

ADJUSTMENT

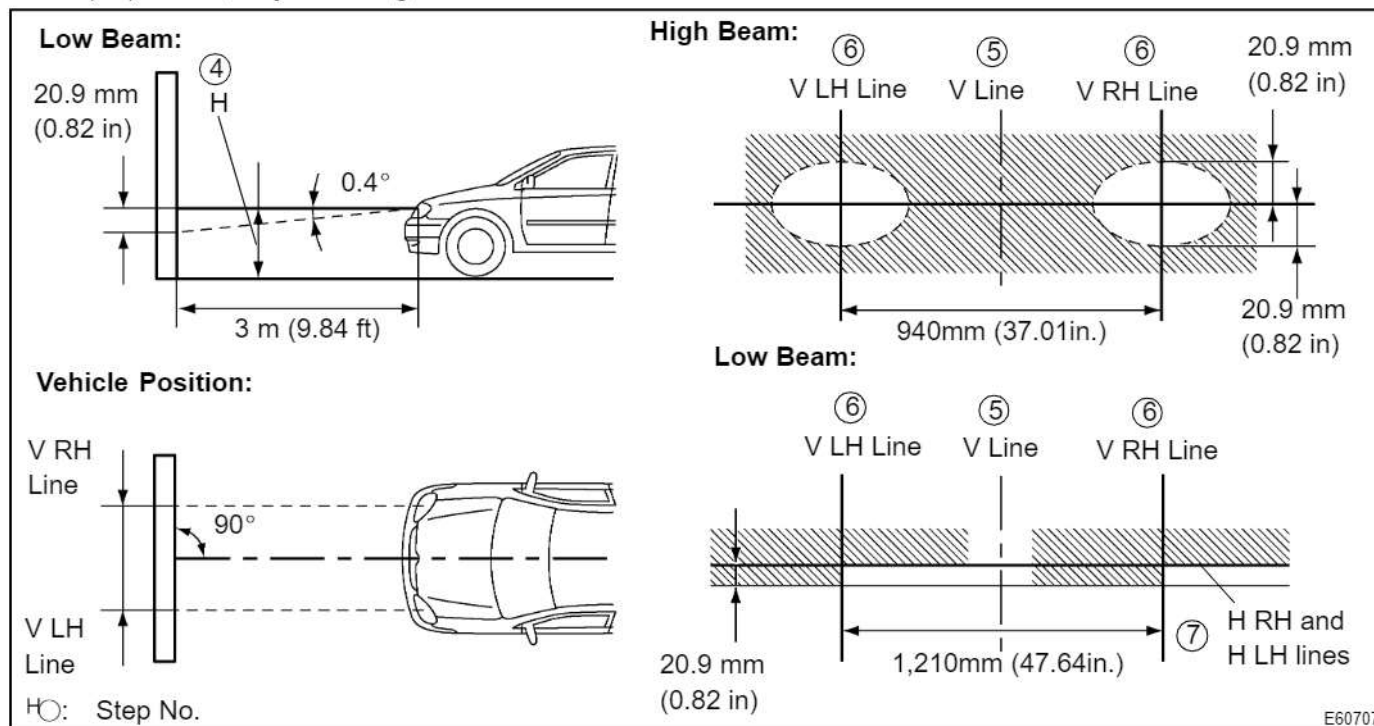
1. HEADLIGHT AIM ONLY

- (a) Place the vehicle in the following conditions.
 - The area around the headlight is not deformed.
 - The vehicle is parked on a level surface.
 - Tire inflation pressure is in the specified value (See page 28-1).
 - A driver is in the driver's seat and the vehicle is in a state ready for driving (with a tank full).
 - The vehicle has been bounced several times.
- (b) Check the headlight aiming.
 - (1) Prepare a thick white paper.
 - (2) Stand the paper perpendicular to the ground at the position 9.84 ft away from the headlights.
 - (3) Ensure that the center line of the vehicle and the paper face forms a 90-degree angle as shown in the illustration.
 - (4) Draw a horizontal line (H line) on the paper, showing where the headlights should strike.
 - (5) Draw a vertical line (V line) to where the center line of the vehicle is to be.
 - (6) Draw 2 vertical lines to where the both headlights should strike (V RH and V LH lines).
 - (7) Draw a horizontal line (by connecting the both low beam center marks) to where the headlights should strike (H RH and H LH lines).
 - (8) Take appropriate measures to prevent any influence of other lights.
 - (9) Set the headlights leveling position to "0" position and adjust the angle of the headlight axis.

HINT:

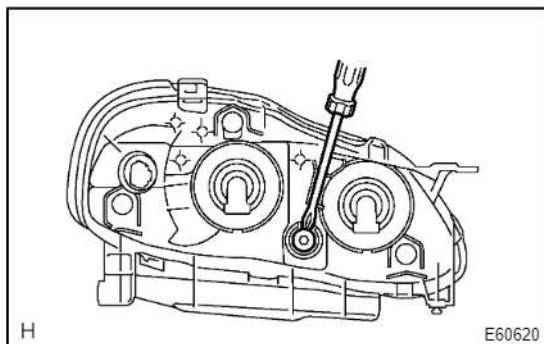
The H RH and H LH line is 0.4° below the horizontal line (H line) of the light axis.

- (10) Start the engine.
- (11) Turn the headlights ON.
- (12) Check that the headlights properly strike the position shown in the illustration.
- (13) If not, adjust the lights in the vertical direction.



HINT:

- As shown in the illustration, adjust each aim of the RH and LH lights.



- (c) When adjusting the headlight aim in the vertical direction:
Using adjusting bolt, adjust the headlight aim to be within the specified range.

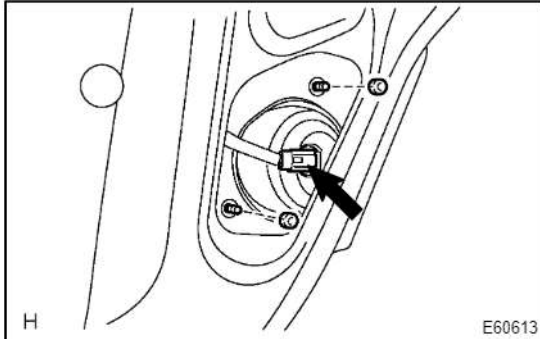
HINT:

The optical aim moves upward when turning a screwdriver clockwise, while it moves downward when turning a screwdriver counterclockwise.

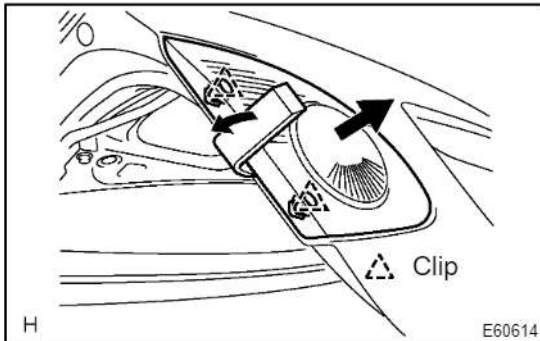
BACK UP LAMP ASSY LH REPLACEMENT

650GY-01

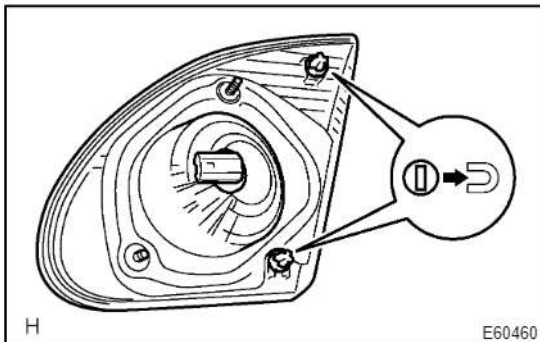
1. REMOVE BACK UP LAMP ASSY LH



- (a) Remove the service hole cover.
- (b) Remove the 2 nuts and disconnect the connector.



- (c) Using a mouldingremover, remove the 2 clips and back up light assy LH.

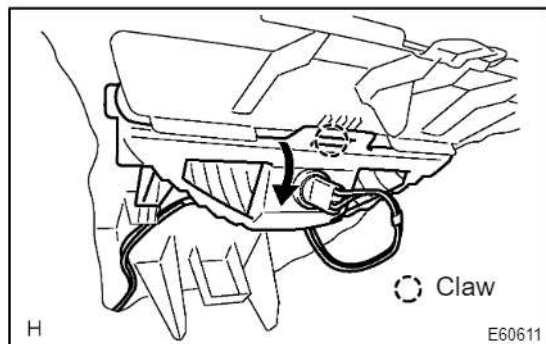


2. INSTALL BACK UP LAMP ASSY LH

- (a) Set the 2 clips on the back up light assy LH as shown in the illustration.
- (b) Connect the connector.
- (c) Install the back up light LH with 2 nuts.

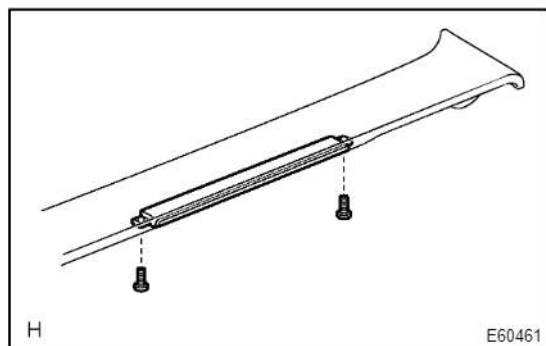
CENTER STOP LAMP ASSY REPLACEMENT

1. REMOVE PACKAGE TRAY TRIM PANEL ASSY (W/O REAR SPOILER)(See Page 61-15)



2. REMOVE CENTER STOP LAMP ASSY (W/O REAR SPOILER)

- (a) Remove the center stop light assy as shown in the illustration.

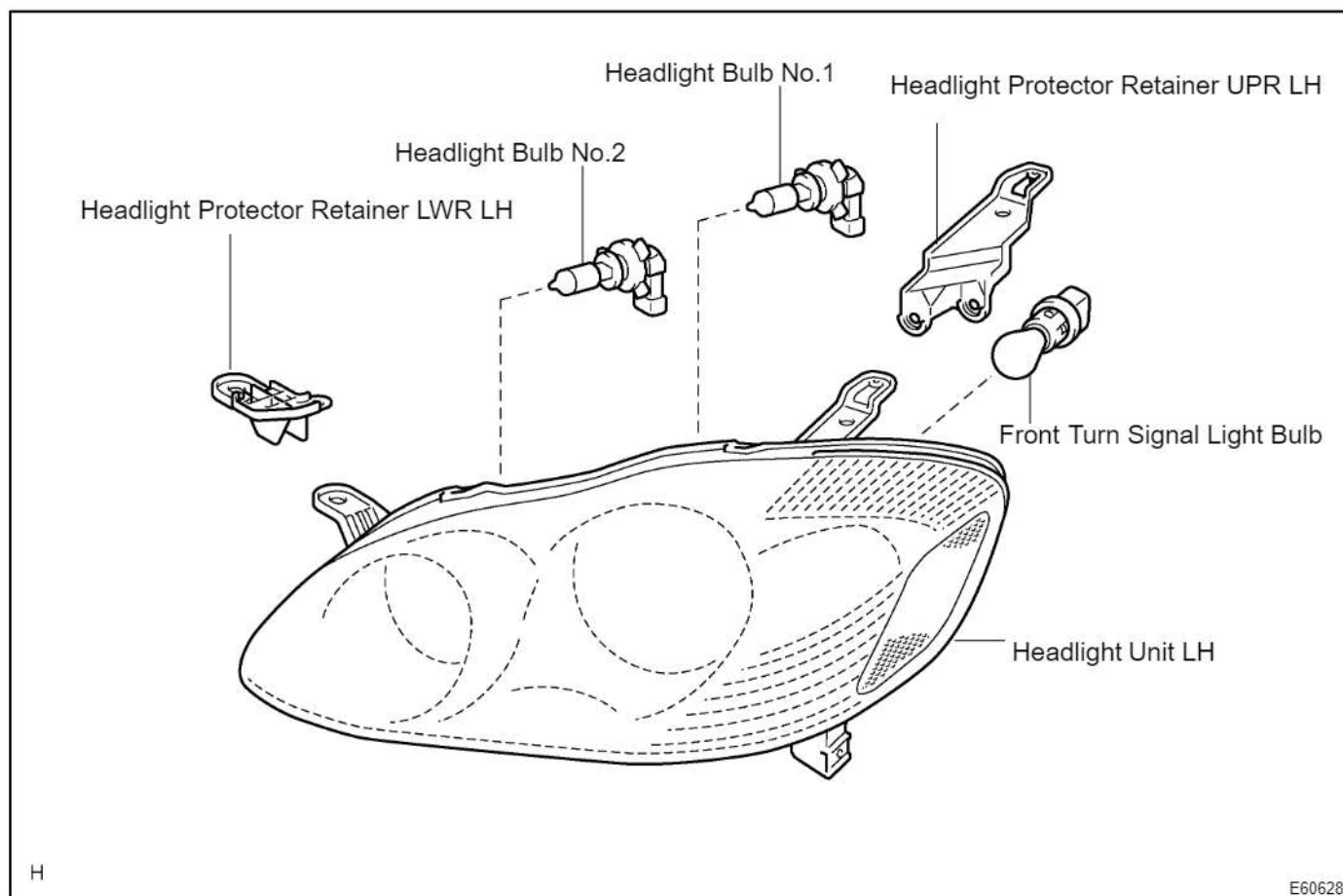


3. REMOVE CENTER STOP LAMP ASSY (W/ REAR SPOILER)

- (a) Remove the 2 screws.
(b) Disconnect the connector and remove the center stop light assy.

LH HEADLAMP ASSY COMPONENTS

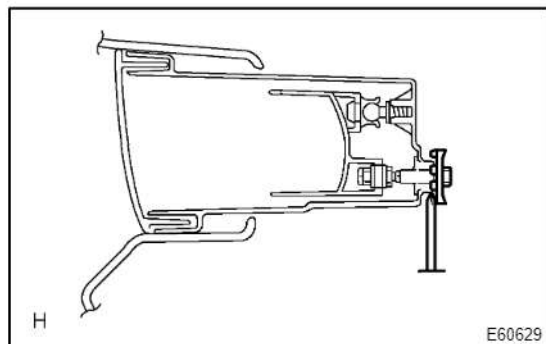
650GR-01



ADJUSTMENT

1. PUT VEHICLE THESE CONDITIONS

- (a) Tire inflation pressure is the specified value (See page 28-1).
- (b) Start the engine.



2. ADJUST FOG LIGHT AIM

- (a) The fog light aim can be adjusting by moving the aiming screw in the vertical direction.

HINT:

The optical aim moves upward when turning a screwdriver clockwise, while it moves downward when turning a screwdriver counterclockwise.

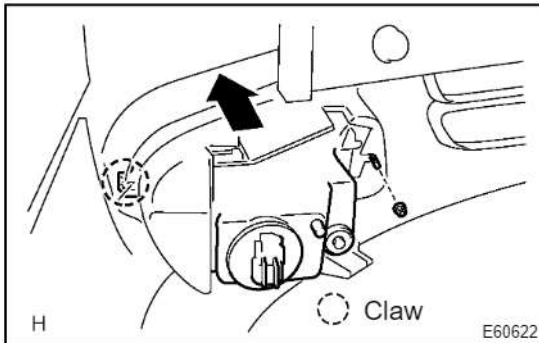
3. CHECK FOG LIGHT AIM

FOG LAMP ASSY LH

REPLACEMENT

650GU-01

1. REMOVE RADIATOR GRILLE SUB-ASSY(See page 76-2)
2. REMOVE FRONT BUMPER COVER(See page 76-2)

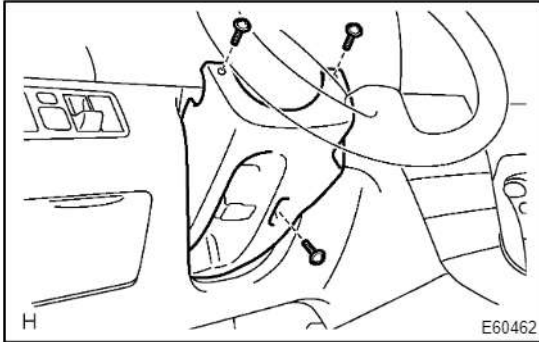


3. REMOVE FOG LAMP ASSY LH
 - (a) Remove a nut and release a claw.
 - (b) Remove the fog light assy LH.

4. PUT VEHICLE THESE CONDITIONS(See page 65-18)
5. ADJUST FOG LIGHT AIM(See page 65-18)
6. CHECK FOG LIGHT AIM(See page 65-18)

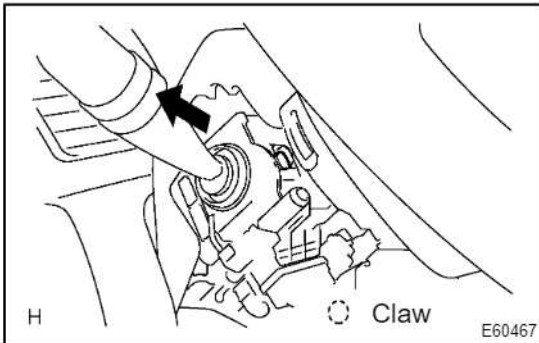
HEADLAMP DIMMER SWITCH ASSY REPLACEMENT

650HD-01



1. REMOVE STEERING COLUMN COVER LWR

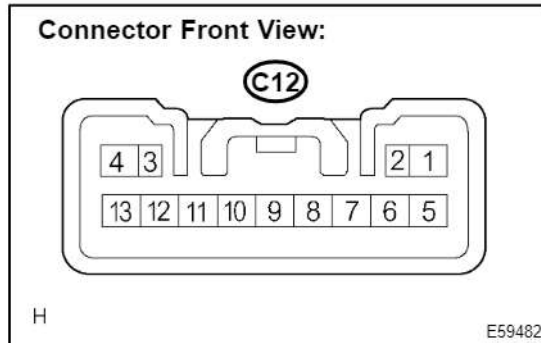
- (a) Remove 3 screws and steering column cover LWR.



2. REMOVE HEADLAMP DIMMER SWITCH ASSY

- (a) Disconnect the connector.
(b) Release the claw and pull out the head light dimmer switch assy.

INSPECTION



1. HEADLAMP DIMMER SWITCH ASSY

(a) Inspect light control switch continuity.

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

Standard:

Tester connection	Switch operation	Specified resistance
10 – 11 11 – 12 10 – 13	OFF	10 kΩ or higher
10 – 13	TAIL	Below 1 Ω
10 – 13 11 – 12	HEAD	Below 1 Ω

(b) Inspect headlight dimmer switch continuity.

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

Standard:

Tester connection	Switch operation	Specified resistance
8 – 11 9 – 11	FLASH	Below 1 Ω
8 – 11	LOW BEAM	Below 1 Ω
9 – 11	HI BEAM	Below 1 Ω

HINT:

Turn light control switch to the HEAD position when checking "LOW BEAM" and "HI BEAM".

(c) Inspect turn signal switch continuity.

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

Standard:

Tester connection	Switch operation	Specified resistance
6 – 7	Right turn	Below 1 Ω
5 – 6 6 – 7	Neutral	10 kΩ or higher
6 – 5	Left turn	Below 1 Ω

(d) w/ Fog light:

Inspect front fog light switch continuity.

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

Standard:

Tester connection	Switch operation	Specified resistance
2 – 4	OFF	10 kΩ or higher
2 – 4	ON	Below 1 Ω

2. BACK UP LAMP SWITCH ASSY

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

Standard:

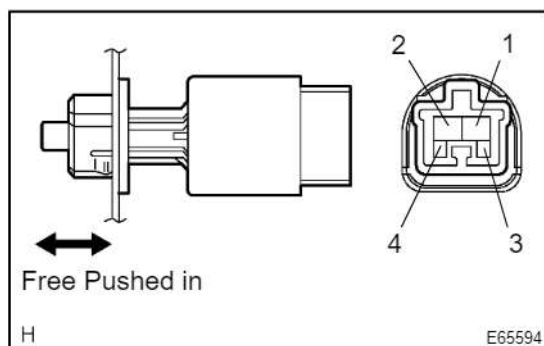
Switch operation	Specified resistance
Ball is not pressed	10 k Ω or higher
Ball is pressed	Below 1 Ω

3. STOP LAMP SWITCH ASSY (W/O CRUISE CONTROL)

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

Standard:

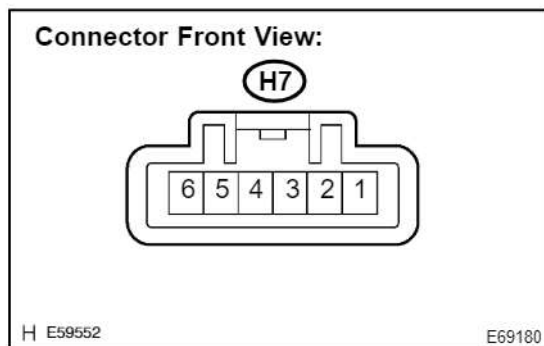
Switch operation	Specified resistance
Switch pin free	10 k Ω or higher
Switch pin pushed in	Below 1 Ω

**4. STOP LAMP SWITCH ASSY (W/ CRUISE CONTROL)**

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

Standard:

Tester connection	Switch operation	Specified resistance
1 – 2	Switch pin free	10 k Ω or higher
3 – 4	Switch pin free	Below 1 Ω
1 – 2	Switch pin pushed in	Below 1 Ω
3 – 4	Switch pin pushed in	10 k Ω or higher

**5. HAZARD WARNING SIGNAL SWITCH ASSY**

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

Standard:

Tester connection	Switch operation	Specified resistance
2 – 3	ON	Below 1 Ω
2 – 3	OFF	10 k Ω or higher

- (b) Inspect illumination operation.

- (1) Connect the positive (+) lead from the battery to terminal 5 and the negative (–) lead to terminal 4, then check that the illumination comes on.

6. FRONT DOOR COURTESY LAMP SWITCH ASSY

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

Standard:

Switch operation	Specified resistance
Shaft is pressed	10 k Ω or higher
Shaft is not pressed	Below 1 Ω

7. REAR DOOR COURTESY LAMP SWITCH ASSY

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

Standard:

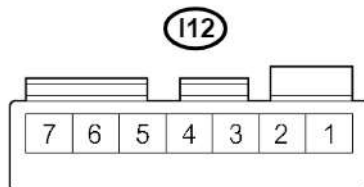
Switch operation	Specified resistance
Shaft is pressed	10 k Ω or higher
Shaft is not pressed	Below 1 Ω

8. LUGGAGE COMPARTMENT ROOM COURTESY LAMP SWITCH ASSY

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

Standard:

Switch operation	Specified resistance
Shaft is pressed	10 k Ω or higher
Shaft is not pressed	Below 1 Ω

Connector Front View:

H

E69181

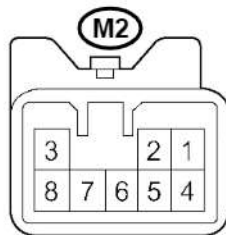
9. MAP LAMP ASSY (W/O SLIDING ROOF)

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

Standard:

Tester connection	Switch operation	Specified resistance
1 – 6	OFF	10 k Ω or higher

- (b) Connect the positive (+) lead from the battery to terminal 1 and the negative (–) lead to terminal 6, then check that the illumination comes on when switch operation is ON position.

Connector Front View:

H

E50229

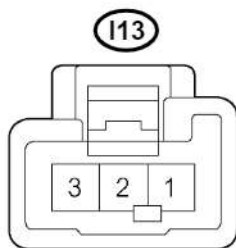
10. MAP LAMP ASSY (W/ SLIDING ROOF)

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

Standard:

Tester connection	Switch operation	Specified resistance
1 – 3	OFF	10 k Ω or higher

- (b) Connect the positive (+) lead from the battery to terminal 1 and the negative (–) lead to terminal 3, then check that the illumination comes on when switch operation is ON position.

Connector Front View:

H E50228

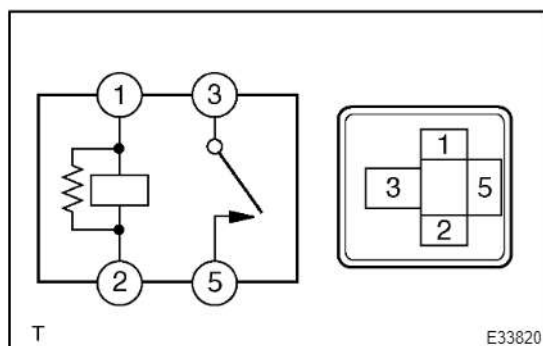
E69434

11. ROOM LAMP ASSY NO.1

- (a) Connect the positive (+) lead from the battery to terminal 1 and the negative (–) lead to terminal 2, then check that the illumination comes on .

12. LUGGAGE COMPARTMENT LAMP ASSY NO.1

- (a) Connect the positive (+) lead from the battery to terminal 1 and the negative (–) lead to terminal 2, then check that the illumination comes on .



T

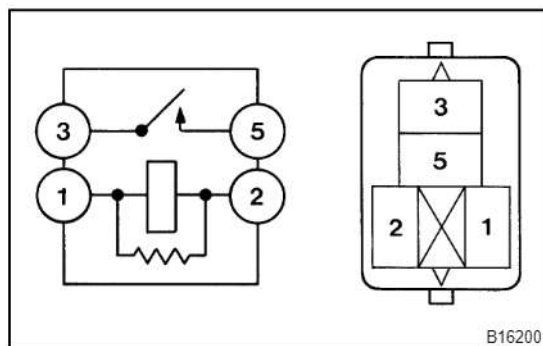
E33820

13. HEADLAMP RELAY

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

Standard:

Tester connection	Condition	Specified resistance
3 – 5	Always	10 kΩ or higher
3 – 5	Apply B+ between terminals 1 and 2	Below 1 Ω



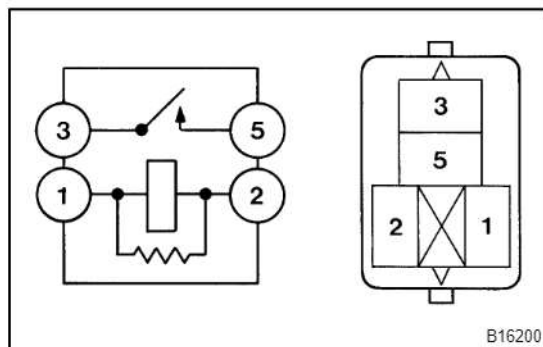
B16200

14. FOG LAMP RELAY

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

Standard:

Tester connection	Condition	Specified resistance
3 – 5	Always	10 kΩ or higher
3 – 5	Apply B+ between terminals 1 and 2	Below 1 Ω



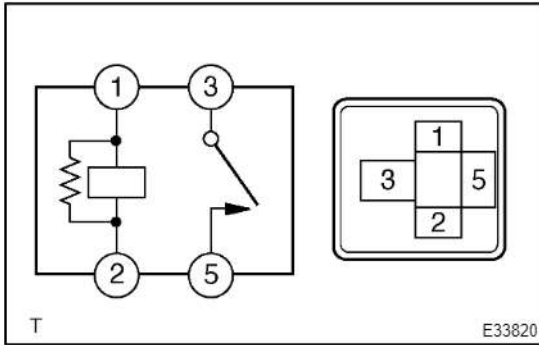
B16200

15. TAIL LAMP RELAY

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

Standard:

Tester connection	Condition	Specified resistance
3 – 5	Always	10 kΩ or higher
3 – 5	Apply B+ between terminals 1 and 2	Below 1 Ω

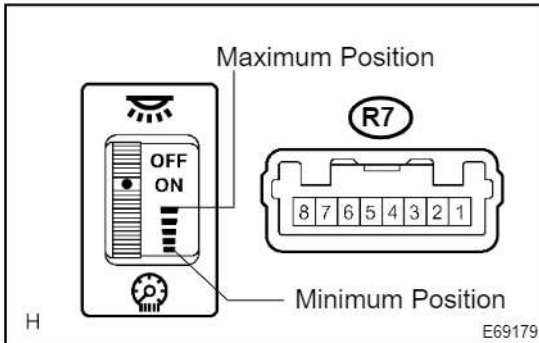


16. HEADLAMP DIMMER RELAY

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

Standard:

Tester connection	Condition	Specified resistance
3 – 5	Always	10 kΩ or higher
3 – 5	Apply B+ between terminals 1 and 2	Below 1 Ω



17. LIGHT CONTROL RHEOSTAT

- (a) Connect the connector to the rheostat and inspect the wire harness side connector from the back side as shown in the table below.

Standard:

Tester connection	Switch operation	Specified condition
1 – 3	Maximum position	Below 1 V
1 – 3	Minimum position	10 to 14 V
3 – 7	OFF	10 to 14 V
3 – 7	ON	Below 1 V

- (b) Inspect illumination operation.

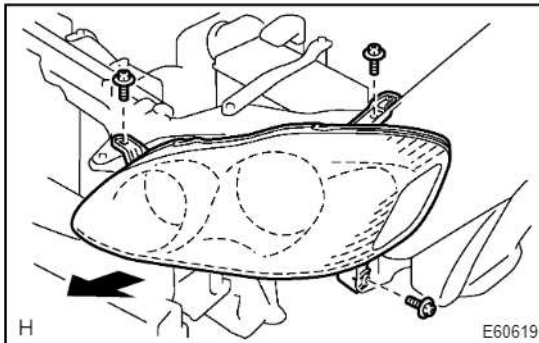
- (1) Connect the positive (+) lead from the battery to terminal 2 and the negative (–) lead to terminal 3, then check that the illumination comes on.

REPLACEMENT

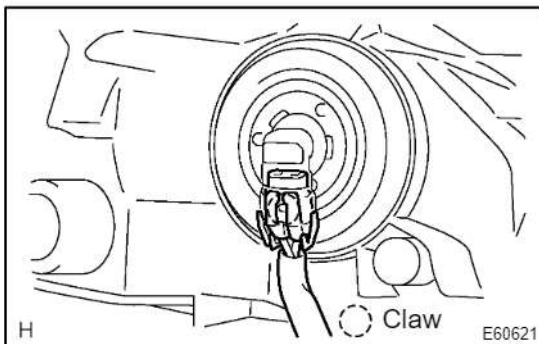
HINT:

COMPONENTS: See page 65-12

1. REMOVE RADIATOR GRILLE SUB-ASSY(See page 76-2)
2. REMOVE FRONT BUMPER COVER(See page 76-2)
3. REMOVE LH HEADLAMP ASSY



- (a) Remove the 3 bolts.
- (b) Pull out the headlight assy LH forward, then disconnect the bracket of body side.

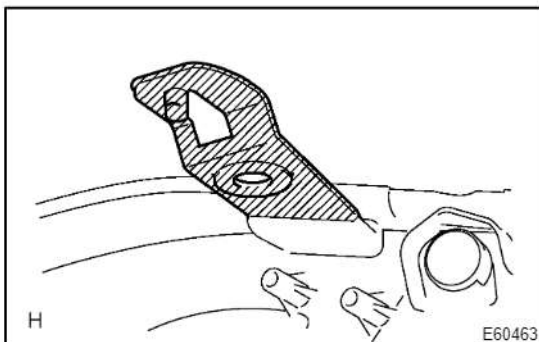


- (c) Release the claws and disconnect the connectors as shown in the illustration, and remove the headlight assy LH.

4. INSTALL RETAINER, HEADLAMP PROTECTOR, UPR LH

HINT:

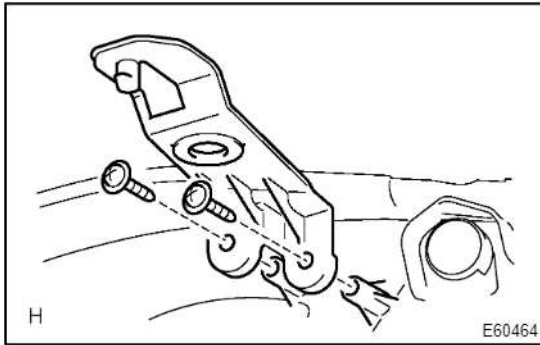
When only the installation part of the headlight assy LH is damaged, it can be repaired inexpensively by using a headlight protector retainer UPR LH. In this case, however, the headlight assy LH itself should not be damaged.



- (a) Cut off the part shaded in the illustration and sand smooth with sandpaper.

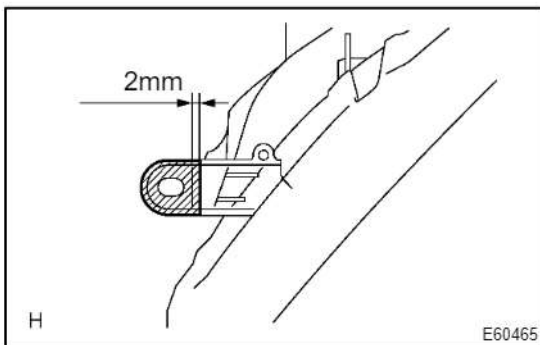
NOTICE:

After cutting off the part roughly, place the headlight protector retainer UPR LH against the bosses and gradually file any interfering part until the proper condition for installation is made.



- (b) Install the headlight protector retainer UPR LH with 2 screws.

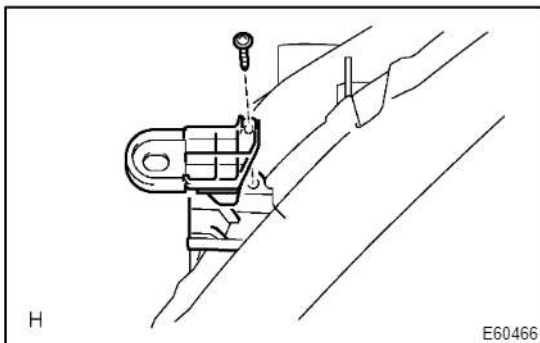
5. INSTALL RETAINER, HEADLAMP PROTECTOR, LWR LH



- (a) Cut off the part shaded in the illustration and sand smooth with sandpaper.

NOTICE:

After cutting off the part roughly, place the headlight protector retainer LWR LH against the bosses and gradually file any interfering part until the proper condition for installation is made.



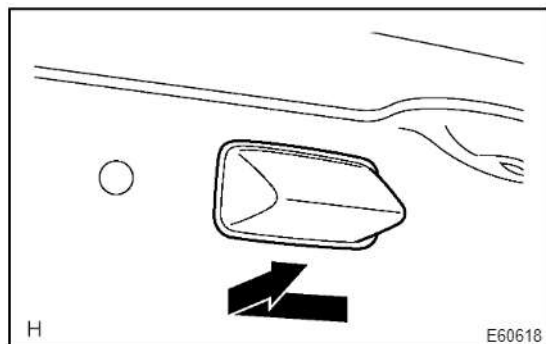
- (b) Install the headlight protector retainer LWR LH with a screw.

6. PUT VEHICLE THESE CONDITIONS(See page 65-18)
7. ADJUST FOG LIGHT AIM(See page 65-18)
8. HEADLIGHT AIM ONLY(See page 65-15)

LICENSE PLATE LAMP ASSY REPLACEMENT

650GX-01

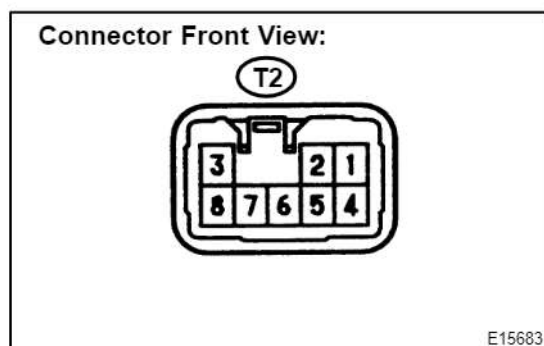
1. REMOVE LUGGAGE COMPARTMENT LOCK CYLINDER & KEY SET(See Page 76-16)
2. REMOVE LUGGAGE COMPARTMENT DOOR GARNISH OUTSIDE(See Page 76-16)



3. REMOVE LICENSE PLATE LAMP ASSY
 - (a) Pull the license plate light assy to the side of vehicle as shown in the illustration and release the claw.
 - (b) Disconnect the connector and remove the license plate light assy.

4. INSTALL SYMBOL EMBLEM(See Page 76-16)

ON-VEHICLE INSPECTION



1. **INSPECT TURN SIGNAL FLASHER RELAY CIRCUIT**
 - (a) Disconnect the connector from the turn signal flasher relay and inspect the connector on wire harness side as shown in the chart.

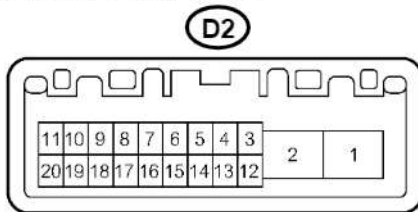
Standard:

Tester connection	Condition	Specified condition
7 – Ground	Constant	Below 1 Ω
1 – Ground	Ignition switch ON	10 to 14 V
1 – Ground	Ignition switch OFF	Below 1 V
4 – Ground	Constant	10 to 14 V

- (b) Connect the connector to the turn signal flasher and inspect the wire harness side connector from the back side as shown in the chart.

Standard:

Tester connection	Condition	Specified condition
2 – Ground	Hazard warning signal switch OFF $\rightarrow$ ON	0 V $\rightarrow$ 0 $\Rightarrow$ Above 9 V (60 to 120 times per minute)
2 – Ground	Turn signal switch (right turn) OFF $\rightarrow$ ON	0 V $\rightarrow$ 0 $\Rightarrow$ Above 9 V (60 to 120 times per minute)
3 – Ground	Hazard warning signal switch OFF $\rightarrow$ ON	0 V $\rightarrow$ 0 $\Rightarrow$ Above 9 V (60 to 120 times per minute)
3 – Ground	Turn signal switch (left turn) OFF $\rightarrow$ ON	0 V $\rightarrow$ 0 $\Rightarrow$ Above 9 V (60 to 120 times per minute)
5 – Ground	Turn signal switch (left turn) OFF $\rightarrow$ ON	Above 9 V $\rightarrow$ 0 V
6 – Ground	Turn signal switch (right turn) OFF $\rightarrow$ ON	Above 9 V $\rightarrow$ 0 V
8 – Ground	Hazard warning signal switch OFF $\rightarrow$ ON	Above 9 V $\rightarrow$ 0 V

Connector Front View:

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E69178

2. INSPECT DAYTIME RUNNING LIGHT RELAY

- (a) Connect the connector to the daytime running light relay and inspect the wire harness side connector from the back side as shown in the table below.

Standard:

Tester connection	Condition	Specified condition
1 – Body ground	Light control switch OFF or TAIL → HEAD	Below 1 V → Below 1 V
2 – Body ground	Always	Below 1 V
3 – Body ground	Always	10 to 14 V
4 – Body ground	Light control switch HEAD → OFF or TAIL	Below 1 V → 10 to 14 V
6 – Body ground	Light control switch OFF or TAIL → HEAD	10 to 14 V → Below 1 V
7 – Body ground	Light control switch OFF or TAIL → HEAD	10 to 14 V → Below 1 V
8 – Body ground	Engine stops → Running	Below 1 V → 10 to 14 V
10 – Body ground	Brake fluid level low → Maximum	Below 1 V → 10 to 14 V
11 – Body ground	Parking brake lever is released → ON	10 to 14 V → Below 1 V
12 – Body ground	Ignition switch OFF → ON	Below 1 V → 10 to 14 V
13 – Body ground	Light control switch OFF or TAIL → Light control switch HEAD and headlight dimmer switch is HIGH or FLASH	Below 1 V → Below 1 V
14 – Body ground (*1)	Light control switch OFF → TAIL or HEAD	10 to 14 V → Below 1 V
15 – Body ground (*1)	Light control switch OFF → TAIL or HEAD	10 to 14 V → Below 1 V
16 – Body ground	Headlight dimmer switch LOW → HIGH or FLASH	10 to 14 V → Below 1 V
18 – Body ground (*1)	Always	Below 1 V
19 – Body ground (*1)	Ignition switch OFF → ON	Below 1 V → 10 to 14 V
20 – Body ground (*1)	Ignition switch OFF → ON	Below 1 V → 10 to 14 V

*1: USA only.

3. ILLUMINATED ENTRY SYSTEM OPERATION CHECK

- (a) The illuminated entry system controls the room lamp assy No.1.
- (b) Check that the lamps come on when any of the doors are opened. Then check that the lamps fade out under any one of the following conditions:
 - (1) 15 seconds after all the doors are closed.
 - (2) The ignition switch is turned to the ON position with all the doors closed.
 - (3) All the doors are closed and locked.
- (c) Check that the lamps stay on for at least 15 seconds after opening any of the doors before fading out as described in (b). Then check that the lamps fade out in 15 seconds after closing all the doors.
- (d) Check that the lamps come on when opening any of the doors and fade out when closing and locking all the doors or turning the ignition switch to the ACC or ON position.

4. BATTERY SAVER OPERATION CHECK

- (a) Remove the ignition key and close all the doors.
- (b) Open any door to turn the room light on, and leave it open. Check that the light goes off after approx. 20 minutes.
- (c) After the room light goes off, close the door.
- (d) Open any door to turn the room light on, and then open another door. Check that the room light goes off after approx. 20 minutes after opening the doors.
- (e) Close all the doors. With the ignition key inserted, open any door to turn the room light on, and then remove the ignition key. Check that the room light goes off after approx. 20 minutes.

LIGHTING SYSTEM (Apr., 2003)

650WL-01

PRECAUTION

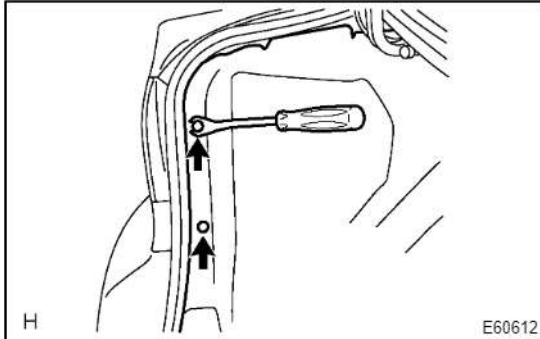
1. PRECAUTION OF HEADLIGHT BULB REPLACEMENT

- (a) If even a thin film of oil is left on the surface of the halogen lamp, its service life will be shortened because the lamp will be burn at a higher temperature.
- (b) Handle any halogen lamp with great care. Dropping, hitting or damaging the bulb, in any way, may result in it exploding and scattering because the internal pressure is high.
- (c) Always prepare a new bulb for immediate replacement. While replacing the bulb, the lens may attract dust and moisture if removed from the vehicle for too long.
- (d) Always use a bulb of the same wattage for replacement.
- (e) Firmly reinstall the socket after bulb replacement. The lens may become cloudy or the light cavity may fill with water through the gaps around the socket.

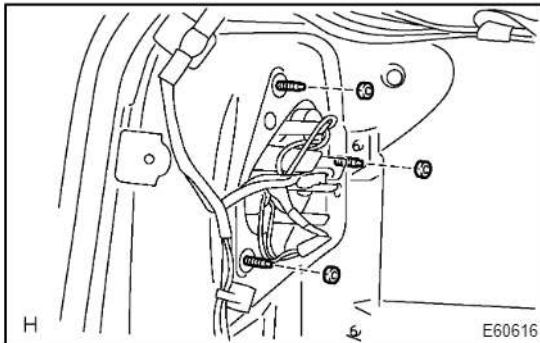
REAR COMBINATION LAMP ASSY LH REPLACEMENT

650GW-01

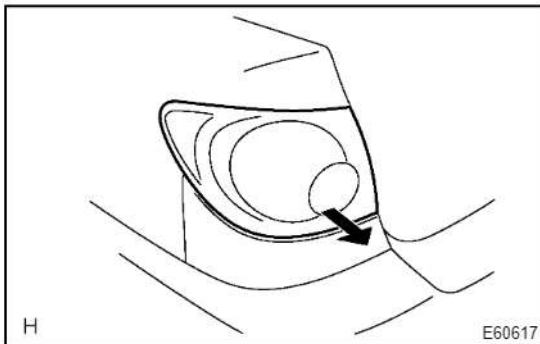
1. REMOVE REAR COMBINATION LAMP ASSY LH



- (a) Using a clipremover, remove the 2 clips and disconnect the luggage compartment trim cover LH.



- (b) Disconnect the connector and remove the 3 nuts.



- (c) Pull out the rear combination light assy LH to the back of the vehicle, and remove.

PROBLEM SYMPTOMS TABLE

HINT:

Use the table below to help determine the cause of the problem. The numbers indicate the priority of the likely cause of the problem. Check each part in order. If necessary, replace these parts.

1. HEADLAMP AND TAIL LAMP

Symptom	Suspected Area	See page
"LO-Beam" does not come on (One side).	1. Bulb 2. HEAD RH LWR fuse or HEAD LH LWR fuse 3. Wire harness	– – –
"LO-Beam" does not come on (All).	1. HEAD Relay 2. Headlamp dimmer switch assy 3. Daytime running light relay 4. Wire harness	65-7 65-7 65-4 –
"HI-Beam" does not come on (One side).	1. Bulb 2. HEAD RH UPR fuse or HEAD LH UPR fuse 3. Wire harness	– – –
"HI-Beam" does not come on (All).	1. DIMMER relay 2. Headlamp dimmer switch assy 3. Daytime running light relay 4. Wire harness	65-7 65-7 65-4 –
"Flash" does not operate (All).	1. Headlamp dimmer switch assy 2. Daytime running light relay 3. Wire harness	65-7 65-4 –
Headlamp is dark.	1. Bulb 2. Wire harness	– –
Only one tail lamp comes on.	1. Bulb 2. Wire harness	– –
Both tail lamps do not come on (Headlamps are normal).	1. TAIL fuse 2. TAIL relay (USA only) 3. Headlamp dimmer switch assy 4. Daytime running light relay (USA only) 5. Wire harness	– 65-7 65-7 65-4 –
Both tail lamps do not come on (Headlamps do not come on).	1. Headlamp dimmer switch assy 2. Wire harness	65-7 –
Headlamp does not come on with engine running, parking brake released, and light control switch off.	1. HEAD relay 2. Generator 3. Parking brake switch 4. Daytime running light relay 5. Wire harness	65-7 – – 65-4 –

2. FRONT FOG LAMP SYSTEM

Symptom	Suspected Area	See page
Front fog lamps do not come on with light control switch in the HEAD position (Headlamps are normal).	1. FOG fuse 2. FOG relay 3. Headlamp dimmer switch assy 4. Wire harness	– 65-7 65-7 –
Only one front fog lamp does not come on.	1. Bulb 2. Wire harness	– –

3. TURN SIGNAL AND HAZARD WARNING SYSTEM

Symptom	Suspected Area	See page
"Hazard" and "Turn" do not come on.	1. HAZARD fuse 2. Turn signal flasher relay 3. Wire harness	– 65-4 –
Hazard warning lamp does not come on. (Turn is normal)	1. Hazard warning signal switch assy 2. Wire harness	65-7 –
Turn signal does not come on. (Hazard is normal)	1. Headlamp dimmer switch assy 2. Wire harness	65-7 –
Turn signal does not come on in one direction.	1. Headlamp dimmer switch assy 2. Wire harness	65-7 –
Only one bulb does not come on.	1. Bulb 2. Wire harness	– –

4. STOP LAMP SYSTEM

Symptom	Suspected Area	See page
Both stop lamps do not come on.	1. STOP fuse 2. Stop lamp switch assy 3. Wire harness	– 65-7 –
Stop lamp always remains ON.	1. Stop lamp switch assy 2. Wire harness	65-7 –
Stop lamp does not come on (One side).	1. Bulb 2. Wire harness	– –

5. BACK UP LAMP SYSTEM

Symptom	Suspected Area	See page
Both back up lamps do not come on.	1. GAUGE fuse 2. Back up lamp switch (M/T) 3. Park/Neutral Position switch (A/T) 4. Wire harness	– 65-7 05-379 –
Both back up lamps remain always ON.	1. Back up lamp switch (M/T) 2. Park/Neutral Position switch (A/T) 3. Wire harness	65-7 05-379 –
Back up lamp does not come on (One side).	1. Bulb 2. Wire harness	– –

6. INTERIOR LAMP SYSTEM

Symptom	Suspected Area	See page
Room lamp do not come on.	1. Bulb 2. Wire harness	– –

7. LIGHT CONTROL RHEOSTAT SYSTEM

Symptom	Suspected Area	See page
Light control rheostat system does not operate.	1. Light control rheostat 2. Wire harness	65-7 –