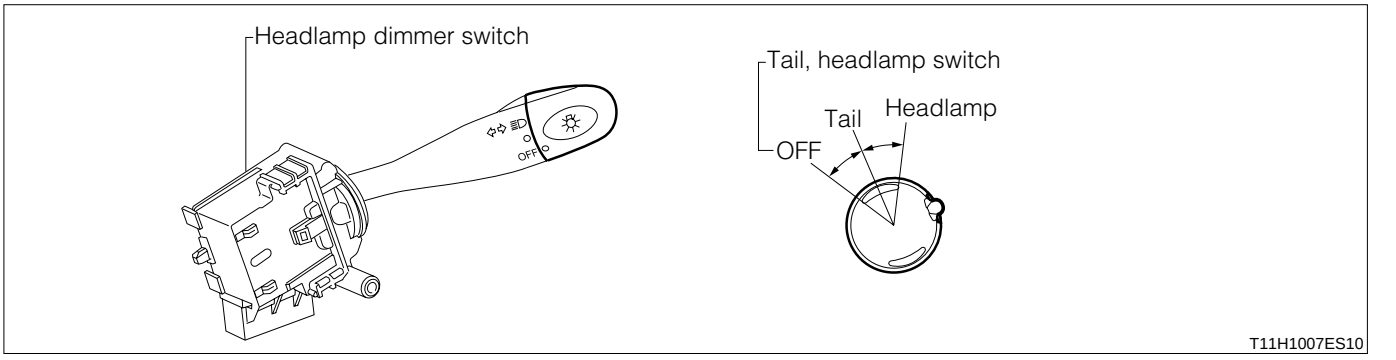
2-6 TAIL LAMP & ILLUMINATION

2-6-1 SYSTEM WIRING DIAGRAM



2-6-2 TAIL LAMP SWITCH

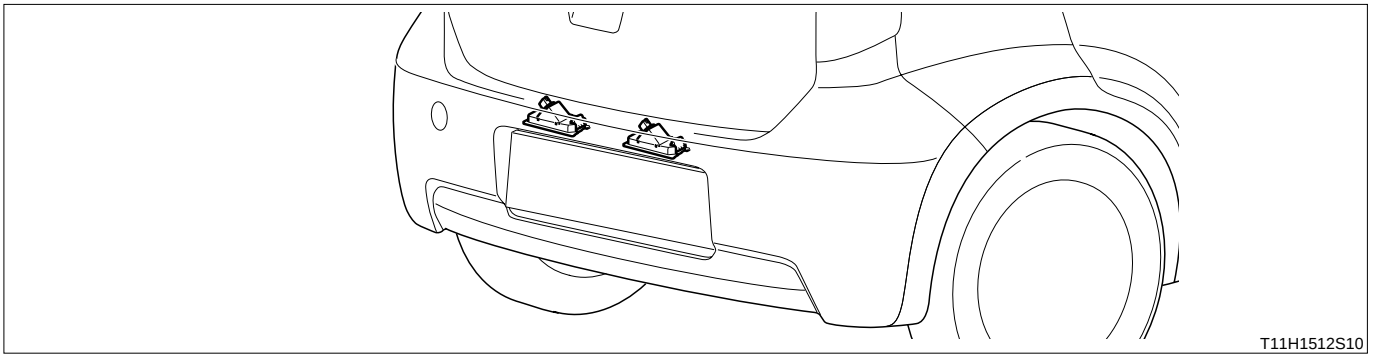
It is positioned in the headlamp dimmer switch.



2-6-3 LICENSE PLATE LAMP

1.The installation position of the license plate lamp is at the back door and the downward illumination type has been employed.

2.A two-lamp type has been employed for the lamps.

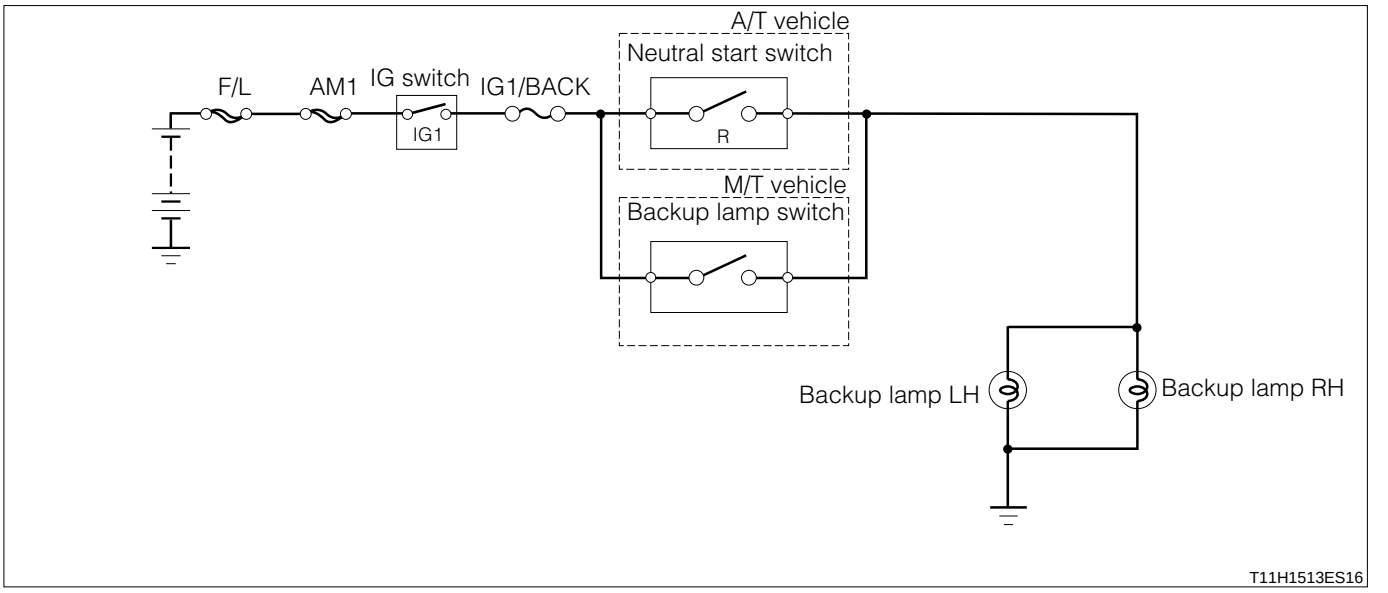


2-6-4 MULTI-TRAY ILLUMINATION

Refer to Page I2-5.

2-7 BACKUP LAMP

2-7-1 SYSTEM WIRING DIAGRAM



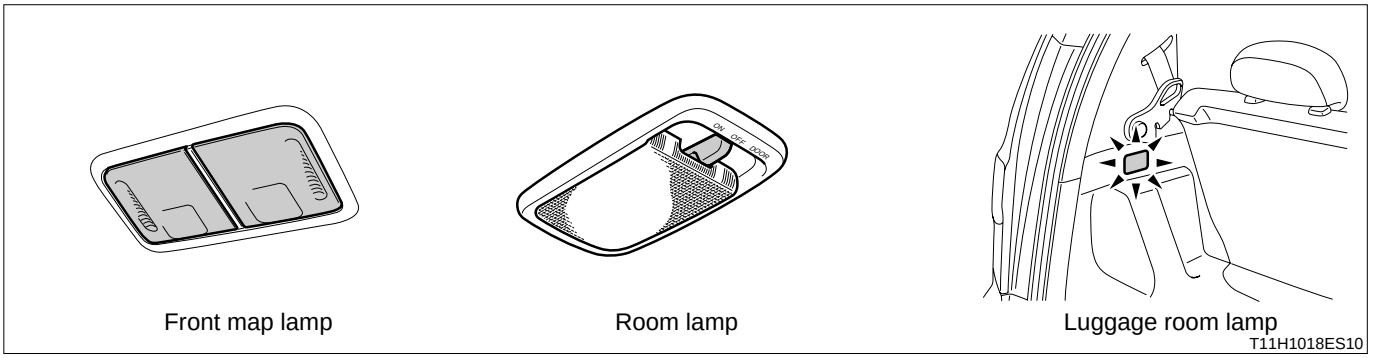
2-8 ROOM LAMP

2-8-1 DESCRIPTION

1.As for the interior lighting, the front map lamp, room lamp and luggage room lamp have been employed for all models.

2.The convenience has been enhanced by employing a room lamp timer function for the room lamp and luggage room lamp.

3.Other than its primary usage, the room lamp and the luggage room lamp serve as an answer back function for the keyless entry system*.

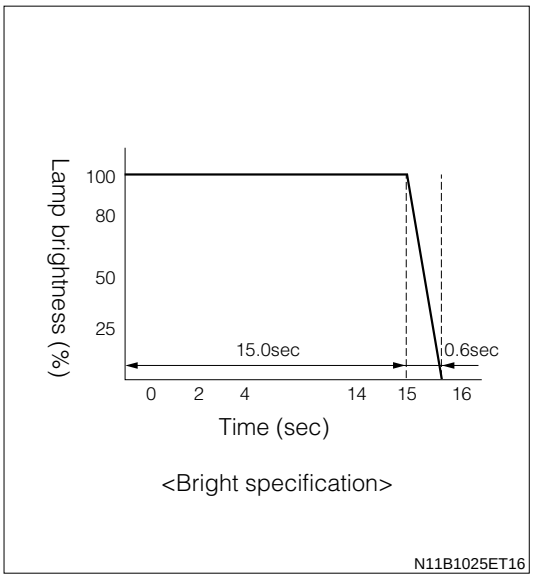


*

Refer to Page I4-6.

2-8-2 ROOM LAMP TIMER FUNCTION

1.When the following conditions are met, the room lamp and the luggage room lamp are lighted for 15 seconds and then fade away.
(1) Either of the door opened→all doors closed



2.When all of the following conditions are met, the room lamp and the luggage room lamp are lighted for 15 seconds and then fade away.
(1) IG switch "OFF"
(2) All doors closed (courtesy switch "OFF")
(3) Driver seat door lock (door control switch) "LOCK"→"UNLOCK"

3.If the driver seat door lock (door control switch) is changed to "LOCK" while the lamp is lighted under the room lamp timer control, the light is dimmed to 50% of when it is lighted and then is faded away three seconds later.

4.When the IG switch becomes "ON" during the room lamp timer control, it is faded away immediately.

2-8-3 BATTERY OVER-DISCHARGE PREVENTIVE FUNCTION

1.When all of the following conditions are met continuously for 10 minutes, the room lamp and the luggage room lamp are turned off.
(1) IG switch "OFF"
(2) Either of the door opened (courtesy switch "ON")

2.When either of the following conditions are met, the battery over-discharge preventive function is released.
(1) IG switch "ON"
(2) All doors closed (courtesy switch "OFF")

2-8-4 ROOM LAMP LIGHTING FUNCTION AT TIME OF KEY REMOVAL

1.When all of the following conditions are met, the room lamp and the luggage room lamp are lighted for 15 seconds.
(1) All doors closed (courtesy switch "OFF")
(2) Elapse of 200ms or more since the recovery from sleep mode (low current mode) of ITC
(3) Key switch "ON" (inserted)→"OFF" (not inserted)

2.When the IG switch becomes "ON", it fades away immediately.

NOTE

- After 10 minutes or more have passed since the IG switch has been "OFF", if the key switch changes from "ON" (inserted)→"OFF" (not inserted), the room lamp lighting mechanism at time of key removal does not take control.

CAUTION

- When other room lamp control conditions are met while the room lamp lighting control at time of key removal is in operation, it makes transition to the other control.

2-8-5 COURTESY SWITCH

For the courtesy switches on the front door and the rear door, a shape that has the main body switch section and the cushion section integrated has been employed with the aim of enhancing the waterproofing property. This switch directly connects the main body and the connector.

Additionally, as for the back door, the back door lock Ay serves for the courtesy switch function.