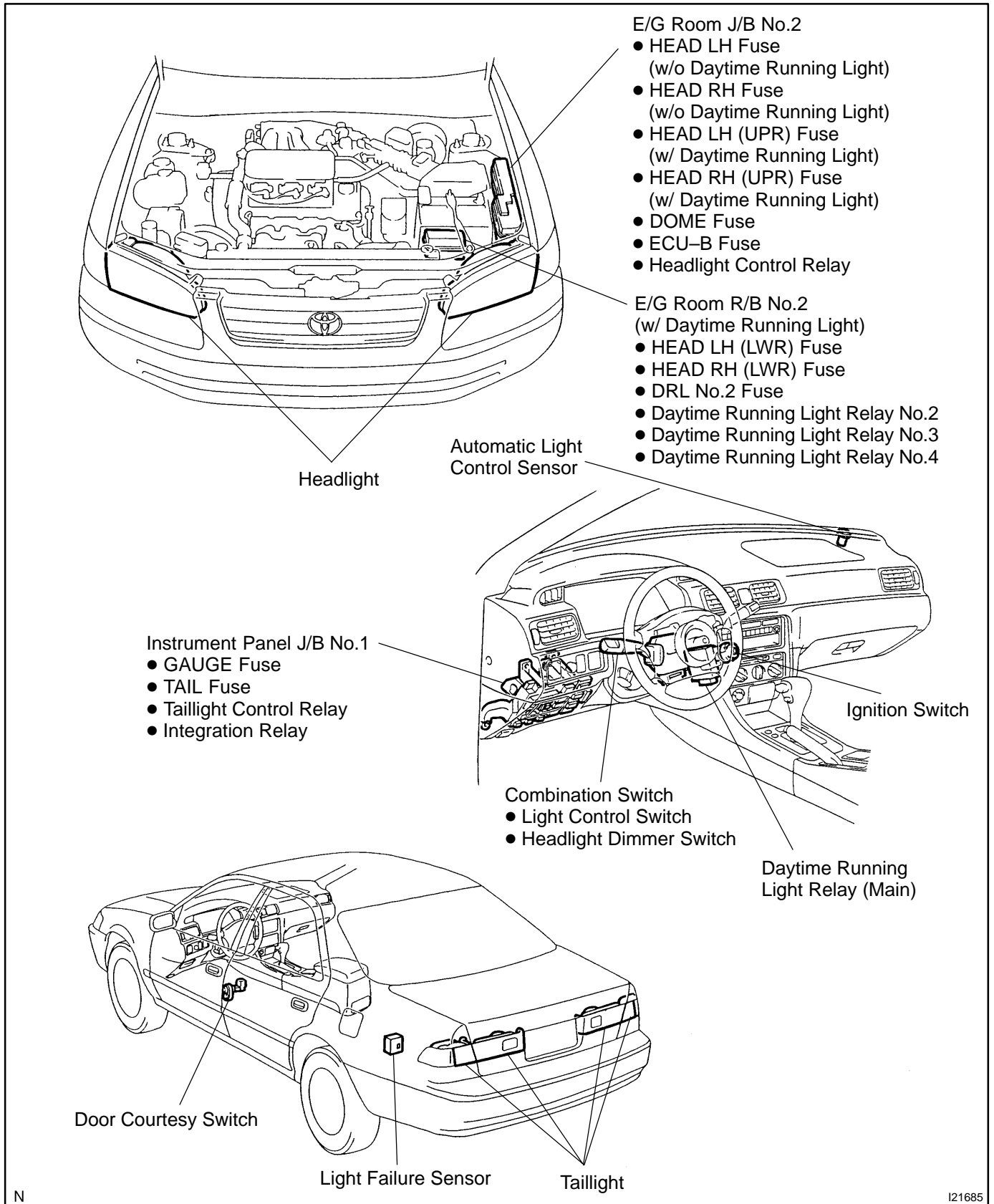


# HEADLIGHT AND TAILLIGHT SYSTEM LOCATION

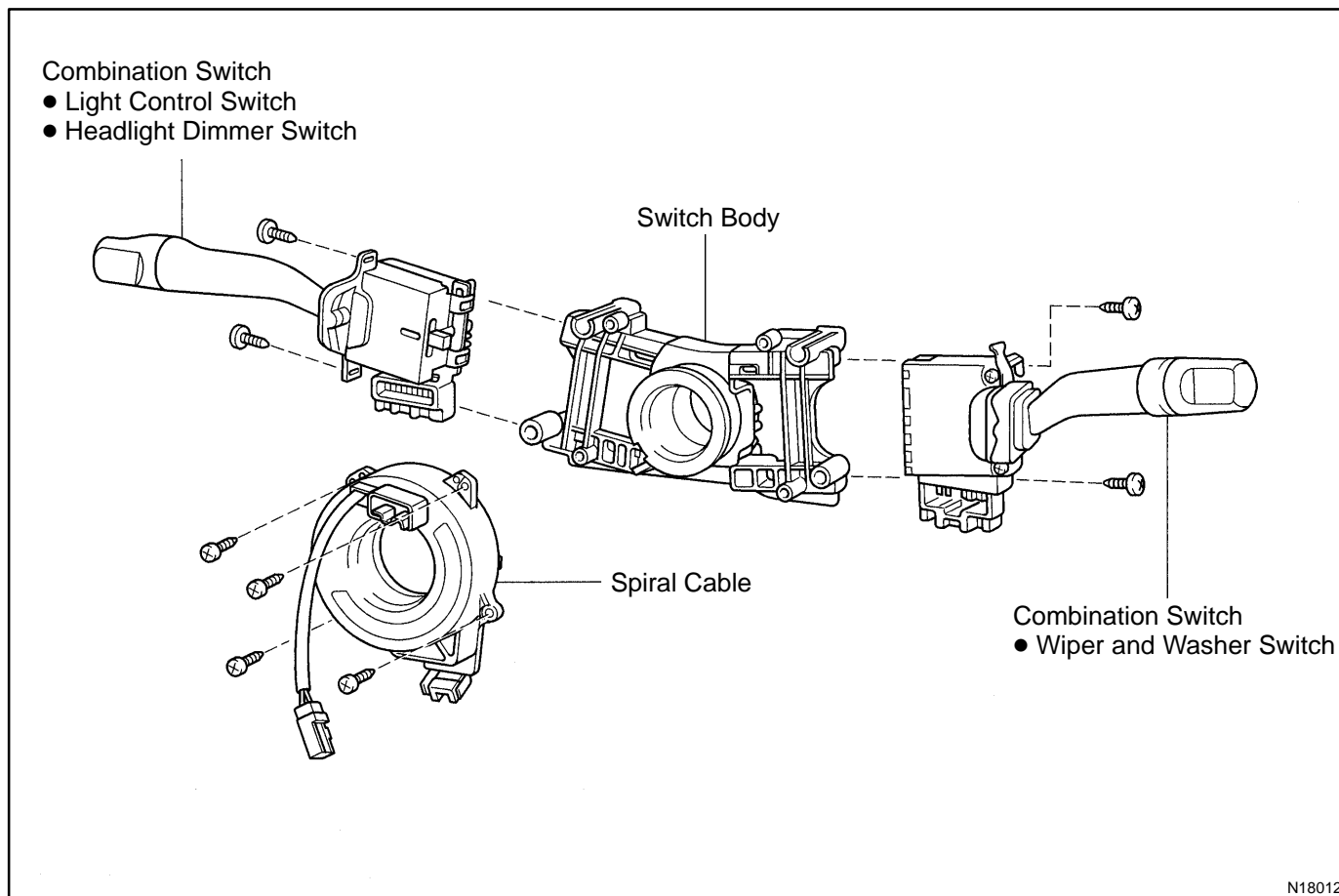
BE044-04

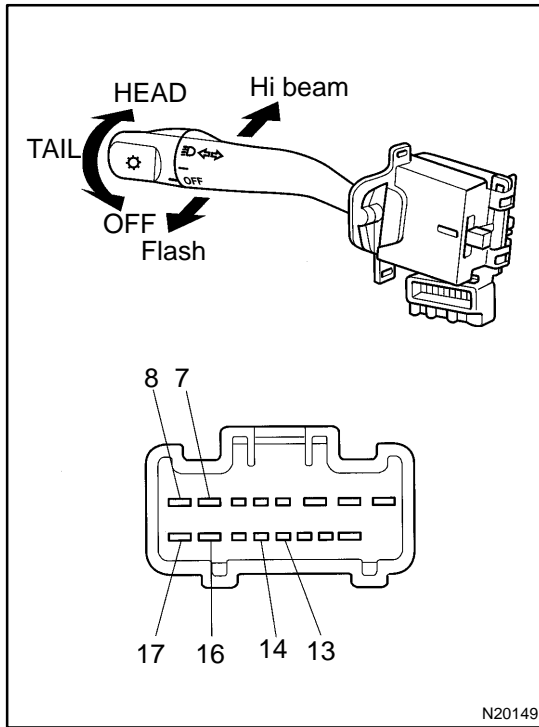


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# COMPONENTS





## INSPECTION

### 1. INSPECT LIGHT CONTROL SWITCH CONTINUITY

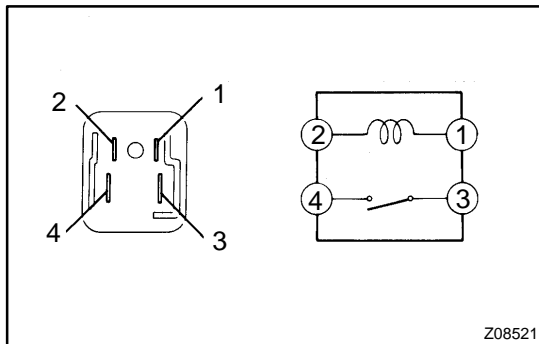
Switch position	Tester connection	Specified condition
OFF	-	No continuity
TAIL	14 - 16	Continuity
HEAD	13 - 14 - 16	Continuity

If continuity is not as specified, replace the switch.

### 2. INSPECT HEADLIGHT DIMMER SWITCH CONTINUITY

Switch position	Tester connection	Specified condition
Low beam	16 - 17	Continuity
High beam	7 - 16	Continuity
Flash	7 - 8 - 16	Continuity

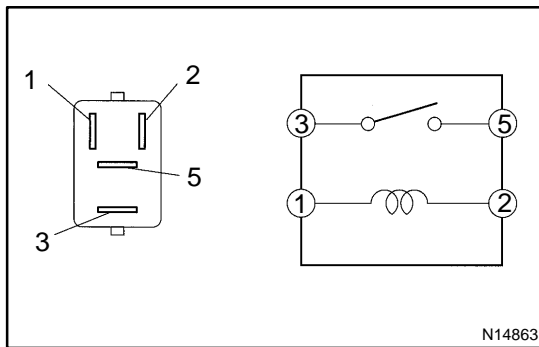
If continuity is not as specified, replace the switch.



### 3. INSPECT HEADLIGHT RELAY CONTINUITY

Condition	Tester connection	Specified condition
Constant	1 - 2	Continuity
Apply B+ between terminals 1 and 2.	3 - 4	Continuity

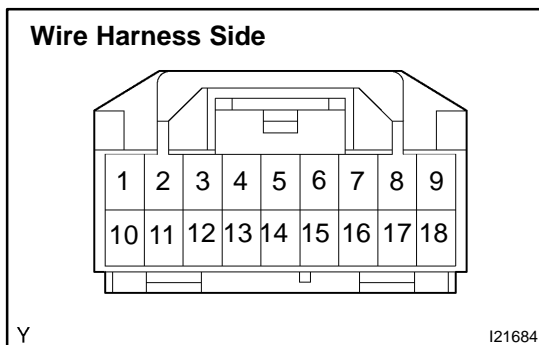
If continuity is not as specified, replace the relay.



### 4. INSPECT TAILLIGHT CONTROL RELAY CONTINUITY

Condition	Tester connection	Specified condition
Constant	1 - 2	Continuity
Apply B+ between terminals 1 and 2.	3 - 5	Continuity

If continuity is not as specified, replace the relay.



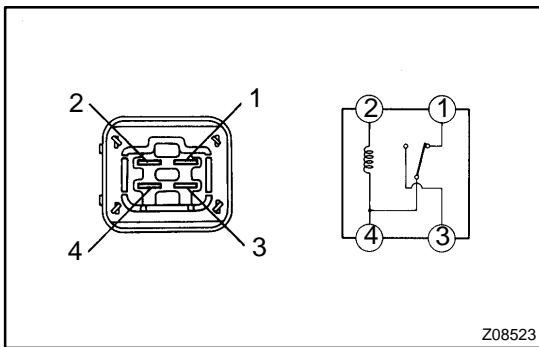
### 5. w/ Daytime running light system: INSPECT DAYTIME RUNNING LIGHT RELAY (MAIN) CIRCUIT

Disconnect the connector from the relay and inspect the connector on the wire harness side.

BODY ELECTRICAL – HEADLIGHT AND TAILLIGHT SYSTEM

Tester connection	Condition	Specified condition
1 – Ground	Constant	Battery positive voltage
2 – Ground	Constant	Battery positive voltage
3 – Ground	Constant	Battery positive voltage
4 – Ground	Light control switch position OFF or HEAD	No voltage
4 – Ground	Light control switch position TAIL	Continuity
5 – Ground	Constant	Battery positive voltage
7 – Ground	Light control switch position OFF or TAIL	No continuity
7 – Ground	Light control switch position HEAD	Continuity
8 – Ground	Headlight dimmer switch position Low beam	No continuity
8 – Ground	Headlight dimmer switch position High beam or Flash	Continuity
9 – Ground	Engine Stop	No voltage
9 – Ground	Engine Running	Battery positive voltage
10 – Ground	Ignition switch position LOCK or ACC	No voltage
10 – Ground	Ignition switch position ON or START	Battery positive voltage
14 – Ground	Constant	Continuity
17 – Ground	Brake fluid level warning position OFF	No continuity
17 – Ground	Brake fluid level warning position ON	Continuity
18 – Ground	Parking brake switch position OFF (Parking brake lever released)	No continuity
18 – Ground	Parking brake switch position ON (Parking brake lever pulled up)	Continuity

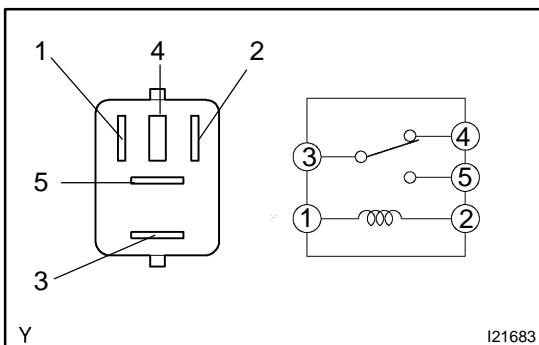
If circuit is as specified, try replacing the relay with a new one. If circuit is not as specified, inspect the circuits connected to other parts.



6. w/ Daytime running light system:  
**INSPECT DAYTIME RUNNING LIGHT NO.2 RELAY CONTINUITY**

Condition	Tester connection	Specified condition
Constant	1 – 4, 2 – 4	Continuity
Apply B+ between terminals 2 and 4.	3 – 4	Continuity

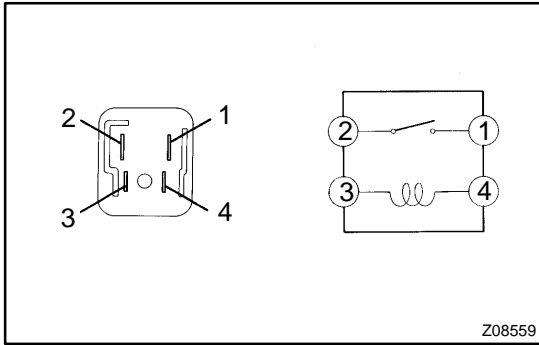
If continuity is not as specified, replace the relay.



7. w/ Daytime running light system:  
**INSPECT DAYTIME RUNNING LIGHT NO.3 RELAY-CONTINUITY**

Condition	Tester connection	Specified condition
Constant	1 – 2, 3 – 4	Continuity
Apply B+ between terminals 1 and 2.	3 – 5	Continuity

If continuity is not as specified, replace the relay.

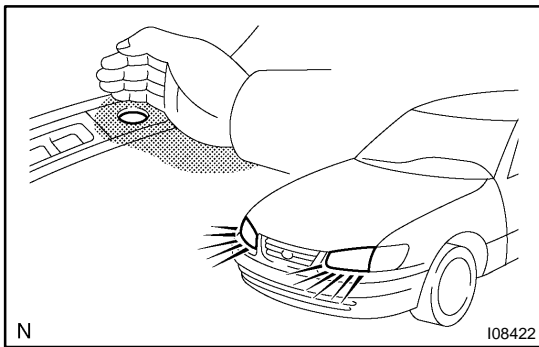


**8. w/ Daytime running light system:  
INSPECT DAYTIME RUNNING LIGHT NO.4 RELAY  
CONTINUITY**

Condition	Tester connection	Specified condition
Constant	3 – 4	Continuity
Apply B+ between terminals 3 and 4.	1 – 2	Continuity

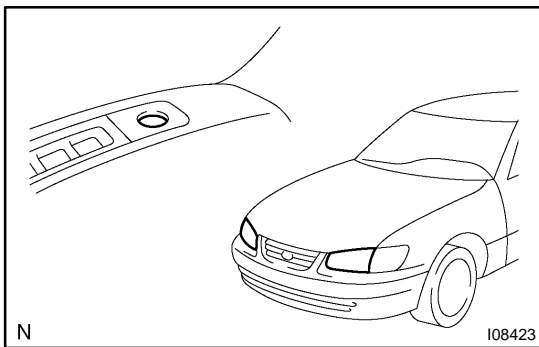
If continuity is not as specified, replace the relay.

**9. INSPECT LIGHT AUTO TURN OFF SYSTEM  
(See Integration relay circuit on page BE-14)**



**10. w/ Automatic Light Control System:  
INSPECT AUTOMATIC LIGHT CONTROL**

- (a) Turn the ignition switch ON.
- (b) Turn the light control switch to OFF.
- (c) Parking brake lever released.
- (d) Gradually cover the top of the sensor.
- (e) Verify that the lights should turn ON the accessory lights and the headlights.



**11. w/ Automatic Light Control System:  
INSPECT AUTOMATIC LIGHT CONTROL**

- (a) Gradually expose the sensor.
- (b) Verify that the lights should turn OFF the headlights and the accessory lights.

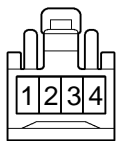
**12. w/ Automatic Light Control System:  
INSPECT LIGHT-OFF CONDITION**

- (a) Turn the ignition switch ON.
- (b) Gradually cover the top of the sensor.  
Lights auto ON:

**13. w/ Automatic Light Control System:  
INSPECT LIGHTS-ON CONDITION**

- (a) Open the driver's door while the ignition switch is OFF.
- (b) Turn the light control switch to OFF leaving the door open and cover the top of the sensor, and verify that the lights go on when the ignition switch is turned ON.

Wire harness side:



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#### 14. w/ Automatic light control system: INSPECT AUTOMATIC LIGHT CONTROL SENSOR CIRCUIT

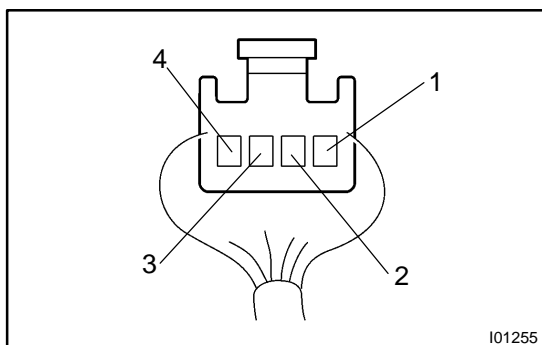
Connector disconnected:

Disconnect the connector from the sensor and inspect the connector on the wire harness side, as shown in the table.

Tester connection	Condition	Specified condition
3 – Ground	Constant	Constant
1 – Ground	Ignition switch LOCK or ACC	No voltage
1 – Ground	Ignition switch ON	Battery positive voltage
4 – Ground	Ignition switch LOCK or ACC	No voltage
4 – Ground	Ignition switch ON	5.2 – 9.0 v

If circuit is as specified, perform the inspection on the following page.

If the circuit is not as specified, inspect the circuit connected to other parts.



I01255

#### 15. INSPECT AUTOMATIC LIGHT CONTROL SENSOR CIRCUIT

Connector disconnected:

Connect the wire harness side connector to the sensor and inspect wire harness side connector from the back side, as shown.

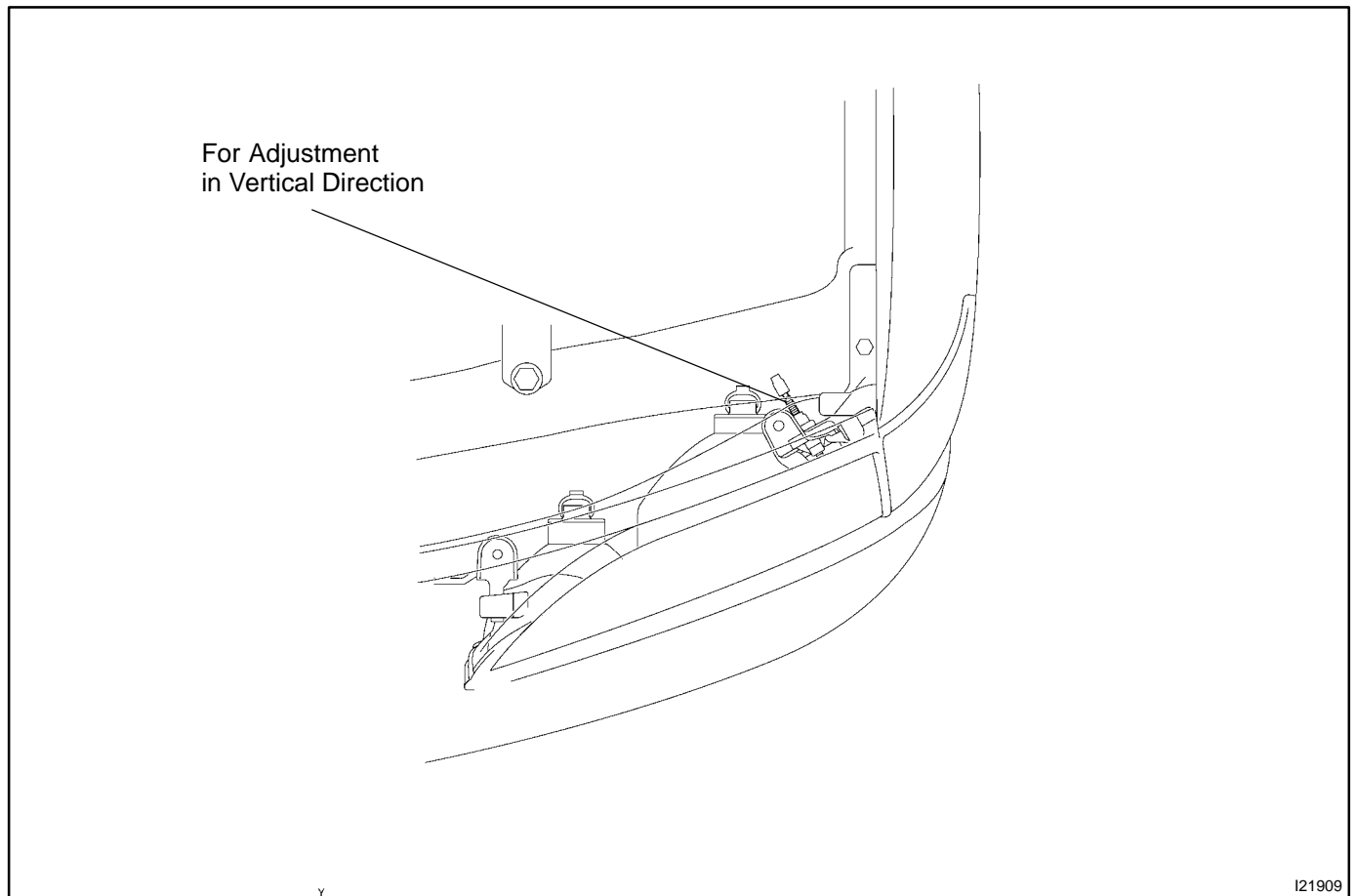
HINT:

- Ignition switch ON.
- Light control switch OFF.
- Vehicle's surroundings are bright.

Tester connection	Condition	Specified condition
3 – Ground	Constant	Continuity
1 – Ground	Ignition switch LOCK or ACC	No voltage
1 – Ground	Ignition switch ON	9.5 V or more
Vehicle under the direct sun light. (Sensor is not covered)		Taillight and Headlight are ON.

If circuit is as specified, try replacing the sensor with a new one.  
If the circuit is not as specified, inspect the circuit connected to other parts.

## ADJUSTMENT



### ADJUST 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 the specified value.
  - 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 the 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).

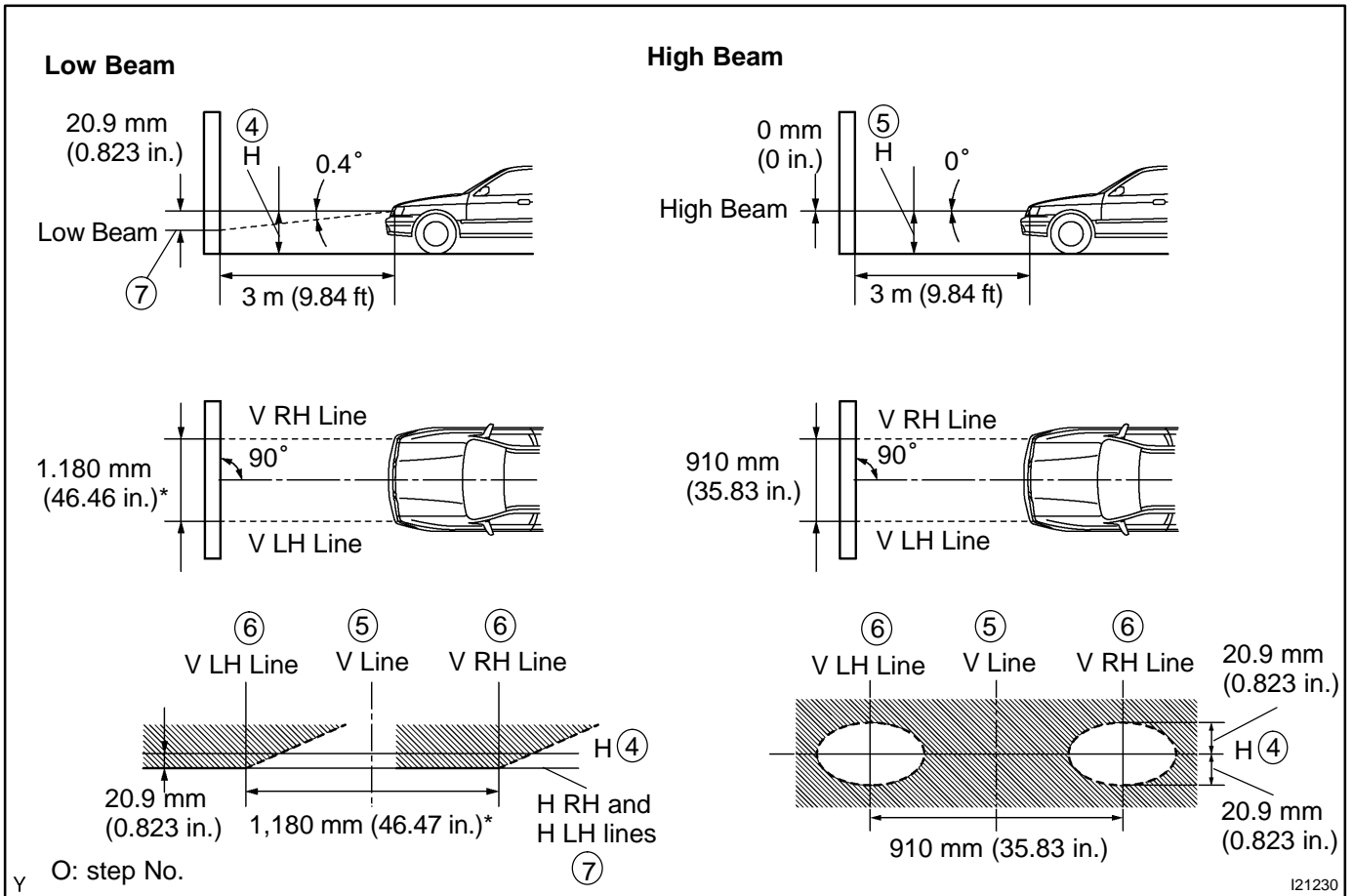
#### HINT:

The H RH and H LH line is  $0.4^\circ$  below the horizontal line (H line) of the light axis.

- (8) Start the engine.

2001 CAMRY (RM819U)

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



HINT:

- As shown in the illustration, adjust each aim of the RH and LH lights.
  - The value of the "High Beam" aim is a reference value. Since the horizontal direction is impossible to adjust, the value \* of the "Low Beam" aim is also a reference value.
- (c) When adjusting it in the vertical direction:  
Using adjusting bolt (vertical direction), adjust the headlight aim to within the specified range.