LIGHTING SYSTEM

PRECAUTION

1. GENERAL PRECAUTION

(a) While using the battery during inspection, do not bring the positive and negative tester probes too close to each other as a short circuit may occur.

2. PRECAUTION FOR DISCONNECTING THE BATTERY CABLE

NOTICE:

When disconnecting the negative (-) battery terminal, initialize the following systems after the terminal is reconnected.

System Name	See procedure
Power Window Control System	IN-29
Sliding Roof System	IN-29

3. PRECAUTION FOR HEADLIGHT BULB REPLACEMENT (HALOGEN BULB)

(a) Halogen bulbs have pressurized gas inside and require special handling. They can burst if scratched or dropped. Hold the bulb only by its plastic or metal case. Don't touch the glass part of a bulb with bare hands.

4. PRECAUTION FOR HEADLIGHT BULB REPLACEMENT (HID BULB)

(a) When any defects such as deformations, crack, dent, chipping, etc. are identified on the HID headlight (especially on the light control ECU), replace it with a new one.

(b) Even if the operation of the HID system is normal, always replace damaged parts as the fail-safe function may not be operating correctly.

(c) Be careful not to scratch or drop bulbs of the HID headlight and halogen bulbs (for high beam headlights and fog lights) as they have pressurized gas inside and can be easily broken.

(d) Touching the high voltage socket of the HID headlight with the headlight dimmer switch ON could generate momentary high voltage of 20,000 V and lead to a serious injury.

(e) Never connect a tester to the high voltage socket of the HID headlight for measurement, as this may lead to a serious injury because of high voltage.

(f) When servicing the HID headlight, keep it away from water including rain, turn off the light control switch, and disconnect the battery terminal and the connector of the light control ECU in advance to avoid electric shock.

(g) When operating the HID headlight, operate it after assembling is completed and never turn on the lights without a bulb installed.

(h) Do not turn on the HID headlight using another power source except the vehicle's.

5. EXPRESSIONS OF IGNITION SWITCH

(a) The type of ignition switch used on this model differs according to the specifications of the vehicle. The expressions listed in the table below are used in this section.

Switch Type		Ignition Switch (position)	Engine Switch (condition)
Expression	Ignition Switch off	LOCK	Off
	Ignition Switch on (IG)	ON	On (IG)
	Ignition Switch on (ACC)	ACC	On (ACC)
	Engine Start	START	Start

HOW TO PROCEED WITH TROUBLESHOOTING

The intelligent tester can be used at steps 4, 5, 6, and 12.

1	VEHICLE BROUGHT TO WORKSHOP

NEXT

2	CUSTOMER PROBLEM ANALYSIS

NEXT

3	PROBLEM SYMPTOM CONFIRMATION

- SYMPTOM DOES NOT OCCUR (GO TO STEP 4)
- SYMPTOM OCCURS (GO TO STEP 5)

4	CHECK BODY MULTIPLEX COMMUNICATION SYSTEM

(a) Check for DTC outputs.

- MULTIPLEX DTC OUTPUTS (PROCEED TO "BODY MULTIPLEX COMMUNICATION SYSTEM"
- NO MULTIPLEX DTC (GO TO STEP 5)

5	DTC CHECK (OTHER THAN MULTIPLEX DTC)

- MALFUNCTION CODE (GO TO STEP 6)
- NORMAL CODE (GO TO STEP 7)

6	DTC CHART

- GO TO STEP 8

7	PROBLEM SYMPTOMS TABLE

NEXT

8	**TERMINALS OF ECU**

NEXT

9	**CIRCUIT INSPECTION**

NEXT

10	**IDENTIFICATION OF PROBLEM**

NEXT

11	**REPAIR OR REPLACE**

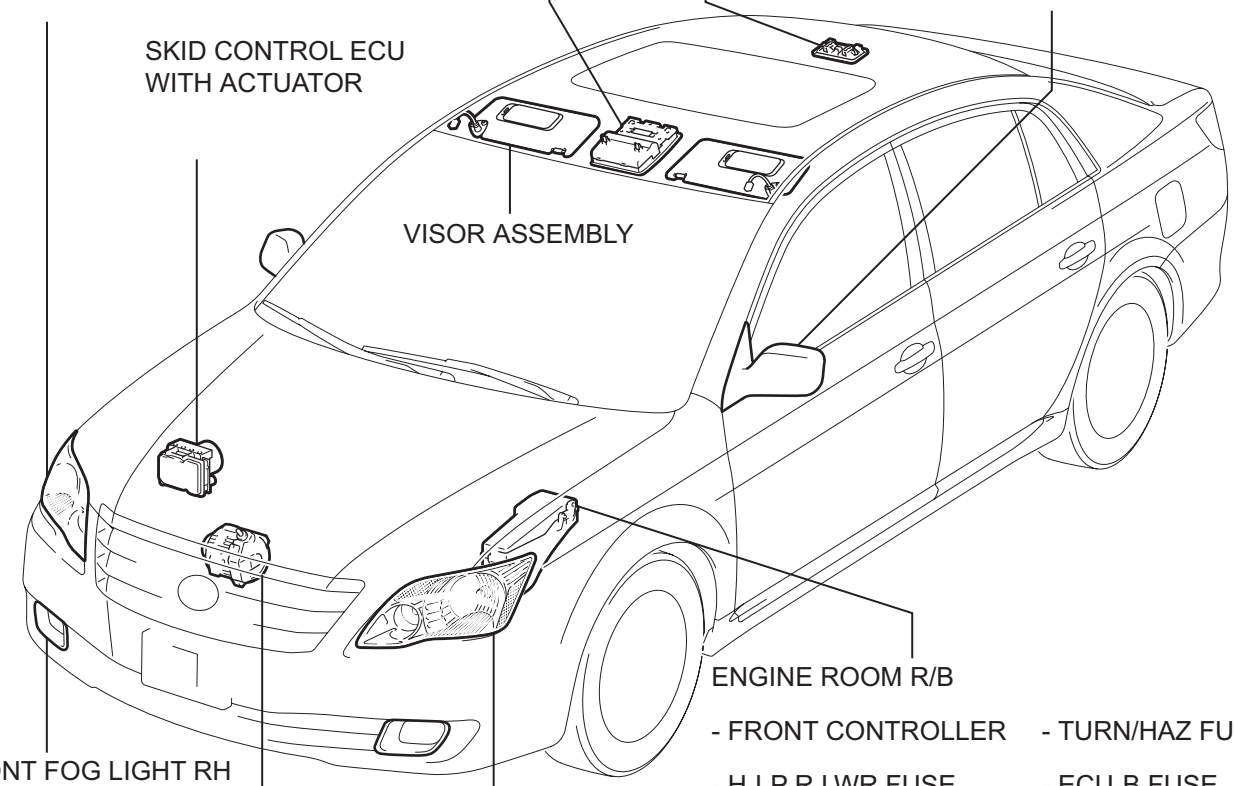
NEXT

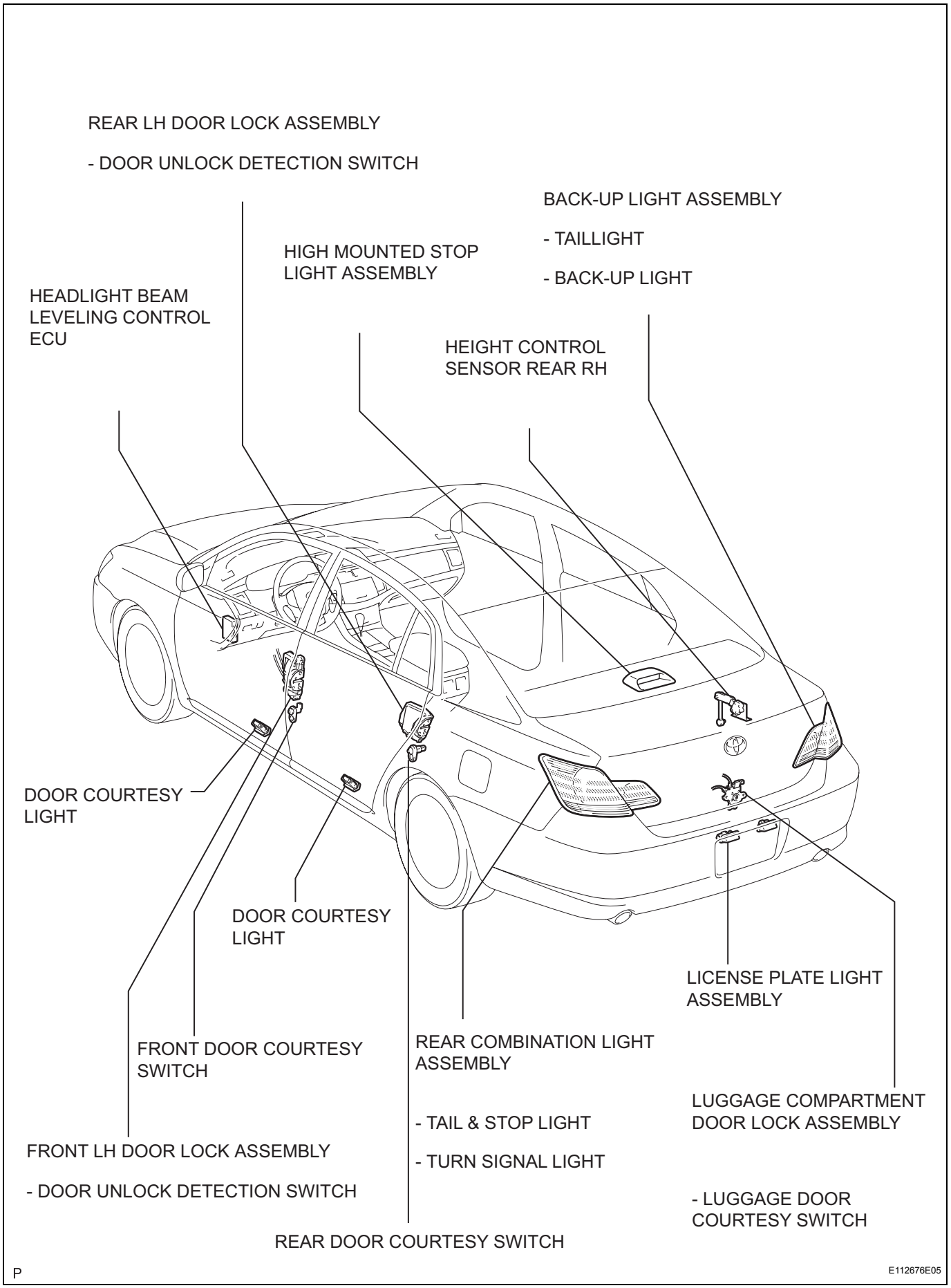
12	**CONFIRMATION TEST**

NEXT

END

PARTS LOCATION




REAR LH DOOR LOCK ASSEMBLY
- DOOR UNLOCK DETECTION SWITCH
BACK-UP LIGHT ASSEMBLY
- TAILLIGHT
- BACK-UP LIGHT
HIGH MOUNTED STOP LIGHT ASSEMBLY
HEADLIGHT BEAM LEVELING CONTROL ECU
HEIGHT CONTROL SENSOR REAR RH
DOOR COURTESY LIGHT
DOOR COURTESY LIGHT
LICENSE PLATE LIGHT ASSEMBLY
FRONT DOOR COURTESY SWITCH
REAR COMBINATION LIGHT ASSEMBLY
- TAIL & STOP LIGHT
- TURN SIGNAL LIGHT
LUGGAGE COMPARTMENT DOOR LOCK ASSEMBLY
FRONT LH DOOR LOCK ASSEMBLY
- DOOR UNLOCK DETECTION SWITCH
- LUGGAGE DOOR COURTESY SWITCH
REAR DOOR COURTESY SWITCH
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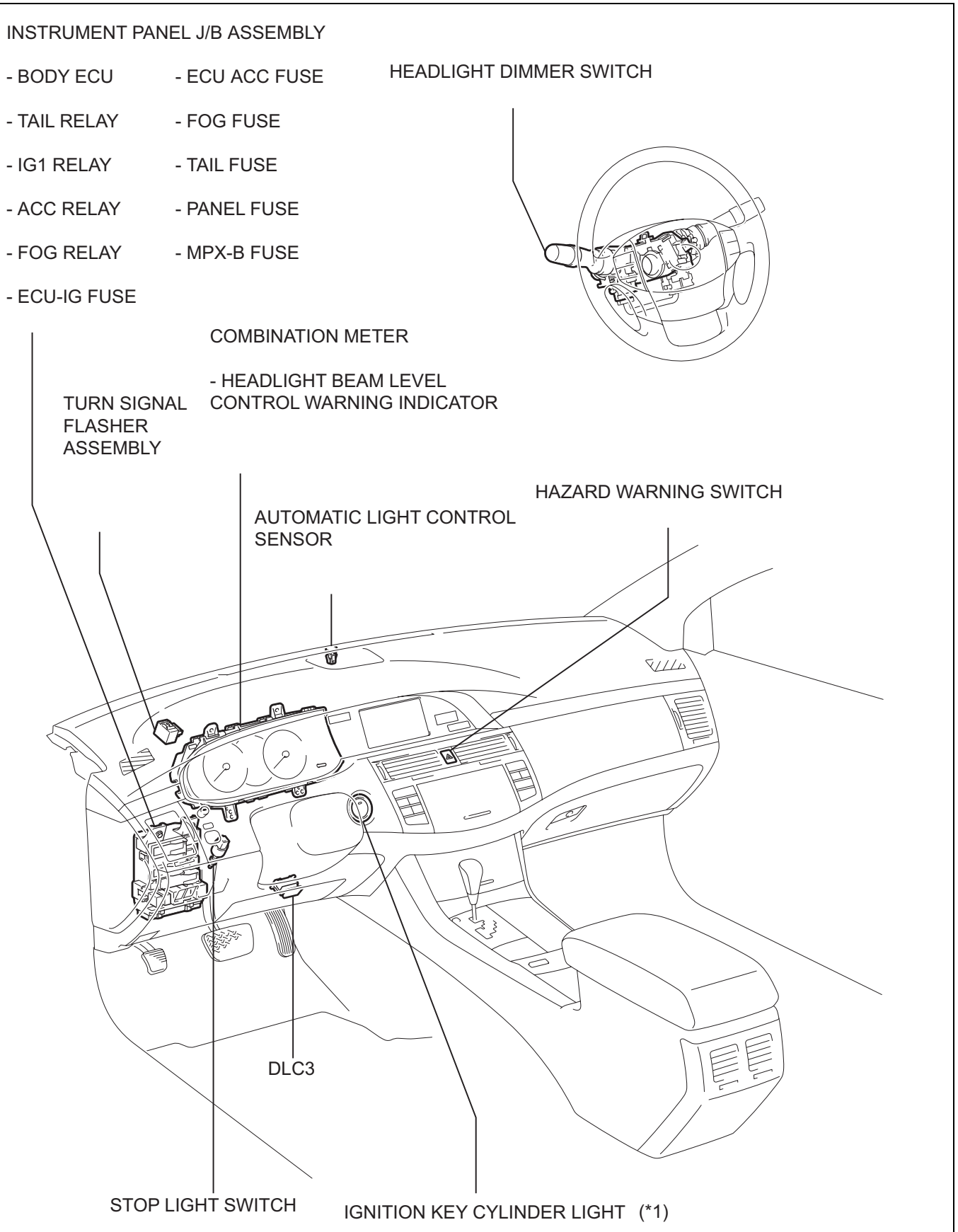

*1: WITHOUT SMART KEY SYSTEM

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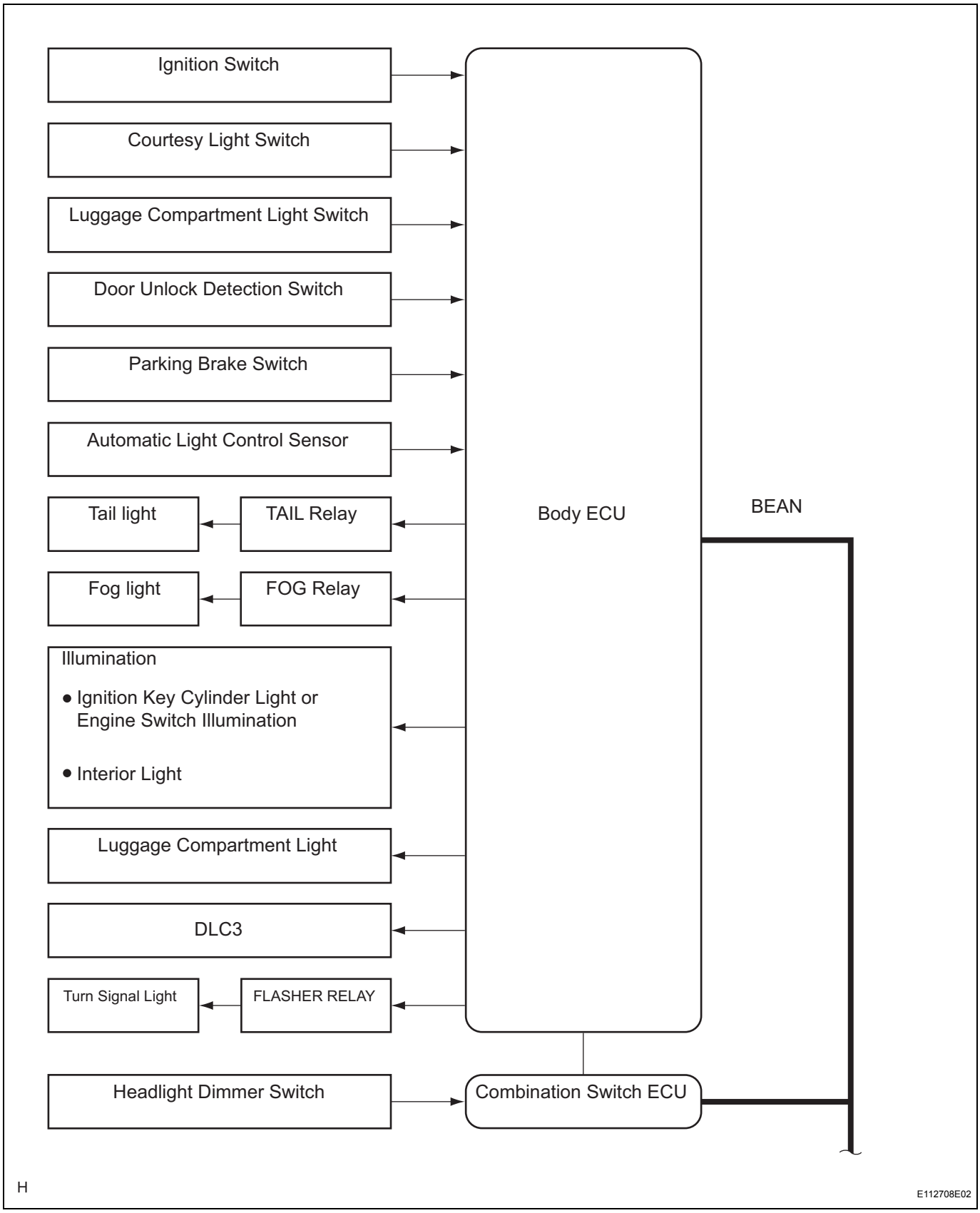
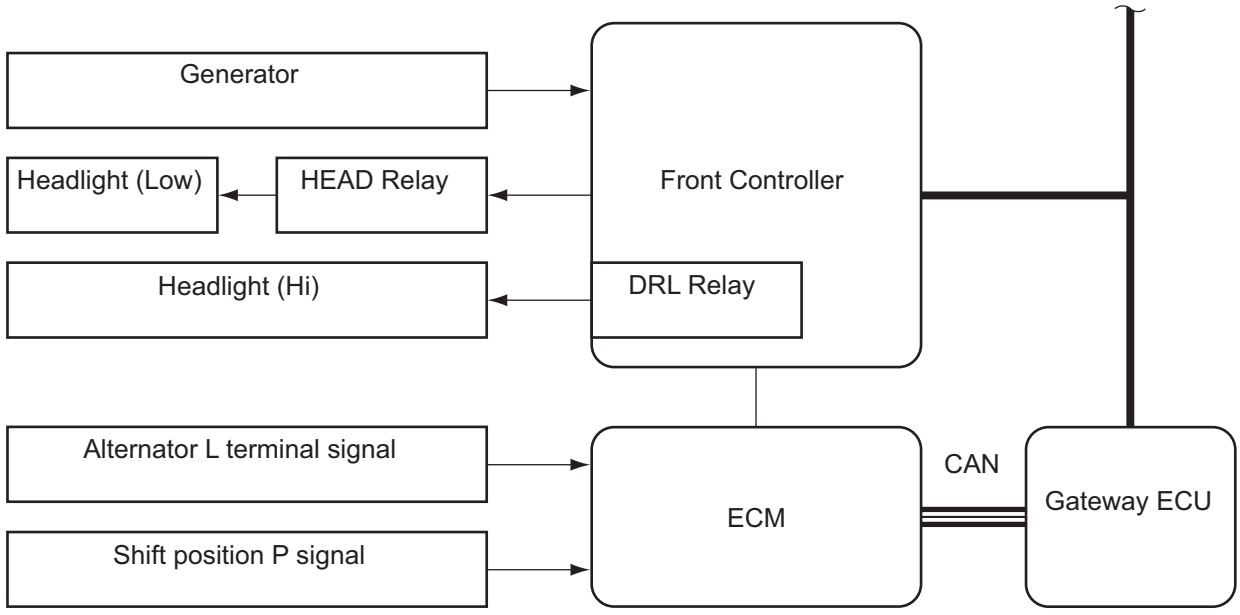
SYSTEM DIAGRAM





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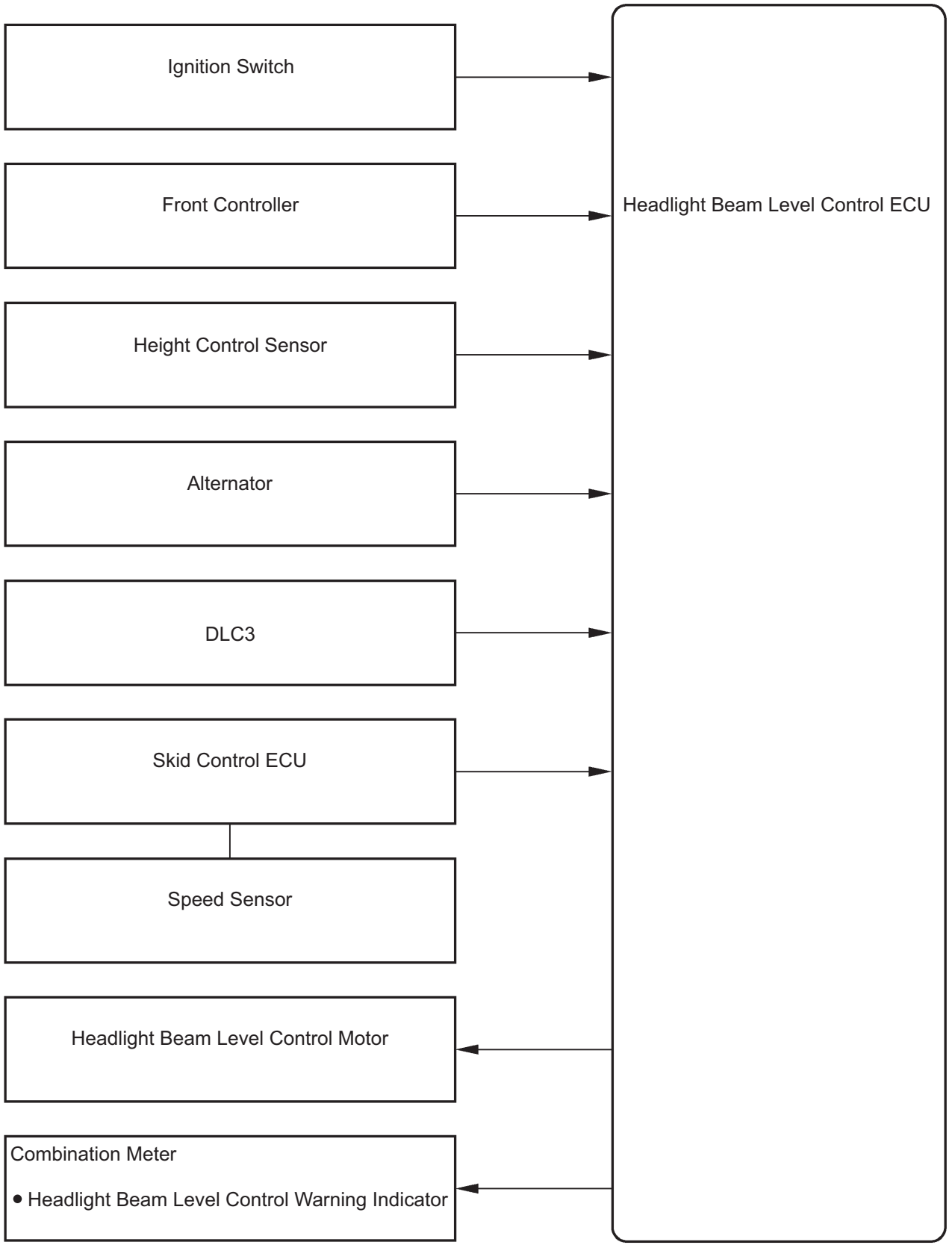
Headlight Beam Level Control System:



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Input and output signals of each ECU

Transmitting ECU (Transmitter)	Receiving ECU	Signals	Communication method
Body ECU	Front Controller	• Headlight ON signal • High beam ON signal • DRL ON demand signal	BEAN
Combination switch ECU	Body ECU	• Light SW auto signal • Light SW tail signal • Light SW head signal • Light SW high beam signal • Front fog SW signal • Lighting system passing signal • Right turn signal • Left turn signal	BEAN
ECM	Body ECU	• Alternator L terminal signal • Shift position P signal	CAN - BEAN

SYSTEM DESCRIPTION

1. PARTS DESCRIPTION

Components	Function
Automatic light control sensor	Detects ambient light and sends the information to the body ECU.
HEAD relay	Turn the headlight on when it is actuated by the headlight ON demand signal by the front controller.
TAIL relay	Turns the tail light and illumination on when it is actuated by the tail light ON demand signal via the body ECU
Door courtesy switch	Detects the door open / close state and sends the respective information to the body ECU.
Door unlock detection switch	Detects the door lock / unlock state and sends the respective information to the body ECU.
Alternator	Detects the engine start / stop state and sends the information to the headlight beam level control ECU.
Skid control ECU	Detects the vehicle speed and sends the information to the headlight beam level control ECU.
Height control sensor	Detects the vehicle height and sends the corresponding information to the headlight beam level control ECU.
Combination meter	Sends headlight beam level warning according to the information from the headlight beam level control ECU.
Headlight beam level control motor	moves the headlight (low beam) up and down according to the information from the headlight beam level control ECU.

2. OPERATION DESCRIPTION

(a) Illumination control system (Illuminated entry system):

(1) The body ECU receives the following (A):
- Door courtesy switch signal
- Door detection switch signal
- Ignition switch signal

(2) The body ECU controls the following based on the signals listed in "A":
- Illumination operation signal

(3) The body ECU controls on / off and fade-in / fade-out operation of the following:
- Front interior light
- Ignition key cylinder light or engine switch illumination

(b) Manual light control system:
This system functions if lights such as the headlights and tail lights come on by manual operation of the light control switch.

(1) The body ECU receives the following (B):
- Light control switch signal
- Headlight dimmer switch signal
- Fog light switch signal

(2) The body ECU controls the following based on the signals listed in "B":
- Headlight ON signal
- Tail light ON signal
- High beam ON signal
- Front fog light ON signal

(c) Light auto turn off system:
When the headlights and tail lights are on through the operation of the automatic light control switch, if the ignition switch is turned off and all doors are closed, this system continues to illuminate the headlights and tail lights for approximately 30 seconds, and then turns off the headlights. However, with all the doors locked manually, using the door lock button, using the key, or pressing "LOCK" on the wireless remote will turn the headlights and tail lights of immediately.
(1) The body ECU receives the following (C):
- Door courtesy switch signal
- Ignition switch on (IG) signal

(2) The multiplex network body ECU controls the following based on the signals listed in "C" (D):
- Tail light ON signal
- Headlight ON signal
- High beam ON signal
- Fog light signal

(3) The body ECU controls the illuminating period of the following based on the signals listed in "D":
- Fog light
- Tail light

(4) The front controller receives headlight ON and the high beam ON signals from the body ECU, and then controls the illuminating period of the following based on the signal listed in "D":
- Headlight (Low)
- Headlight (Hi)

(d) Automatic light control system:
When the light control switch is in the AUTO position, the automatic light control sensor detects ambient light and automatically turns the headlights and tail light on or off accordingly.
(1) The body ECU receives the following (E):
- Light control switch signal
- Automatic light control sensor signal

(2) The body ECU controls the following based on the signals listed in "E":
- Headlight ON signal
- Tail light ON signal

(3) The body ECU controls on / off operation of the following:
- Tail light

(4) The front controller receives the headlight ON signal from the body ECU, and then controls on / off operation of the following:
- Headlight

(e) Daytime running light system:
This system is directly connected to the high-beam headlights and is designed to automatically activate the daytime running lights in order to remain highly visible to other vehicles.
(1) The body ECU receives the following (F):
- Ignition switch signal
- Generator signal
- Parking brake switch signal
- Light control switch signal

(2) The body ECU controls the following based on the signals listed in "F":
- DRL relay operation signal

(3) The front controller receives the high beam ON signal from the body ECU, and then controls on / off operation of the following:
- Headlight (Hi)

(f) Turn signal light system
(1) The body ECU receives the following (G):
- Right turn signal
- Left turn signal

(2) The body ECU controls the following based on the signals listed in "G" (H):
- Right turn ON signal
  Sent when the right turn signal or hazard warning signal is received.
- Left turn ON signal
  Sent when the left turn signal or hazard warning signal is received.

(3) The body ECU controls on / off operation of the following based on the signals listed in "H":
- Right turn signal light
- Left turn signal light

(g) Headlight beam level control system
(1) The headlight beam level control ECU receives the following (I):
- HEAD relay ON signal
- Vehicle height sensor signal
- Vehicle speed signal
- Alternator signal

(2) The headlight beam level control ECU controls the following based on the signals listed in "I" at engine start (J):
- Level control motor operation demand signal:
  Sent based on the vehicle height sensor signal and vehicle speed sensor when the HEAD relay ON signal is received.
- Headlight beam level control warning indicator light signal:
  Sent to the combination meter when the headlight beam level control ECU is malfunctioning.

(3) The headlight beam level control ECU control the following based on the signals listed in "J".
- Headlight beam level control motor
- Headlight beam level control warning indicator light

OPERATION CHECK

1. ILLUMINATED ENTRY SYSTEM OPERATION CHECK

(a) Illuminated entry system controls the following:
- Key cylinder light or engine switch illumination
- Front interior light

(b) Check that the lights come on when unlocking any of the doors that are closed and locked with the ignition switch off. Then check that the lights fade out under the following conditions:
(1) Leave the doors unlocked for 15 seconds.
(2) Turn the ignition switch on (IG) or turn the ignition switch on (ACC).
(3) Lock all the doors.

(c) Check that the lights come on when opening any of the doors that are closed with the ignition switch off. Close the door and check that the lights stay on for about 15 seconds and then go off.

(d) Check that the lights come on when turning the ignition switch from on (ACC or IG) to off. Check that the lights stay on for about 15 seconds and then go off.

2. BATTERY SAVER OPERATION CHECK

(a) Remove the ignition key and close all the doors.

(b) Open the door to turn the room light on, and leave it open. Check that the light goes off after approximately 20 minutes.

(c) After the room light goes off, close the driver's door.

(d) Open any door to turn the room light on, and then open another door. Check that the room light goes off within 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 within 20 minutes.

3. LIGHT AUTO TURN OFF OPERATION CHECK

(a) Turn the ignition switch on (IG), and switch the headlights to the TAIL or HEAD position.

(b) Turn the ignition switch off and open the driver's door, and check that the headlights go off after approximately 30 seconds.

(c) Turn the ignition switch on (IG), and switch the headlights to the TAIL or HEAD position.

(d) Turn the ignition switch off and open the driver's door. Before the headlight goes off after approximately 30 seconds, lock all the doors. Check that the headlights go off immediately.

4. AUTOMATIC LIGHT CONTROL OPERATION CHECK

(a) Turn the ignition switch on (IG).

(b) Turn the headlight dimmer switch to the AUTO position.

(c) Cover the automatic light control sensor and check that the tail lights and headlights come on in order.

(d) Uncover the automatic light control sensor and check that the headlights and tail lights go off in order.

5. DAYTIME RUNNING LIGHT OPERATION CHECK

(a) Check that the high beams come on when the headlight switch is off with the engine running and the parking brake released. Then check that the lights go off under the following condition:
(1) Turn the headlight dimmer switch into the TAIL or HEAD (LOW) position.
(2) Turn the ignition switch off.

6. HEADLIGHT BEAM LEVEL CONTROL OPERATION CHECK

(a) Check that the initialization (determination of the initial position) of the leveling motor is performed at engine-start.

(b) Check that the warning indicator in the combination meter assembly comes on for approximately 3 seconds when turning the ignition switch on (IG) and then goes off.

(c) Check that the projector moves when:
Moving the rear of the vehicle up or down while the engine is running, vehicle is stopped, and the headlight dimmer switch is in the HEAD position.
NOTICE:
Make sure to change the vehicle's height slowly.

Headlight Beam Level Control System

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CUSTOMIZE PARAMETERS

HINT:
The following items are possible to customize.
NOTICE:

- **After confirming whether the items of the customer's request is applicable or not for the customized items, perform the customize operation.**
- **Be sure to record the current value before customizing.**
- **In case of performing the troubleshooting, pay attention as there is a possibility that a function is OFF by customizing. (Example: In case of the symptom in which "The wireless operation does not function", check that the wireless operation is not OFF by customizing, then perform the troubleshooting.)**

ILLUMINATED ENTRY

DISPLAY (ITEM)	DEFAULT	CONTENTS	SETTING
LIGHTING TIME (Lighting Time)	15 s	To change the lighting time after closing the door. (It will quickly fade out in case of turning the ignition on (IG).)	7.5 s / 15 s / 30 s
ILLUMI SYSTEM (Operation of illumination)	ON	Function to turn on the step light, center console light and door inside handle light when one of the following occurs; the ignition turned on (IG), door unlock or door open.	ON / OFF
LIGHT CONTROL (Light control)	ON	Function to turn on the step light and door inside handle light when the ignition switch is turned on (IG) and the shift lever is not in the P position.	ON / OFF
I/L ON / UNLOCK (Interior light ON w/ door key unlock)	ON	Function to turn on the interior light*, ignition light and step light when unlocking with the door key cylinder. *: Interior light comes on when the interior light switch is in the DOOR position.	ON / OFF
I/L ON / ACC OFF (Illumination system ON with ACC OFF)	ON	Function to turn on the interior light* and door courtesy light when the ignition switch is turned from on (ACC) to off. *: Interior light comes on when the interior light switch is in the DOOR position.	ON / OFF

LIGHT CONTROL

DISPLAY (ITEM)	DEFAULT	CONTENTS	SETTING
LIGHT OFF DELAY (Light Auto OFF Delay)	30 s	Function to keep the headlight on for a certain period of time after closing all the doors when turning the ignition switch on (IG) under the condition that the light control switch is in the HEAD or AUTO position with the headlight ON.	OFF / 30 s / 60 s / 90 s
LIGHT CTRL TYPE (Control Type)	CURRENT	To change the control logic when the light control switch is in the AUTO position. Refer to the *table 1.	CURRENT / OLD
SENSITIVITY (Turn ON Luminous Intensity)	NORMAL	To adjust the sensitivity of the lighting illumination. Refer to the *illustration 1.	DARK2 / DARK1 / NORMAL / LIGHT1 / LIGHT2
DISP EX ON SEN (Display Extinction Luminous Intensity)	NORMAL	To dim the lights such as the indicator light of the combination meter, A/C indicator light, and clock. Refer to *illustration 2.	DARK2 / DARK1 / NORMAL / LIGHT1 / LIGHT2
DISP EX OFF SEN (Display Extinction Release Luminous Intensity)	NORMAL	To cancel to dim the lights such as the indicator light of the combination meter, A/C indicator light, and clock. Refer to *illustration 3.	DARK2 / DARK1 / NORMAL / LIGHT1 / LIGHT2

HINT:
Sensitivity adjustment is dependent on the owner's preference. Actual driving by the owner is required.

Table 1

	Brightness of the surrounding when lighting	**Lighting delay**	**Delay of turning light off**	****2**
OLD	Old logic	6 sec.	6 sec.	3 sec.
CURRENT	New logic**1 ('97/8)	15 sec.	15 sec.	15 sec.

**1: The new system has the ability to light up two times brighter than the old system.
**2: Delay time until the headlight is turned on when the outside suddenly gets dark.

Illustration 1

Lighting brightness	**Dark** ⟷ **Bright**
Setting	DARK2 — DARK1 — NORMAL — LIGHT1 — LIGHT2

LI

Illustration 2

Brightness when dimming the lights	**Dark** ⟷ **Bright**
Setting	DARK2 — DARK1 — NORMAL — LIGHT1 — LIGHT2

Illustration 3

Brightness when canceling to dim the lights	Dark ⟷ **Bright**
Setting	DARK2 — DARK1 — NORMAL — LIGHT1 — LIGHT2

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INITIALIZATION

1. HEIGHT CONTROL SENSOR SIGNAL INITIALIZATION

NOTICE:

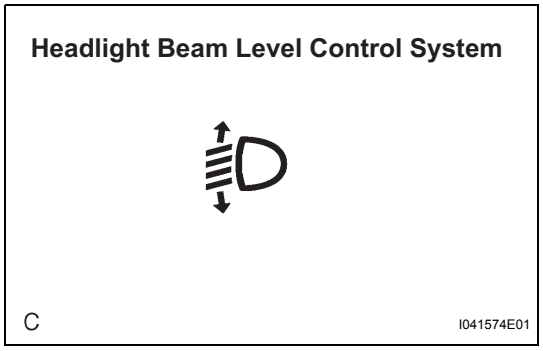
- **Initialize the headlight beam level control ECU when vehicle height changes due to replacement of the suspension, headlight beam level control ECU, or removal, installation, or replacement of the height control sensor.**
- **Adjust the headlight aim after initializing the headlight beam level control ECU (See page LI-114).**

1	CHECK VEHICLE CONDITION

(a) Leave approximately 10 liters of fuel in the tank.
(b) Unload the vehicle.
(c) Check that there are no passengers in the vehicle.
(d) Turn off the headlights.

NEXT

2	CHECK WARNING INDICATOR



(a) Turn the ignition switch on (IG) and check the warning indicator (bulb check function).

OK:

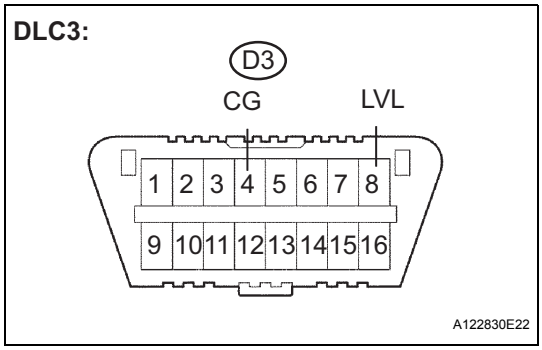
Warning indicator comes on for approximately 3 seconds.

HINT:

- If the headlight beam level control ECU is replaced with a new one or there is problem with initialized data memorized in the headlight beam level control ECU, the warning indicator repeats the following pattern: 2 Hz for one second, followed by a 1 second pause.
- If the warning indicator does not come on or comes on for more than 3 seconds, inspect and repair according to "PROBLEM SYMPTOMS TABLE" (See page LI-18).

NEXT

3	INITIALIZATION



(a) Connect terminals 4 (CG) and 8 (LVL) of the DLC3 using the SST.

SST 09843-18040

(b) Flash the headlight 3 times within 20 seconds by turning the headlight dimmer switch.

NOTICE:

Flash the headlight at approximately 1 second intervals.

OK

Condition	Proceed to
Warning indicator blinks 3 times at 0.5 second intervals → goes off	A
Warning indicator does not blink or continues blinking	B

HINT:

If initialization cannot finished normally, inspect the initialization circuit (See page LI-107).

B → **INITIALIZED TERMINAL CIRCUIT IS FAULTY**

A

END (NORMAL COMPLETE)

PROBLEM SYMPTOMS TABLE

If a normal system code is displayed during the DTC check but the problem still occurs, check the circuits for each problem symptom in the order given in the table below and proceed to the relevant troubleshooting page.
HINT:
Inspect the fuse and relay before confirming the suspected area in the table below.
Inspect each malfunction circuit in numerical order for the corresponding symptom.
If the malfunction still exists even after checking and confirming that all the circuits are normal, replace the ECU.

1. HEADLIGHT AND TAIL LIGHT SYSTEM

Symptom	Suspected area	See page
"Low beam" does not come on (One side).	1. Bulb	-
	2. Headlight relay circuit	LI-40
"Low beam" does not come on (Both sides).	1. Bulb	-
	2. Combination switch ECU power source circuit	LI-102
	3. Light control switch circuit	LI-60
	4. Headlight relay circuit	LI-40
	5. Front controller	-
	6. Body ECU	-
"High beam" does not come on (One side).	1. Bulb	-
	2. Headlight (HI-BEAM) circuit	LI-43
	3. Front controller	-
"High beam" does not come on (Both sides).	1. Bulb	-
	2. Combination switch ECU power source circuit	LI-102
	3. Light control switch circuit	LI-60
	4. Headlight (HI-BEAM) circuit	LI-43
	5. Front controller	-
	6. Body ECU	-
"High beam" does not go off	1. Light control switch circuit	LI-60
	2. Headlight (HI-BEAM) circuit	LI-43
	3. Front controller	-
"Flash" does not come on. (Low beam and Hi-Beam are normal)	1. Combination switch ECU power source circuit	LI-102
	2. Light control switch circuit	LI-60
	3. Body ECU	-
Tail light does not come on (All).	1. Combination switch ECU power source circuit	LI-102
	2. Light control switch circuit	LI-60
	3. TAIL relay circuit	LI-84
	4. Body ECU	-
Only one tail light comes on.	1. Bulb	-
	2. Wire harness or connector	-
Daytime running light system does not operate.	1. Combination switch ECU power source circuit	LI-102
	2. Light control switch circuit	LI-60
	3. Generator signal circuit	LI-75
	4. Parking brake switch circuit	LI-81
	5. Ignition switch circuit	LI-34
	6. Headlight (HI-BEAM) circuit	LI-43
	7. Front controller	-
	8. Body ECU	-

2. HEADLIGHT BEAM LEVEL CONTROL SYSTEM

Symptom	Suspected area	See page
Headlight beam level control system does not operate.	1. Headlight beam level control actuator circuit	LI-99
	2. Height control sensor circuit	LI-96
	3. Headlight beam level control ECU communication circuit	LI-89
	4. Headlight beam level control ECU power source circuit	LI-93
	5. Headlight beam level control ECU	LI-160
Headlight beam warning light comes on. (Headlight beam level control system is normal)	1. Headlight beam level warning circuit	LI-105
	2. Combination meter assembly	-
	3. Headlight beam level control ECU	LI-160
Headlight beam warning light does not come on. (Headlight beam level control system is normal)	1. Headlight beam level warning circuit	LI-105
	2. Combination meter assembly	-
	3. Headlight beam level control ECU	LI-160

3. AUTOMATIC LIGHT CONTROL SYSTEM

Symptom	Suspected area	See page
Automatic light control system does not operate.	1. Combination switch ECU power source circuit	LI-102
	2. Light control switch circuit	LI-60
	3. Ignition switch circuit	LI-34
	4. Automatic light control sensor circuit	LI-32
	5. Body ECU	-

4. LIGHT AUTO TURN OFF SYSTEM

Symptom	Suspected area	See page
Light auto turn off system does not operate.	1. Combination switch ECU power source circuit	LI-102
	2. Light control switch circuit	LI-60
	3. Ignition switch circuit	LI-34
	4. Door courtesy switch circuit	LI-65
	5. Front controller	-
	6. Body ECU	-

5. FOG LIGHT SYSTEM

Symptom	Suspected area	See page
Front fog light does not come on with the light control switch in TAIL or HEAD position (TAIL and HEAD are normal).	1. Combination switch ECU power source circuit	LI-102
	2. Light control switch circuit	LI-60
	3. Front fog light circuit	LI-46
	4. Body ECU	-
Only one front fog light does not come on.	1. Bulb	-
	2. Wire harness or connector	-

6. TURN SIGNAL AND HAZARD WARNING SYSTEM

Symptom	Suspected area	See page
Hazard warning light does not come on (Turn is normal).	1. Hazard warning switch circuit	LI-58
	2. Turn signal flasher assembly	LI-161
Turn signal light does not come on.	1. Light control switch circuit	LI-60
	2. Turn signal light circuit	LI-53
	3. Body ECU	-
Only one bulb does not come on.	1. Bulb	-
	2. Turn signal light circuit	LI-53

7. STOP LIGHT SYSTEM

Symptom	Suspected area	See page
Stop light does not operate (All).	1. Bulb	-
	2. Stop light switch	LI-151
	3. Wire harness or connector	-
Only one stop light does not come on.	1. Bulb	-
	2. Wire harness or connector	-

8. ILLUMINATED ENTRY SYSTEM

Symptom	Suspected area	See page
Illuminated entry of Multiplex network body ECU control does not operate (All).	1. Ignition switch circuit	LI-34
	2. Door lock position circuit	LI-69
	3. Door courtesy switch circuit	LI-65
	4. Illumination circuit	LI-77
	5. Body ECU	-

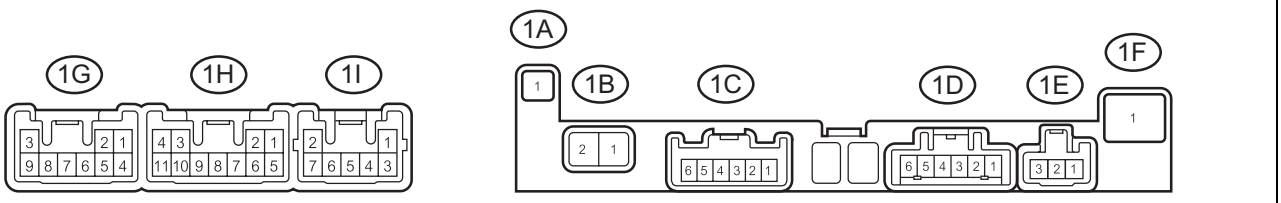
9. OTHERS

Symptom	Suspected area	See page
Vanity light does not come on.	1. Bulb	-
	2. Wire harness or connector	-
Back up light does not come on.	1. Bulb	-
	2. Park / neutral position switch	AX-126
	3. Wire harness or connector	-
Luggage compartment light does not come on.	1. Bulb	-
	2. Luggage room light circuit	LI-72
	3. Body ECU	-
Courtesy light does not come on.	1. Bulb	-
	2. Door courtesy switch circuit	LI-65
	3. Body ECU	-
Rear interior light does not come on.	1. Bulb	-
	2. Rear room light assembly	LI-141
	3. Door courtesy switch circuit	LI-65
	4. Wire harness or connector	-
	5. Body ECU	-

TERMINALS OF ECU

1. ENGINE ROOM J/B ASSEMBLY (FRONT CONTROLLER)

Front Controller:

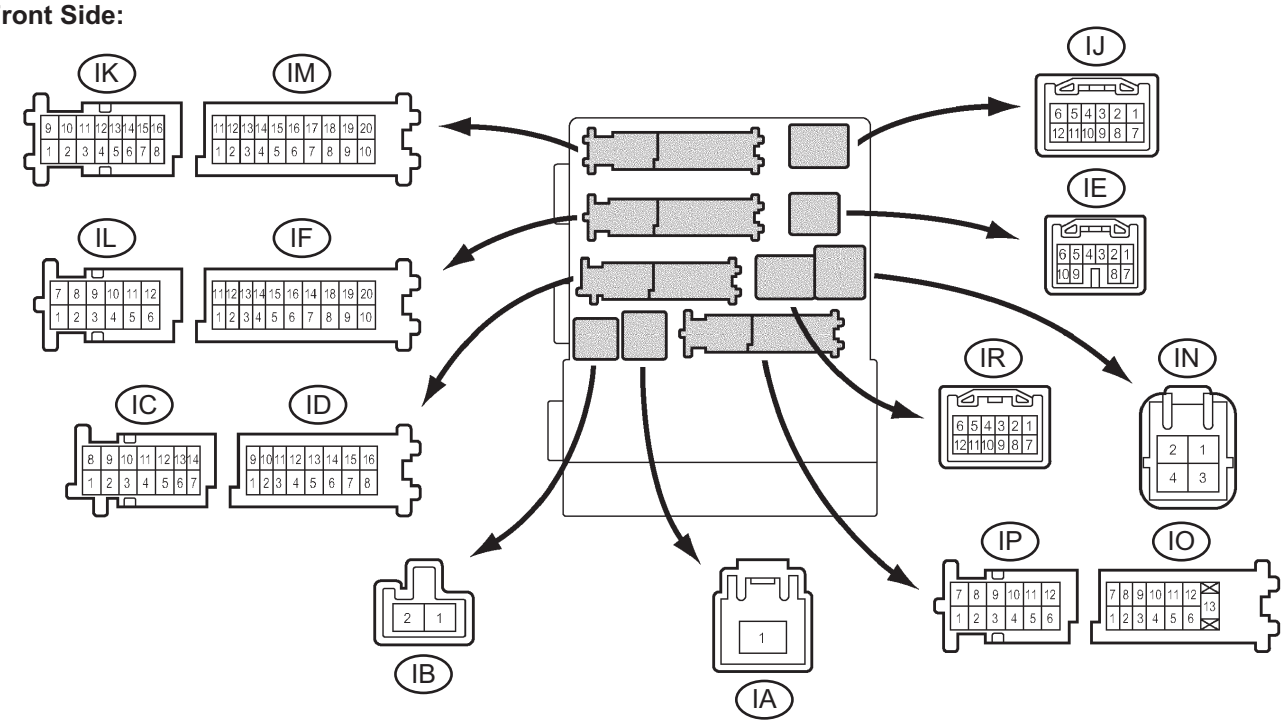


Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
1A-1 - 1H-8	B - W-B	Battery (ALT fuse)	Always	10 to 14 V
1C-4 - 1H-8	BR - W-B	Hi-beam circuit (To headlight LH)	Hi-beam is ON	10 to 14 V
1C-4 - 1H-8	BR - W-B	Hi-beam circuit (To headlight LH)	Hi-beam is OFF	Below 1 V
1C-5 - 1H-8	G - W-B	Hi-beam circuit (To headlight RH)	Hi-beam is ON	10 to 14 V
1C-5 - 1H-8	G - W-B	Hi-beam circuit (To headlight RH)	Hi-beam is OFF	Below 1 V
1F-1 - 1H-8	B - W-B	Battery (Power source circuit)	Always	10 to 14 V (*1)
1F-1 - 1H-8	W - W-B	Battery (Power source circuit)	Always	10 to 14 V (*2)
1G-1 - Body ground	V - Body ground	Power source circuit	Always	10 to 14 V
1G-2 - Body ground	R - Body ground	Power source circuit	Always	10 to 14 V
1G-6 - 1H-8	LG - W-B	HEAD signal (Front light control switch)	Light control switch is HEAD	10 to 14 V
1G-6 - 1H-8	LG - W-B	HEAD signal (Front light control switch)	Light control switch isn't HEAD	Below 1 V
1G-7 - Body ground	Y - Body ground	Multiplex communication signal circuit	Ignition switch on (IG)	Signal waveform
1G-8 - Body ground	B - Body ground	Multiplex communication signal circuit	Ignition switch on (IG)	Signal waveform
1H-2 - Body ground	W-B - Body ground	Body ground	Always	Below 1 V
1H-3 - 1H-8	P - W-B	HEAD signal (To headlight)	Headlight (low) is ON	10 to 14 V
1H-3 - 1H-8	P - W-B	HEAD signal (To headlight)	Headlight (low) is OFF	Below 1 V
1H-8 - Body ground	W-B - Body ground	Body ground	Always	Below 1 V
1H-11 - 1H-8	GR - W-B	HEAD signal (To headlight leveling control ECU)	Headlight (low) is ON	Below 1 V
1H-11 - 1H-8	GR - W-B	HEAD signal (To headlight leveling control ECU)	Headlight (low) is OFF	10 to 14 V

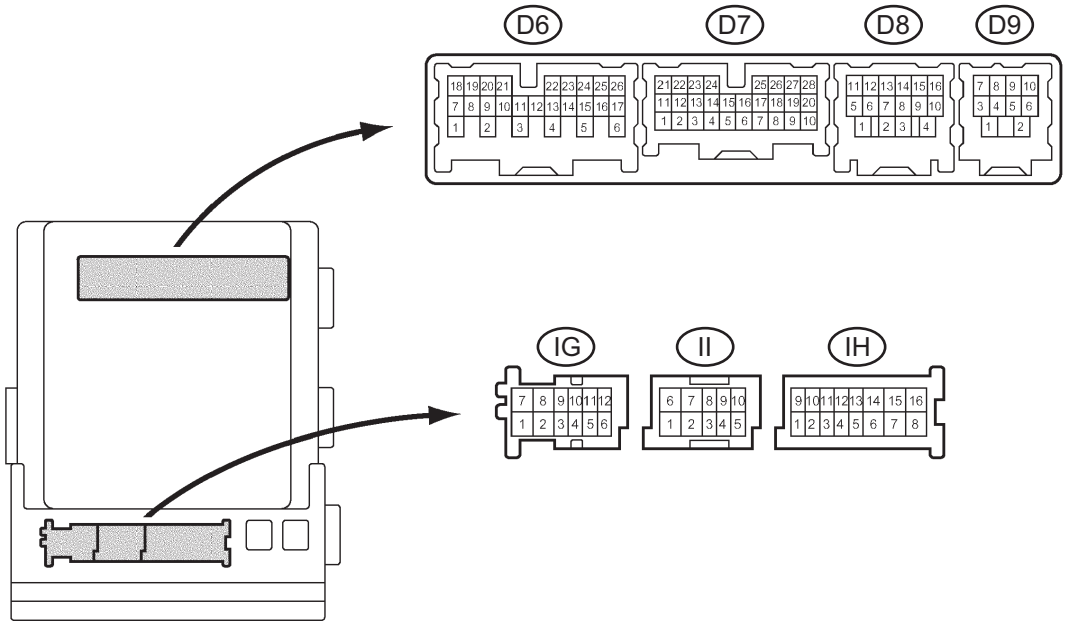
*1: with Smart Key System
*2: without Smart Key System

2. INSTRUMENT PANEL FUNCTION BLOCK ASSEMBLY (BODY ECU)

Front Side:



Back Side:



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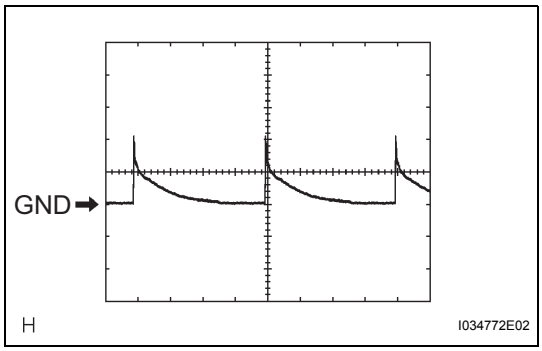
Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
BATB (IA-1) - GND1 (IF-10)	B - W-B	Battery (Power source circuit)	Always	10 to 14 V
PKB (IC-14) - GND1 (IF-10)	LG - W-B	Parking brake switch	Parking brake is depressed	Below 1 V
PKB (IC-14) - GND1 (IF-10)	LG - W-B	Parking brake switch	Parking brake is released	10 to 14 V
BECU (ID-10) - GND1 (IF-10)	O - W-B	Battery (B+ circuit)	Always	10 to 14 V

Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
ALTB (ID-16) - GND1 (IF-10)	W - W-B	Battery (ALT fuse)	Always	10 to 14 V
GND1 (IF-10) - Body ground	W-B - Body ground	Body ground	Always	Below 1 V
TRNR (II-5) - GND1 (IF-10)	L - W-B	RH side turn signal (To turn signal flasher assembly)	Ignition switch on (IG) and turn signal switch (right turn) OFF	10 to 14 V
TRNR (II-5) - GND1 (IF-10)	L - W-B	RH side turn signal (To turn signal flasher assembly)	Ignition switch on (IG) and turn signal switch (right turn) ON	Below 1 V
ILE (II-10) - GND1 (IF-10)	BR (*1) - W-B	Key cylinder light (Illumination signal)	Ignition key cylinder light is OFF	10 to 14 V
ILE (II-10) - GND1 (IF-10)	BR (*1) - W-B	Key cylinder light (Illumination signal)	Ignition key cylinder light is ON	Below 1 V
TRLY (IL-3) - GND1 (IF-10)	L (*2) - W-B	TAIL relay (TAIL signal)	Light control switch is OFF	Below 1 V
TRLY (IL-3) - GND1 (IF-10)	L (*2) - W-B	TAIL relay (TAIL signal)	Light control switch is TAIL and fog light switch is ON	10 to 14 V
GND2 (IM-9) - GND1 (IF-10)	W-B - W-B	Body ground	Always	Below 1 Ω
LCTY (IO-7) - GND1 (IF-10)	B - W-B	Courtesy switch (Rear left door circuit)	Rear left door is open	Below 1 V
LCTY (IO-7) - GND1 (IF-10)	B - W-B	Courtesy switch (Rear left door circuit)	Rear left door is closed	Pulse generation (See waveform 1)
LSWL (IP-5) - GND1 (IF-10)	GR - W-B	Door lock position switch (Rear left door circuit)	Rear left door is in the unlock position	Below 1 V
LSWL (IP-5) - GND1 (IF-10)	GR - W-B	Door lock position switch (Rear left door circuit)	Rear left door is in the lock position	Pulse generation (See waveform 1)
ILE (IR-5) - GND1 (IF-10)	BR - W-B	Front interior illumination (Illumination signal)	Front interior light is OFF	10 to 14 V
ILE (IR-5) - GND1 (IF-10)	BR - W-B	Front interior illumination (Illumination signal)	Front interior light is ON	Below 1 V
MPX1 (IR-9) - GND1 (IF-10)	B - W-B	Multiplex communication signal	Ignition switch off	Below 1 V
MPX (IR-9) - GND1 (IF-10)	B - W-B	Multiplex communication signal	Ignition switch on (IG)	Signal waveform
TRNL (D9-4) - GND1 (IF-10)	R - W-B	LH side turn signal (To turn signal flasher assembly)	Ignition switch on (IG) and turn signal switch (left turn) OFF	10 to 14 V
TRNL (D9-4) - GND1 (IF-10)	R - W-B	LH side turn signal (To turn signal flasher assembly)	Ignition switch on (IG) and turn signal switch (left turn) ON	Below 1 V
FFGO (D9-7) - GND1 (IF-10)	G (*2) - W-B	Front fog relay (Front fog circuit)	Front fog light is OFF	10 to 14 V
FFGO (D9-7) - GND1 (IF-10)	G (*2) - W-B	Front fog relay (Front fog circuit)	Front fog light is ON	Below 1 V
DCYL (D8-13) - GND1 (IF-10)	SB - W-B	Courtesy light (Front left door circuit)	Front left courtesy light is OFF	10 to 14 V
DCYL (D8-13) - GND1 (IF-10)	SB - W-B	Courtesy light (Front left door circuit)	Front left courtesy light is ON	Below 1 V
DCTY (D8-14) - GND1 (IF-10)	L - W-B	Courtesy switch (Front left door circuit)	Front left door is open	Below 1 V
DCTY (D8-14) - GND1 (IF-10)	L - W-B	Courtesy switch (Front left door circuit)	Front left door is closed	10 to 14 V
RCTY (D8-16) - GND1 (IF-10)	GR - W-B	Courtesy switch (Rear right door circuit)	Rear right door is open	Below 1 V
RCTY (D8-16) - GND1 (IF-10)	GR - W-B	Courtesy switch (Rear right door circuit)	Rear right door is closed	Pulse generation (See waveform 1)

Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
HAZ (D7-2) - GND1 (IF-10)	P - W-B	HAZARD signal (Front hazard switch)	Hazard switch is OFF	10 to 14 V
HAZ (D7-2) - GND1 (IF-10)	P - W-B	HAZARD signal (Front hazard switch)	Hazard switch is ON	Below 1 V
CLTE (D7-4) - GND1 (IF-10)	W - W-B	Automatic light control sensor (Ground circuit)	Always	Below 1 V
CLTS (D7-5) - GND1 (IF-10)	LG - W-B	Automatic light control sensor (Signal circuit)	Ignition switch on (IG)	Below 1 V
CLTS (D7-5) - GND1 (IF-10)	LG - W-B	Automatic light control sensor (Signal circuit)	Ignition switch off	10 to 14 V
CLTB (D7-6) - GND1 (IF-10)	BR - W-B	Automatic light control sensor (Power source circuit)	Ignition switch off	10 to 14 V
CLTB (D7-6) - GND1 (IF-10)	BR - W-B	Automatic light control sensor (Power source circuit)	Ignition switch on (IG)	Below 1 V
LSWR (D6-5) - GND1 (IF-10)	B - W-B	Door lock position switch (Rear right door circuit)	Rear right door is in the unlock position	Below 1 V
LSWR (D6-5) - GND1 (IF-10)	B - W-B	Door lock position switch (Rear right door circuit)	Rear right door is in the lock position	Pulse generation (See waveform 1)
CSPT (D6-14) - GND1 (IF-10)	LG (*3) - W-B	Overhead illumination circuit	Overhead console illumination is OFF	10 to 14 V
CSPT (D6-14) - GND1 (IF-10)	LG (*3) - W-B	Overhead illumination circuit	Overhead console illumination is ON	Below 1 V
MPX2 (D6-21) - GND1 (IF-10)	BR - W-B	Multiplex communication signal	Ignition switch off	Below 1 V
MPX2 (D6-21) - GND1 (IF-10)	BR - W-B	Multiplex communication signal	Ignition switch on (IG)	Signal waveform
PCTY (D6-23) - GND1 (IF-10)	L - W-B	Courtesy switch (Front right door circuit)	Front right door is open	Below 1 V
PCTY (D6-23) - GND1 (IF-10)	L - W-B	Courtesy switch (Front right door circuit)	Front right door is closed	10 to 14 V
PCYL (D6-24) - GND1 (IF-10)	O - W-B	Courtesy light (Front right door circuit)	Front right courtesy light is OFF	10 to 14 V
PCYL (D6-24) - GND1 (IF-10)	O - W-B	Courtesy light (Front right door circuit)	Front right courtesy light is ON	Below 1 V
LGCY (D6-25) - GND1 (IF-10)	V - W-B	Courtesy switch (Back door circuit)	Back door is open	Below 1 V
LGCY (D6-25) - GND1 (IF-10)	V - W-B	Courtesy switch (Back door circuit)	Back door is closed	10 to 14 V
LSWP (D6-27) - GND1 (IF-10)	GR - W-B	Door lock position switch (Front right door circuit)	Front right door is in the unlock position	Below 1 V
LSWP (D6-27) - GND1 (IF-10)	GR - W-B	Door lock position switch (Front right door circuit)	Front right door is in the lock position	10 to 14 V

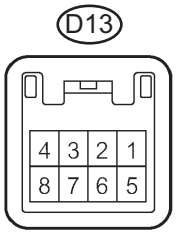
*1: without Smart Key System
*2: with Front Fog Light
*3: with Sliding Roof



(a) Waveform 1
HINT:
- Gauge set:
  5 V/DIV. 5 ms/DIV.
- Condition:
  Ignition switch on (IG)

3. COMBINATION SWITCH ECU (WINDSHIELD WIPER SWITCH ASSEMBLY)

Combination Switch ECU:

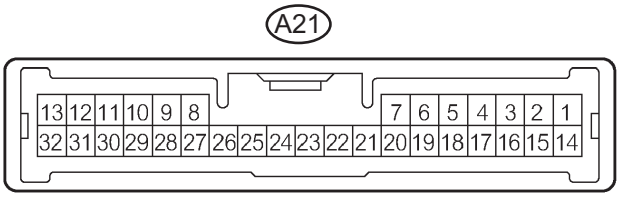


Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
B (D13-1) - E (D13-5)	W - W-B	Power source circuit (Front battery)	Always	10 to 14 V
IG (D13-2) - E (D13-5)	L - W-B	Ignition switch signal circuit (From ignition switch)	Ignition switch off	Below 1 V
IG (D13-2) - E (D13-5)	L - W-B	Ignition switch signal circuit (From ignition switch)	Ignition switch on (IG)	10 to 14 V
HEAD (D13-4) - Body ground	LG - Body ground	Light control switch HEAD signal	Light control switch is not HEAD	10 to 14 V
HEAD (D13-4) - Body ground	LG - Body ground	Light control switch HEAD signal	Light control switch is HEAD	Below 1 V
E (D13-5) - Body ground	W-B - Body ground	Ground	Always	Below 1 V
MPX1 (D13-6) - Body ground	BR - Body ground	Multiplex communication signal circuit	Ignition switch on (IG)	Signal waveform
MPX2 (D13-7) - Body ground	R - Body ground	Multiplex communication signal circuit	Ignition switch on (IG)	Signal waveform (*1)
MPX2 (D13-7) - Body ground	B - Body ground	Multiplex communication signal circuit	Ignition switch on (IG)	Signal waveform (*2)

*1: with Smart Key System
*2: without Smart Key System

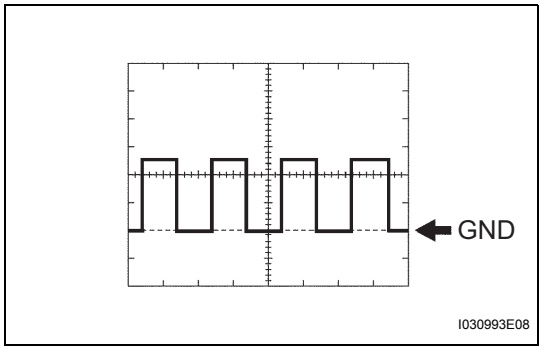
4. HEADLIGHT BEAM LEVEL CONTROL ECU

Headlight Beam Level Control ECU:

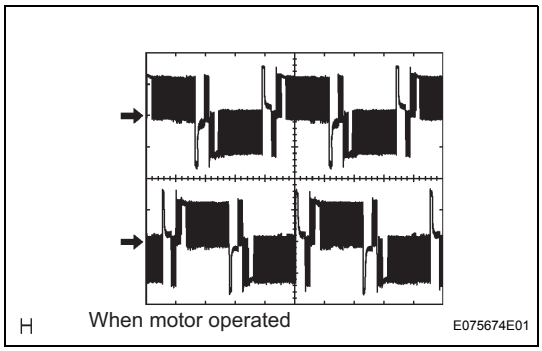


Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
E1 (A21-1) - Body ground	W-B - Body ground	Ground	Always	Below 1 V
SPDL (A21-5) - E1 (A21-1)	Y - W-B	Vehicle speed signal (From the skid control ECU)	Vehicle is driven at approx. 30 km/h (19 mph)	Pulse generation (See waveform 1)
SPDR (A21-6) - E1 (A21-1)	R - W-B	Vehicle speed signal (From the skid control ECU)	Vehicle is driven at approx. 30 km/h (19 mph)	Pulse generation (See waveform 1)
B2 (A21-7) - E1 (A21-1)	GR - W-B	HEAD relay operation signal	HEAD relay is ON	Below 1 V
B2 (A21-7) - E1 (A21-1)	GR - W-B	HEAD relay operation signal	HEAD relay is OFF	10 to 14 V
CHG- (A21-8) - E1 (A21-1)	L - W-B	Generator signal circuit	Engine is running	10 to 14 V
CHG- (A21-8) - E1 (A21-1)	L - W-B	Generator signal circuit	Engine is stopped	Below 1 V
LR2+ (A21-10) - LR2- (A21-9)	LG - W	Headlight beam level control motor RH (Operation signal circuit)	Ignition switch off	Below 1 V
LR2+ (A21-10) - LR2- (A21-9)	LG - W	Headlight beam level control motor RH (Operation signal circuit)	Engine is running, change vehicle height and keep it fro more than 1 second.	Pulse generation (See waveform 2)
LR1+ (A21-12) - LR1- (A21-11)	B - BR	Headlight beam level control motor RH (Operation signal circuit)	Ignition switch off	Below 1 V
LR1+ (A21-12) - LR1- (A21-11)	B - BR	Headlight beam level control motor RH (Operation signal circuit)	Engine is running, change vehicle height and keep it fro more than 1 second.	Pulse generation (See waveform 2)
IG (A21-14) - E1 (A21-1)	G - W-B	Power source circuit (From engine switch (IG))	Ignition switch off	Below 1 V
IG (A21-14) - E1 (A21-1)	G - W-B	Power source circuit (From engine switch (IG))	Ignition switch on (IG)	10 to 14 V
SGR (A21-17) - E1 (A21-1)	V - W-B	Height control sensor (Ground circuit)	Always	Below 1 V
INIT (A21-18) - E1 (A21-1)	W - W-B	Initialize signal input terminal	Ignition switch off	Below 1 V
INIT (A21-18) - E1 (A21-1)	W - W-B	Initialize signal input terminal	Ignition switch on (IG)	Approx. 5.0 V
SHRL (A21-19) - E1 (A21-1)	L - W-B	Height control sensor (Signal circuit)	Ignition switch off	Below 1 V
SHRL (A21-19) - E1 (A21-1)	L - W-B	Height control sensor (Signal circuit)	Ignition switch on (IG)	0.5 to 4.5 V
SBR (A21-21) - E1 (A21-1)	B - W-B	Height control sensor (Power source circuit)	Ignition switch off	Below 1 V
SBR (A21-21) - E1 (A21-1)	B - W-B	Height control sensor (Power source circuit)	Ignition switch on (IG)	Approx. 5.0 V
WNG (A21-26) - E1 (A21-1)	V - W-B	Headlight beam level warning indicator signal (To combination meter)	Headlight beam level warning indicator comes on	Below 1 V
WNG (A21-26) - E1 (A21-1)	V - W-B	Headlight beam level warning indicator signal (To combination meter)	Headlight beam level warning indicator goes off	10 to 14 V
LL2+ (A21-29) - LL2- (A21-28)	GR - R	Headlight beam level control motor LH (Operation signal circuit)	Ignition switch off	Below 1 V
LL2+ (A21-29) - LL2- (A21-28)	GR - R	Headlight beam level control motor LH (Operation signal circuit)	With the ignition switch on (IG), change vehicle height and keep it for more than 1 second.	Pulse generation (See waveform 2)
LL1+ (A21-31) - LL1- (A21-30)	L-B - O	Headlight beam level control motor LH (Operation signal circuit)	Ignition switch off	Below 1 V

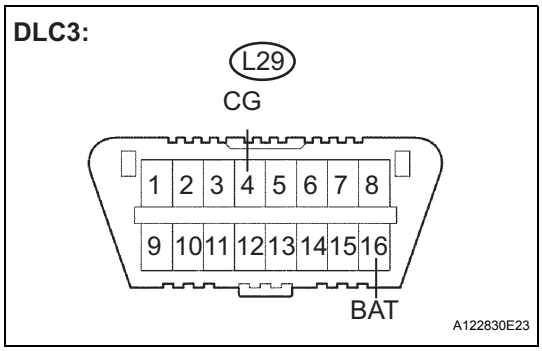
Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
LL1+ (A21-31) - LL1- (A21-30)	L-B - O	Headlight beam level control motor LH (Operation signal circuit)	With the ignition switch on (IG), change vehicle height and keep it for more than 1 second.	Pulse generation (See waveform 2)



(a) Waveform 1
HINT:
- Terminal:
  SPDR - GND
  SPDR - GND
- Gauge set:
  5 V/DIV. 2 ms/DIV.
- Condition:
  Vehicle is driven at approximately 30 km/h (19 mph).



(b) Waveform 2
HINT:
- Terminal:
  LL1+ - LL1-
  LL2+ - LL2-
  LR1+ - LR1-
  LR2+ - LR2-
- Gauge set:
  10 V/DIV. 5 ms/DIV.
- Condition:
  The light control switch is in the HEAD position when the vehicle is standing still or bouncing.



DIAGNOSIS SYSTEM

1. CHECK DLC3

(a) Inspect the battery voltage.
Voltage:
12 to 14 V
If the voltage is below 12 V, recharge the battery before proceeding.

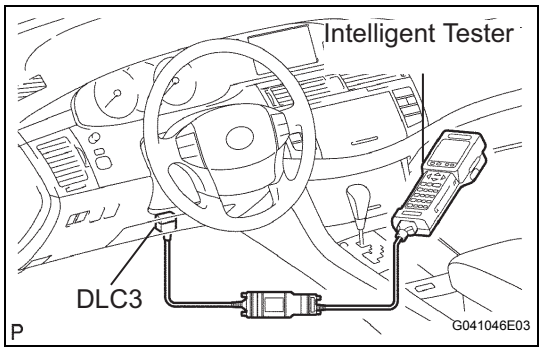
(b) Check the DLC3.
The terminal arrangement of the DLC3 complies with SAE J1962 and matches the ISO 9141-2 format.

Standard voltage

Symbols (Terminal No.)	Terminal Description	Condition	Specified Condition
BAT (16) - Body ground	Battery positive	Always	10 to 14 V

Standard resistance

Symbols (Terminal No.)	Terminal Description	Condition	Specified Condition
CG (4) - Body ground	Chassis ground	Always	Below 1 Ω



DTC CHECK / CLEAR

1. DTC CHECK

(a) Connect the intelligent tester to the DLC3.

(b) Turn the ignition switch on (IG).

(c) Read DTCs by following the prompts on the tester screen.

HINT:

Refer to the intelligent tester operator's manual for further details.

2. DTC CLEAR

(a) DTCs can be cleared by operating the intelligent tester.

HINT:

Refer to the intelligent tester operator's manual for further details.

FAIL-SAFE CHART

1. LIGHT CONTROL COMPUTER (HID)

Trouble Area	Condition
High voltage circuit open	Lighting of the headlight stops, the condition is maintained until power is turned on again (headlight dimmer switch OFF → ON).
Short between high voltage circuits	Lighting of the headlight stops within 1 second and the condition is maintained until power is turned on again (headlight dimmer switch OFF → ON).
Leakage between high voltage terminal and body ground	Lighting of the headlight stops, the condition is maintained until power is turned on again (headlight dimmer switch OFF → ON).
Low light voltage	Lighting of the headlight stops, the condition is maintained until power is turned on again (headlight dimmer switch OFF → ON).
High light voltage	Lighting of the headlight stops, the condition is maintained until power is turned on again (headlight dimmer switch OFF → ON).
Bulb flashing	• The condition is maintained more than 60 seconds. • Lighting of the headlight stops, the condition is maintained until power is turned on again (headlight dimmer switch OFF → ON).
Battery voltage high	As soon as the voltage comes within the range of operation voltage (9 to 16 V), the headlight comes on again.
Battery voltage low	Even when voltage changes from 9.5 V to 7.5 V, lighting condition is maintained. Lighting condition changes when voltage is too low (below 6 V). As soon as the voltage comes back within the range of operation voltage (more than 9 V), the headlights come on again.

2. HEADLIGHT BEAM LEVEL CONTROL ECU

HINT:

- The headlight beam level control ECU performs fail-safe when detecting the following troubles. The headlight beam level control warning indicator light on the combination meter comes on at the same time.
- If the headlight beam level control warning indicator light comes on, inspect and repair in accordance with the "PROBLEM SYMPTOMS TABLE" (See page LI-18).

Trouble area	Headlight beam level control motor	Warning indicator light	Recovery condition
Height control sensor power source	• Stops operation after returning to initial position (Fail occurs at higher than initial position) • Stops at current position (Fail occurs at lower than initial position)	Comes on	Ignition switch off
Height control sensor signal	• Stops operation after returning to initial position (Fail occurs at higher than initial position) • Stops at current position (Fail occurs at lower than initial position)	Comes on	Return to normal signals
Headlight beam level control motor	• Stops operation after returning to initial position (Fail occurs at higher than initial position) (*1) • Stops at current position (Fail occurs at lower than initial position) (*1)	Comes on	Ignition switch off
Alternator signal	Control continues	Comes on	Ignition switch off

HINT:
*1: The inoperative side stops at current position.

DATA LIST / ACTIVE TEST

1. DATA LIST

HINT:

Using the DATA LIST displayed on the intelligent tester, you can read the values of the switch, sensor, actuator, etc. without removing any parts. Reading the DATA LIST as the first step of troubleshooting is one of the methods to shorten labor time.

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch on (IG).
(c) According to the display on the tester, read the "DATA LIST".

BODY ECU:

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
ACC SW	ACC SW signal / ON or OFF	ON: Ignition switch on (IG) or (ACC) OFF: Ignition switch off	-
IG SW	IG SW signal / ON or OFF	ON: Ignition switch on (IG) or START OFF: Ignition switch off or Ignition switch on (ACC)	-
D DOR CTY SW	Driver's door courtesy SW signal / ON or OFF	ON: Driver's door is open OFF: Driver's door is closed	-
P DOR CYT SW	Passenger's door courtesy SW signal / ON or OFF	ON: Front passenger's door is open OFF: Front passenger's door is closed	-
Rr DOR CTY SW	Rear door courtesy SW signal / ON or OFF	ON: Either right or left rear door is open OFF: Both the right and left doors are closed	-
P LOCK POS SW	Front passenger's door lock position SW signal / ON or OFF	ON: Front passenger's door lock is in the unlock position OFF: Front passenger's door lock is in the lock position	-
Rr. LOCK POS SW	Rear door lock position SW signal / ON or OFF	ON: Rear door lock is in the unlock position OFF: Rear door lock is in the lock position	-
D LOCK POS SW	Driver's door lock position SW signal / ON or OFF	ON: Door lock is in the unlock position OFF: Door lock is in the lock position	-
ILLUMINATE RATE	Illuminate rate / (0.8 ms - 22.0 ms)	Value is output according to ambient light	-
LIGHTING TIME	Lighting time / 7.5 s, 15 s or 30 s	Customized value will be displayed	-
ILLUMI SYSTEM	Illumination system / ON or OFF	ON: Illumination operation is ON OFF: Illumination operation is OFF	-
LIGHT CONTROL	Light control / ON or OFF	ON: Light control system is ON OFF: Light control system is OFF	-
I/L ON / ACC OFF	Light the I/L when ACC OFF / ON or OFF	Customized value will be displayed	-
I/L ON / UNLOCK	Interior light ON w/ unlock / ON or OFF	Customized value will be displayed	-
LIGHT CTRL TYPE	Light control type / CURRENT or OLD	Customized value will be displayed	-
LIGHT OFF DELAY	Light auto OFF delay / OFF, 30 s, 60 s, 90 s	Customized value will be displayed	-
DRL FUNCTION	DRL function / OFF or ON	Customized value will be displayed	-
PARKING BRAKE SW	Parking brake / OFF or ON	ON: Parking brake pedal is ON OFF: Parking brake pedal is OFF	-

COMBINATION SW ECU (WINDSHIELD WIPER SWITCH ASSEMBLY):

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
R FOG LIGHT SW	Rear fog light switch / ON or OFF	ON: Rear fog light switch is in the ON position OFF: Rear fog light switch is in the OFF position	-

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
F FOG LIGHT SW	Front fog light switch / ON or OFF	ON: Front fog light switch is in the ON position OFF: Front fog light switch is in the OFF position	-
HIGH FLASHER SW	Passing light switch / ON or OFF	ON: Headlight dimmer switch is in the FLASH position OFF: Headlight dimmer switch is in except the FLASH position	-
DIMMER HI SW	High beam switch / ON or OFF	ON: Headlight dimmer switch is in the HI position OFF: Headlight dimmer switch is in except the HI position	-
LIGHT AUTO SW	Auto light switch / ON or OFF	ON: Light control switch is in the AUTO position OFF: Light control switch is in except the AUTO position	-
HEAD LIGHT SW	Headlight control switch / ON or OFF	ON: Light control switch is in the HEAD position OFF: Light control switch is in except the HEAD position	-
TAIL LIGHT SW	Tail light switch / ON or OFF	ON: Light control switch is in the TAIL or HEAD position OFF: Light control switch is in the OFF position	-
TURN LEFT SW	Turn signal switch LH signal / ON or OFF	ON: Turn signal switch is in the LH position OFF: Turn signal switch is in the OFF position	-
TURN LIGHT SW	Turn signal switch RH signal / ON or OFF	ON: Turn signal switch is in the RH position OFF: Turn signal switch is in except the RH position	-
IG SW SIG	Ignition switch signal / ON or OFF	ON: Ignition switch on (IG) OFF: Ignition switch off	-

BODY NO. 5 (FRONT CONTROLLER):

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
ALT L SIGNAL	Alternator L terminal signal / ON or OFF	ON: Engine start OFF: Except engine start	-

2. ACTIVE TEST

HINT:

Performing the ACTIVE TEST using the intelligent tester allows the relay, VSV, actuator, etc. to operate without removing any parts. Performing the ACTIVE TEST as the first step of troubleshooting is one of the methods to shorten labor time. The DATA LIST can be displayed during the ACTIVE TEST.

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch on (IG).
(c) According to the display on the tester, perform the "ACTIVE TEST".

BODY ECU:

Item	Test Details	Diagnostic Note
HAZARD	Hazard ON / OFF	-
F FOG LIGHT RLY	Front fog light relay ON / OFF	-
TRN SIG LGT R	Turn signal light RH relay operation ON / OFF	-
TRN SIG LGT L	Turn signal light LH relay operation ON / OFF	-
TAIL LIGHT	Tail light relay ON / OFF	-
DIMMER SIG	Dimmer signal ON / OFF	-
ILLUMI OUTPUT	(Test Details) Interior light and key illumination ON / OFF (Vehicle Condition) Interior light SW is in the DOOR position and all doors are closed	-
CONSOLE LIGHT	Turn the center console illumination ON / OFF	-
STEP LIGHT	Turn the step light and inside handle illumination ON / OFF	-

BODY NO. 5 (FRONT CONTROLLER):

Item	Test Details	Diagnostic Note
HEAD LIGHT (LO)	Light head (low) ON / OFF	-
HEAD LIGHT (HI)	Light head (high) ON / OFF	-
DRL OPERT	Light head (high) DRL ON / OFF	-

DIAGNOSTIC TROUBLE CODE CHART

LIGHTING SYSTEM

DTC No.	Detection Item	Trouble Area	See page
B1244	Light Sensor Circuit Malfunction	1. Automatic light control sensor 2. Wire harness or connector 3. Body ECU	LI-32

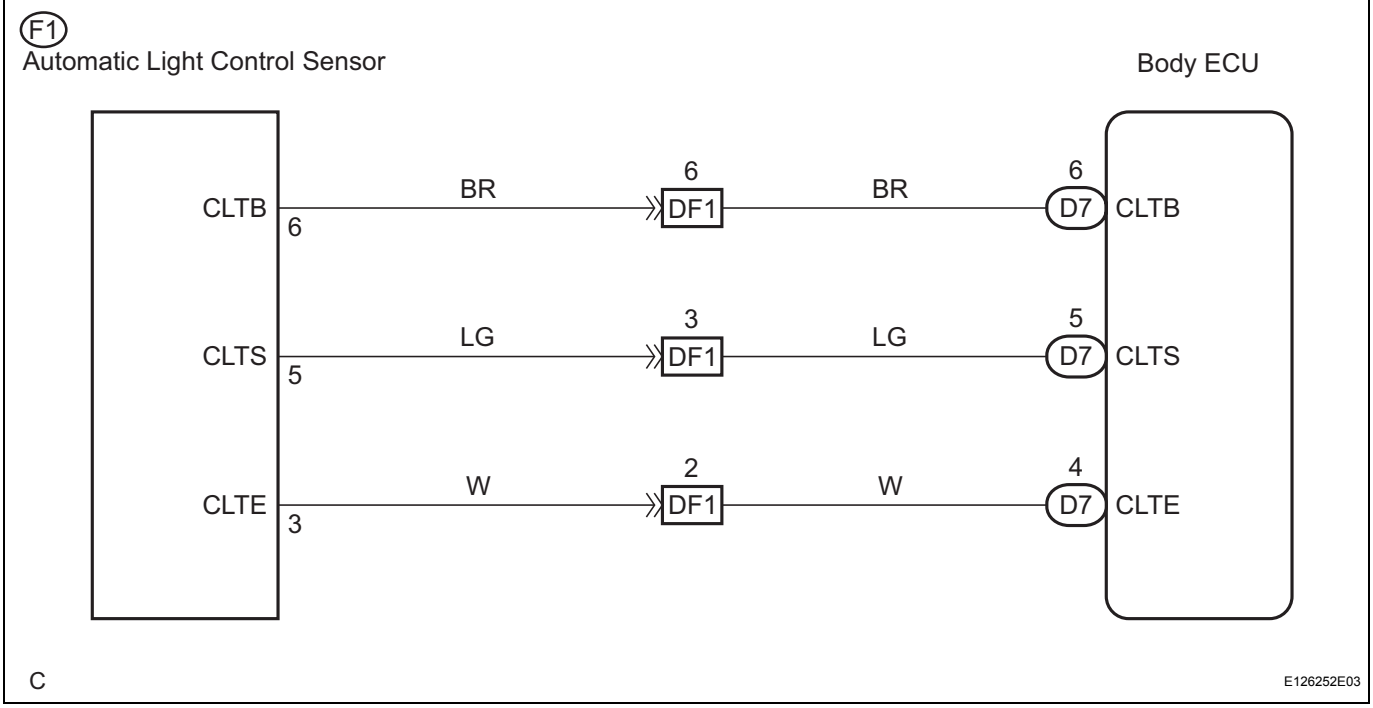
DTC	B1244	Light Sensor Circuit Malfunction

DESCRIPTION

This DTC is output when failure in the light sensor circuit is detected.

DTC No.	DTC Detecting Condition	Trouble Area
B1244	• Malfunction of the automatic light control sensor • Open or short in the automatic light control sensor circuit	• Automatic light control sensor • Wire harness or connector • Body ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

1	READ VALUE OF INTELLIGENT TESTER

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch on (IG) and turn the intelligent tester main switch on.
(c) Select the item below in the DATA LIST, and read the displays on the intelligent tester.

BODY NO. 1 (BODY ECU):

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
ILLUMINATE RATE	Illuminate rate / (0.8 ms - 22.0 ms)	Value is output according to ambient light	-

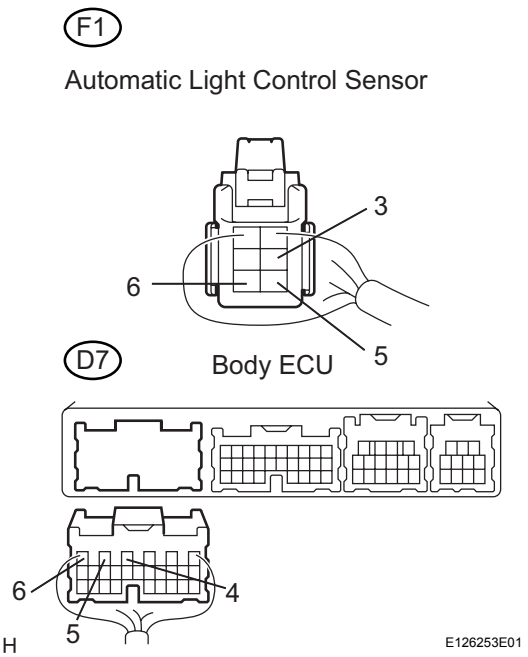
NG → **Go to step 2**

OK

REPLACE AUTOMATIC LIGHT CONTROL SENSOR

2	CHECK HARNESS AND CONNECTOR (BODY ECU - AUTOMATIC LIGHT CONTROL SENSOR)

Wire Harness View:



(a) Disconnect the automatic light control sensor connector and B6 connector of the multiplex network body ECU.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
CLTE (F1-3) - CLTE (D7-4)	Always	Below 1 Ω
CLTS (F1-5) - CLTS (D7-5)	Always	Below 1 Ω
CLTB (1F-6) - CLTB (D7-6)	Always	Below 1 Ω
CLTE (D7-4) - Body ground	Always	10 kΩ or higher
CLTS (D7-5) - Body ground	Always	10 kΩ or higher
CLTB (D7-6) - Body ground	Always	10 kΩ or higher

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

3	INSPECT AUTOMATIC LIGHT CONTROL SENSOR

(a) Inspect automatic light control sensor (See page LI-155).

OK:

Automatic light control sensor is normal.

NG → **REPLACE AUTOMATIC LIGHT CONTROL SENSOR**

OK

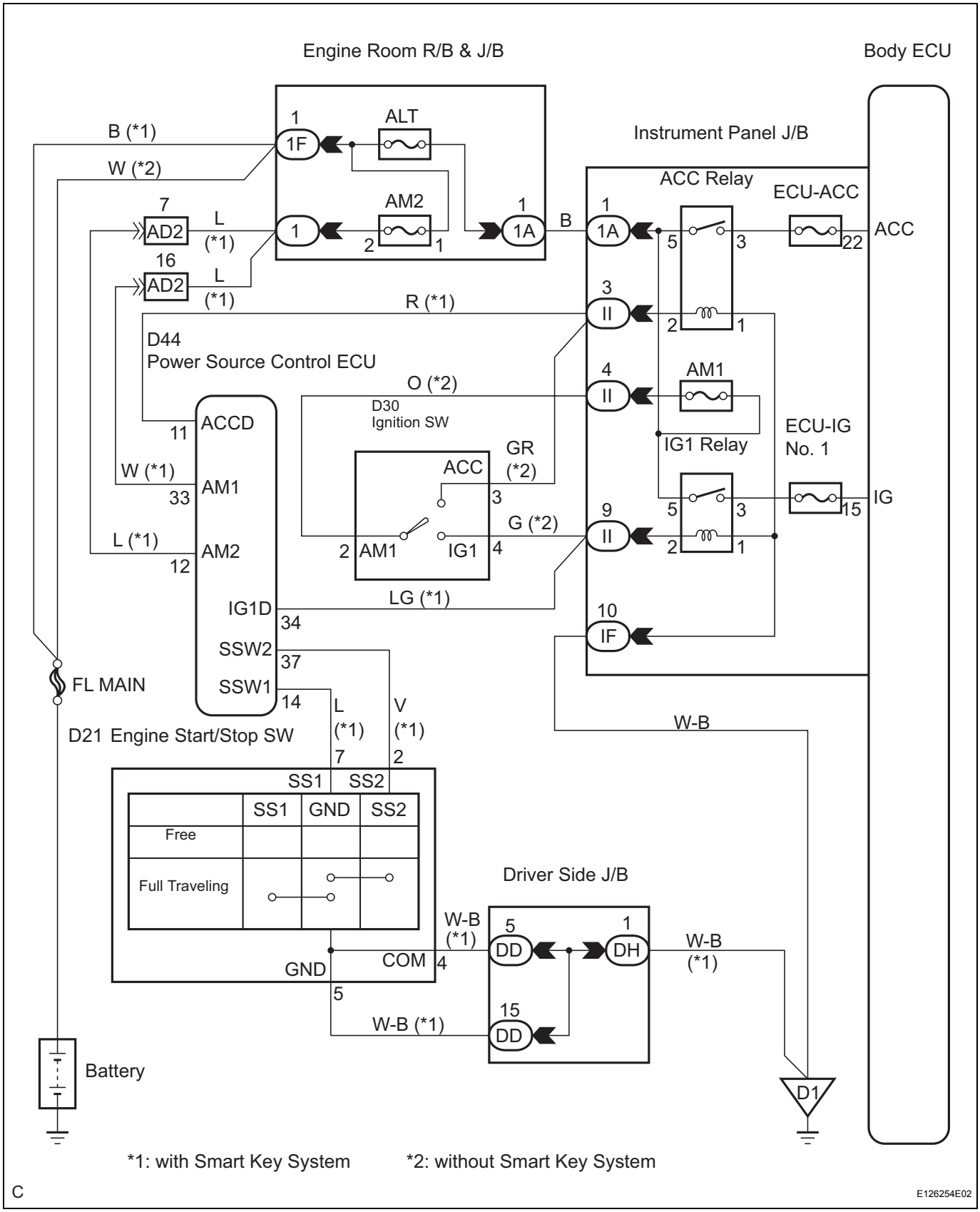
REPLACE INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY

Ignition Switch Circuit

DESCRIPTION

This circuit detects the state of the ignition switch and sends it to the multiplex network body ECU.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	READ VALUE OF INTELLIGENT TESTER

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch on (IG) and turn the intelligent tester main switch on.
(c) Select the items below in the DATA LIST, and read the displays on the intelligent tester.

BODY ECU:

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
ACC SW	ACC SW signal / ON or OFF	ON: Ignition switch on (IG) or (ACC) OFF: Ignition switch off	-
IG SW	IG SW signal / ON or OFF	ON: Ignition switch on (IG) OFF: Ignition switch off or Ignition switch on (ACC)	-

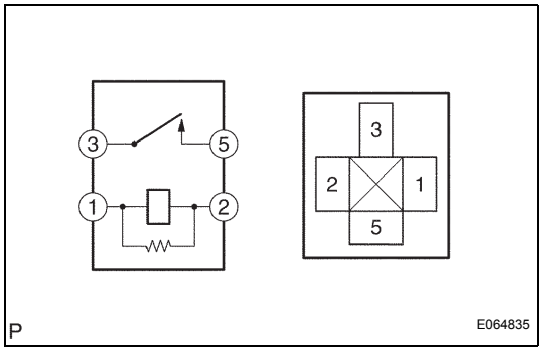
LI

NG → **Go to step 2**

OK

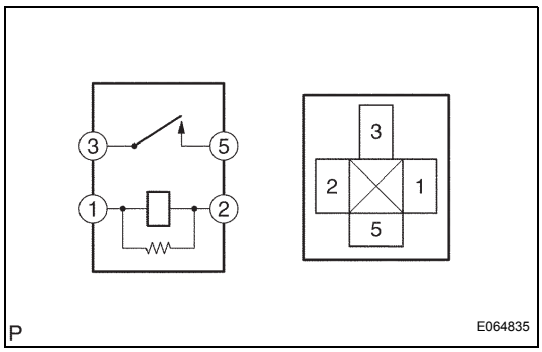
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

2	INSPECT RELAY



(a) Inspect ACC relay continuity.
(1) Remove the ACC relay from the instrument panel J/B.
(2) Measure the resistance according to the value(s) in the table below.
Standard resistance

Tester Connection	Specified Condition
3 - 5	10 kΩ or higher
3 - 5	Below 1 Ω (When battery voltage is applied to terminal 1 - 2)



(b) Inspect IG1 relay continuity.
(1) Remove the IG1 relay from the instrument panel J/B.
(2) Measure the resistance according to the value(s) in the table below.
Standard resistance

Tester Connection	Specified Condition
3 - 5	10 kΩ or higher
3 - 5	Below 1 Ω (When battery voltage is applied to terminal 1 - 2)

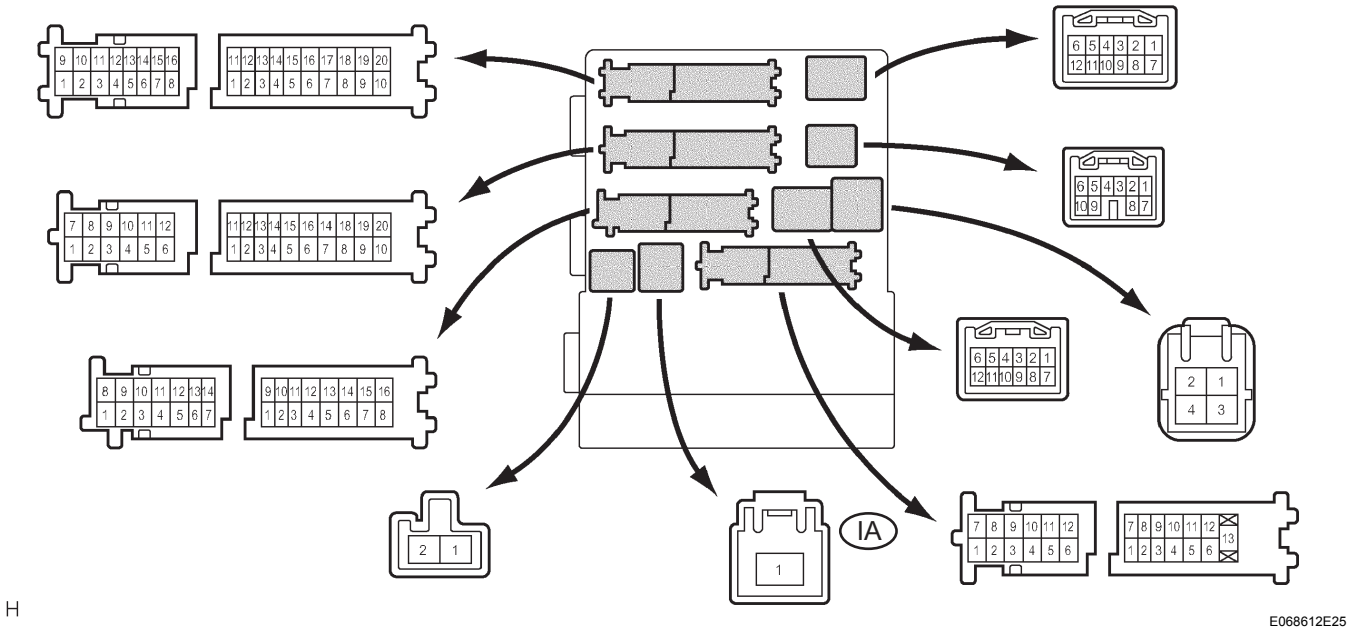
NG → **REPLACE RELAY**

OK

3	CHECK HARNESS AND CONNECTOR (BATTERY - INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY)

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

Instrument Panel Junction Block Assembly Front Side Wire Harness View:



Standard voltage

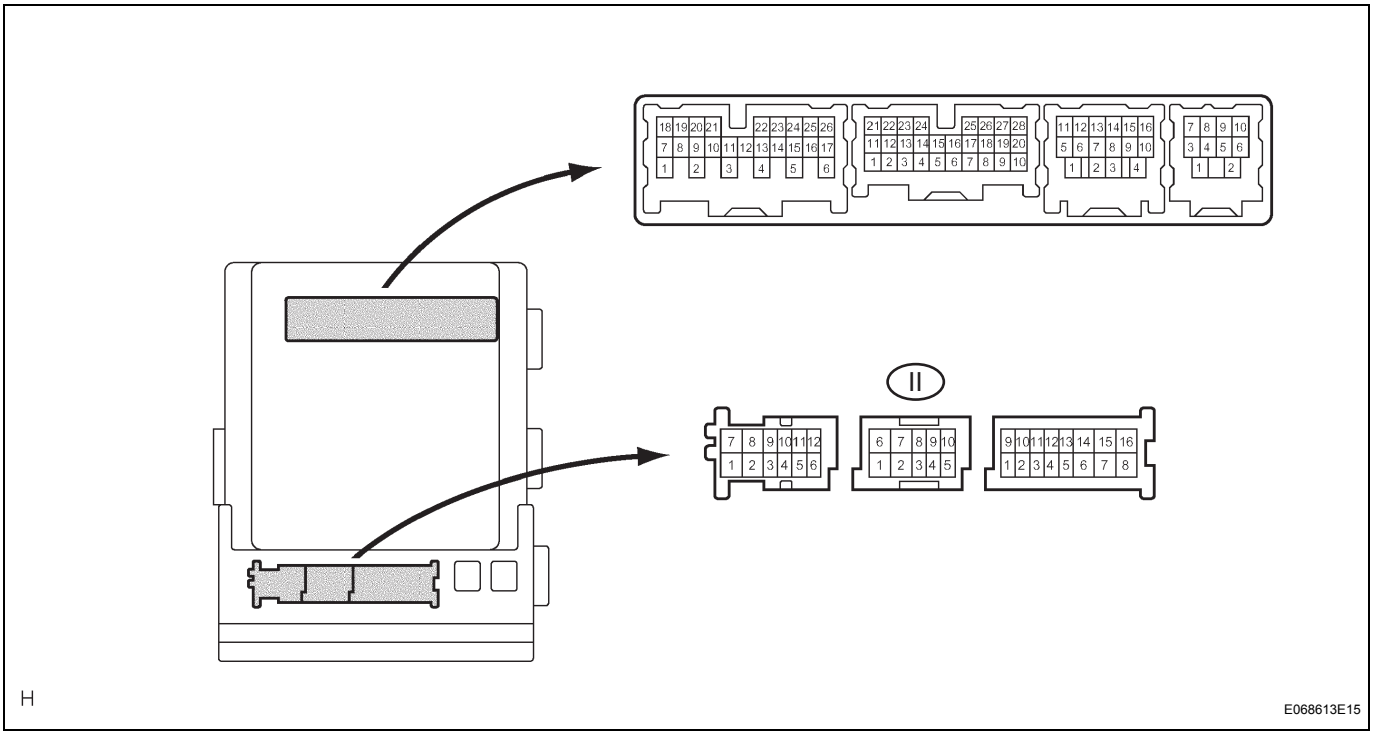
Tester Connection	Condition	Specified Condition
IA-1 - Body ground	Always	10 to 14 V

NG → REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

4	INSPECT INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY

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



Standard voltage

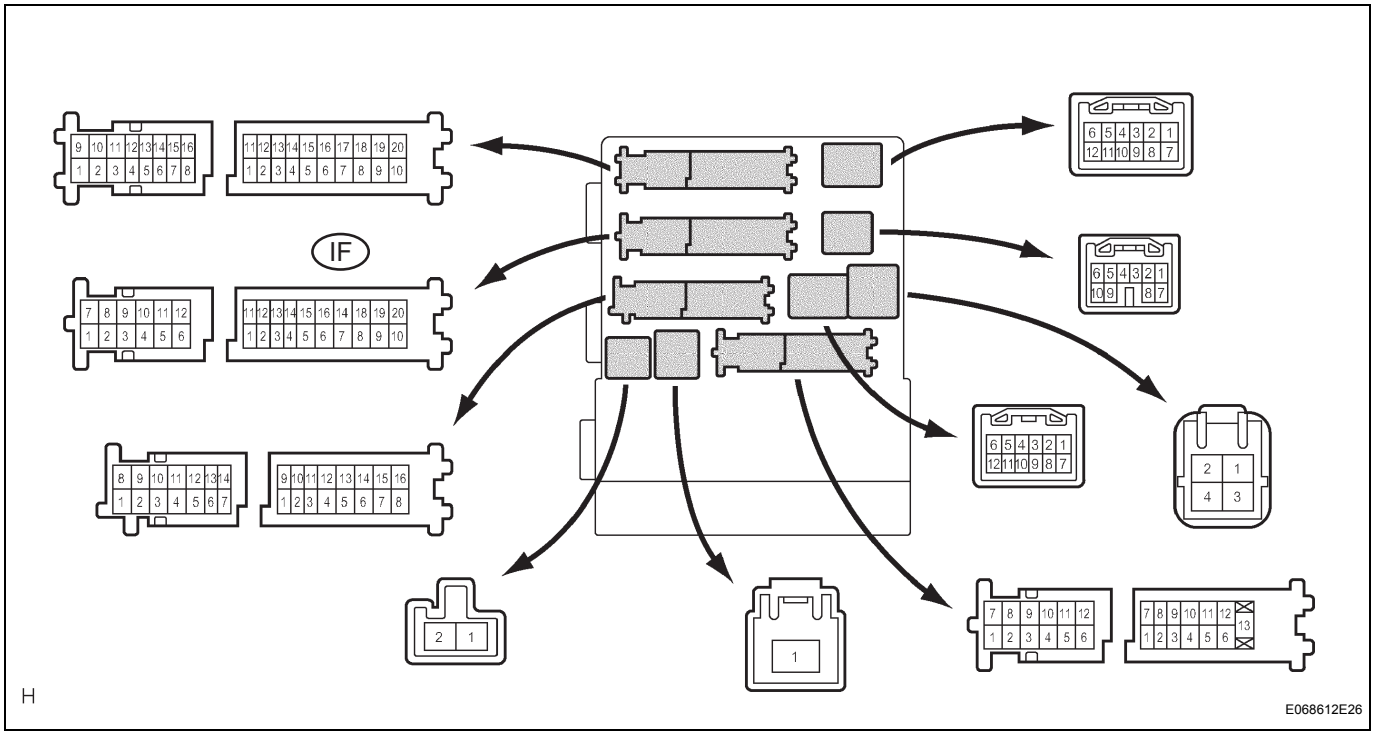
Tester Connection	Condition	Specified Condition
II-4 - Body ground	Always	10 to 14 V

NG → **REPLACE INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY**

OK

5	**CHECK HARNESS AND CONNECTOR (INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY - BODY GROUND)**

(a) Disconnect the connector 1F from the instrument panel junction block assembly.
(b) Measure the resistance according to the value(s) in the table below.



Standard resistance

Tester Connection	Condition	Specified Condition
IF-10 - Body ground	Always	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

6	CHECK HARNESS AND CONNECTOR (IGNITION SWITCH CIRCUIT)

(a) Inspect the harness and connectors related to ignition switch, referring to the wiring diagram.

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

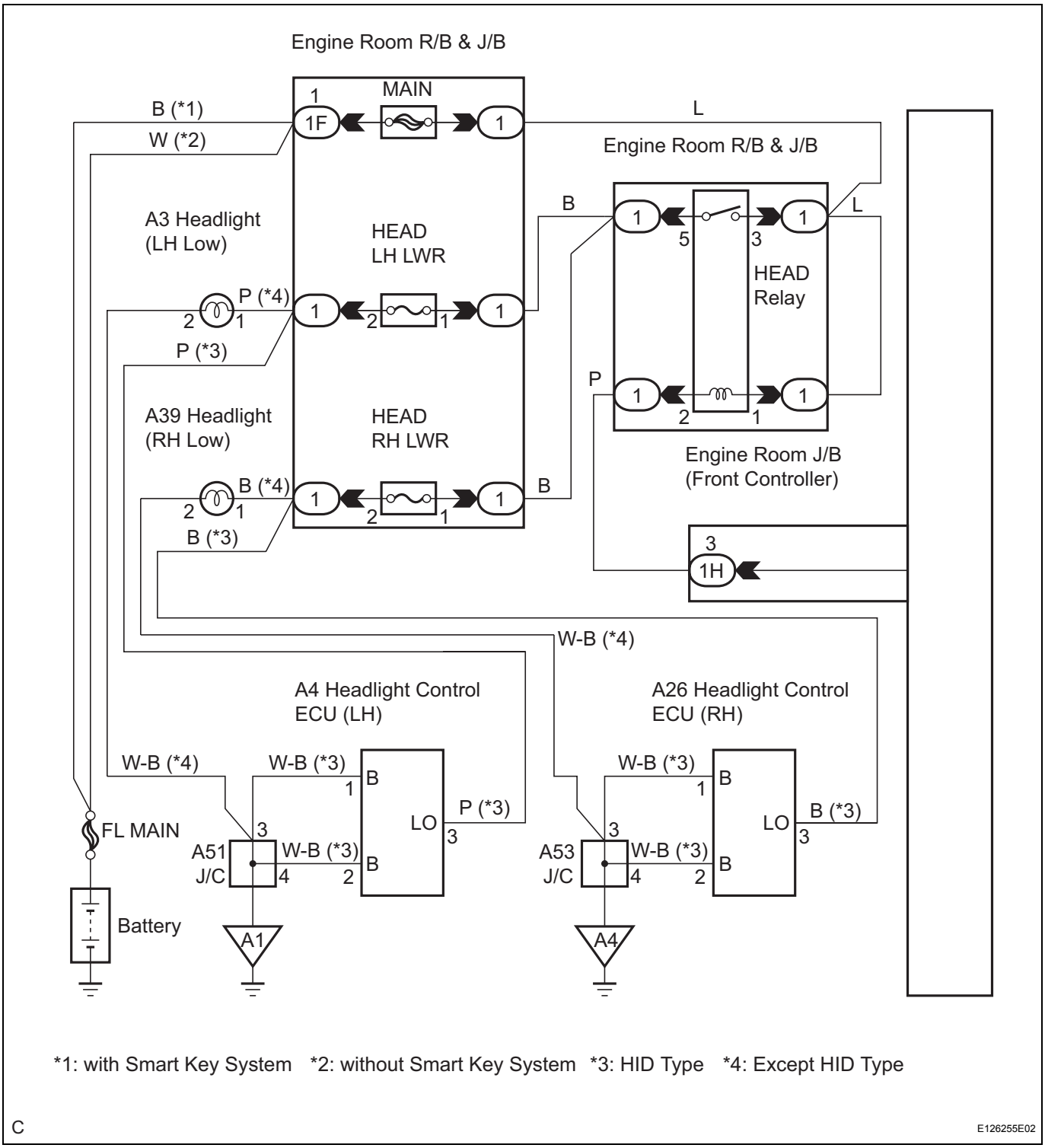
LI

Headlight Relay Circuit

DESCRIPTION

The front controller controls the HEAD relay when a signal is received from the headlight dimmer switch assembly.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	PERFORM ACTIVE TEST BY INTELLIGENT TESTER

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch on (IG) and turn the intelligent tester main switch on.
(c) Select the item below in the ACTIVE TEST and then check the relay operation.

BODY NO. 5 (FRONT CONTROLLER):

Item	Test Details	Diagnostic Note
HEAD LIGHT (LO)	Light head (low) ON / OFF	-

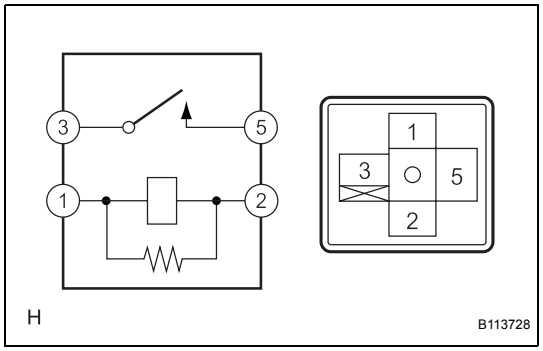
OK:
Headlights come on.

NG → **Go to step 2**

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

2	INSPECT RELAY



(a) Remove the HEAD relay from the engine room R/B & J/B.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

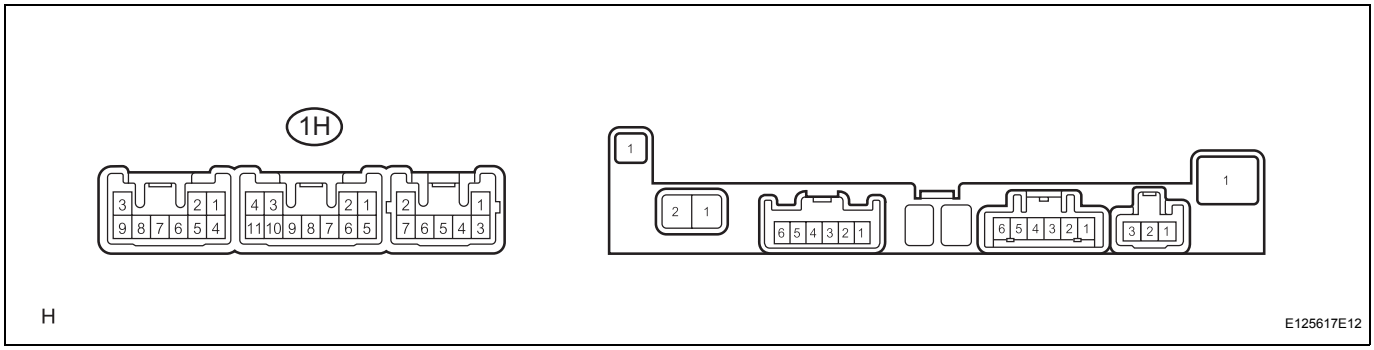
Tester Connection	Specified Condition
3 - 5	10 kΩ or higher
3 - 5	Below 1 Ω (When battery voltage is applied to terminal 1 - 2)

NG → **REPLACE RELAY**

OK

3	CHECK HARNESS AND CONNECTOR (BATTERY - FRONT CONTROLLER)

(a) Disconnect the 1H connector from the front controller.
(b) Measure the voltage according to the value(s) in the table below.



Standard resistance

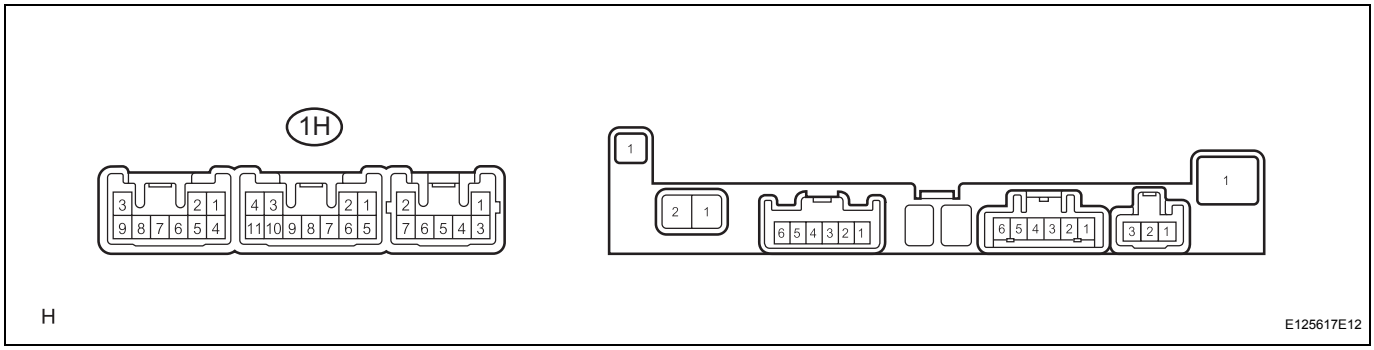
Tester Connection	Condition	Specified Condition
1H-3 - Body ground	Always	10 to 14 V

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

4	CHECK HARNESS AND CONNECTOR (HEAD RELAY - BODY GROUND)

(a) Using a service wire, connect the 1H-3 on the wire harness side and body ground.
OK:
Headlight comes on.



NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

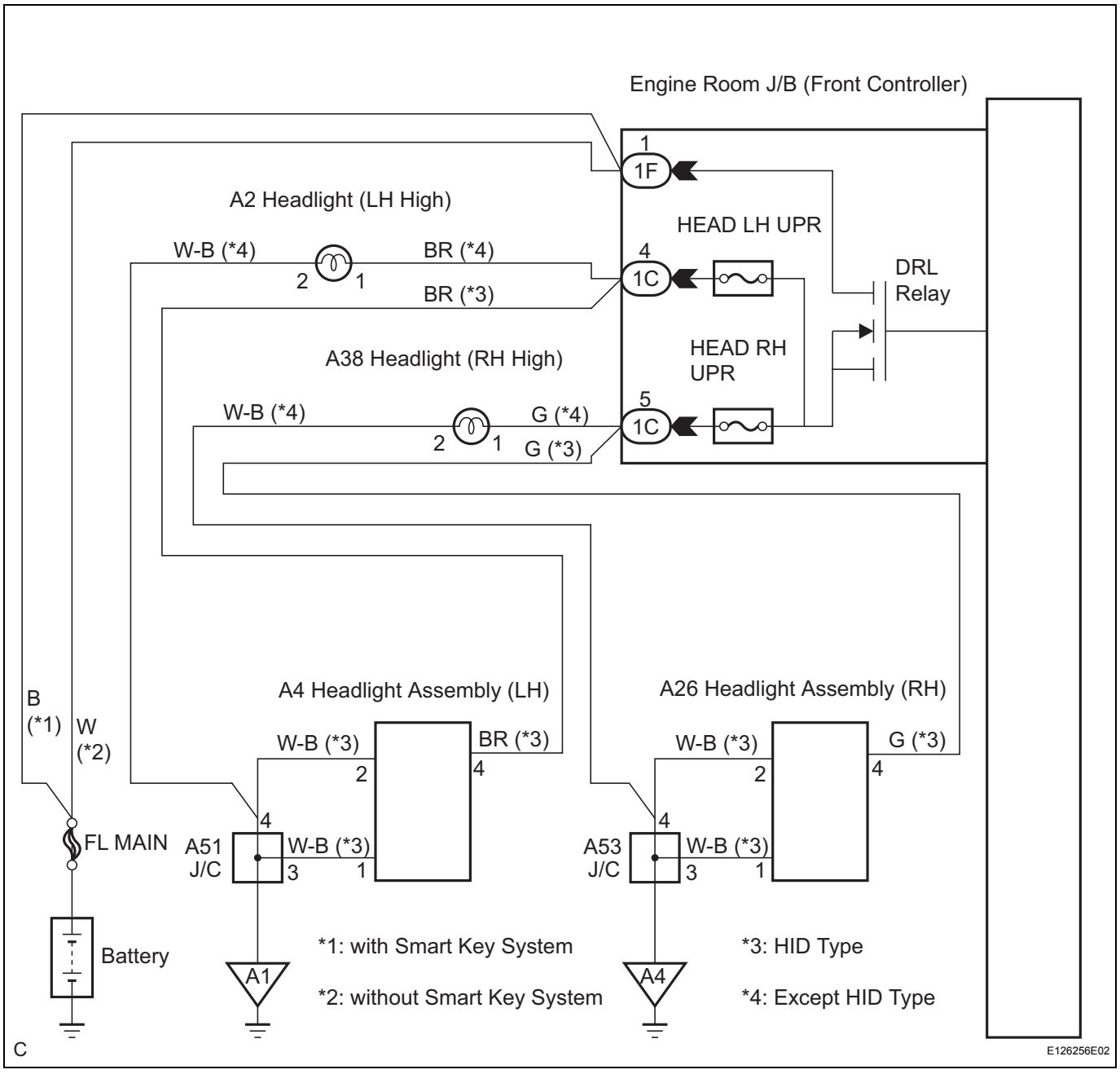
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

Headlight (HI-BEAM) Circuit

DESCRIPTION

The front controller receives headlight HI switch information from the combination switch, and turns on the headlights.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	PERFORM ACTIVE TEST BY INTELLIGENT TESTER

(a) Connect the intelligent tester to the DLC3.

(b) Turn the ignition switch on (IG) and turn the intelligent tester main switch on.
(c) Select the items below in the ACTIVE TEST and then check the headlight operation.

BODY NO. 5 (FRONT CONTROLLER):

Item	Test Details	Diagnostic Note
HEAD LIGHT (HI)	Light head (high) ON / OFF	-
DRL OPERT	Light head (high) DRL ON / OFF	-

OK:
High beam comes on.

NG → **Go to step 2**

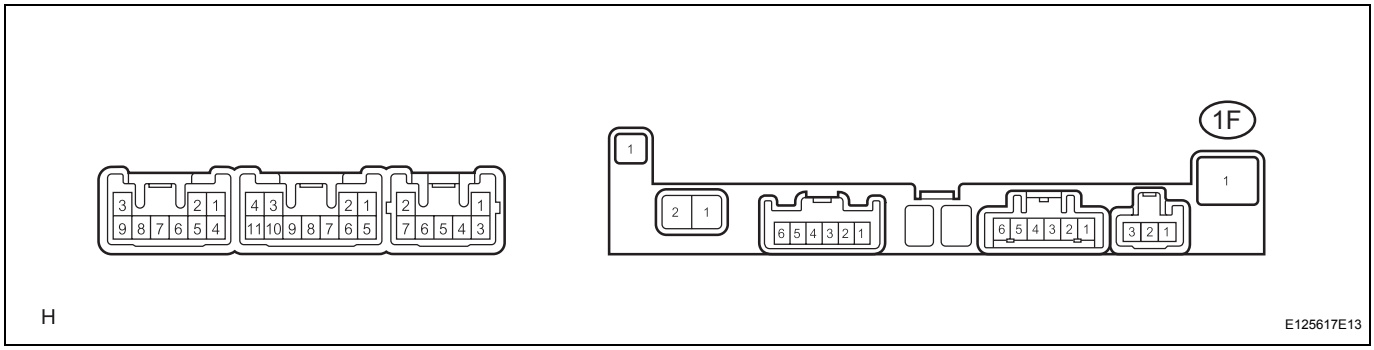
LI

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

2 CHECK HARNESS AND CONNECTOR (BATTERY - FRONT CONTROLLER)

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



Standard voltage

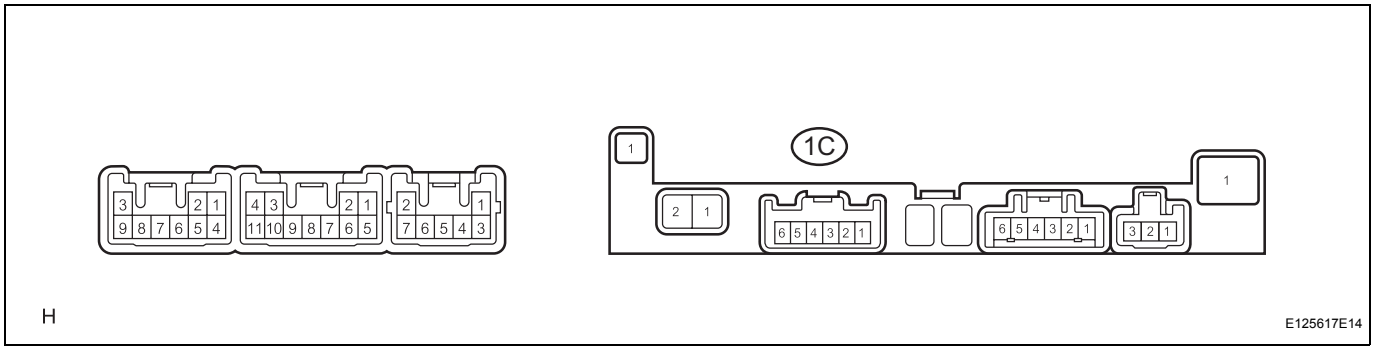
Tester Connection	Condition	Specified Condition
1F-1 - Body ground	Always	10 to 14 V

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

3 INSPECT ENGINE ROOM JUNCTION BLOCK ASSEMBLY

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



Standard voltage

Tester Connection	Condition	Specified Condition
1C-4 - Body ground	Ignition switch on (IG), headlight dimmer switch in the HI position	10 to 14 V
1C-5 - Body ground	Ignition switch on (IG), headlight dimmer switch in the HI position	10 to 14 V

LI

NG → **REPLACE ENGINE ROOM JUNCTION BLOCK ASSEMBLY (FRONT CONTROLLER)**

OK

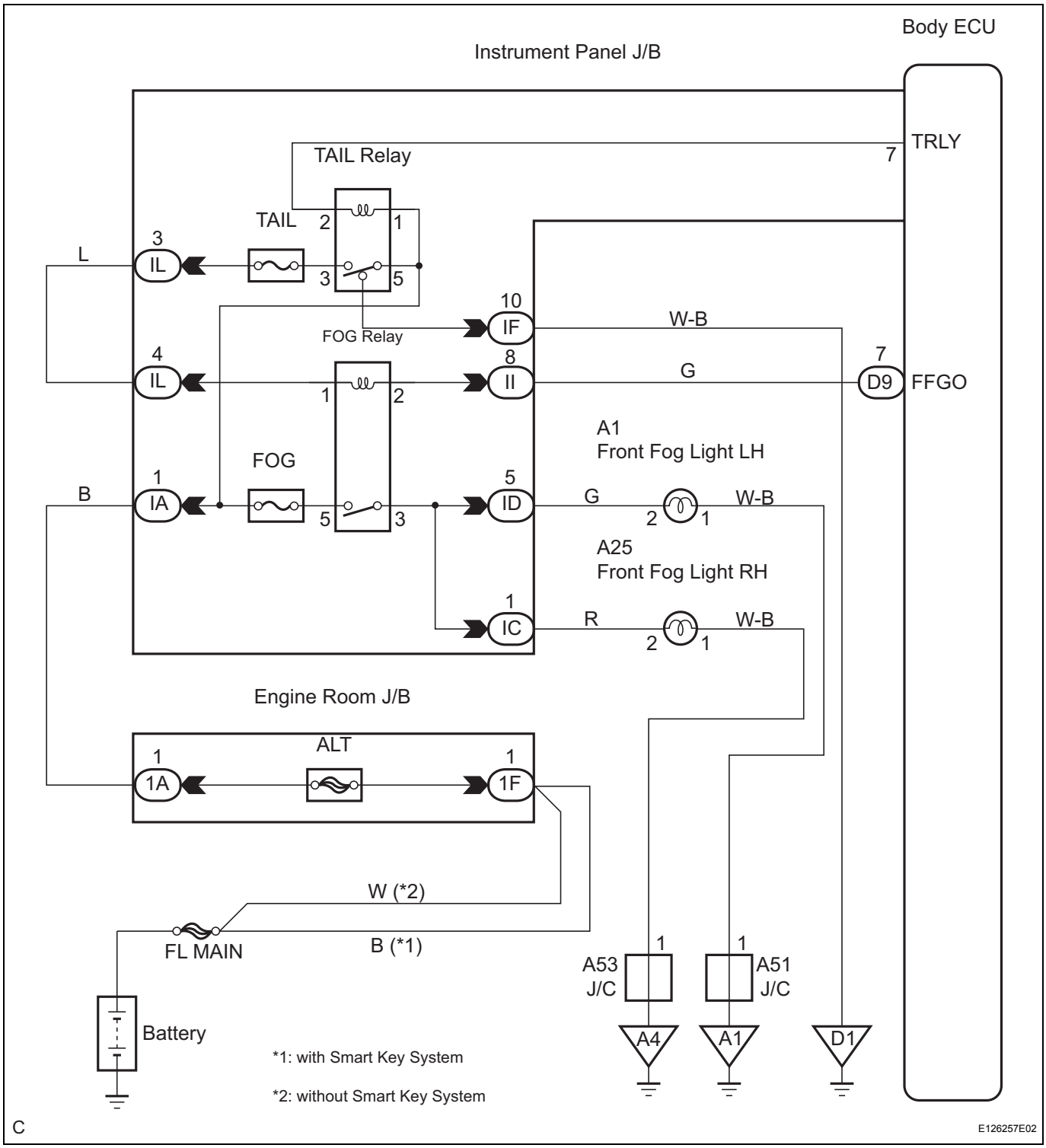
REPAIR OR REPLACE HARNESS OR CONNECTOR (FRONT CONTROLLER - BODY GROUND)

Front Fog Light Circuit

DESCRIPTION

The multiplex network body ECU controls the FOG relay when a signal is received from the headlight dimmer switch assembly.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	PERFORM ACTIVE TEST BY INTELLIGENT TESTER

(a) Connect the intelligent tester to DLC3.
(b) Turn the ignition switch on (IG) and turn the intelligent tester main switch on.
(c) Select the item below in the ACTIVE TEST and then check that the relay operates.

BODY ECU:

Item	Test Details	Diagnostic Note
F FOG LIGHT RLY	Front fog light relay ON / OFF	-

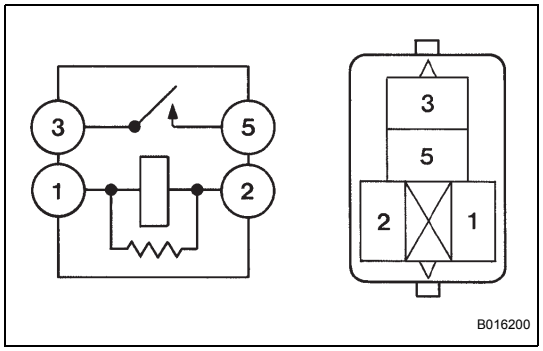
OK:
Front fog lights come on.

NG → **Go to step 2**

OK

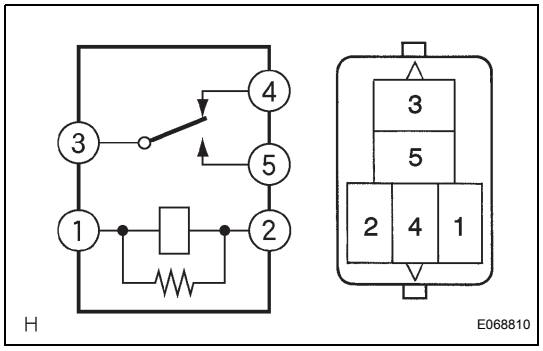
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

2	INSPECT RELAY



(a) Inspect front fog relay continuity.
(1) Remove the front fog relay from the instrument panel J/B.
(2) Measure the resistance according to the value(s) in the table below.
Standard resistance

Tester Connection	Specified Condition
3 - 5	10 kΩ or higher
3 - 5	Below 1 Ω (When battery voltage is applied to terminal 1- 2)



(b) Inspect TAIL relay continuity.
(1) Remove the tail relay from the instrument panel J/B.
(2) Measure the resistance according to the value(s) in the table below.
Standard resistance

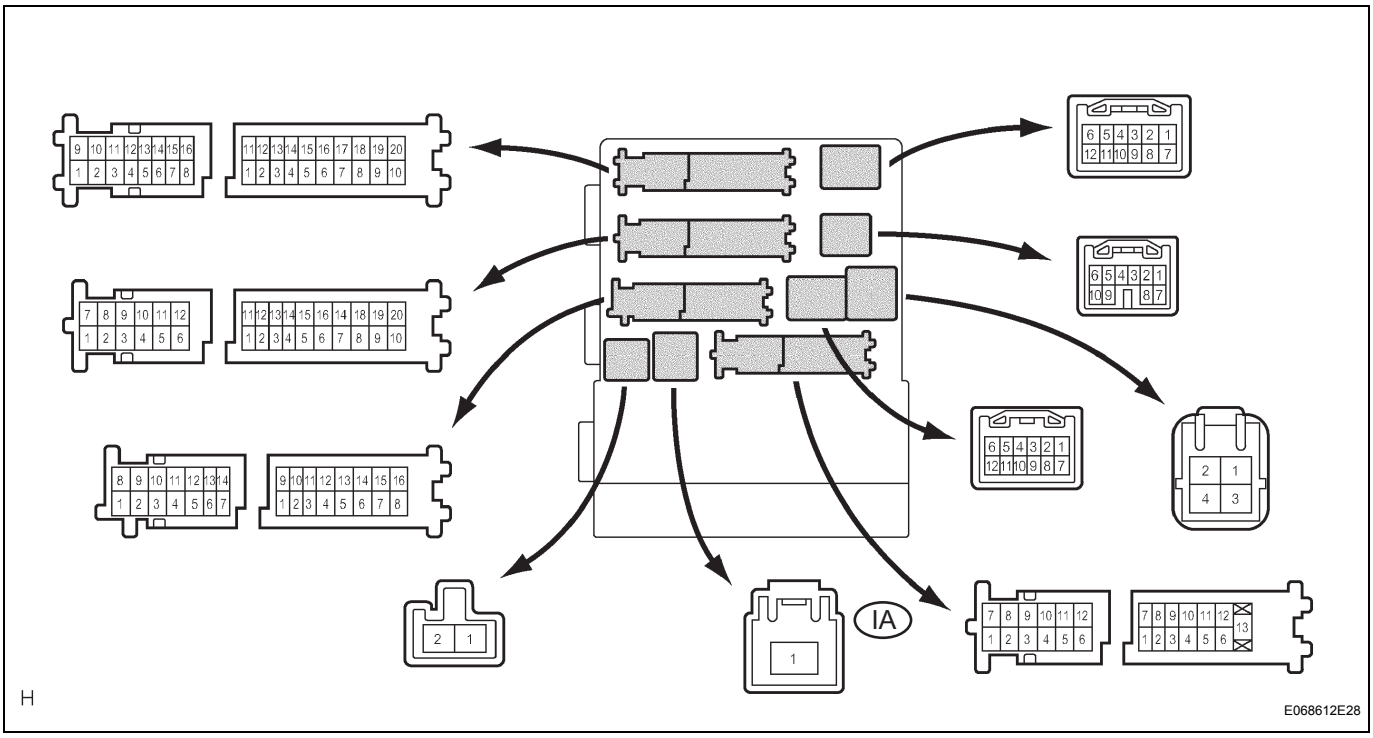
Tester Connection	Specified Condition
3 - 5	10 kΩ or higher
3 - 5	Below 1 Ω (When battery voltage is applied to terminal 1- 2)
3 - 4	Below 1 Ω (When battery voltage is applied to terminal 1- 2)

NG → **REPLACE RELAY**

OK

3	INSPECT HARNESS AND CONNECTOR (BATTERY - INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY)

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



Standard voltage

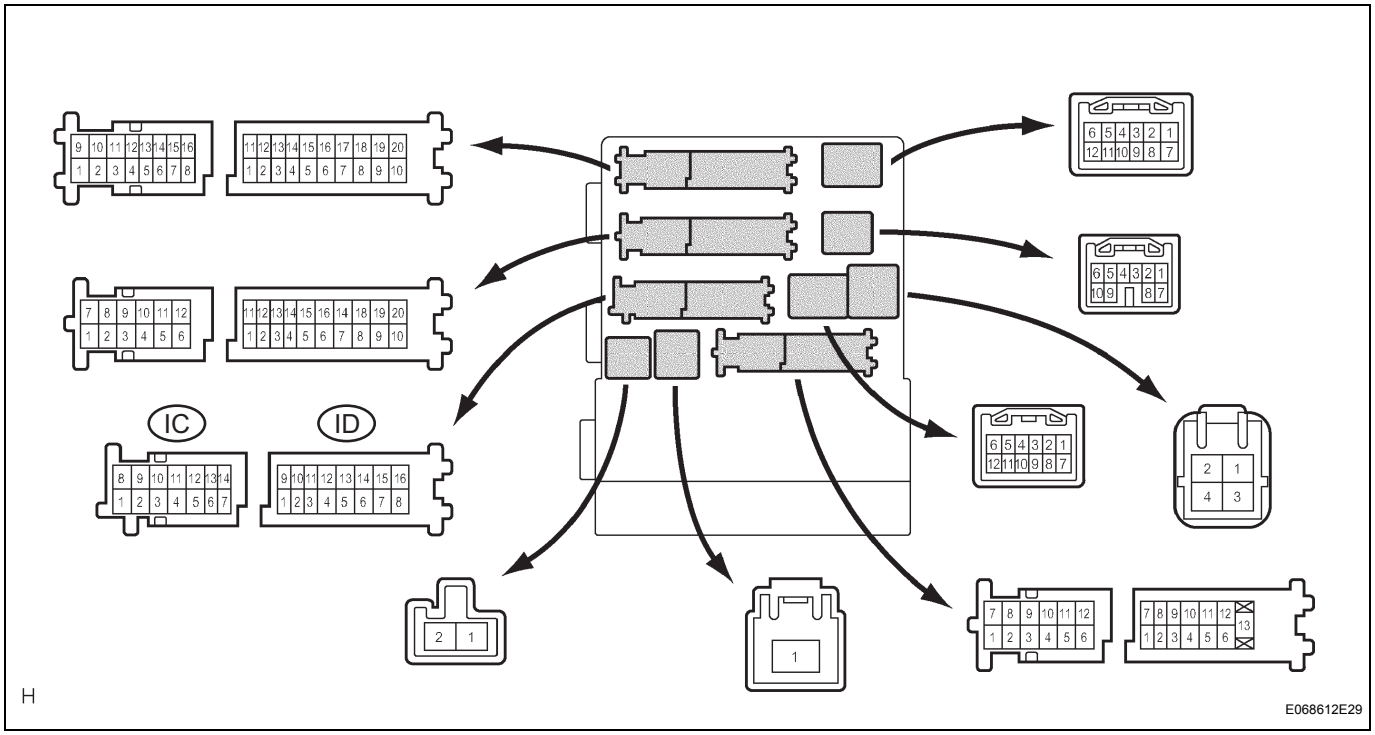
Tester Connection	Condition	Specified Condition
IA-1 - Body ground	Always	10 to 14 V

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

4	INSPECT INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY

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



Standard voltage

Tester Connection	Condition	Specified Condition
IC-1 - Body ground	Light control switch TAIL and Front fog light switch OFF → ON	Below 1 V → 10 to 14 V
ID-5 - Body ground	Light control switch TAIL and Front fog light switch OFF → ON	Below 1 V → 10 to 14 V

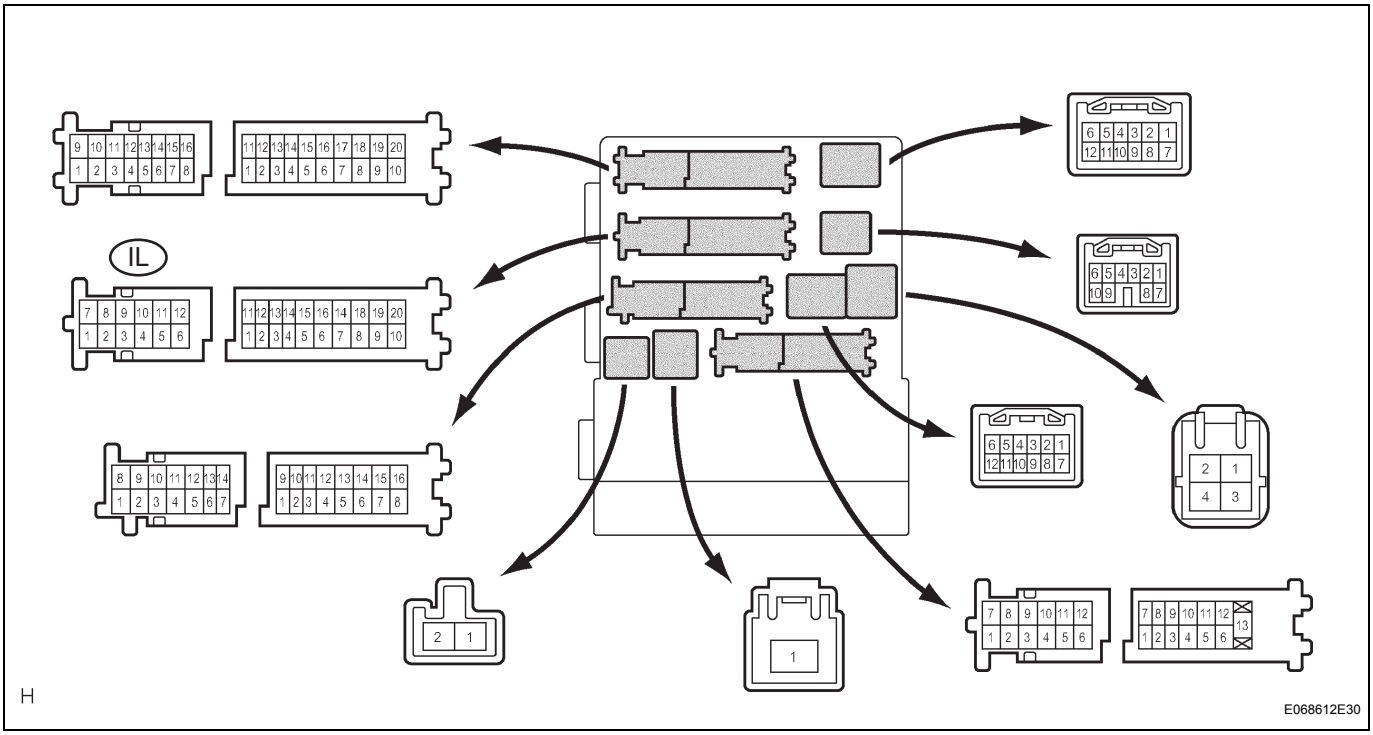
NG → **Go to step 5**

OK →

REPAIR OR REPLACE HARNESS OR CONNECTOR

5	INSPECT INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY

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



Standard voltage

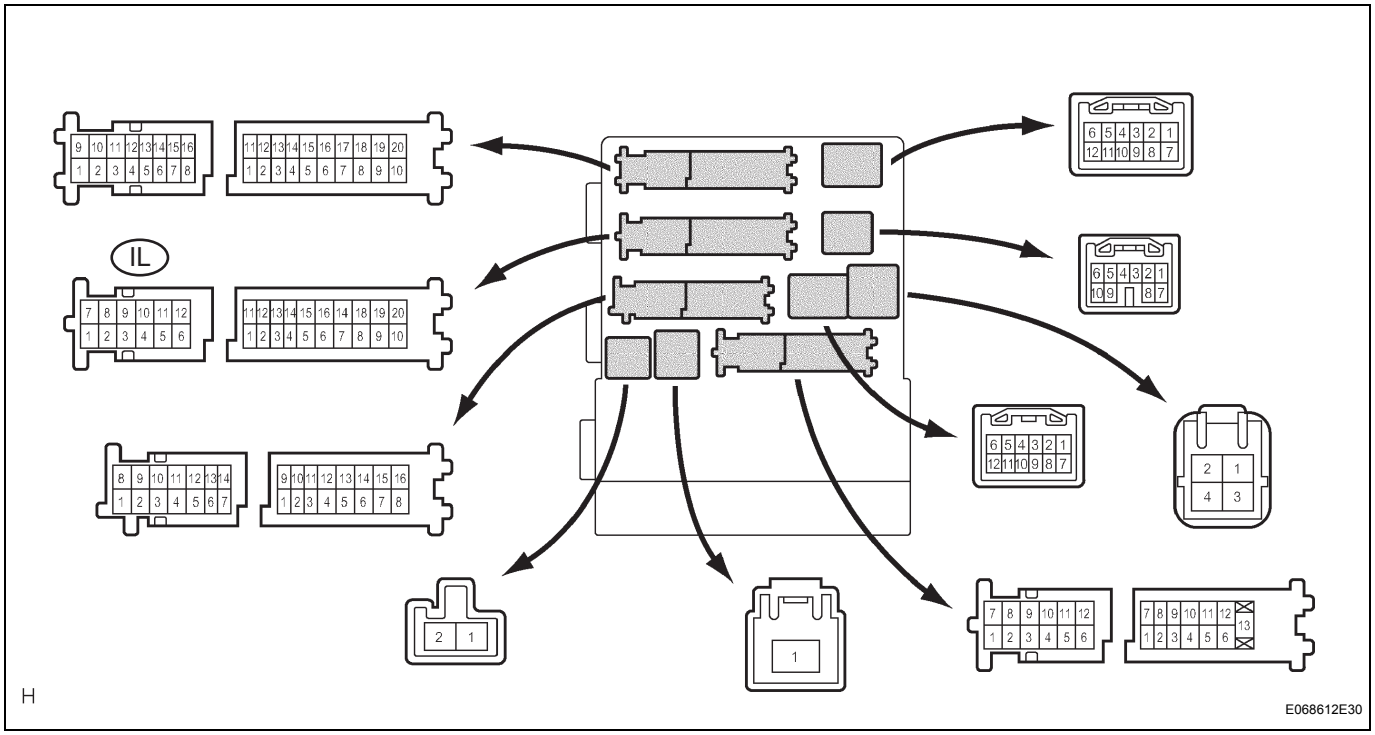
Tester Connection	Condition	Specified Condition
IL-3 - Body ground	Light control switch OFF → TAIL	Below 1 V → 10 to 14 V

NG → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

OK

6	**CHECK HARNESS AND CONNECTOR (INSTRUMENT JUNCTION BLOCK ASSEMBLY CIRCUIT)**

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



Standard voltage

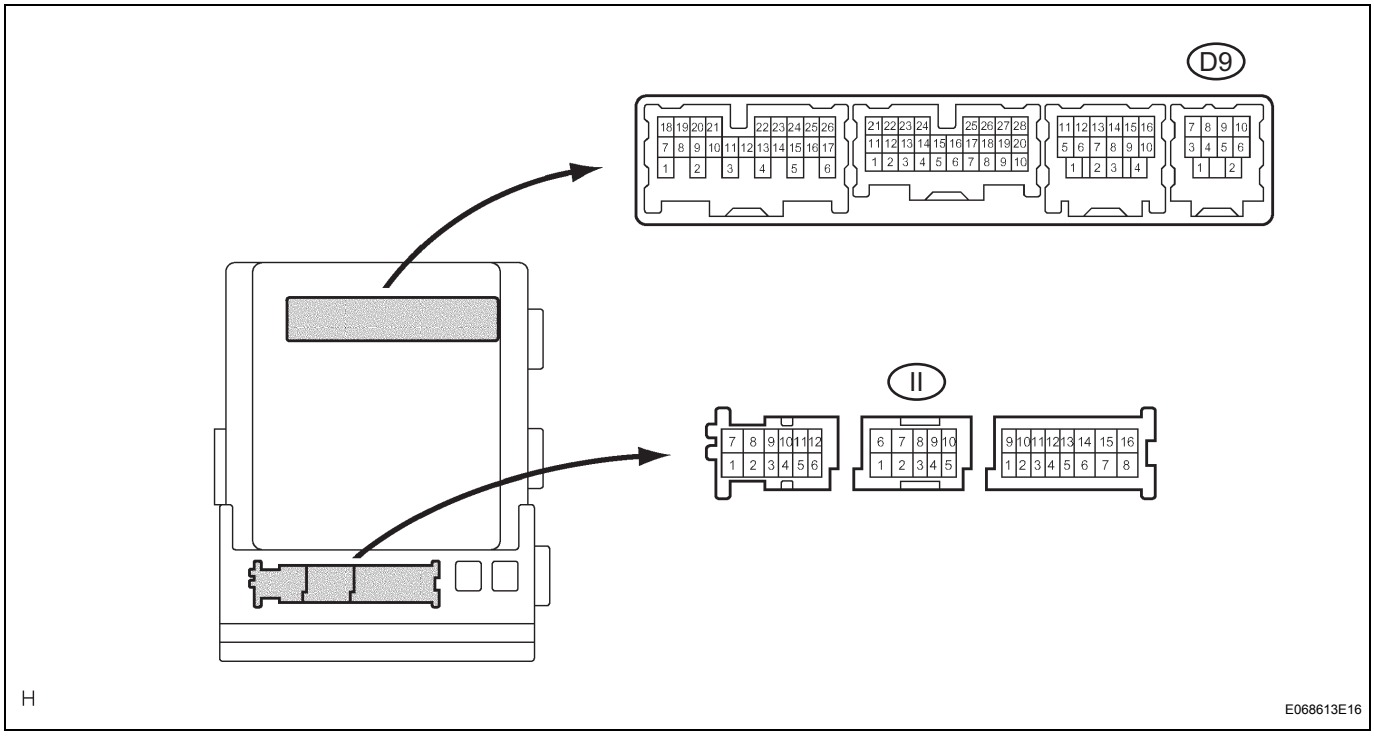
Tester Connection	Condition	Specified Condition
IL-4 - Body ground	Light control switch OFF → TAIL	Below 1 V → 10 to 14 V

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

7	CHECK HARNESS AND CONNECTOR (BODY ECU - INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY)

(a) Disconnect the D9 connector of the multiplex network body ECU and the II connector of the instrument panel junction block assembly.
(b) Measure the resistance according to the value(s) in the table below.



Standard resistance

Tester Connection	Condition	Specified Condition
D9-7 - II-8	Always	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

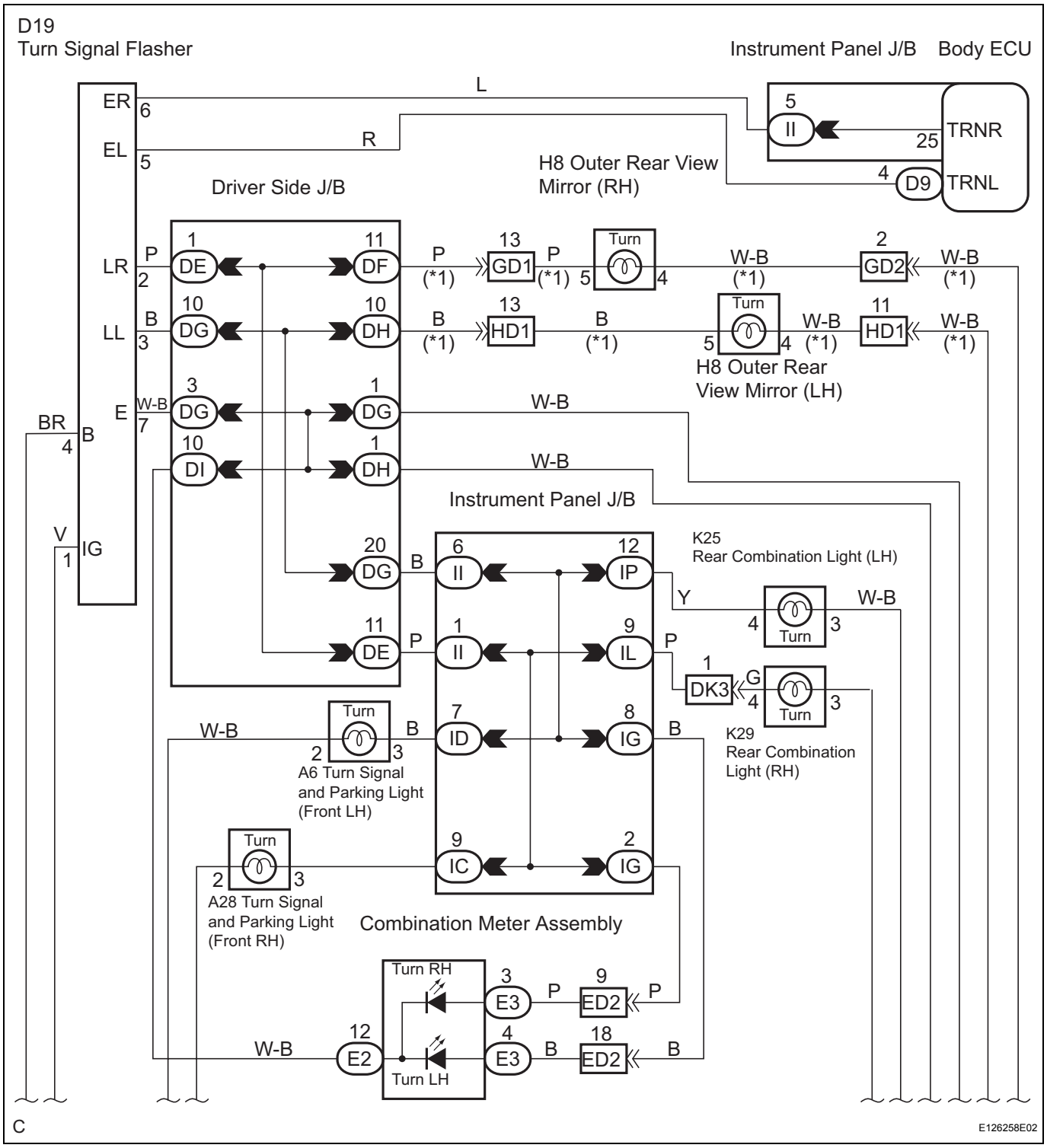
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

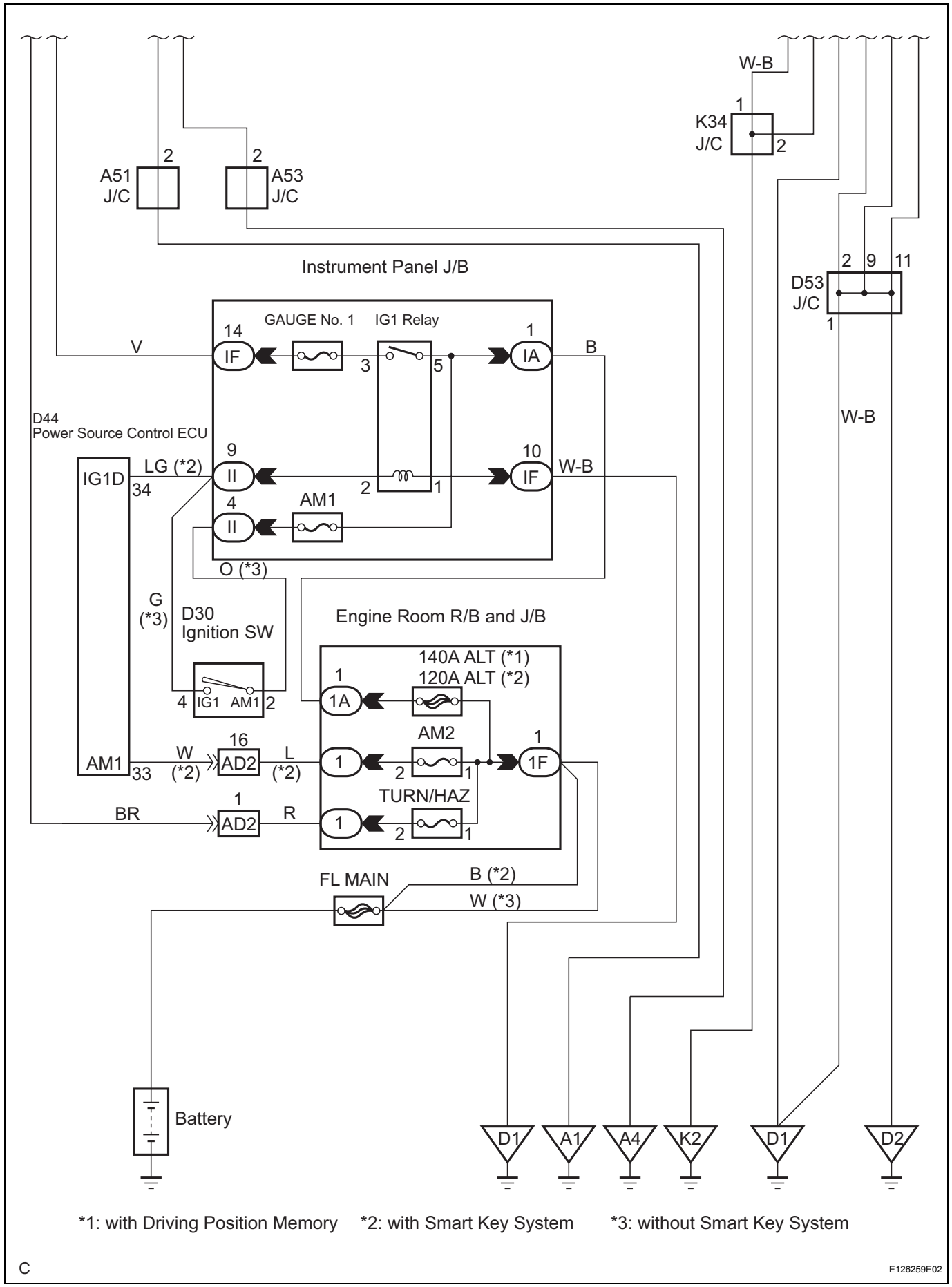
Turn Signal Light Circuit

DESCRIPTION

Receiving the signal of the turn signal switch from the combination switch ECU, the body ECU turns the turn signal light on.
The driver side junction block ECU activates the flasher relay while the theft deterrent system gives the warning and turns on the turn signal light and the hazard warning light.

WIRING DIAGRAM





*1: with Driving Position Memory *2: with Smart Key System *3: without Smart Key System

C

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INSPECTION PROCEDURE

1	PERFORM ACTIVE TEST BY INTELLIGENT TESTER

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch on (IG) and turn the intelligent tester main switch on.
(c) Select the item below in the ACTIVE TEST and then check the turn signal light operation.

BODY ECU:

Item	Test Details	Diagnostic Note
Turn signal light RH	Turn signal light RH ON / OFF	-
Turn signal light LH	Turn signal light LH ON / OFF	-

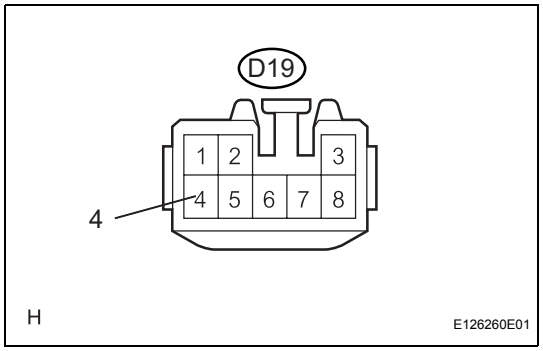
OK:
Turn signal light comes on.

NG → **Go to step 2**

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

2	CHECK HARNESS AND CONNECTOR (BATTERY - TURN SIGNAL FLASHER ASSEMBLY)



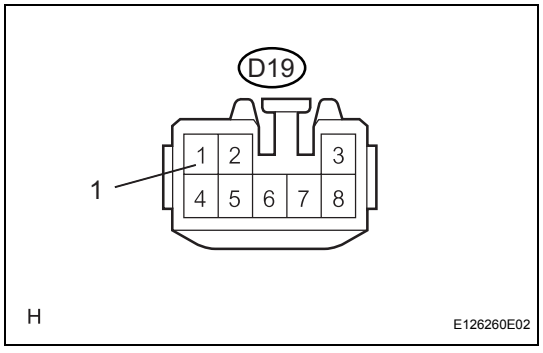
(a) Disconnect the connector from the turn signal flasher.
(b) Measure the voltage according to the value(s) in the table below.
Standard voltage

Tester Connection	Condition	Specified Condition
B (D19-4) - Body ground	Always	10 to 14 V

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

3	CHECK HARNESS AND CONNECTOR (IGNITION SWITCH CIRCUIT)



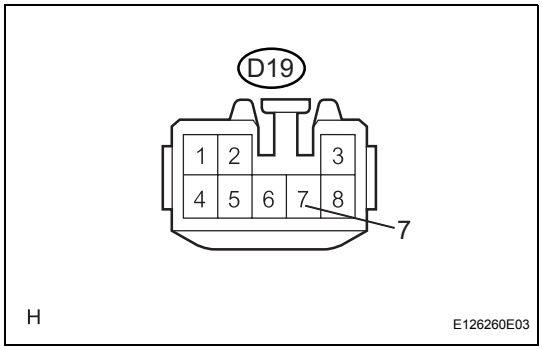
(a) Measure the voltage according to the value(s) in the table below.
Standard voltage

Tester Connection	Condition	Specified Condition
IG (D19-1) - Body ground	Ignition switch on (IG)	10 to 14 V

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

4	CHECK HARNESS AND CONNECTOR (TURN SIGNAL FLASHER ASSEMBLY - BODY GROUND)



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

Tester Connection	Condition	Specified Condition
E (D19-7)- Body ground	Always	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

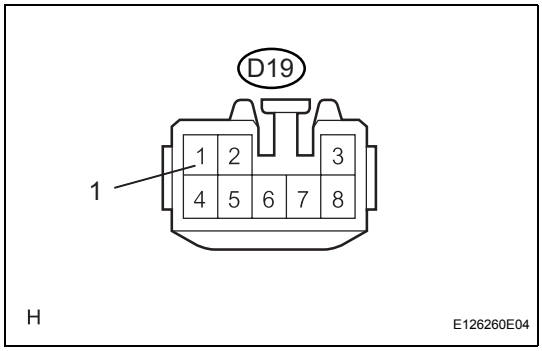
5	INSPECT TURN SIGNAL FLASHER ASSEMBLY

(a) Inspect turn signal flasher assembly.
OK:
Turn signal flasher assembly is normal.

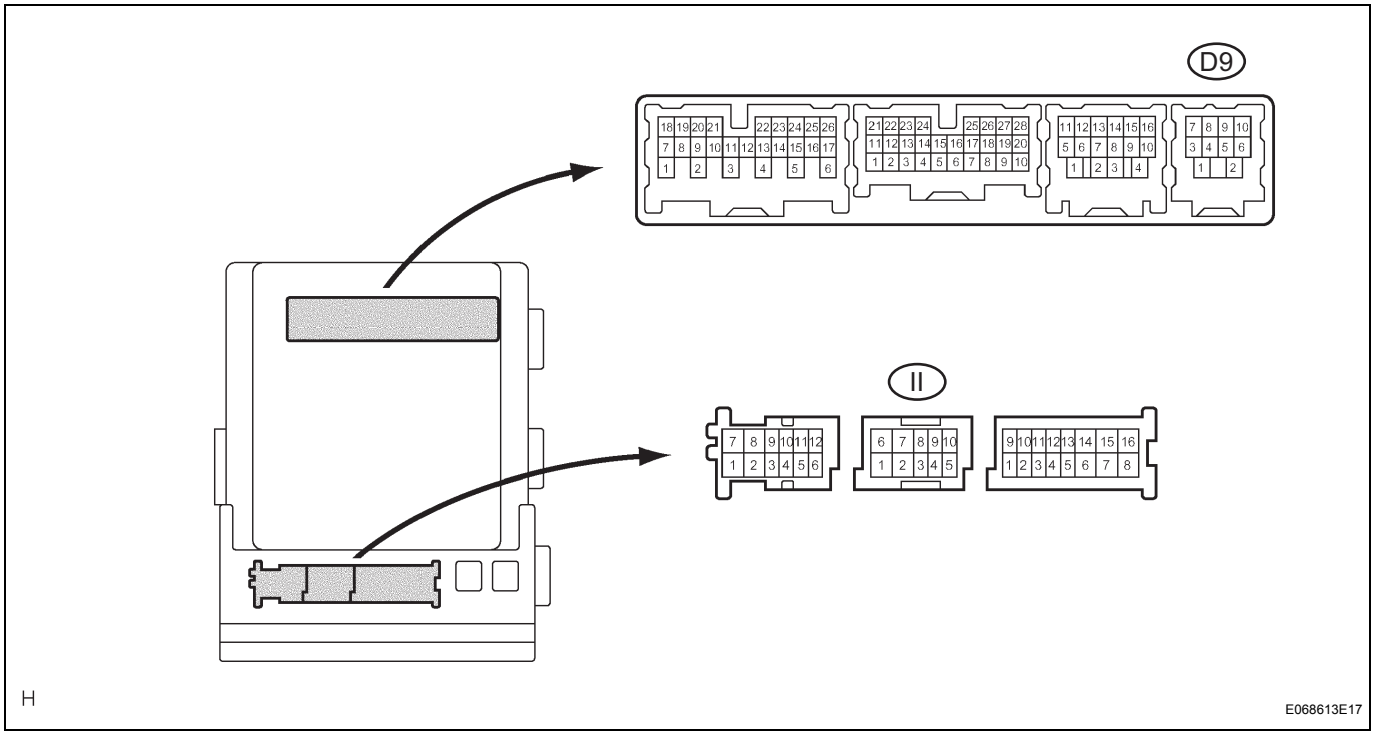
NG → **REPLACE TURN SIGNAL FLASHER ASSEMBLY**

OK

6	CHECK HARNESS AND CONNECTOR (TURN SIGNAL FLASHER ASSEMBLY - INSTRUMENT PANEL JUNCTION)



(a) Disconnect the turn signal flasher connector.
(b) Disconnect connectors II and D9 from the instrument panel J/B assembly.
(c) Measure the resistance according to the value(s) in the table below.



Standard resistance

Tester Connection	Condition	Specified Condition
EL (D19-5) - TRNL (D9-4)	Always	Below 1 Ω
ER (D19-6) - TRNR (II-5)	Always	Below 1 Ω
EL (D19-5) - Body ground	Always	10 kΩ or higher
ER (D19-6) - Body ground	Always	10 kΩ or higher

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

7	INSPECT HARNESS AND CONNECTOR (EACH TURN SIGNAL LIGHT CIRCUIT)

(a) Inspect the harness and connectors related to each turn signal light, referring to the wiring diagram.

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

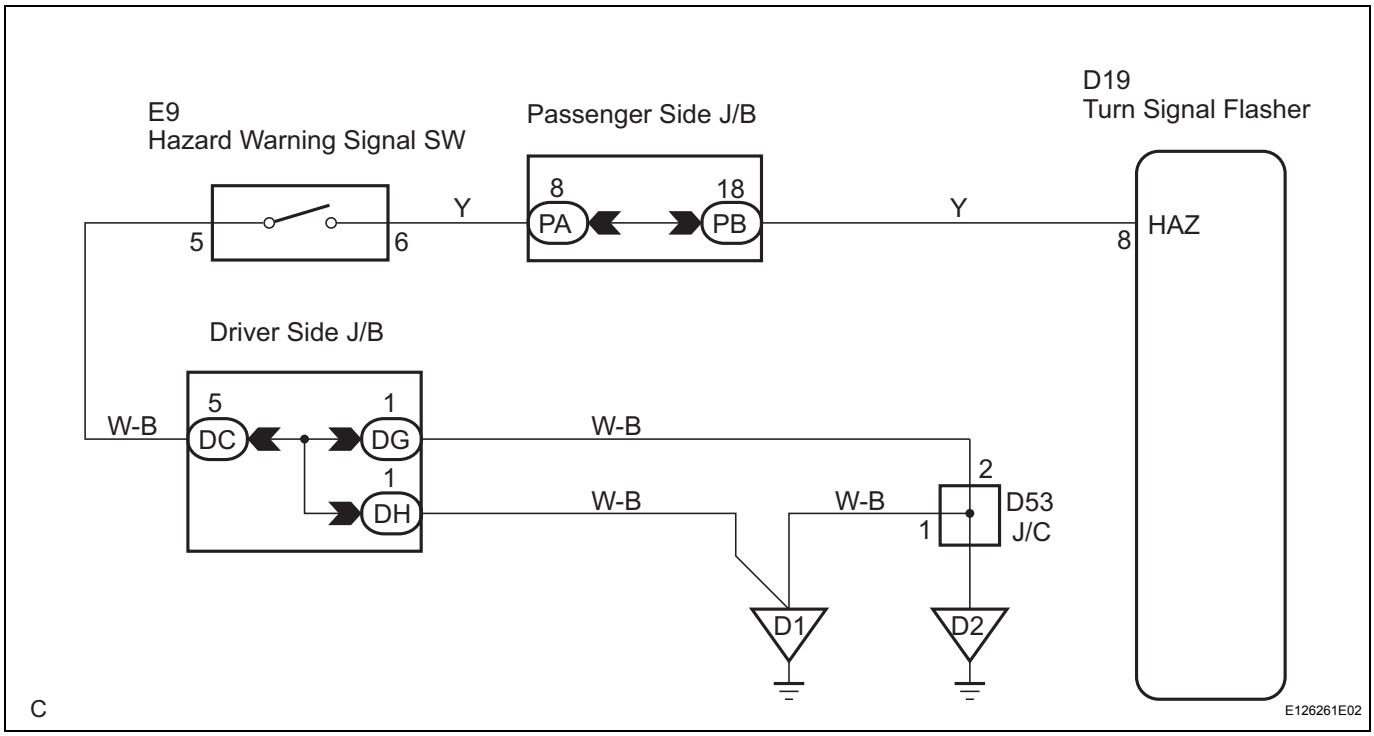
LI

Hazard Warning Switch Circuit

DESCRIPTION

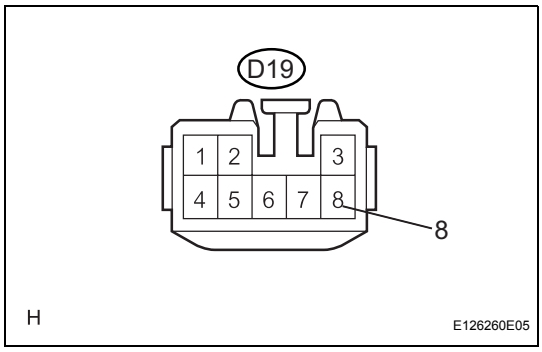
The hazard warning switch sends a signal to the turn signal flasher relay.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	INSPECT HARNESS AND CONNECTOR (TURN SIGNAL FLASHER ASSEMBLY - BODY GROUND)



(a) Disconnect the connector of the turn signal flasher assembly.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
HAZ (D19-8) - Body ground	Hazard warning switch OFF	10 kΩ or higher
HAZ (D19-8) - Body ground	Hazard warning switch ON	Below 1 Ω

NG → **Go to step 2**

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

2	INSPECT HAZARD WARNING SIGNAL SWITCH ASSEMBLY

(a) Inspect hazard warning signal switch assembly (See page LI-150).
OK:
Hazard warning switch is normal.

NG → **REPLACE HAZARD WARNING SIGNAL SWITCH ASSEMBLY**

OK

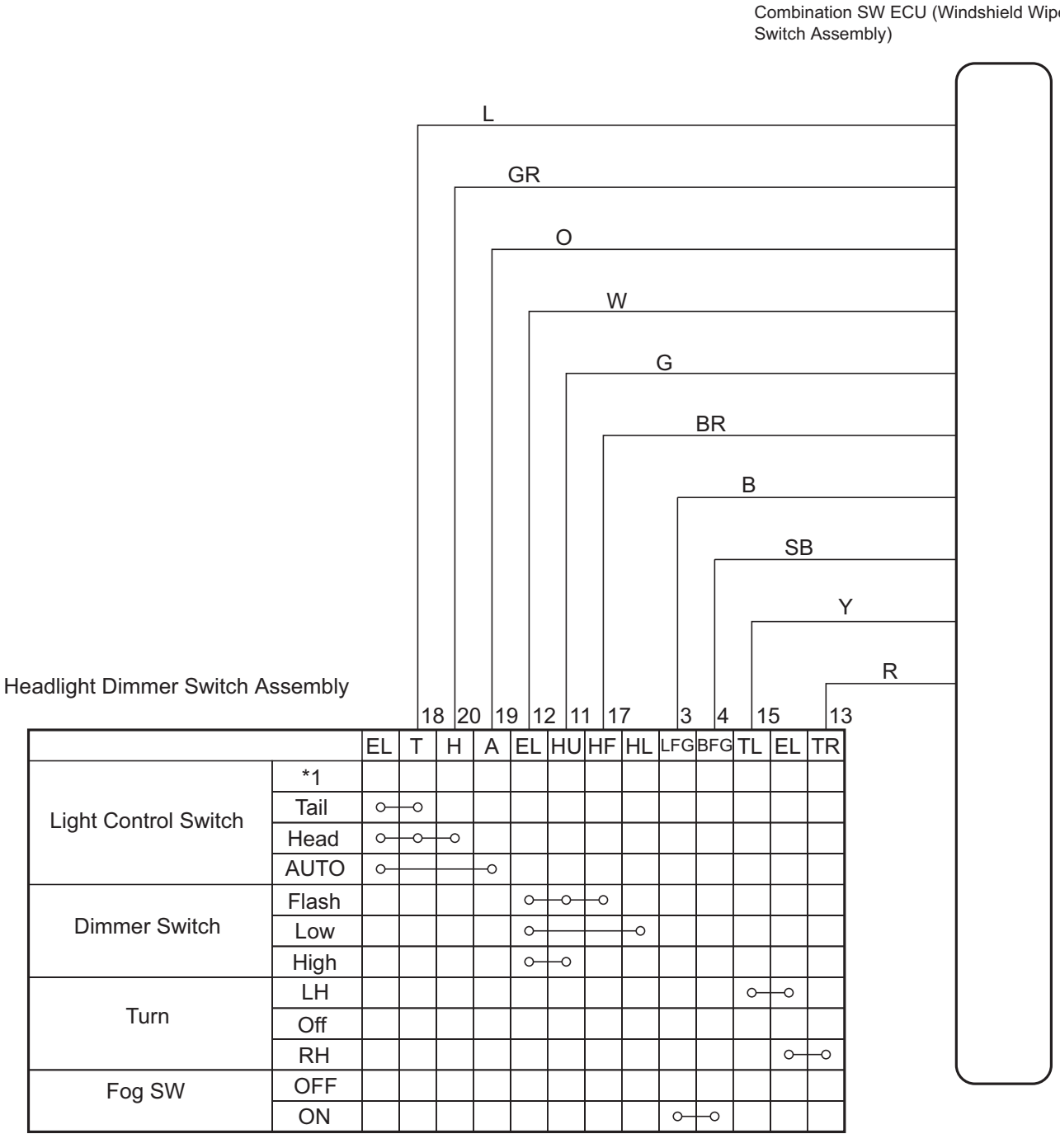
REPAIR OR REPLACE HARNESS OR CONNECTOR (HAZARD WARNING SWITCH CIRCUIT)

Light Control Switch Circuit

DESCRIPTION

The combination switch ECU receives the informations of the light control switch, and sends them to each ECU via multiplex communication system.

WIRING DIAGRAM



		EL	T	H	A	EL	HU	HF	HL	LFG	BFG	TL	EL	TR
Light Control Switch	*1													
	Tail	○	○											
	Head	○	○	○										
	AUTO	○			○									
Dimmer Switch	Flash					○	○	○						
	Low					○			○					
	High					○	○							
Turn	LH											○	○	
	Off													
	RH												○	○
Fog SW	OFF													
	ON									○	○			

*1: DRL OFF (USA) or OFF (Canada)

C

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INSPECTION PROCEDURE

1	READ VALUE OF INTELLIGENT TESTER

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch on (IG) and turn the intelligent tester main switch on.
(c) Select the items below in the DATA LIST, and read the displays on the intelligent tester.

COMBINATION SWITCH ECU:

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
DIMMER SW	Headlight dimmer SW signal / ON or OFF	ON: Headlight dimmer switch is in the HI or FLASH position OFF: Headlight dimmer switch is in the LO position	-
HIGH FLASHER SW	Headlight dimmer SW signal / ON or OFF	ON: Headlight dimmer switch is in the FLASH position OFF: Headlight dimmer switch is in except the FLASH position	-
F FOG LIGHT SW	Front fog light SW signal / ON or OFF	ON: Front fog light switch is in the ON position OFF: Front fog light switch is in the OFF position	-
AUTO LIGHT SW	Auto light SW signal / ON or OFF	ON: Headlight dimmer switch is in the AUTO position OFF: Headlight dimmer switch is in except the AUTO position	-
HEAD LIGHT SW	Headlight control SW signal / ON or OFF	ON: Light control switch is in the HEAD position OFF: Light control switch is in except the HEAD position	-
TAIL LIGHT SW	Tail light SW signal / ON or OFF	ON: Light control switch is in the TAIL or HEAD position OFF: Light control switch is in the OFF position	-

NG → **Go to step 2**

OK →

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

2	INSPECT HEADLIGHT DIMMER SWITCH ASSEMBLY

(a) Inspect headlight dimmer switch assembly (See page LI-148).
OK:
Headlight dimmer switch assembly is normal.

NG → **REPLACE HEADLIGHT DIMMER SWITCH ASSEMBLY**

OK →

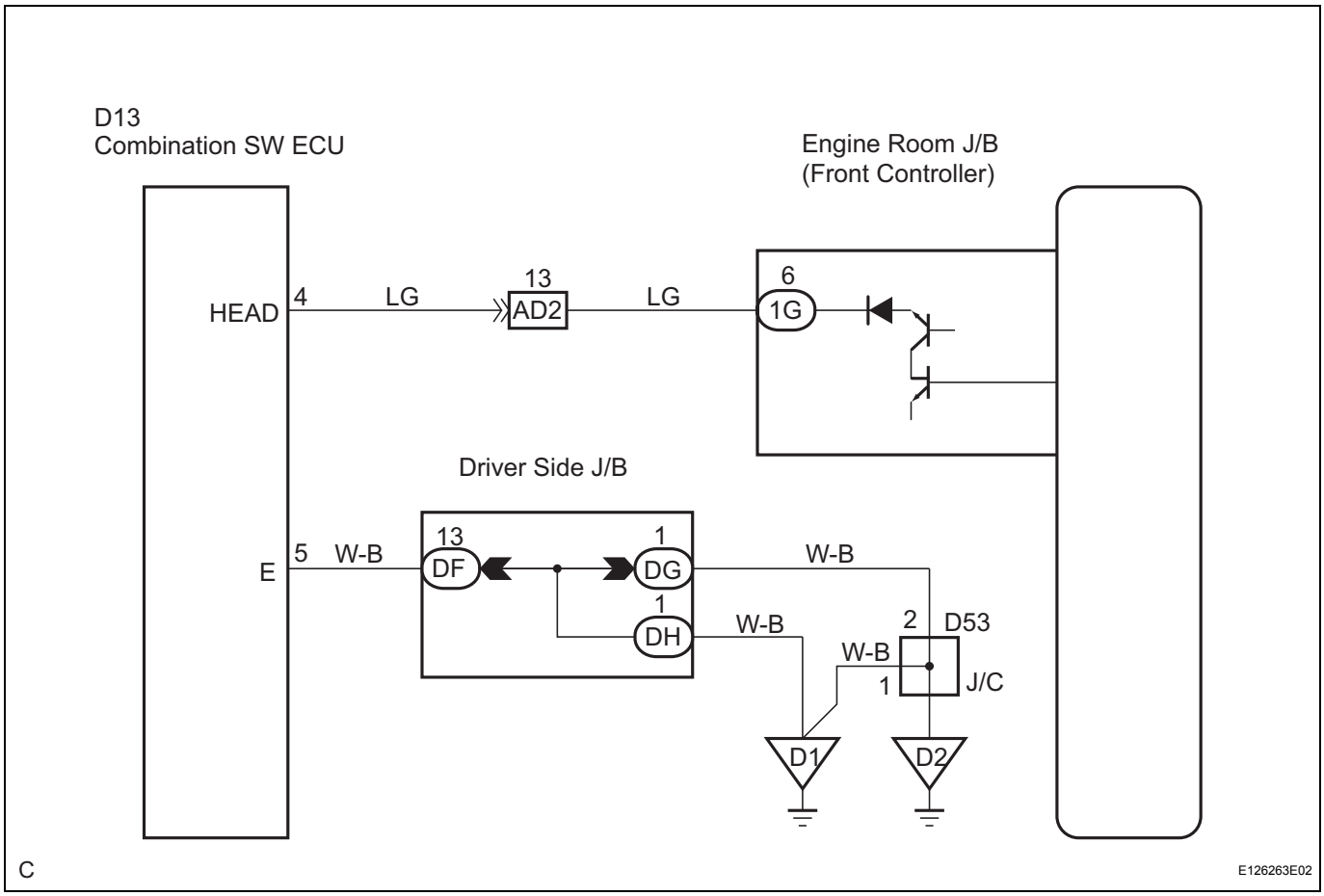
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

Headlight Signal Circuit

DESCRIPTION

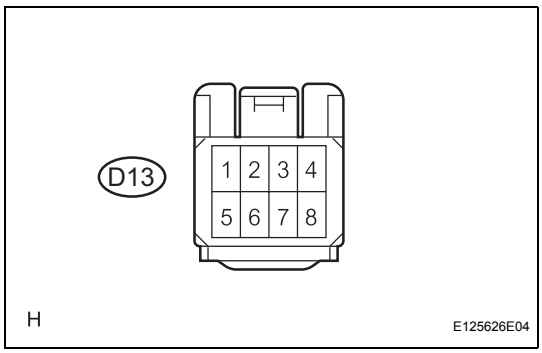
The front controller receives the HEAD position signal of the light control switch.
It also receives the signal from the combination SW ECU via multiplex communication system.

WIRING DIAGRAM

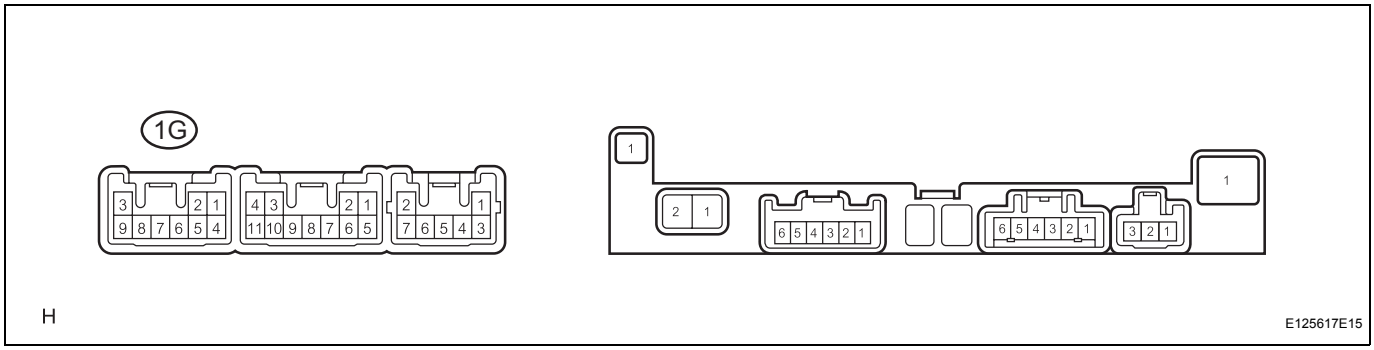


INSPECTION PROCEDURE

1	CHECK HARNESS AND CONNECTOR



(a) Disconnect connector 1G from the driver side junction block.
(b) Disconnect the connector from the combination SW ECU.
(c) Measure the resistance according to the value(s) in the table below.



Standard resistance

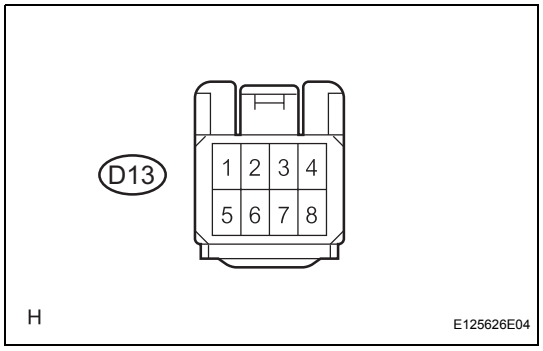
Tester Connection	Condition	Specified Condition
1G-6 - D13-4	Always	Below 1 Ω

LI

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

2 INSPECT WINDSHIELD WIPER SWITCH ASSEMBLY (COMBINATION SWITCH ECU)



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

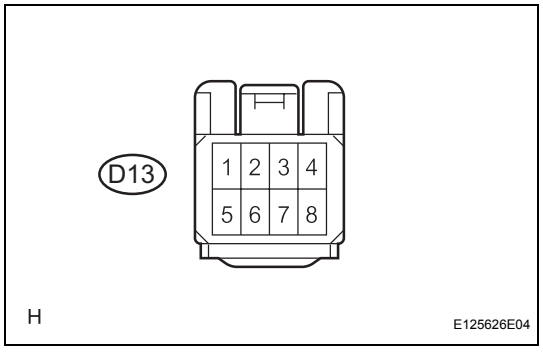
Standard resistance

Tester Connection	Condition	Specified Condition
D13-4 - D13-5	Light control switch in the HEAD position	Below 1 Ω
D13-4 - D13-5	Light control switch in except the HEAD position	10 kΩ or higher

NG → **REPLACE WINDSHIELD WIPER SWITCH ASSEMBLY**

OK

3 CHECK HARNESS AND CONNECTOR (COMBINATION SWITCH ECU - BODY GROUND)



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

Standard resistance

Tester Connection	Condition	Specified Condition
D13-5 - Body ground	Always	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

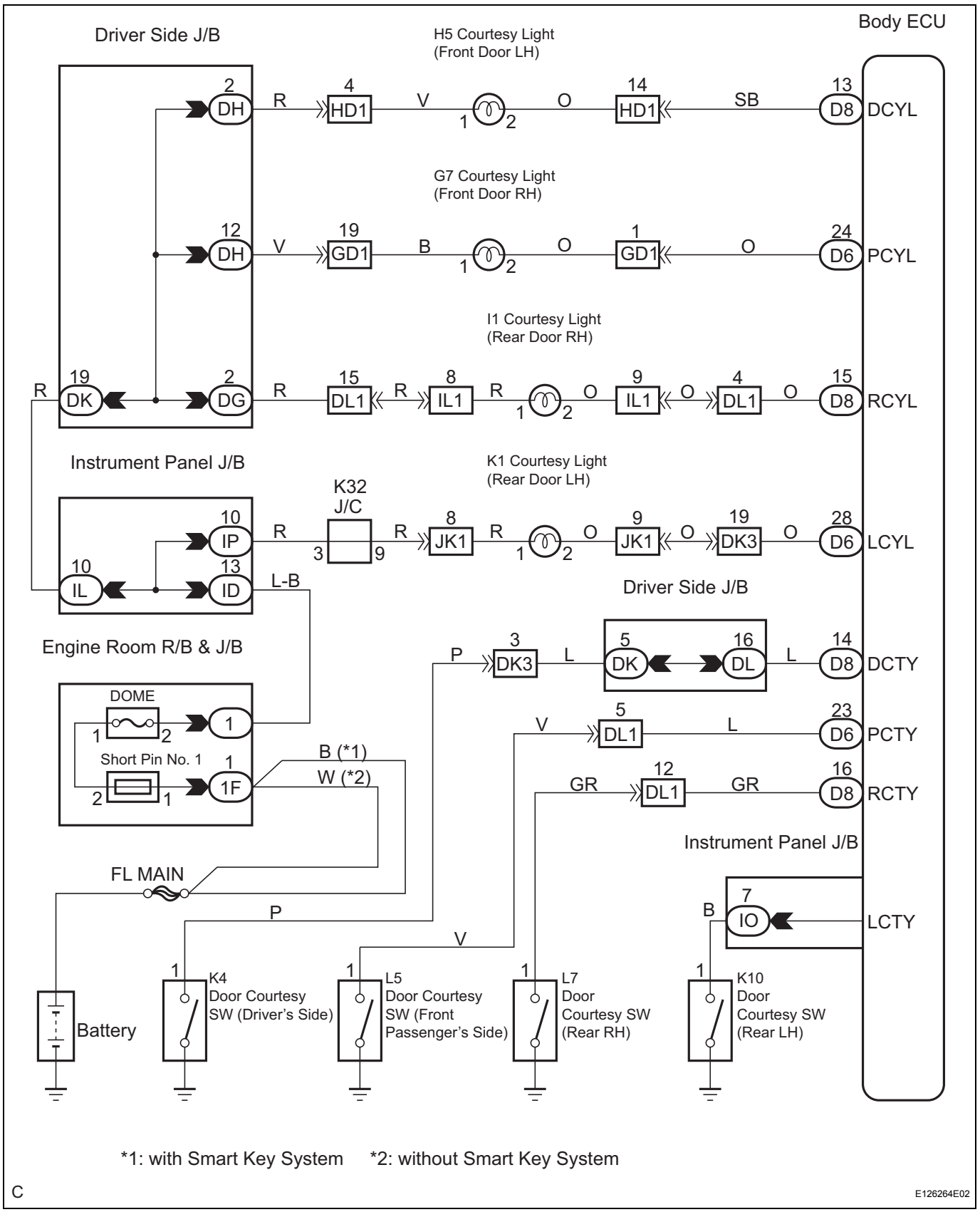
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

Door Courtesy Switch Circuit

DESCRIPTION

The body ECU detects the condition of the door courtesy switch assembly.

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:
Start the inspection from step 1 when using the intelligent tester, and from step 2 when not using the intelligent tester.

1 READ VALUE OF INTELLIGENT TESTER

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch on (IG) and turn the intelligent tester main switch on.
(c) Select the items below in the DATA LIST, and read the displays on the intelligent tester.

BODY ECU:

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
D DOR CTY SW	Driver's door courtesy SW signal / ON or OFF	ON: Driver's door is open OFF: Driver's door is closed	-
P DOR CYT SW	Passenger's door courtesy SW signal / ON or OFF	ON: Front passenger's door is open OFF: Front passenger's door is closed	-
Rr DOR CTY SW	Rear slide door courtesy SW signal / ON or OFF	ON: Either right or left rear slide door is open OFF: Both the right and left slide doors are closed	-

NG → **Go to step 3**

OK

2 CHECK HARNESS AND CONNECTOR (EACH DOOR COURTESY LIGHT CIRCUIT)

(a) Inspect the harness and connectors related to each light, referring to the wiring diagram.

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

3 INSPECT DOOR COURTESY SWITCH

(a) Inspect front door courtesy switch (See page LI-152).
(b) Inspect rear door courtesy switch (See page LI-153).
OK:
Each door courtesy switch is normal.

NG → **REPLACE DOOR COURTESY SWITCH**

OK

4	CHECK HARNESS AND CONNECTOR (EACH COURTESY SWITCH CIRCUIT)

(a) Inspect the harness and connectors related to each courtesy switch, referring to the wiring diagram.

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

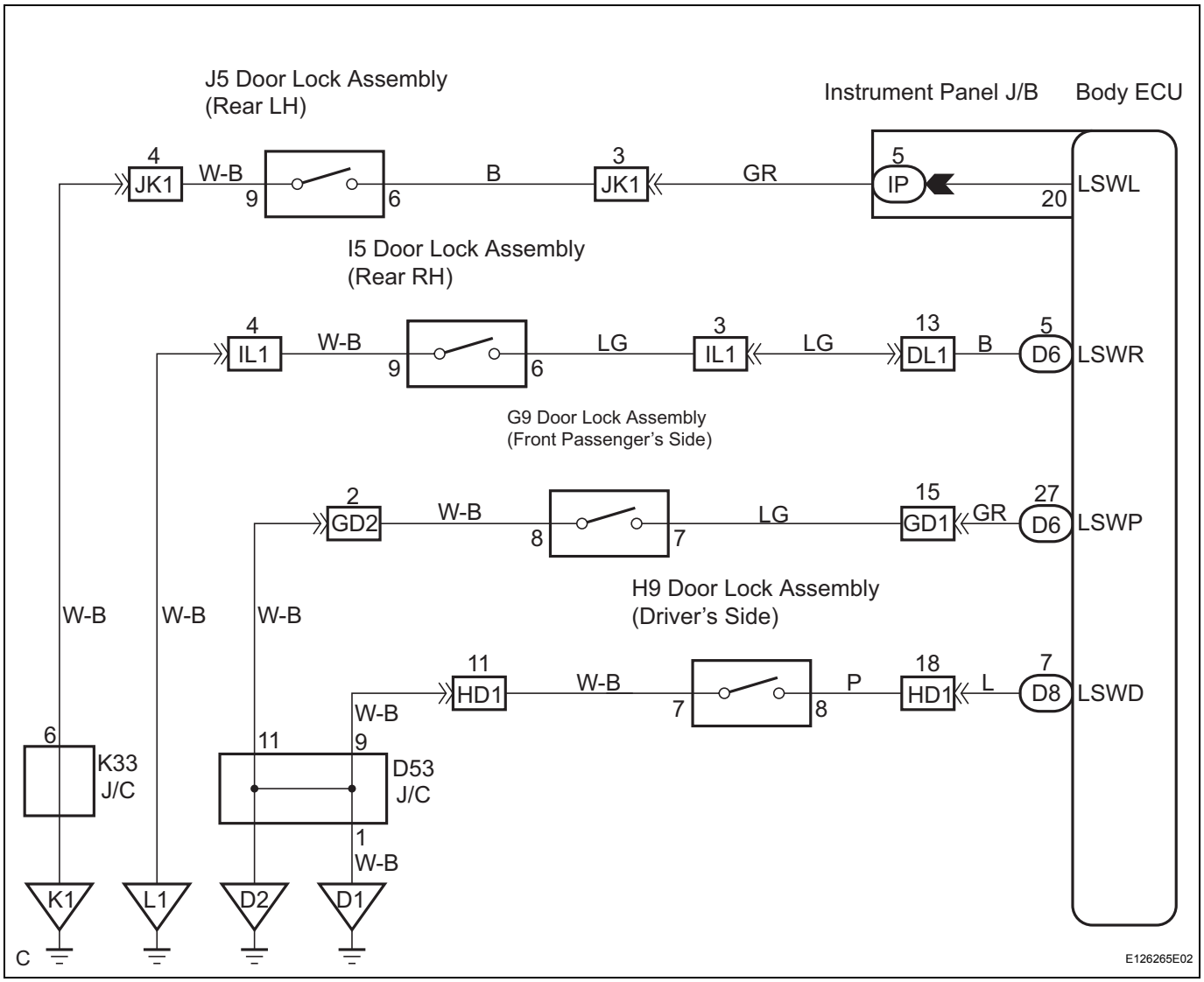
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

Door LOCK Position Circuit

DESCRIPTION

This circuit detects the state of the door lock detection sensor and sends it to the body ECU.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	**READ VALUE OF INTELLIGENT TESTER**

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch on (IG) and turn the intelligent tester main switch on.

(c) Select the items below in the DATA LIST, and read the displays on the intelligent tester.

BODY NO. 1:

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
P LOCK POS SW	Front passenger's door lock position SW signal / ON or OFF	ON: Front passenger's door lock is in the unlock position OFF: Front passenger's door lock is in the lock position	-
Rr. LOCK POS SW	Rear slide door lock position SW signal / ON or OFF	ON: Rear slide door lock is in the unlock position OFF: Rear slide door lock is in the lock position	-
D LOCK POS SW	Driver's door lock position SW signal / ON or OFF	ON: Door lock is in the unlock position OFF: Door lock is in the lock position	-

LI

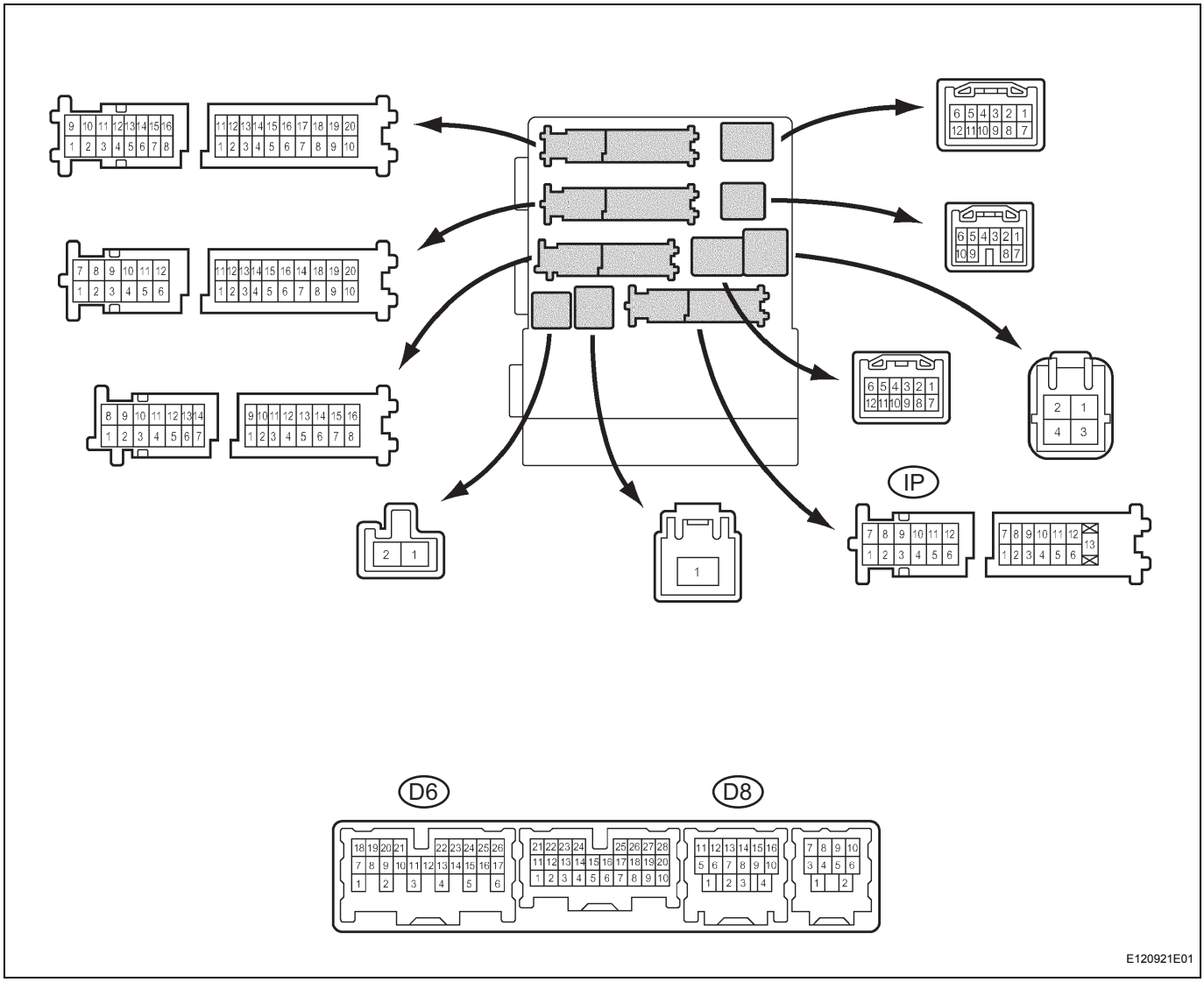
NG → **Go to step 2**

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

2	**INSPECT INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY**

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



Standard voltage

Tester Connection	Condition	Specified Condition
D6-27 - Body ground	Front passenger door locked → unlocked	Below 1 V → 10 to 14 V
D8-7 - Body ground	Front driver door locked → unlocked	Below 1 V → 10 to 14 V
D6-5 - Body ground	Rear RH door locked → unlocked	Below 1 V → 10 to 14 V
IP-5 - Body ground	Rear LH door locked → unlocked	Below 1 V → 10 to 14 V

NG → **GO TO POWER DOOR LOCK CONTROL SYSTEM**

OK

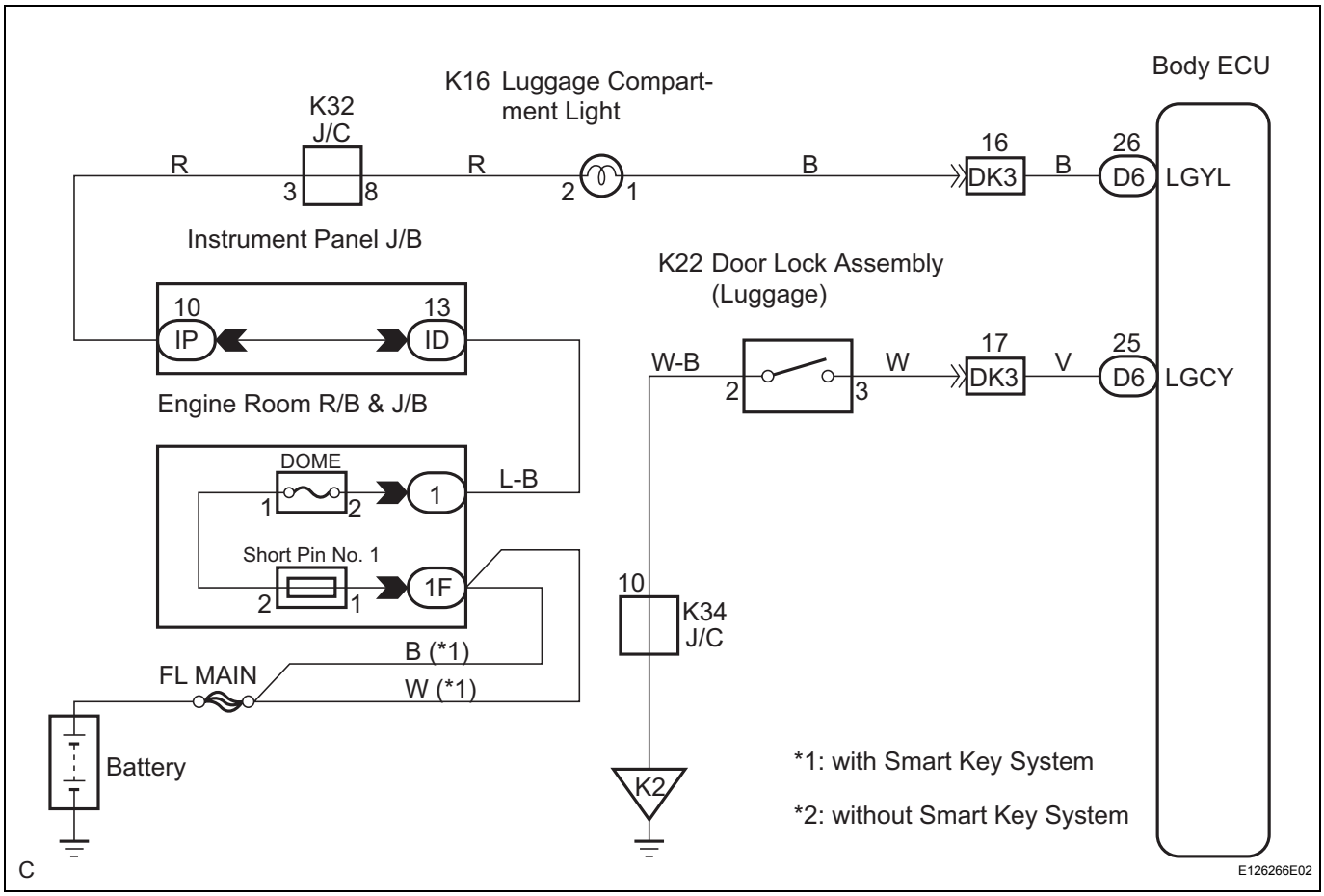
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

Luggage Room Light Circuit

DESCRIPTION

The body ECU receives luggage compartment door information, and turns on the luggage compartment light.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	READ VALUE OF INTELLIGENT TESTER

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch on (IG) and turn the intelligent tester main switch on.
(c) Select the item below in the DATA LIST, and read the displays on the intelligent tester.

BODY ECU:

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
Luggage Courtesy Switch	Luggage courtesy / ON or OFF	ON: Luggage compartment door is open OFF: Luggage compartment door is closed	-

OK:

ON and OFF can be displayed in accordance with the luggage compartment door condition.

OK → Go to step 4

NG

2	INSPECT LUGGAGE COMPARTMENT DOOR LOCK ASSEMBLY

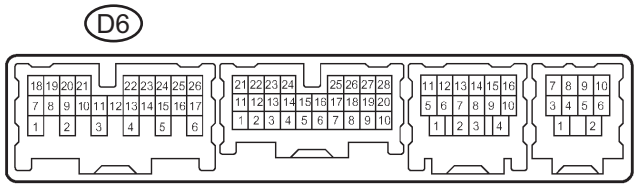
(a) Inspect luggage compartment door lock assembly (See page LI-154).
OK:
Luggage compartment door lock assembly is normal.

NG → REPLACE LUGGAGE COMPARTMENT DOOR LOCK ASSEMBLY

OK

3	CHECK HARNESS AND CONNECTOR (INSTRUMENT PANEL J/B ASSEMBLY - BODY GROUND)

(a) Disconnect the D6 connector from body ECU.
(b) Measure the resistance according to the value(s) in the table below.



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Standard resistance

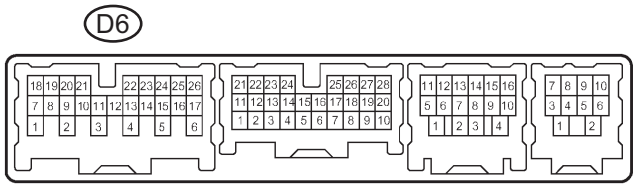
Tester Connection	Condition	Specified Condition
D6-25 - Body ground	Luggage compartment door is open	Below 1 Ω
D6-25 - Body ground	Luggage compartment door is closed	10 kΩ or higher

NG → REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

4	CHECK HARNESS AND CONNECTOR (BATTERY - INSTRUMENT PANEL J/B ASSEMBLY)

(a) Using a service wire, connect terminal D6-26 on the wire harness side and body ground.



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OK:

Luggage room light comes on.

LI

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

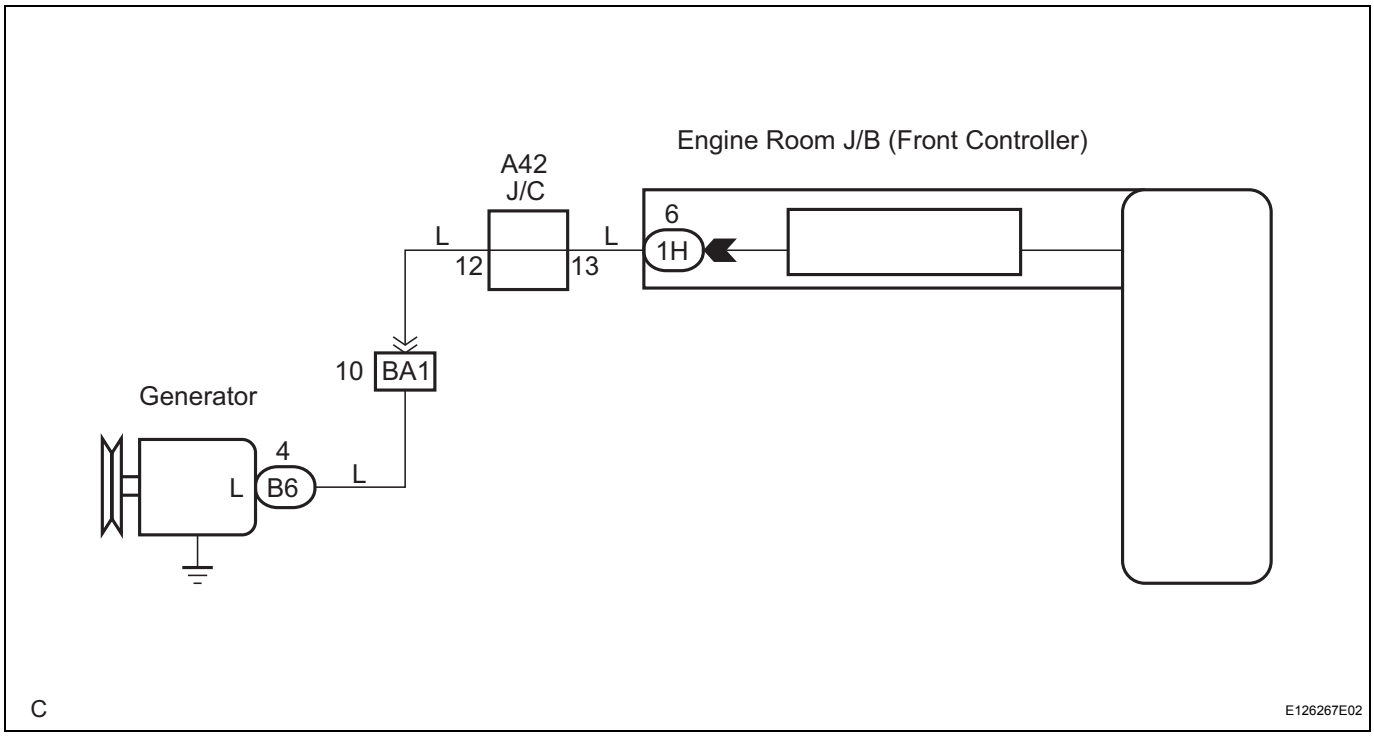
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

Generator Signal Circuit

DESCRIPTION

The front controller receives an engine condition signal via the generator.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	READ VALUE OF INTELLIGENT TESTER

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch on (IG) and turn the intelligent tester main switch on.
(c) Select the item below in the DATA LIST, and read the displays on the intelligent tester.

BODY ECU:

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
ALT L SIGNAL	Alternator L terminal signal / ON or OFF	ON: Engine start OFF: Except engine start	-

NG → **Go to step 2**

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

2	INSPECT GENERATOR ASSEMBLY

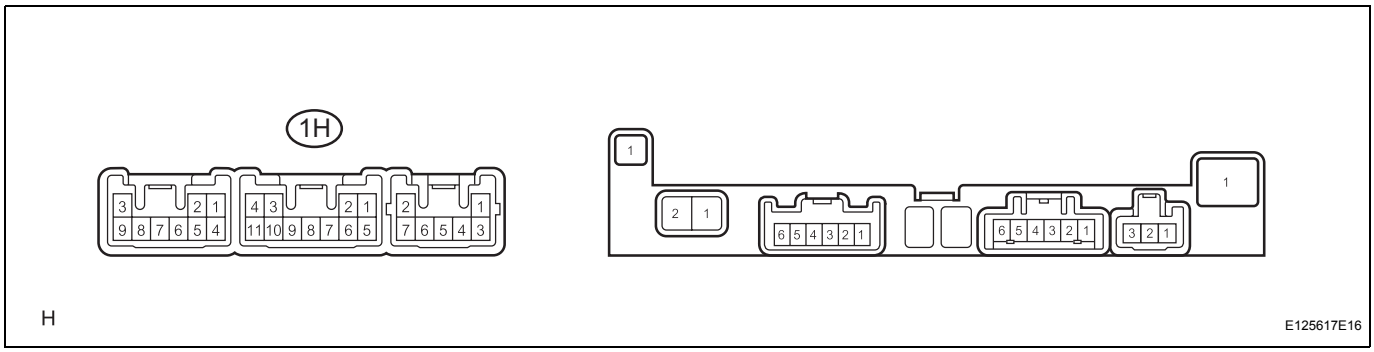
(a) Inspect generator assembly (See page CH-12).
OK:
Generator assembly is normal.

NG → **CHECK AND REPLACE GENERATOR ASSEMBLY**

OK

3	CHECK HARNESS AND CONNECTOR (GENERATOR - FRONT CONTROLLER)

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



Standard voltage

Tester Connection	Condition	Specified Condition
1H-6 - Body ground	Engine running	10 to 14 V

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

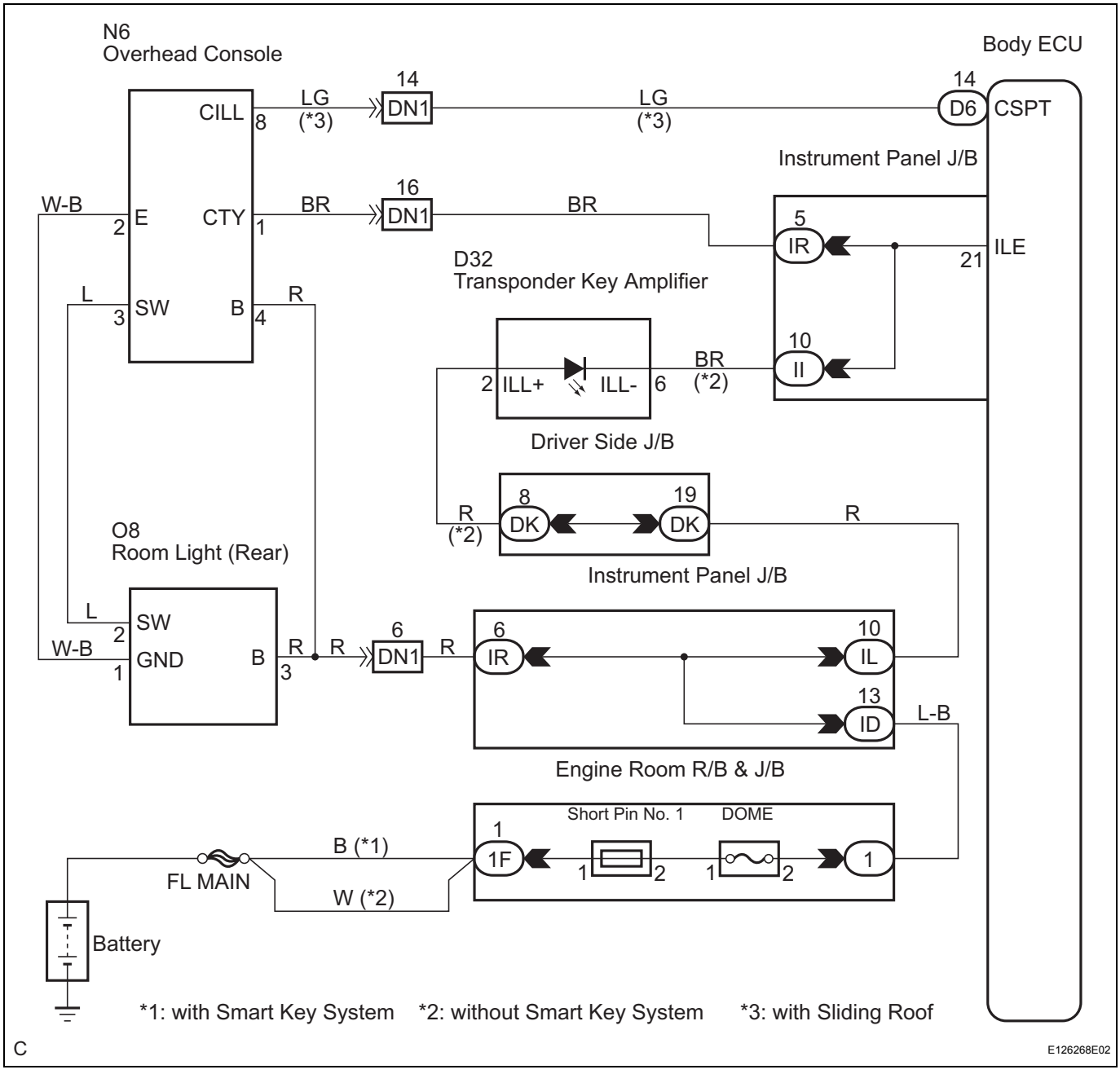
Illumination Circuit

DESCRIPTION

The multiplex network body ECU controls the following illumination lights.

1. Ignition key cylinder light (w/o Smart Entry System)
2. Front interior light installed in personal light assembly

WIRING DIAGRAM



INSPECTION PROCEDURE

1	PERFORM ACTIVE TEST BY INTELLIGENT TESTER

(a) Connect the intelligent tester to the DLC3.

(b) Turn the ignition switch on (IG) and turn the intelligent tester main switch on.
(c) Select the item below in the ACTIVE TEST and then check the item operates.

BODY ECU:

Item	Test Details	Diagnostic Note
ILLUMI OUTPUT	(Test Details) Turn the interior light and key illumination ON / OFF (Vehicle Condition) Interior light SW is in the door position and all doors are closed	-

NG → **Go to step 2**

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

2 INSPECT INTERIOR LIGHT

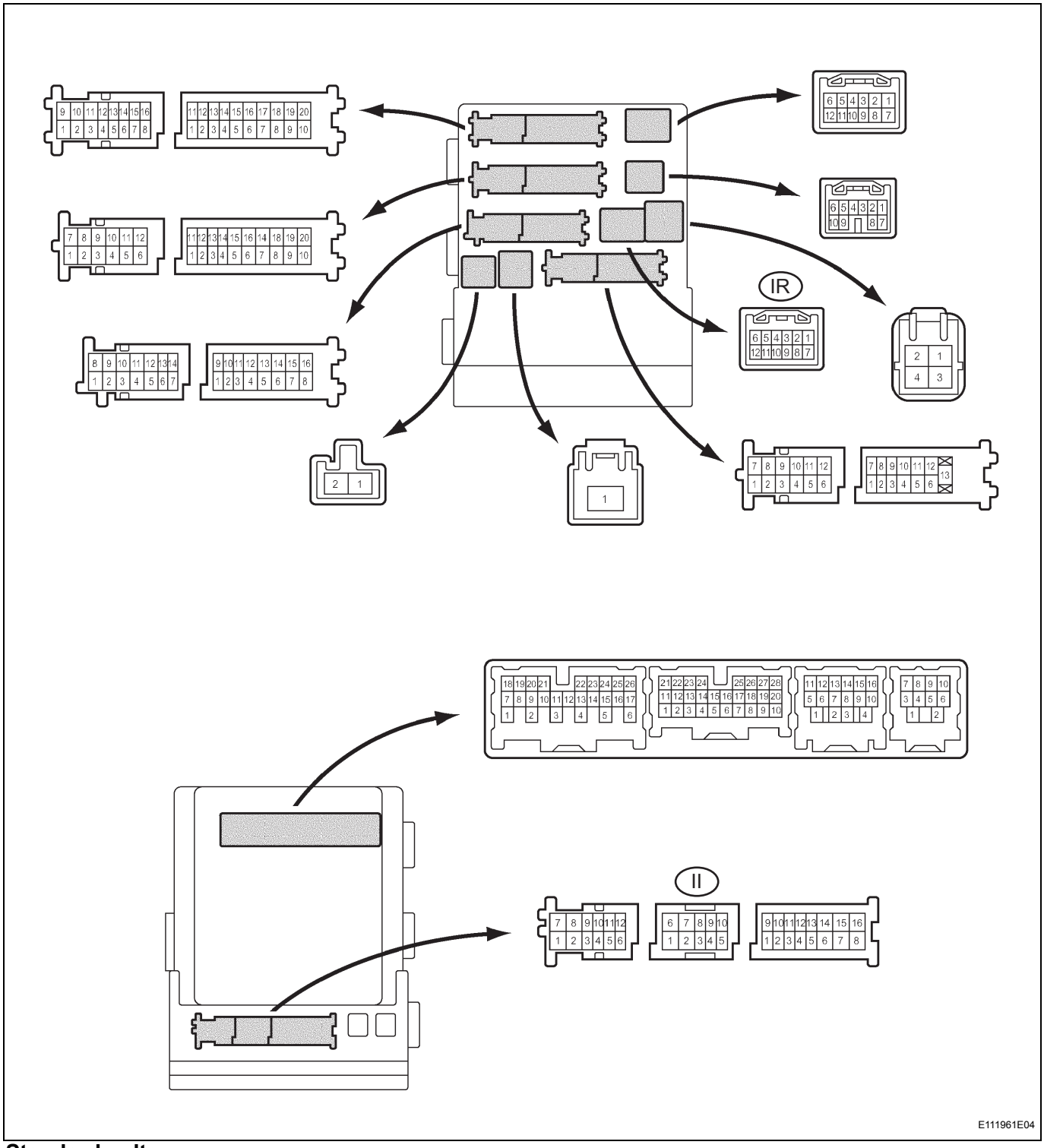
(a) Inspect ignition key cylinder light (See page LI-144).
(b) Inspect personal light assembly (See page LI-140).
OK:
Each light is normal.

NG → **REPLACE INTERIOR LIGHT**

OK

3 INSPECT INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY

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



Standard voltage

Tester Connection	Condition	Specified Condition
II-10 - Body ground	All door is closed → Front or rear door is open	10 to 14 V → Below 1 V
IR-5 - Body ground	All door is closed → Front or rear door is open	10 to 14 V → Below 1 V

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR (EACH ILLUMINATE CIRCUIT)**

OK

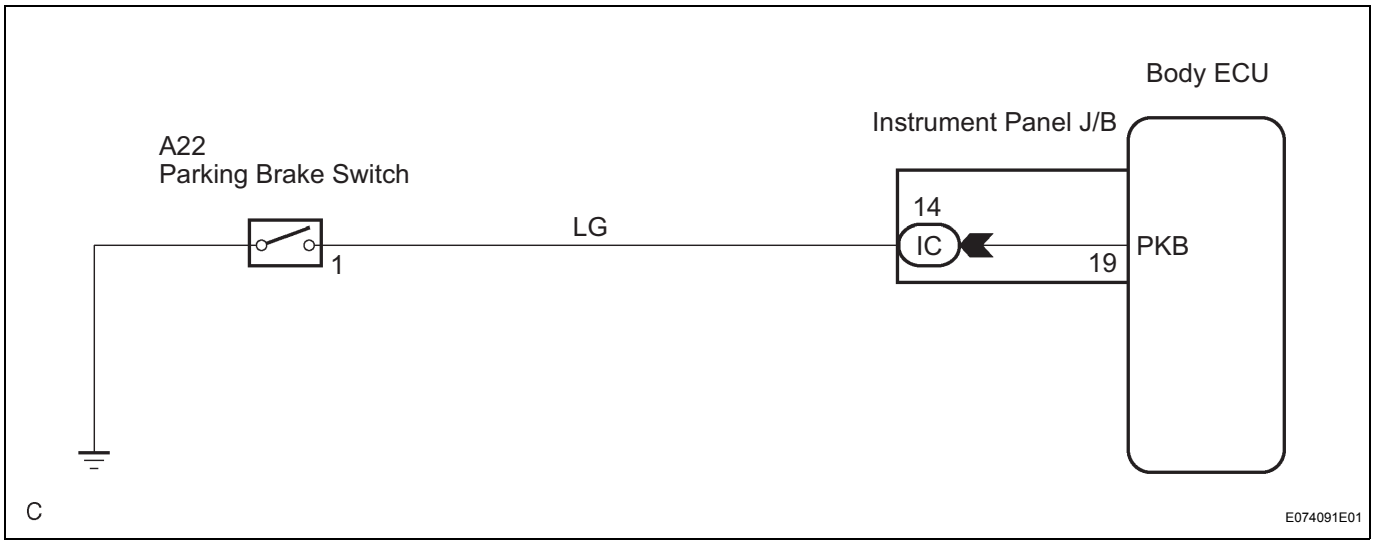
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

Parking Brake Switch Circuit

DESCRIPTION

The body ECU receives the parking brake switch signal.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	READ VALUE OF INTELLIGENT TESTER

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch on (IG) and turn the intelligent tester main switch on.
(c) Select the item below in the DATA LIST, and read the displays on the intelligent tester.

BODY ECU:

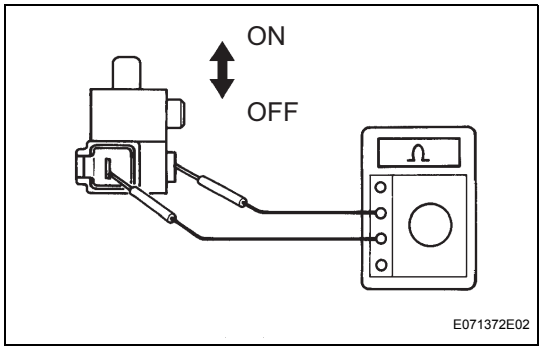
Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
PARKING BRAKE SW	Parking brake / OFF or ON	ON: Parking brake pedal is ON OFF: Parking brake pedal is OFF	-

NG → **Go to step 2**

OK →

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

2	INSPECT PARKING BRAKE SWITCH ASSEMBLY



(a) Remove the parking brake switch.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

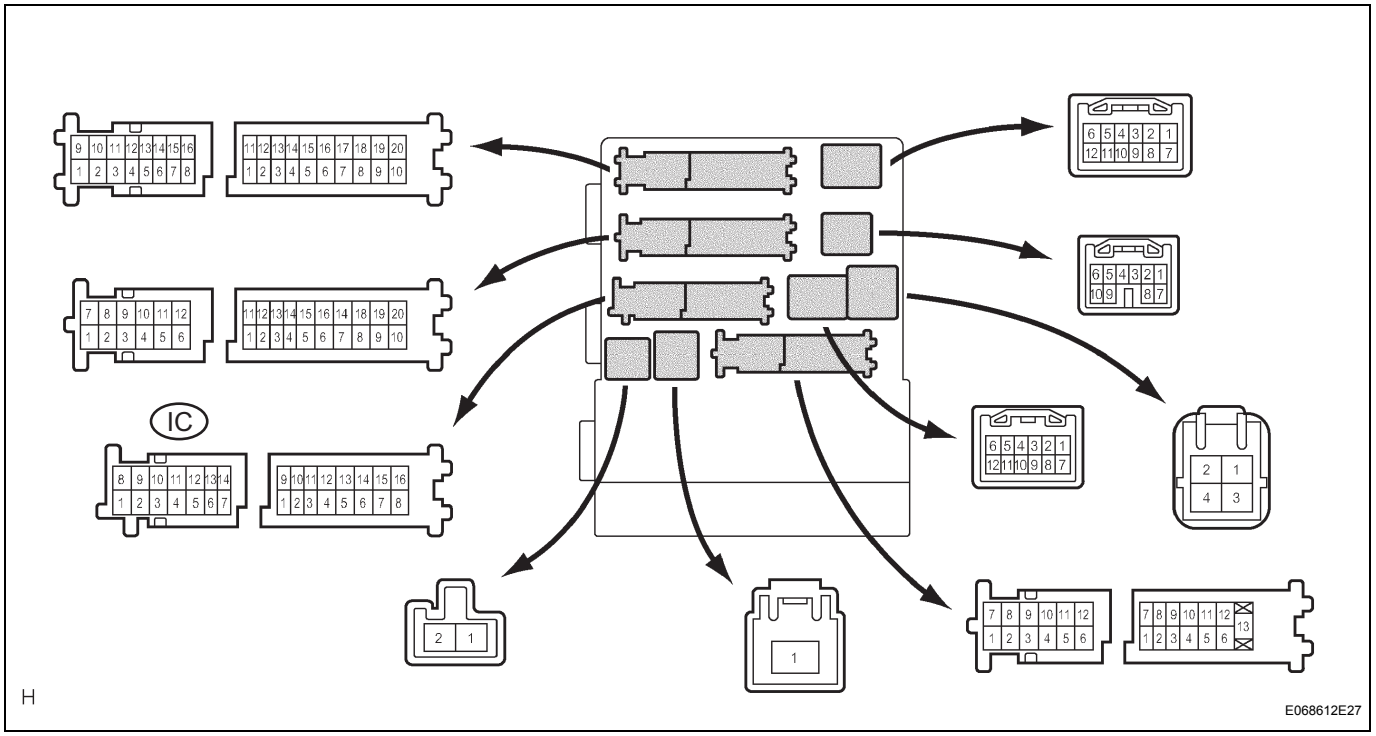
Tester Connection	Condition	Specified Condition
1 - Switch body	OFF (When shaft is pressed)	10 kΩ or higher
1 - Switch body	ON (When shaft is not pressed)	Below 1 Ω

NG → REPLACE PARKING BRAKE SWITCH ASSEMBLY

OK

3	CHECK HARNESS AND CONNECTOR (INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY - BODY GROUND)

(a) Disconnect connector IC from the instrument panel junction block assembly.
(b) Measure the resistance according to the value(s) in the table below.



Standard resistance

Tester Connection	Condition	Specified Condition
IC-14 - Body ground	Shaft of parking brake switch is pressed	10 kΩ or higher
IC-14 - Body ground	Shaft of parking brake switch is not pressed	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

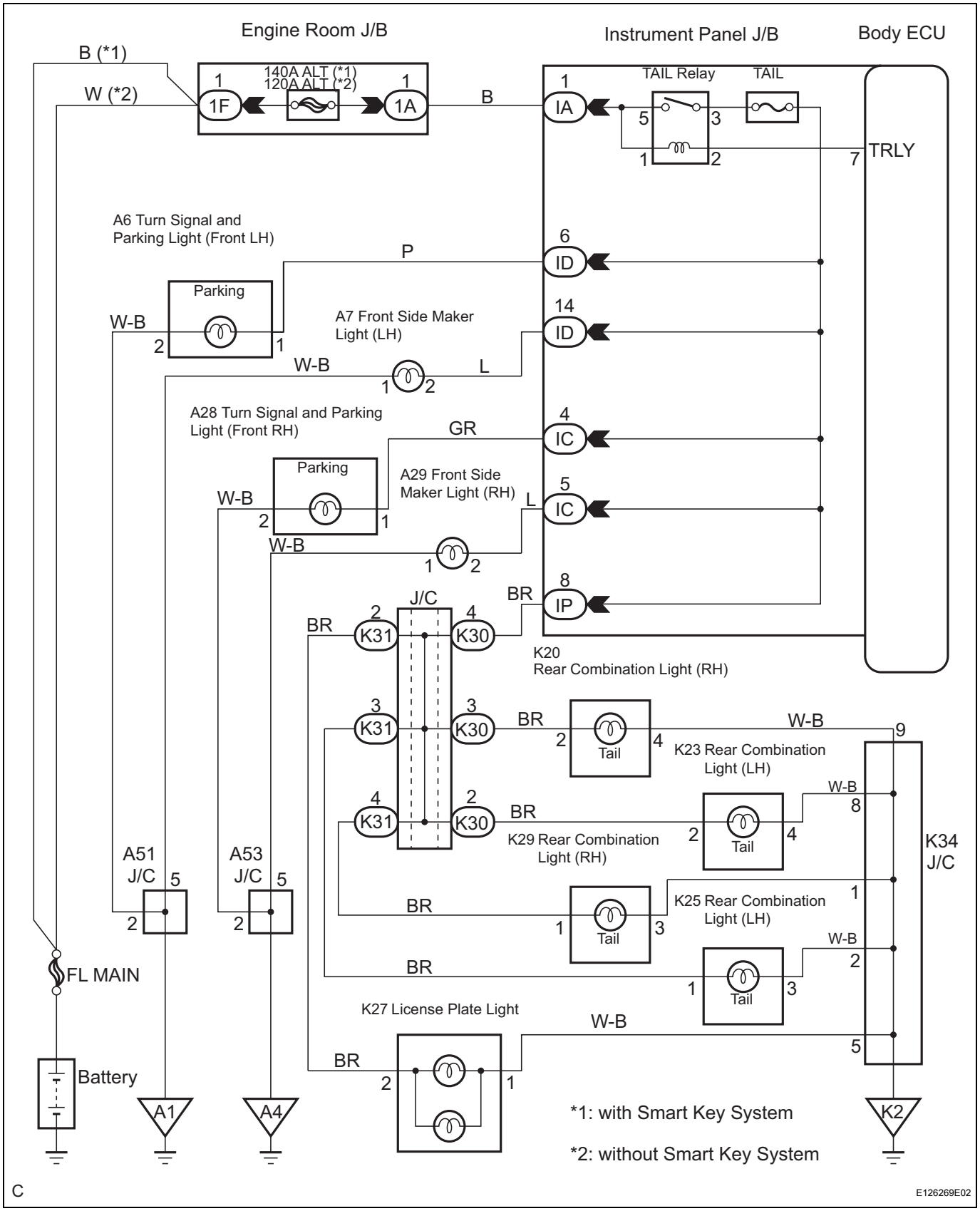
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

Taillight Relay Circuit

DESCRIPTION

The body ECU controls the TAIL relay when a signal is received from the headlight dimmer switch assembly.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	PERFORM ACTIVE TEST BY INTELLIGENT TESTER

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch on (IG) and turn the intelligent tester main switch on.
(c) Select the item below in the ACTIVE TEST and then check that the relay operation.

BODY NO. 1:

Item	Test Details	Diagnostic Note
TAIL LIGHT	Turn the tail light relay ON / OFF	-

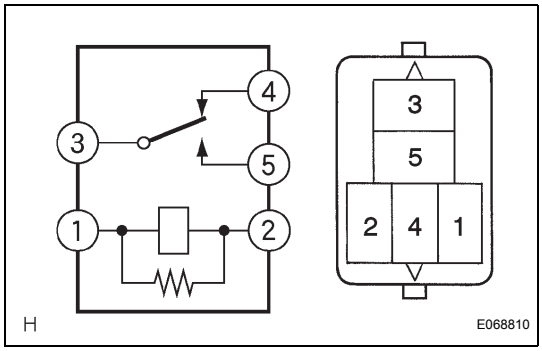
OK:
Tail lights come on.

NG → **Go to step 2**

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

2	INSPECT RELAY



(a) Inspect TAIL relay continuity.
(1) Remove the tail relay from the instrument panel J/B.
(2) Measure the resistance according to the value(s) in the table below.
Standard resistance

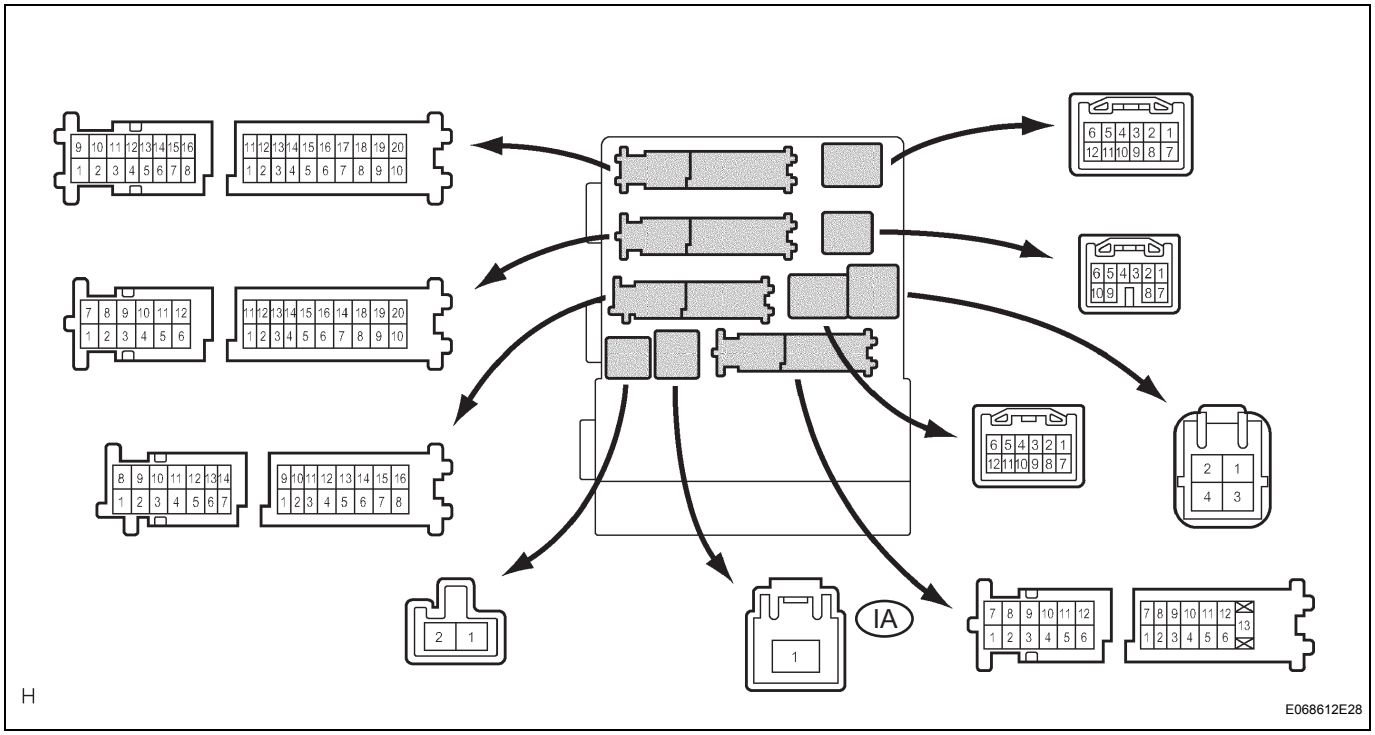
Tester Connection	Specified Condition
3 - 5	10 kΩ or higher
3 - 5	Below 1 Ω (When battery voltage is applied to terminal 1- 2)
3 - 4	Below 1 Ω (When battery voltage is applied to terminal 1- 2)

NG → **REPLACE RELAY**

OK

3	CHECK HARNESS AND CONNECTOR (BATTERY - INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY)

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



Standard voltage

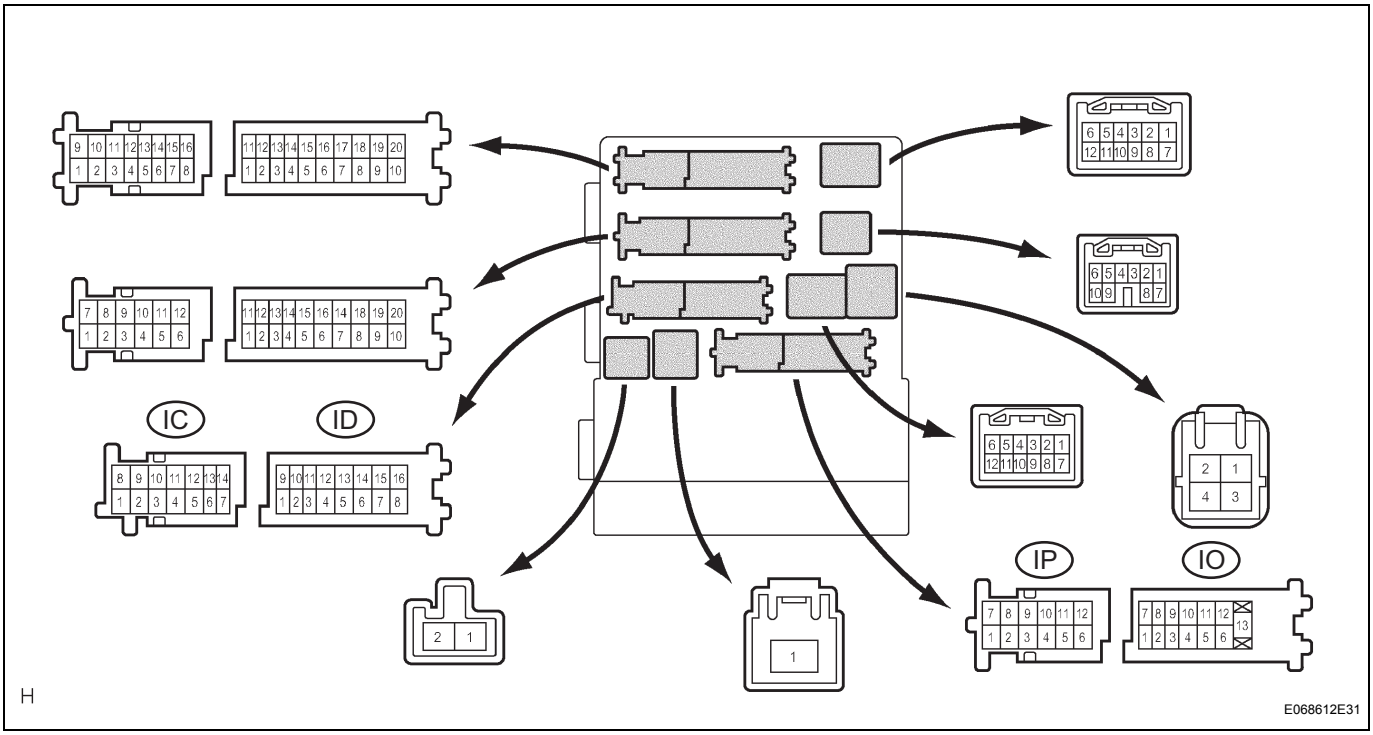
Tester Connection	Condition	Specified Condition
IA-1 - Body ground	Always	10 to 14 V

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

4	INSPECT INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY

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



Standard voltage

Tester Connection	Condition	Specified Condition
IC-4 - Body ground	Light control switch OFF → TAIL	Below 1 V → 10 to 14 V
IC-5 - Body ground	Light control switch OFF → TAIL	Below 1 V → 10 to 14 V
ID-6 - Body ground	Light control switch OFF → TAIL	Below 1 V → 10 to 14 V
ID-14 - Body ground	Light control switch OFF → TAIL	Below 1 V → 10 to 14 V
IP-8 - Body ground	Light control switch OFF → TAIL	Below 1 V → 10 to 14 V
IO-9 - Body ground	Ignition switch on (IG)	Below 1 V → 10 to 14 V

NG → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

OK

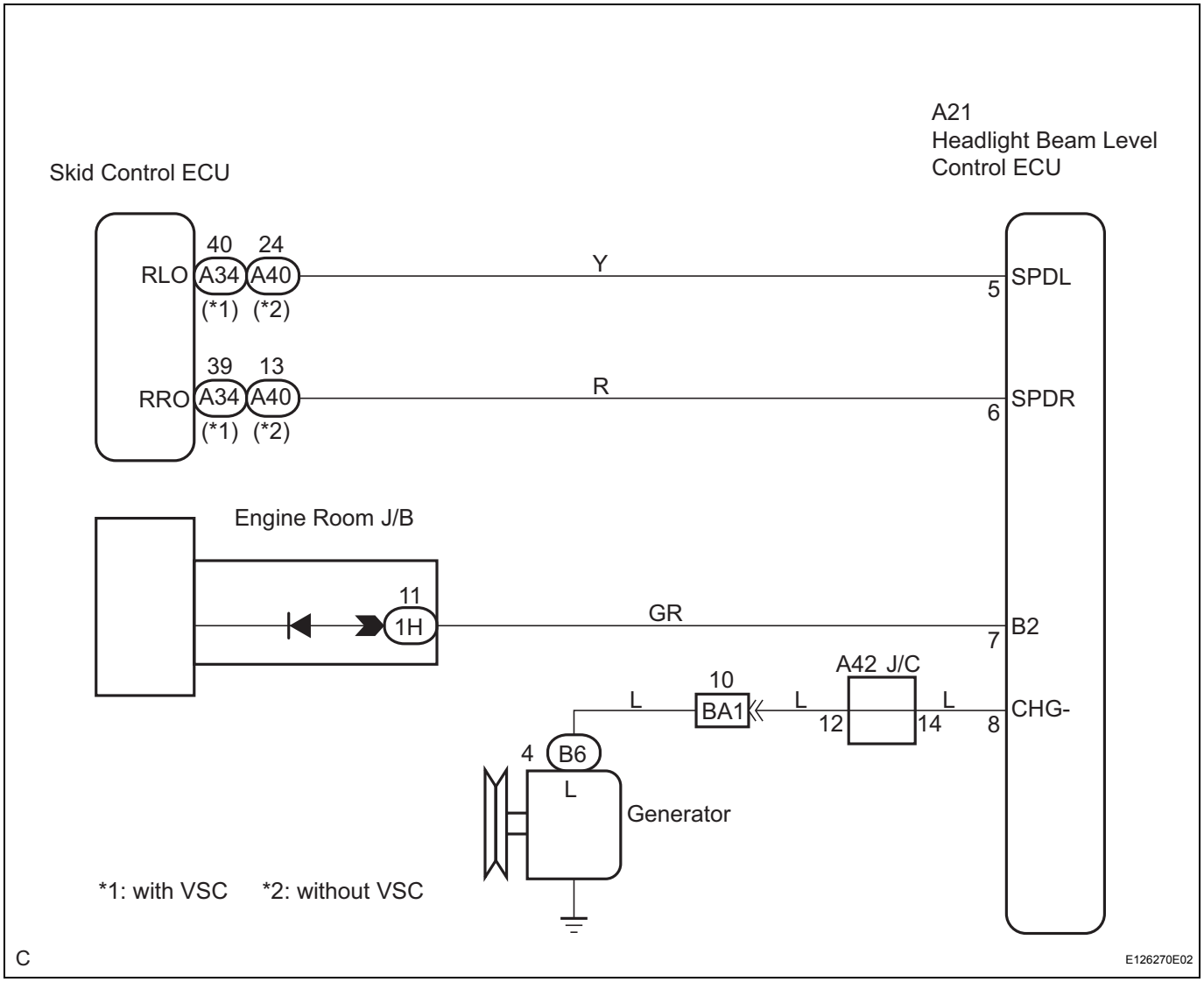
REPAIR OR REPLACE HARNESS OR CONNECTOR (EACH TAILLIGHT CIRCUIT)

Headlight Beam Level Control ECU Communication Circuit

DESCRIPTION

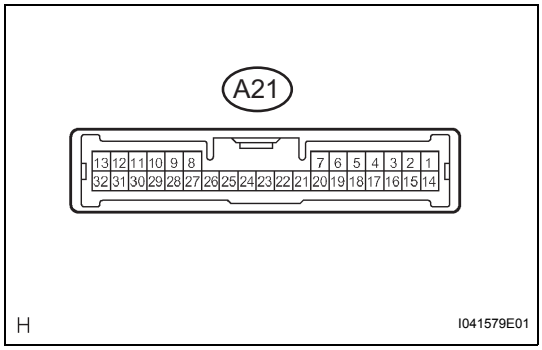
The headlight beam level control ECU receives HEAD signal from the front controller and receives engine condition (ON or OFF) from the generator. It also receives vehicle speed signal from the skid control ECU, thus controlling the headlight beam level control motor.

WIRING DIAGRAM

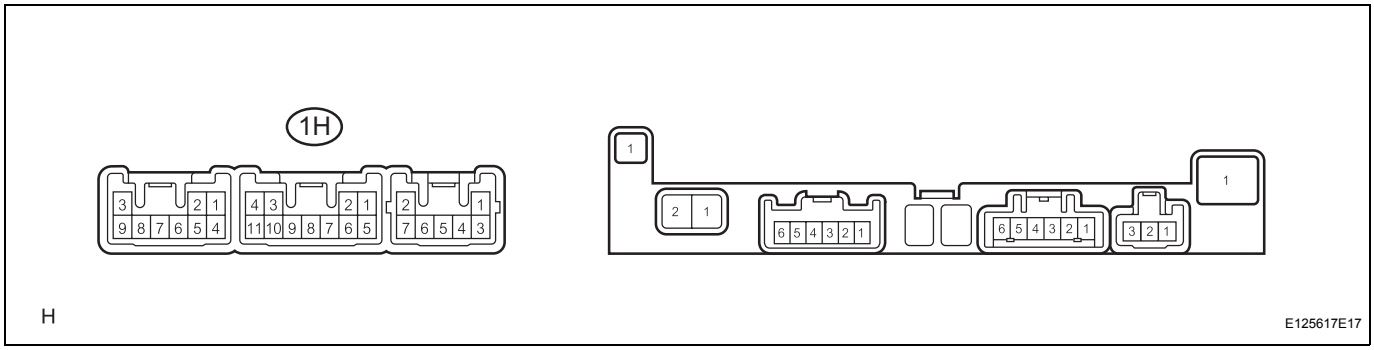


INSPECTION PROCEDURE

1	CHECK HARNESS AND CONNECTOR (FRONT CONTROLLER - HEADLIGHT BEAM LEVEL CONTROL ECU)



(a) Disconnect connector 1H from the front controller.
(b) Disconnect the headlight beam level control ECU connector.
(c) Measure the resistance according to the value(s) in the table below.



Standard resistance

Tester Connection	Condition	Specified Condition
A21-7 - 1H-11	Always	Below 1 Ω
A21-7 - Body ground	Always	10 kΩ or higher

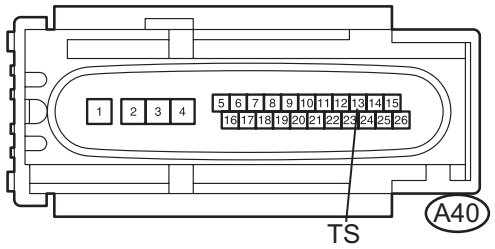
NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

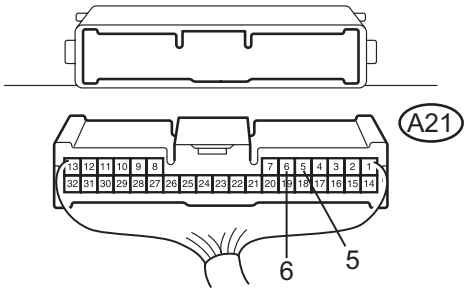
2	CHECK HARNESS AND CONNECTOR (SKID CONTROL ECU - HEADLIGHT BEAM LEVEL CONTROL ECU)

without VSC:

Skid Control ECU Wire Harness View:

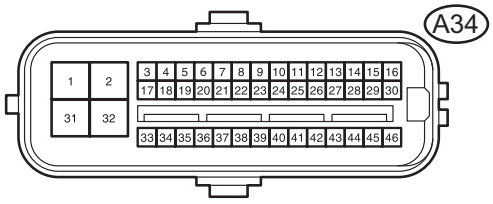


Headlight Beam Level Control ECU Wire Harness View:

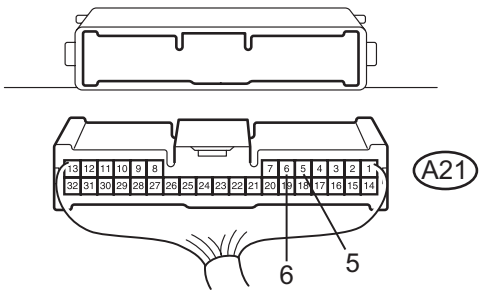


with VSC:

Skid Control ECU Wire Harness View:



Headlight Beam Level Control ECU Wire Harness View:



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OK

(a) Disconnect the headlight beam level control ECU connector and the skid control ECU connector.

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

Standard resistance:

without VSC

Tester Connection	Condition	Specified Condition
A21-6 - A40-13	Always	Below 1 Ω
A21-5 - A40-24	Always	Below 1 Ω
A21-6 - Body ground	Always	10 kΩ or higher
A21-5 - Body ground	Always	10 kΩ or higher

with VSC

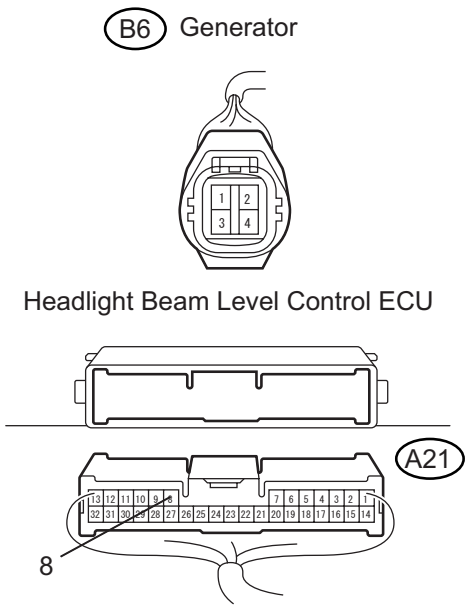
Tester Connection	Condition	Specified Condition
A21-6 - A34-39	Always	Below 1 Ω
A21-5 - A34-40	Always	Below 1 Ω
A21-6 - Body ground	Always	10 kΩ or higher
A21-5 - Body ground	Always	10 kΩ or higher

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

LI

3	**CHECK HARNESS AND CONNECTOR (GENERATOR ASSEMBLY - HEADLIGHT BEAM LEVEL CONTROL ECU)**

Wire Harness View:



(a) Disconnect connector B6 of the generator and connector A21 of the headlight beam level control ECU.

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

Standard resistance

Tester Connection	Condition	Specified Condition
B6-4 (L) - A21-8 (CHG-)	Always	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

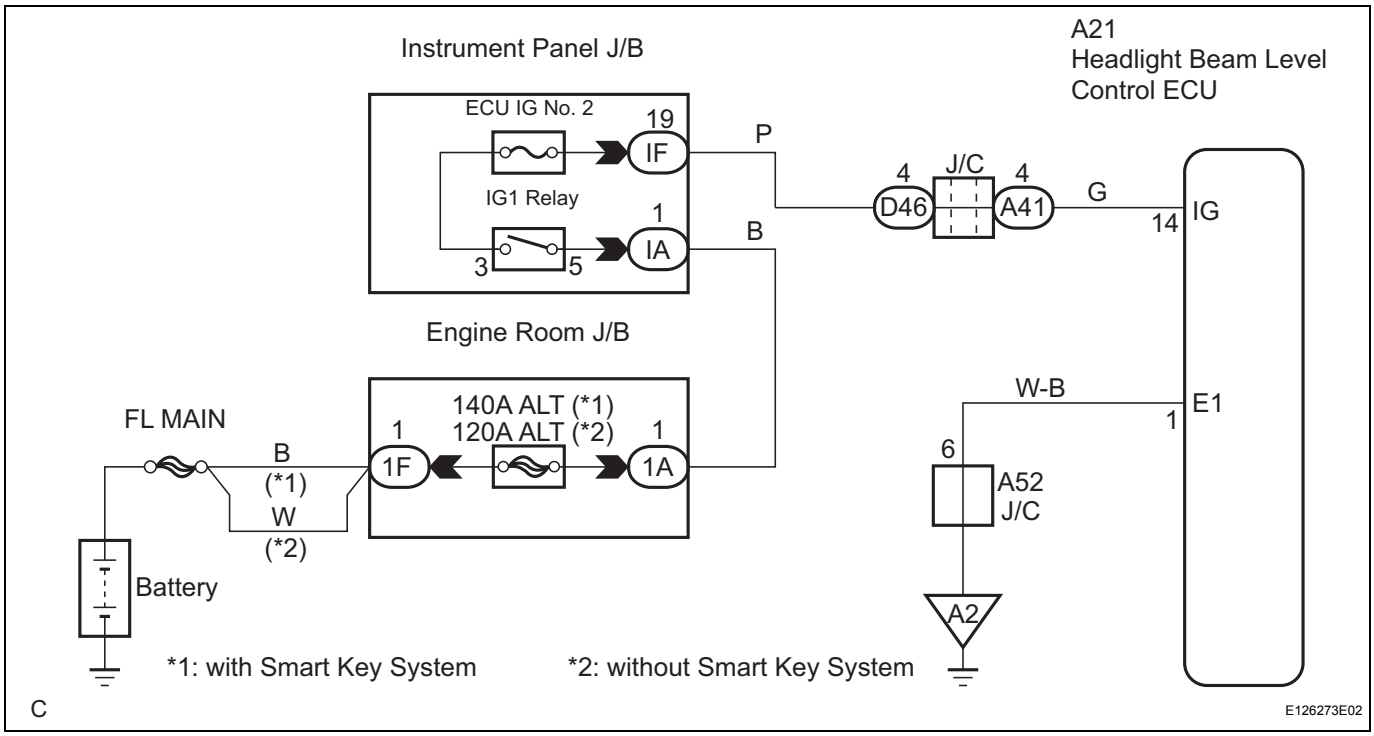
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

Headlight Beam Level Control ECU Power Source Circuit

DESCRIPTION

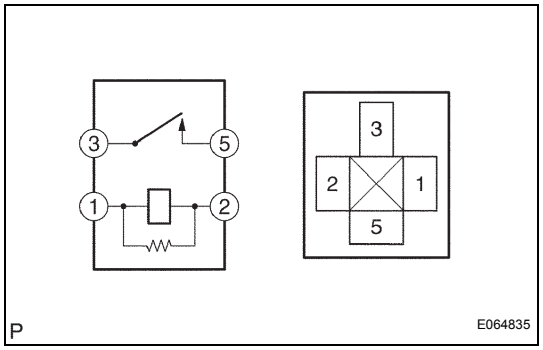
This circuit provides power to operate the headlight beam level control ECU.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	INSPECT IG1 RELAY



(a) Inspect IG1 relay continuity.
  (1) Remove the IG1 relay from the instrument panel J/B.
  (2) Measure the resistance according to the value(s) in the table below.

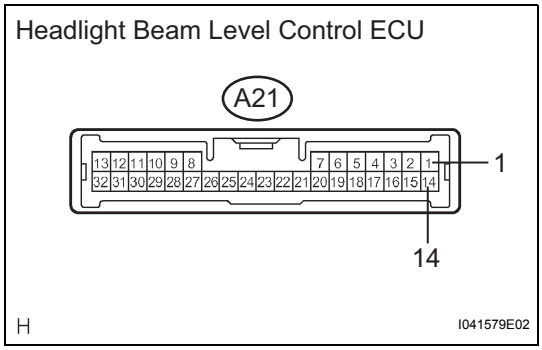
Standard resistance

Tester Connection	Specified Condition
3 - 5	10 kΩ or higher
3 - 5	Below 1 Ω (When battery voltage is applied to terminal 1 - 2)

NG → REPLACE IG1 RELAY

OK

2	INSPECT HEADLIGHT BEAM LEVEL CONTROL ECU



(a) Measure the voltage according to the value(s) in the table below.
Standard voltage

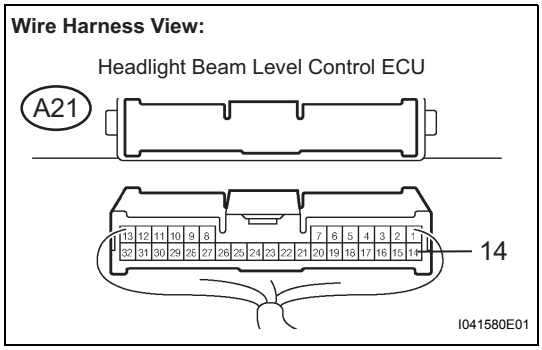
Tester Connection	Condition	Specified Condition
A21-14 - A21-1	Ignition switch off → Ignition switch on (IG)	Below 1 V → 10 to 14 V

NG → **Go to step 3**

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

3	CHECK HARNESS AND CONNECTOR (BATTERY - HEADLIGHT BEAM LEVEL CONTROL ECU)



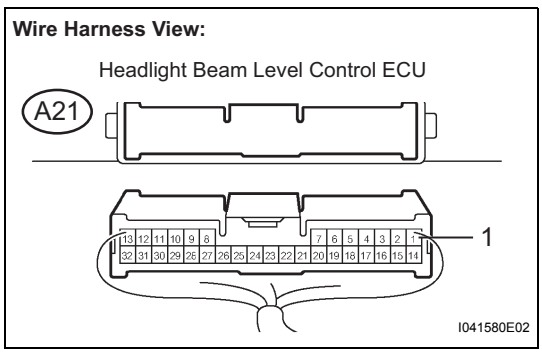
(a) Disconnect connector A21 of the headlight beam level control ECU.
(b) Measure the voltage according to the value(s) in the table below.
Standard voltage

Tester Connection	Condition	Specified Condition
A21-14 - Body ground	Ignition switch off → Ignition switch on (IG)	Below 1 V → 10 to 14 V

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

4	CHECK HARNESS AND CONNECTOR (HEADLIGHT BEAM LEVEL CONTROL ECU - BODY GROUND)



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

Tester Connection	Condition	Specified Condition
A21-1 (E1) - Body ground	Always	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

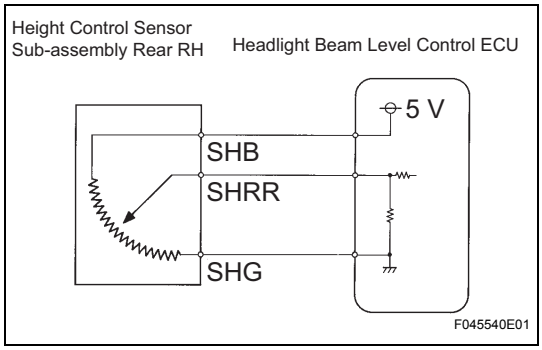
OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

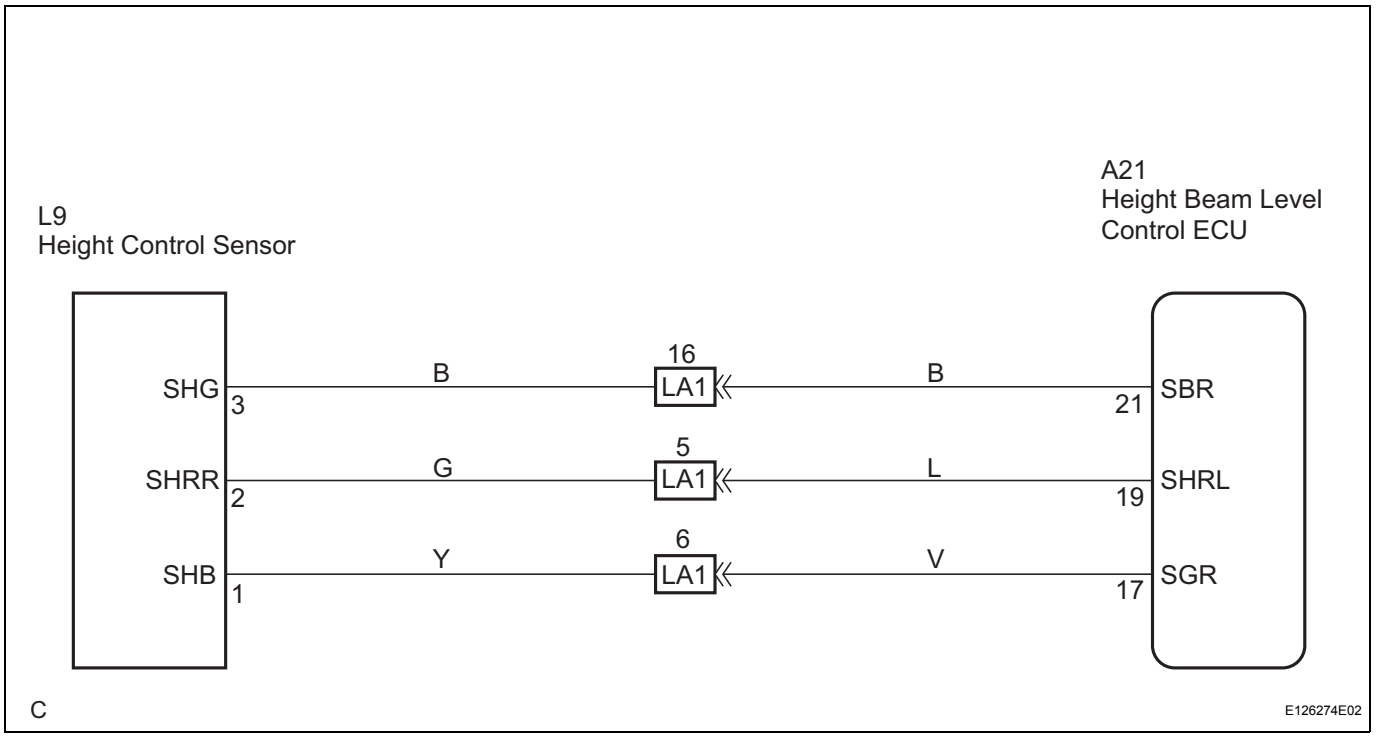
Height Control Sensor Circuit

DESCRIPTION

The height control sensor rear RH controls the resistance value based on changes vehicle height. The headlight beam level control ECU detects the changes in vehicle height from the transformed voltage. The headlight beam level control ECU outputs a constant voltage of 5 V to the SHB terminal of the height control sensor rear RH.
In the height control sensor sub-assembly rear RH, the voltage changes due to the resistance. The changes voltage is output from the SHRR terminal of the height control sensor rear RH to the headlight beam level control ECU, thus the vehicle's height is detected.

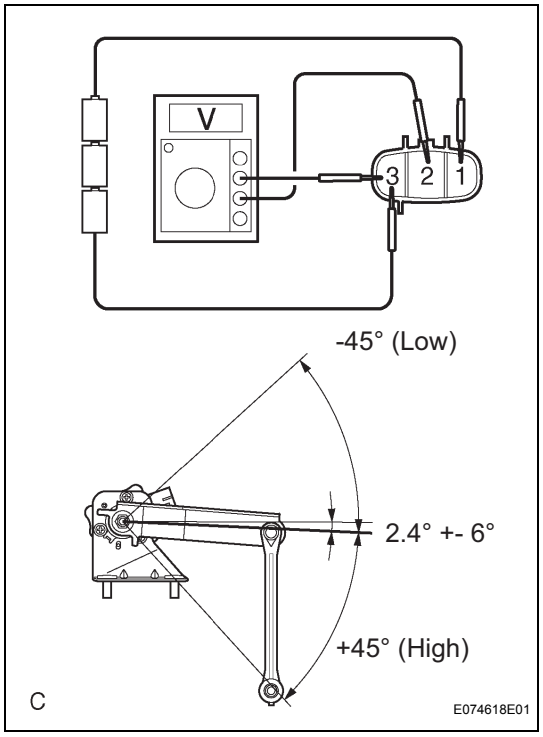


WIRING DIAGRAM



DESCRIPTION

1 INSPECT HEIGHT CONTROL SENSOR SUB-ASSEMBLY REAR RH



(a) Connect 3 dry cell batteries (1.5 V) in series.
(b) Remove the height control sensor sub-assembly rear.
(c) Connect the positive (+) lead from the battery to terminal 1 and the negative (-) lead from the battery to terminal 3.
(d) Measure the voltage between terminals 2 and 3 while slowly moving the link up and down.

Standard voltage

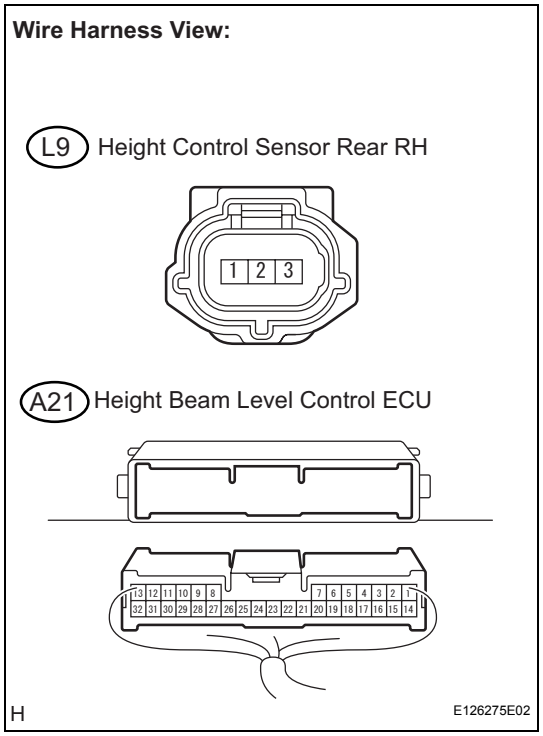
Tester Connection	Condition	Specified Condition
L9-2 (SHRR) - L9-3 (SHG)	+45° (High)	Approx. 4.5 V
L9-2 (SHRR) - L9-3 (SHG)	0° (Normal)	Approx. 2.5 V
L9-2 (SHRR) - L9-3 (SHG)	-45° (Low)	Approx. 0.5 V

NG → **REPLACE HEIGHT CONTROL SENSOR SUB-ASSEMBLY REAR RH**

OK

2 CHECK HARNESS AND CONNECTOR (HEIGHT CONTROL SENSOR REAR RH - HEADLIGHT BEAM LEVEL CONTROL)

Wire Harness View:



(a) Disconnect connector L9 of the height control sensor sub-assembly and connector A21 of the headlight leveling ECU assembly.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
A21-17 (SGR) - L9-1 (SHB)	Always	Below 1 Ω
A21-19 (SHRL) - L9-2 (SHRR)	Always	Below 1 Ω
A21-21 (SRB) - L9-2 (SHG)	Always	Below 1 Ω
L9-3 (SHG) - Body ground	Always	10 kΩ or higher
L9-2 (SHRR) - Body ground	Always	10 kΩ or higher
L9-1 (SHB) - Body ground	Always	10 kΩ or higher

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

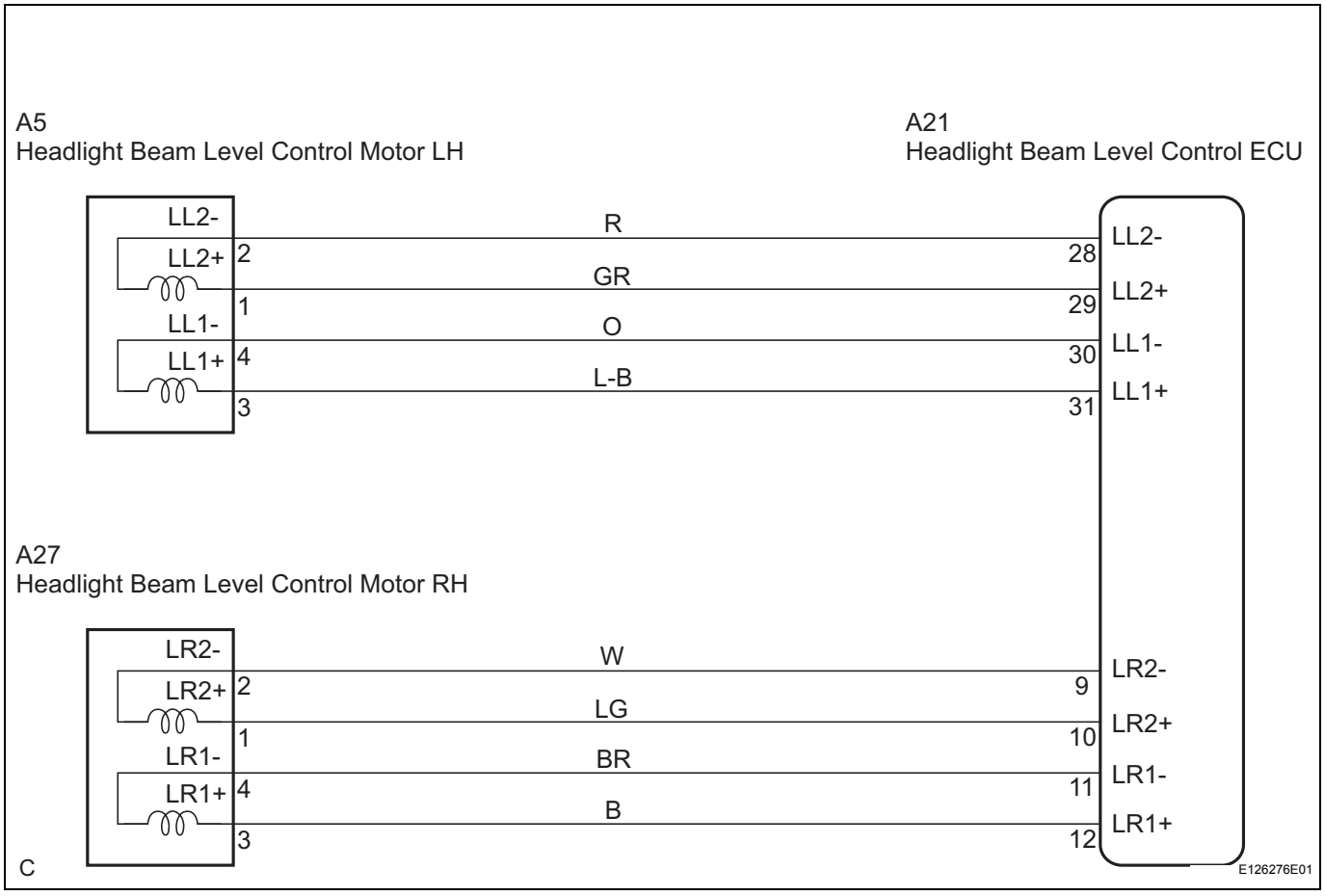
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

Headlight Beam Level Control Actuator Circuit

DESCRIPTION

The headlight beam level control motor receives signals from the headlight beam level control ECU to operate. The headlight beam level control ECU receives signals regarding operating conditions of the headlight beam level control motor.

WIRING DIAGRAM



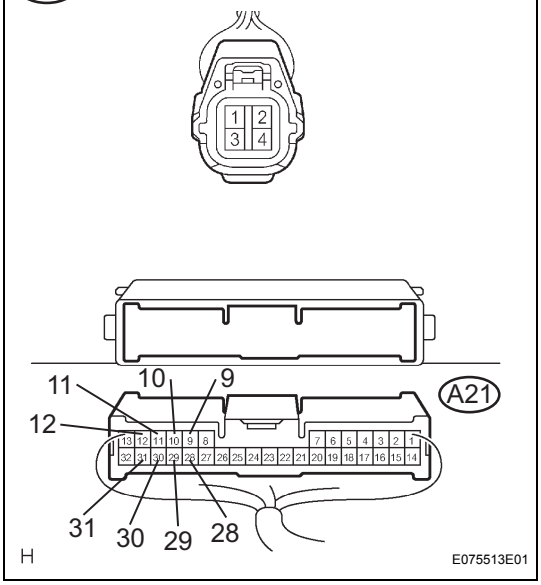
INSPECTION PROCEDURE

1	CHECK HARNESS AND CONNECTOR (HEADLIGHT BEAM LEVEL CONTROL MOTOR - HEADLIGHT BEAM LEVEL)

Wire Harness View:

A5 Headlight Beam Level Control Motor LH

A27 Headlight Beam Level Control Motor RH



(a) Disconnect the headlight assembly connector on the headlight beam level control motor side and the headlight beam level control ECU connector.

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

Standard resistance:

LH Side

Tester Connection	Condition	Specified Condition
A21-28 - A5-2	Always	Below 1 Ω
A21-29 - A5-1	Always	Below 1 Ω
A21-30 - A5-4	Always	Below 1 Ω
A21-31 - A5-3	Always	Below 1 Ω
A21-28 - Body ground	Always	10 kΩ or higher
A21-29 - Body ground	Always	10 kΩ or higher
A21-30 - Body ground	Always	10 kΩ or higher
A21-31 - Body ground	Always	10 kΩ or higher

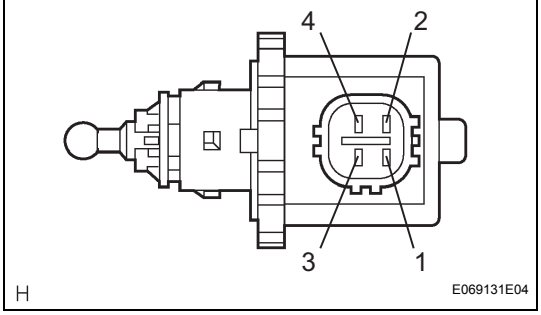
RH Side

Tester Connection	Condition	Specified Condition
A21-9 - A27-2	Always	Below 1 Ω
A21-10 - A27-1	Always	Below 1 Ω
A21-11 - A27-4	Always	Below 1 Ω
A21-12 - A27-3	Always	Below 1 Ω
A21-9 - Body ground	Always	10 kΩ or higher
A21-10 - Body ground	Always	10 kΩ or higher
A21-11 - Body ground	Always	10 kΩ or higher
A21-12 - Body ground	Always	10 kΩ or higher

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

2	INSPECT HEADLIGHT BEAM LEVEL CONTROL MOTOR



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

Standard resistance:

LH Side

Tester Connection	Condition	Specified Condition
A5-1 - A5-2	Always	5.8 to 12.5 Ω
A5-3 - A5-4	Always	5.8 to 12.5 Ω

RH Side

Tester Connection	Condition	Specified Condition
A27-1 - A27-2	Always	5.8 to 12.5 Ω

Tester Connection	Condition	Specified Condition
A27-3 - A27-4	Always	5.8 to 12.5 Ω

HINT:
Measure the resistance after the headlight has cooled down.

NG → **REPLACE HEADLIGHT BEAM LEVEL CONTROL MOTOR**

OK

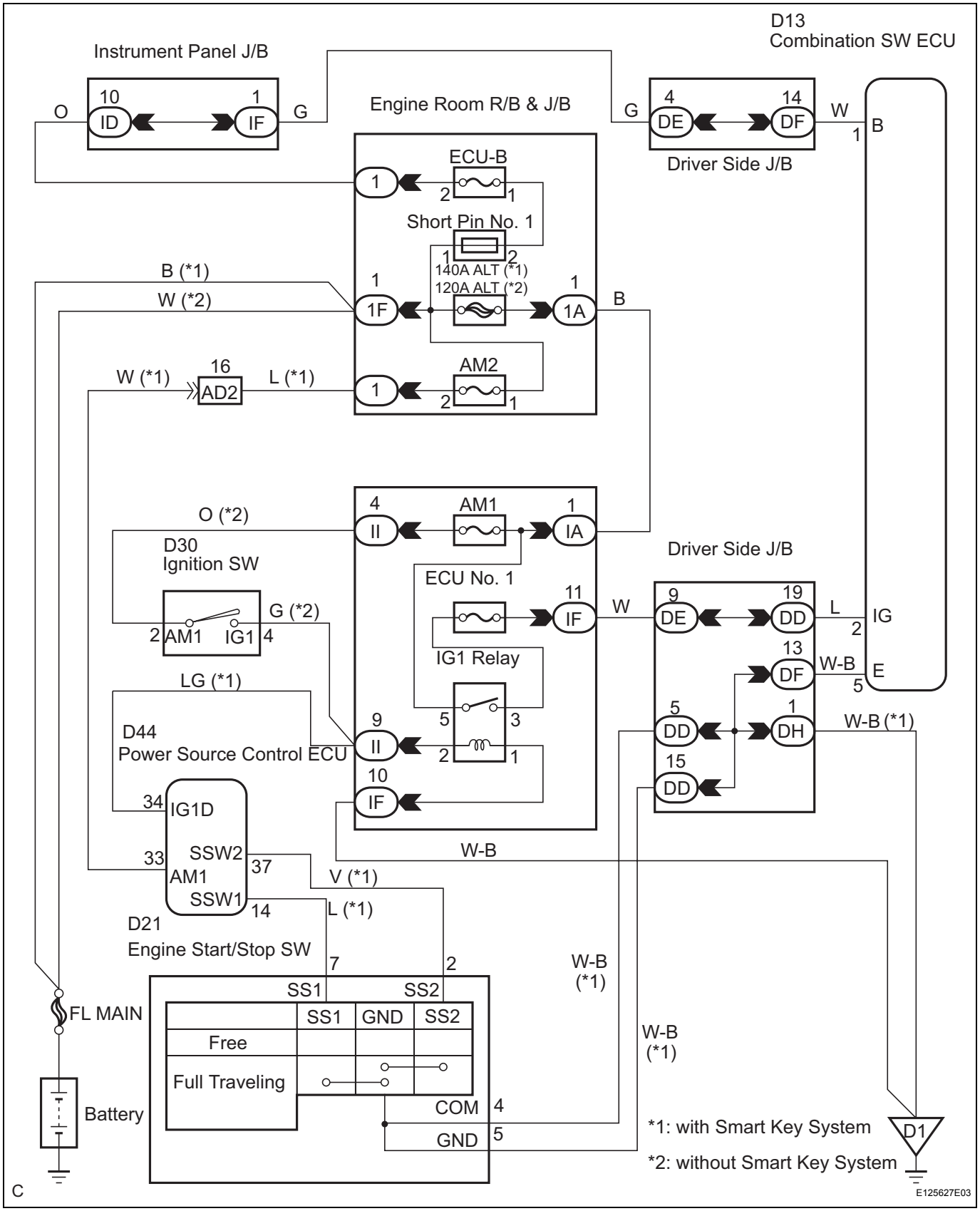
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

Combination Switch ECU Power Source Circuit

DESCRIPTION

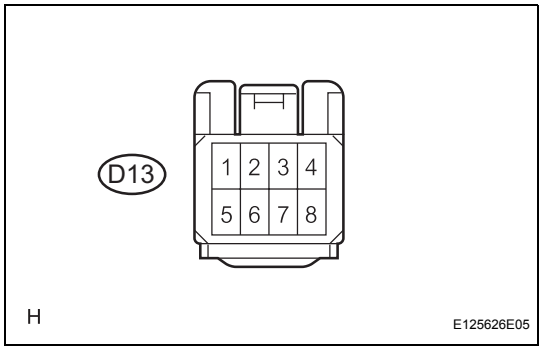
This circuit provides power to operate the combination switch.

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK HARNESS AND CONNECTOR (COMBINATION SWITCH ECU - BATTERY)



(a) Disconnect the connector from the combination switch.
(b) Measure the voltage according to the value(s) in the table below.

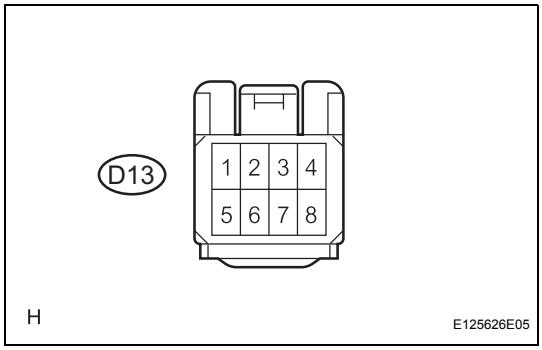
Standard voltage

Tester Connection	Condition	Specified Condition
D13-1 - Body ground	Always	10 to 14 V

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

2 CHECK HARNESS AND CONNECTOR (IGNITION SWITCH CIRCUIT)



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

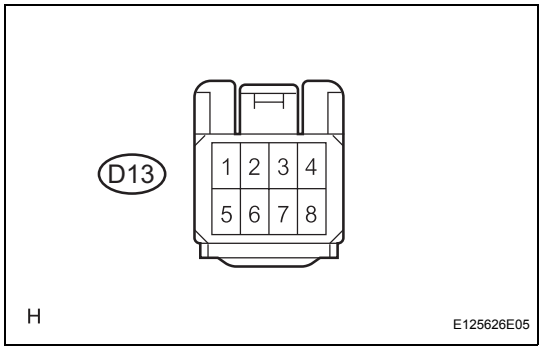
Standard voltage

Tester Connection	Condition	Specified Condition
D13-2 - Body ground	Ignition switch on (IG)	10 to 14 V
D13-2 - Body ground	Ignition switch off	Below 1 V

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

3 CHECK HARNESS AND CONNECTOR (COMBINATION SWITCH ECU - BODY GROUND)



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

Standard resistance

Tester Connection	Condition	Specified Condition
D13-5 - Body ground	Always	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

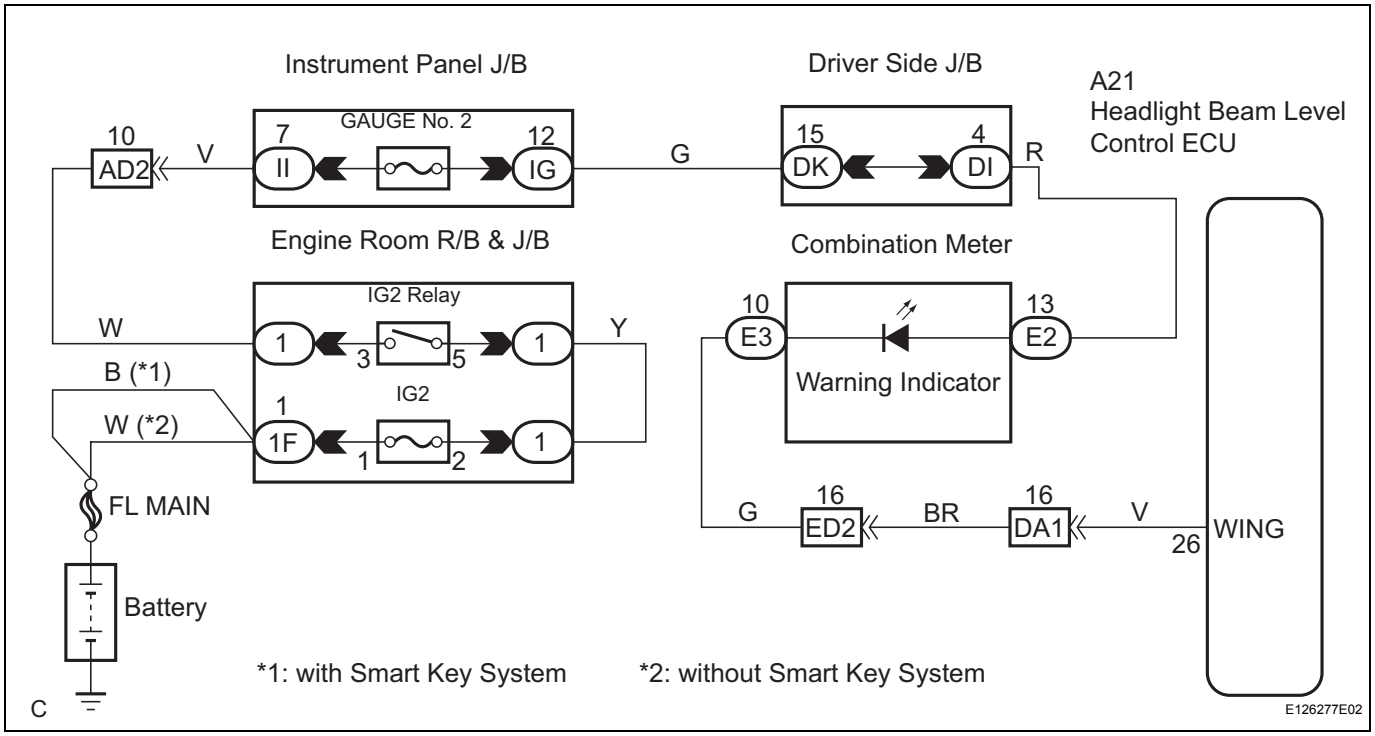
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

Headlight Beam Level Warning Circuit

DESCRIPTION

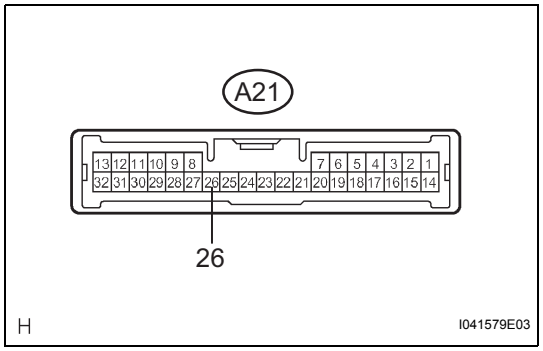
The headlight beam level warning indicator light in the combination meter assembly comes on for approximately 3 seconds when the ignition switch is turned on (IG). The headlight beam level warning indicator light also comes on when the headlight beam level control ECU detects a malfunction.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	INSPECT HEADLIGHT BEAM LEVEL CONTROL ECU



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

Standard voltage

Tester Connection	Condition	Specified Condition
A21-26 - Body ground	Ignition switch on (IG) and headlight beam level warning indicator goes off	10 to 14 V
A21-26 - Body ground	Headlight beam level warning indicator comes on	Below 1 V

NG → Go to step 2

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

2	**CHECK HARNESS AND CONNECTOR (HEADLIGHT BEAM LEVEL WARNING INDICATOR LIGHT)**

(a) Inspect the harness and connectors related to the headlight beam level warning indicator light, referring to the wiring diagram.

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

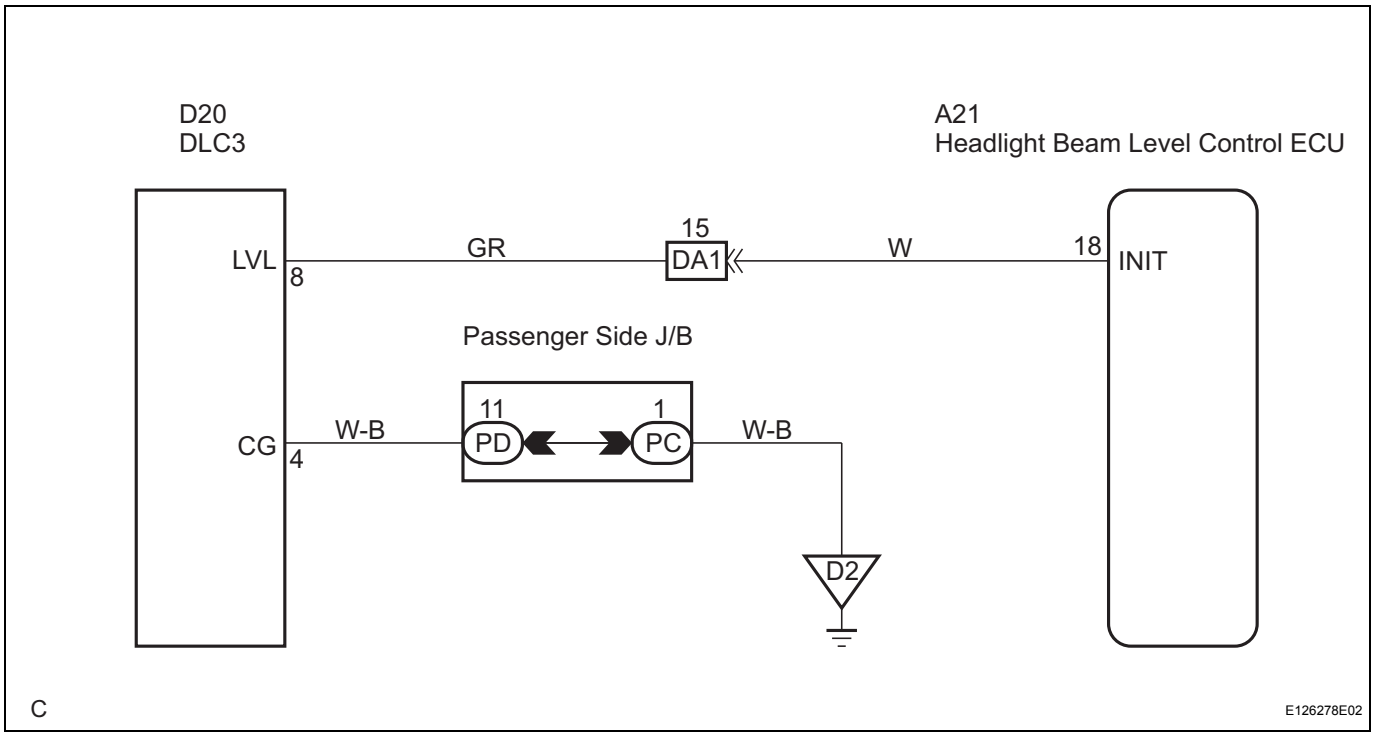
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

LVL Terminal Circuit

DESCRIPTION

Connecting terminals LVL and CG of the DLC3 initializes the height control sensor signal.

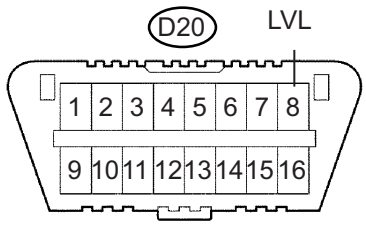
WIRING DIAGRAM



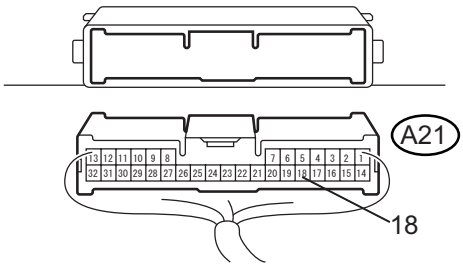
INSPECTION PROCEDURE

1	CHECK HARNESS AND CONNECTOR (DLC3 - HEADLIGHT BEAM LEVEL CONTROL ECU)

DLC3:



Headlight Beam Level Control ECU:



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(a) Disconnect connector A21 from the headlight beam level control ECU.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

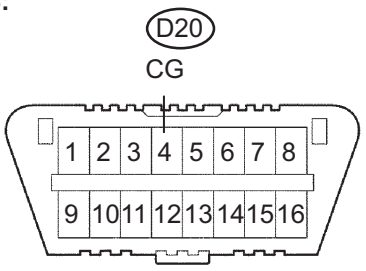
Tester Connection	Condition	Specified Condition
D20-8 - A21-18	Always	Below 1 Ω
D20-8 - Body ground	Always	10 kΩ or higher

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

2	CHECK HARNESS AND CONNECTOR (DLC3 - BODY GROUND)

DLC3:



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

Standard resistance

Tester Connection	Condition	Specified Condition
D20-4 - Body ground	Always	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

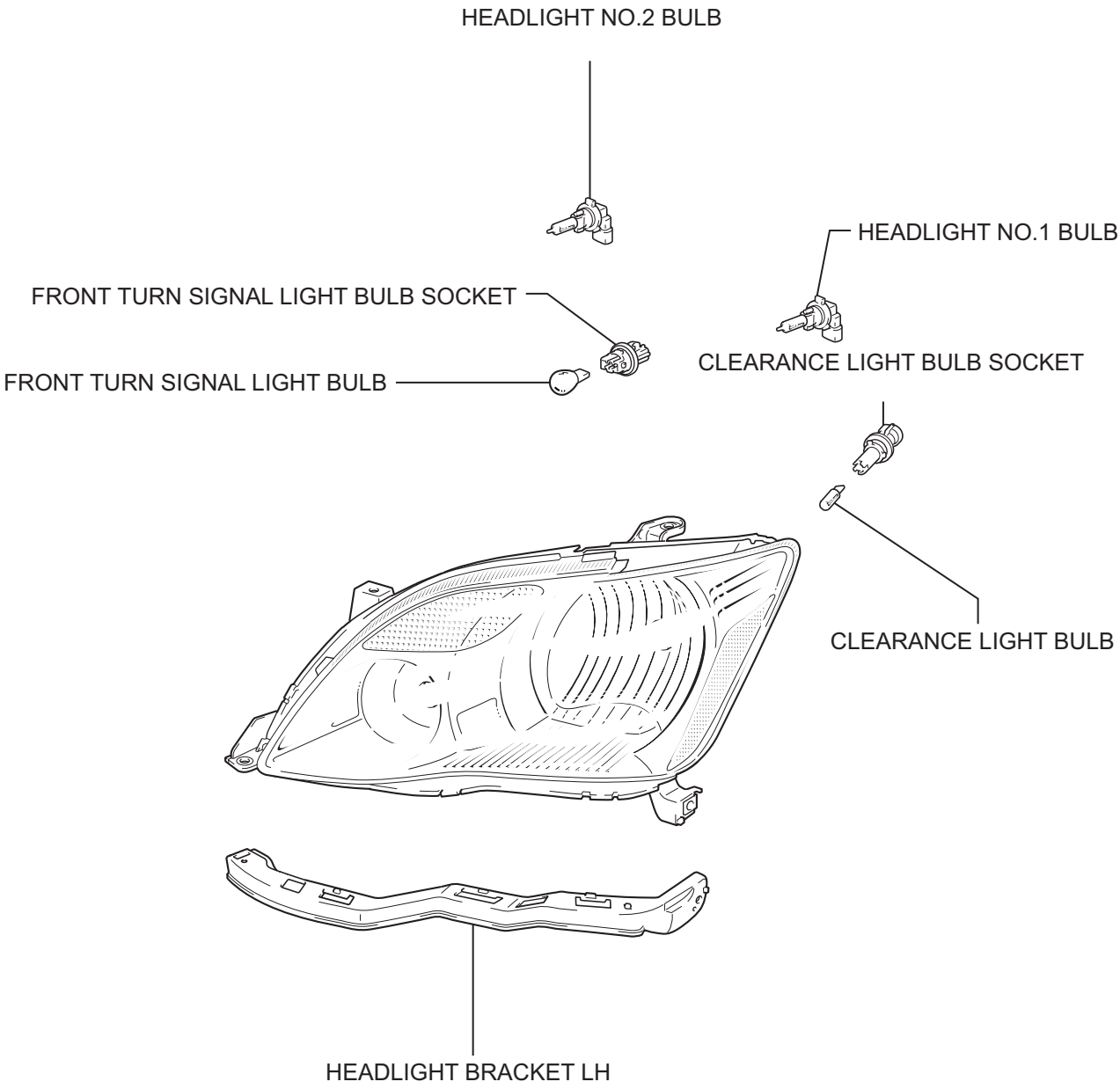
OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

HEADLIGHT ASSEMBLY

COMPONENTS

HALOGEN HEADLIGHT:



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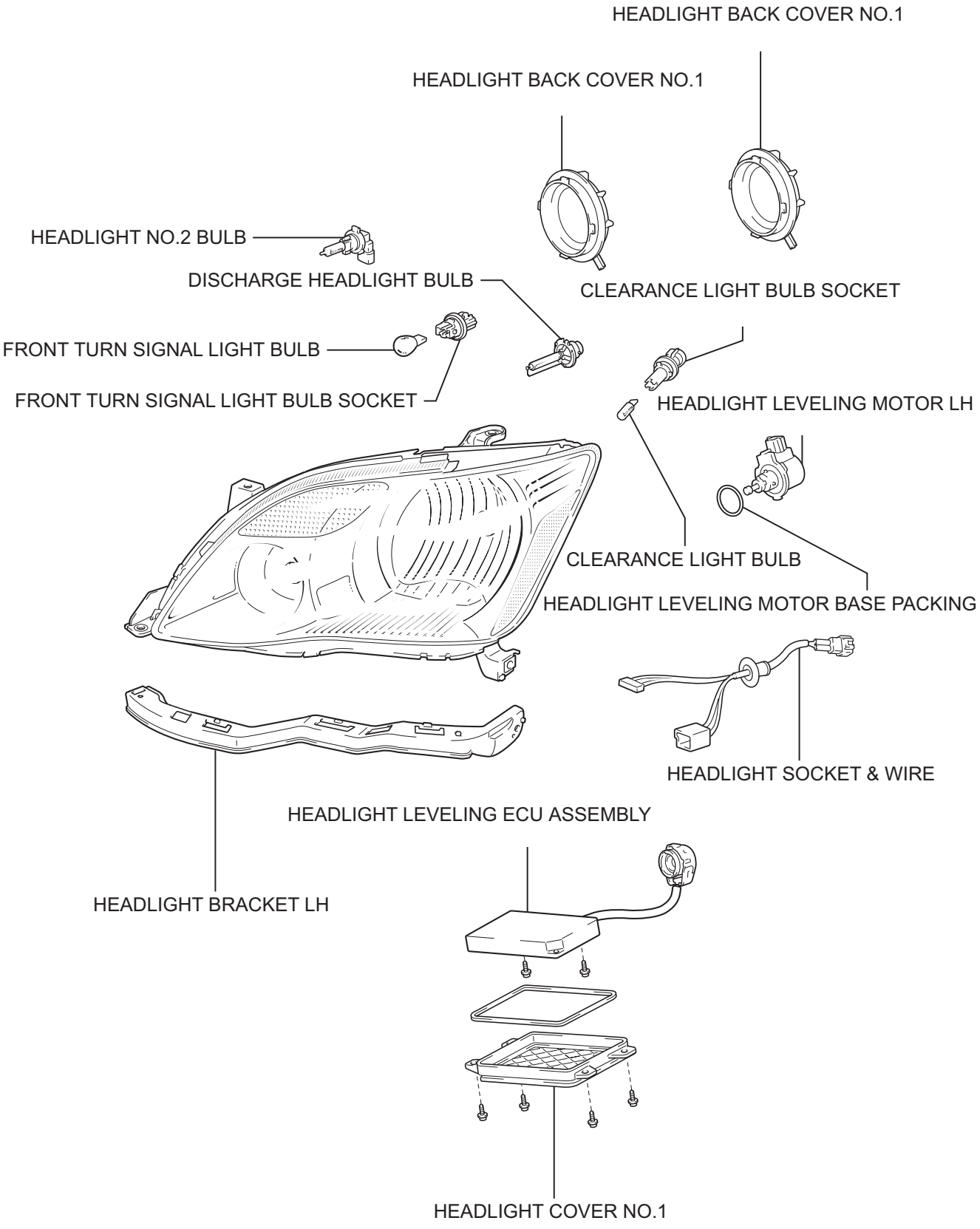
DISCHARGE HEADLIGHT:



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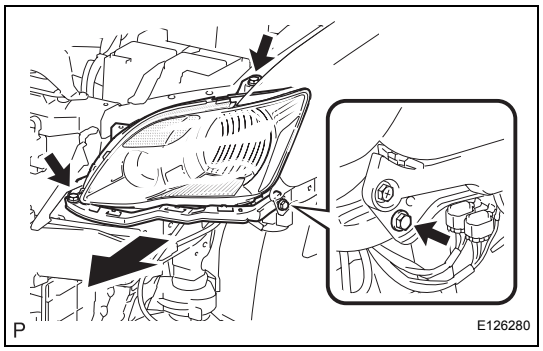
REMOVAL

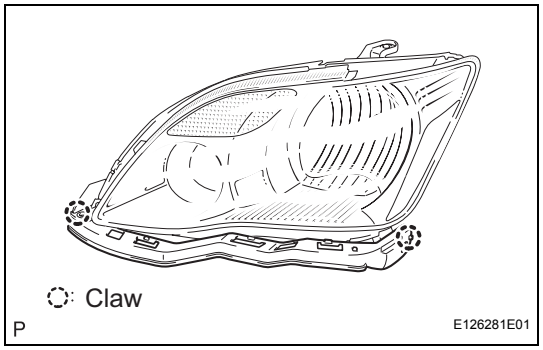
HINT:
- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.
- Installation is in the reverse order of removal.

1. **REMOVE RADIATOR GRILLER SUB-ASSEMBLY (See page ET-2)**
2. **REMOVE FRONT BUMPER ASSEMBLY (See page ET-2)**
3. **REMOVE HEADLIGHT ASSEMBLY**
   (a) Remove the 3 bolts.
   (b) Pull the LH headlight assembly in the direction indicated by the arrow and remove the LH headlight assembly.

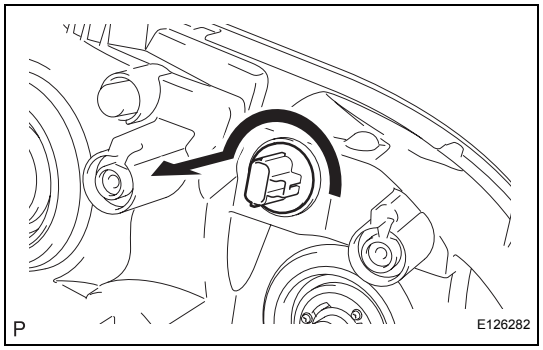


DISASSEMBLY

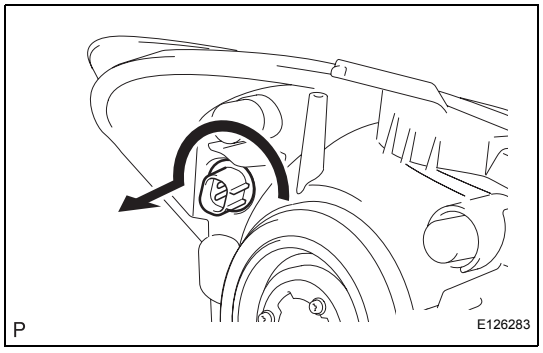
1. **REMOVE HEADLIGHT BRACKET LH**
   (a) Disengage the 2 claws and the headlight bracket LH.

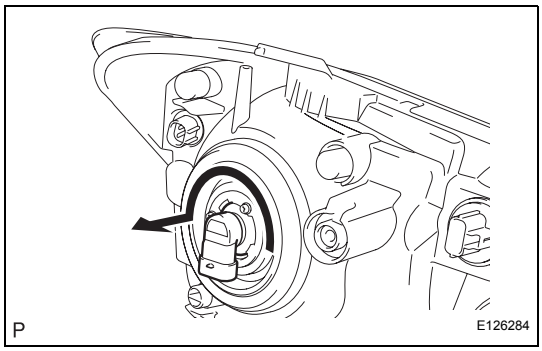


2. **REMOVE FRONT TURN SIGNAL LIGHT BULB**
   (a) Turn the socket plug assembly and the front turn signal light bulb in the direction indicated by the arrow and remove as a unit.



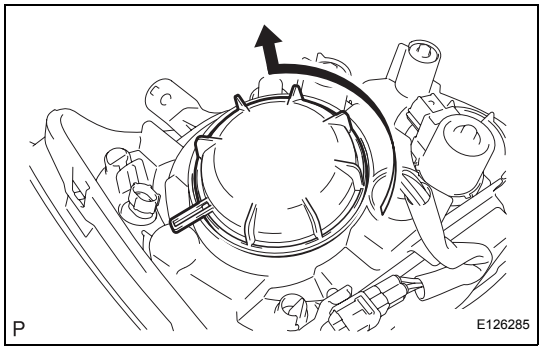
3. **REMOVE CLEARANCE LIGHT BULB**
   (a) Turn the socket plug assembly and the front clearance light bulb in the direction indicated by the arrow and remove as a unit.





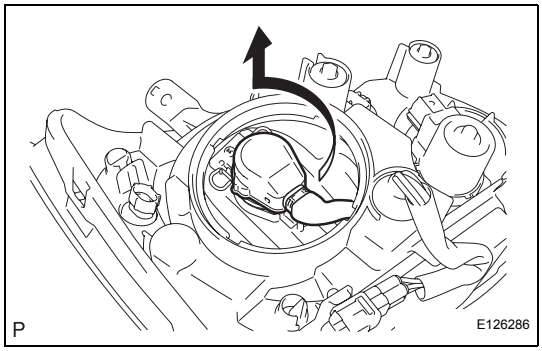
4. REMOVE HEADLIGHT NO.1 BULB

(a) Turn headlight bulb No. 1 in the direction indicated by the arrow and remove it.

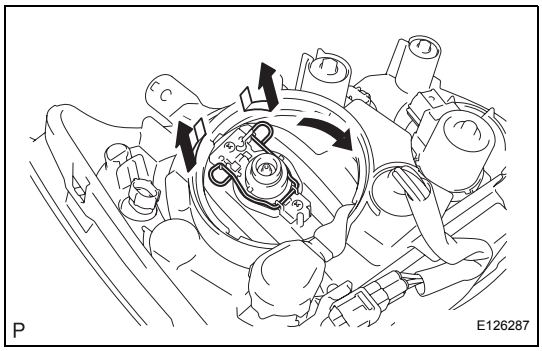


5. REMOVE DISCHARGE HEADLIGHT BULB

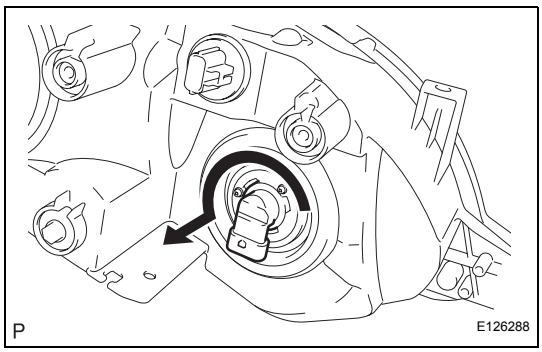
(a) Turn headlight back cover No. 1 in the direction indicated by the arrow and remove it.



(b) Turn the discharge headlight bulb socket in the direction indicated by the arrow and remove the locking cap.

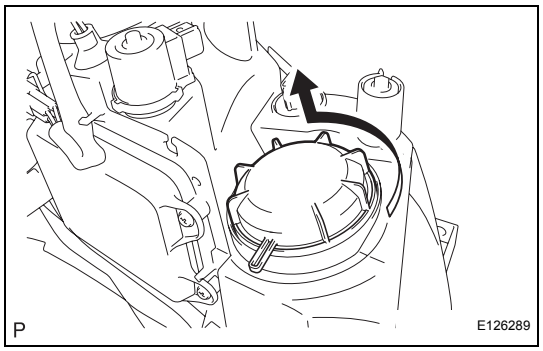


(c) Release the set spring lock as shown in the illustration and remove the discharge headlight bulb.



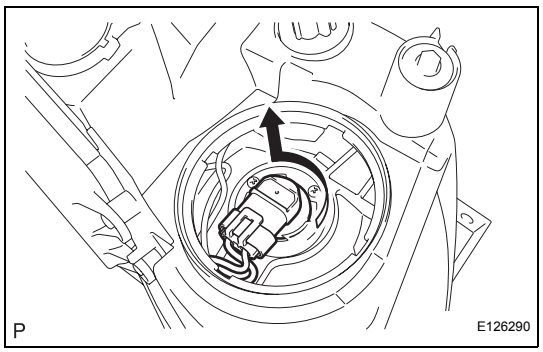
6. REMOVE HEADLIGHT NO.2 BULB

(a) Turn headlight bulb No. 2 in the direction indicated by the arrow and remove it.

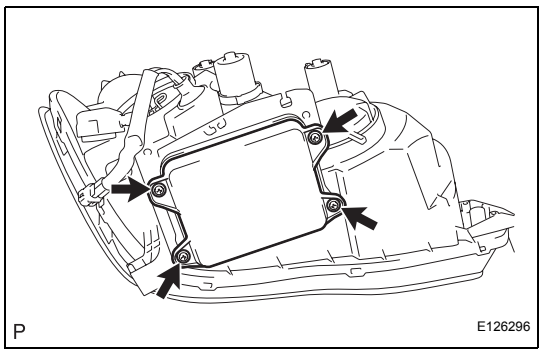


7. REMOVE HEADLIGHT NO.2 BULB

(a) Turn headlight back cover No. 1 in the direction indicated by the arrow and remove it.

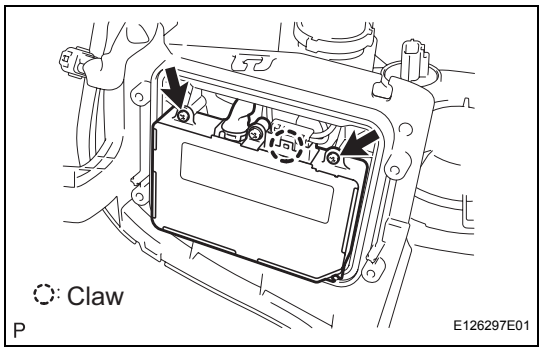


(b) Turn headlight No. 2 bulb in the direction indicated by the arrow and remove it.



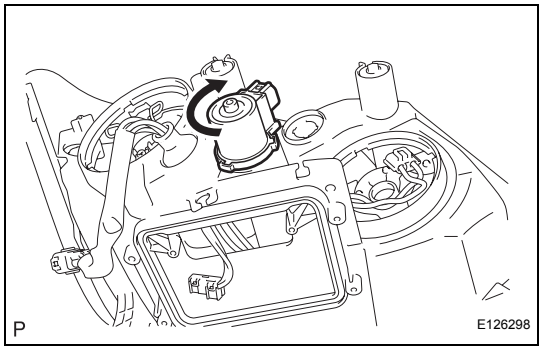
8. REMOVE HEADLIGHT LEVELING ECU ASSEMBLY

(a) Remove the 4 screws and headlight cover No. 1.



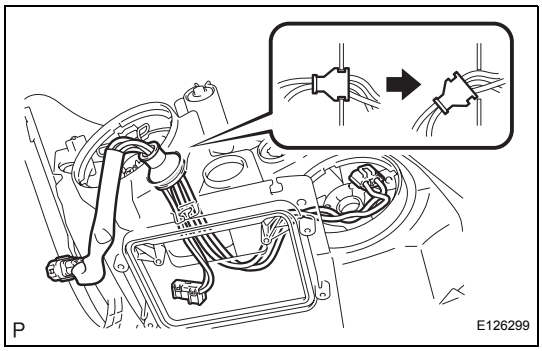
(b) Remove the 2 screws.

(c) Disengage the claw, disconnect the connector and remove the headlight leveling ECU assembly.



9. REMOVE HEADLIGHT LEVELING MOTOR LH

(a) Turn the headlight leveling motor to align the recessed parts with the headlight unit LH.



10. REMOVE HEADLIGHT SOCKET & WIRE

(a) Remove the headlight socket & wire.

ADJUSTMENT

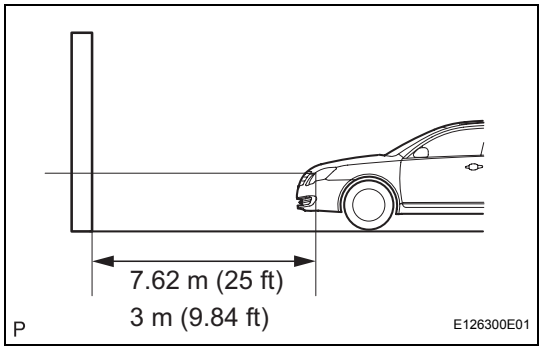
1. PREPARE VEHICLE FOR HEADLIGHT AIMING ADJUSTMENT

(a) Prepare the vehicle:
- Ensure there is no damage or deformation to the body around the headlights.
- Fill the fuel tank.
- Make sure that the oil is filled to the specified level.
- Make sure that the coolant is filled to the specified level.
- Inflate the tires to the appropriate pressure.
- Place the spare tire, tools, and jack in their original positions.
- Unload the trunk.
- Sit a person of average weight (68 kg, 150 lb) in the driver's seat.

2. PREPARE FOR HEADLIGHT AIMING (Using a tester)

(a) Prepare the vehicle for headlight aim check.

(b) Adjust in accordance with headlight tester instructions.



3. PREPARE FOR HEADLIGHT AIMING (Using a screen)

(a) Prepare the vehicle according to the following conditions:
- Place the vehicle in a location that is dark enough to clearly observe the cutoff line. The cutoff line is a distinct line, below which light from the headlights can be observed and above which it cannot.
- Place the vehicle at a 90° angle to the wall.
- Create a 7.62 m (25 ft) distance between the vehicle (headlight bulb center) and the wall.
- Place the vehicle on a level surface.
- Bounce the vehicle up and down to settle the suspension.

NOTICE:

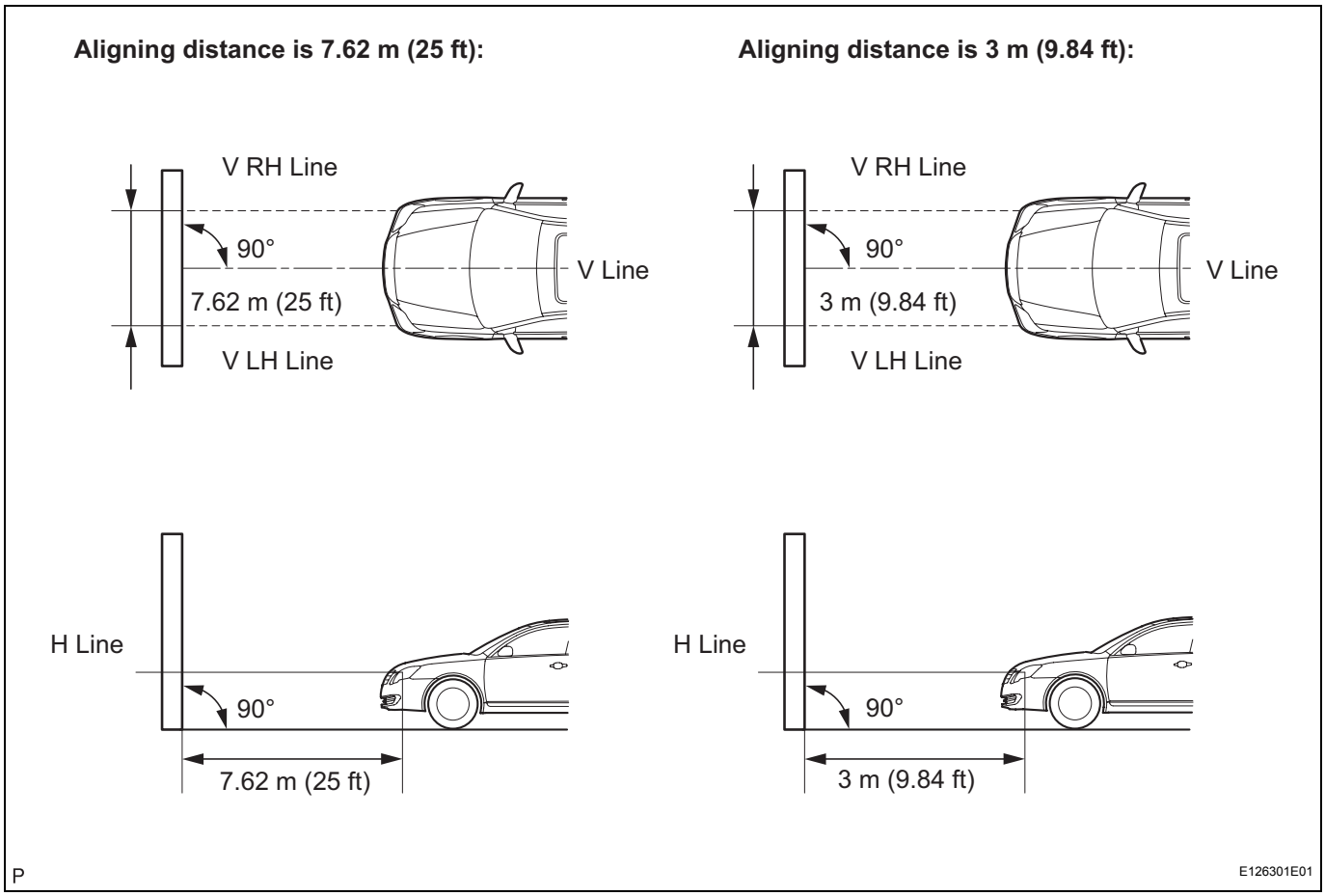
A distance of 7.62 m (25 ft) between the vehicle (headlight bulb center) and the wall is necessary for proper aim adjustment. If unavailable, secure a distance of exactly 3 m (9.84 ft) for check and adjustment. (The target zone will change with the distance, so follow the instructions in the illustration.)

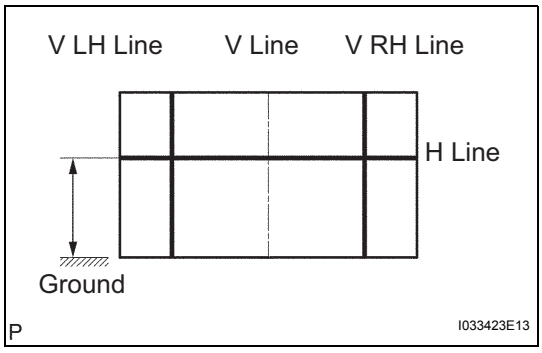
(b) Prepare a piece of thick white paper (approximately 2 m (6.6 ft) (height) x 4 m (13.1 ft) (width)) to use as a screen.

(c) Draw a vertical line down the center of the screen (V line).

(d) Set the screen as shown in the illustration.
HINT:
- Stand the screen perpendicular to the ground.

- Align the V line on the screen with the center of the vehicle.





(e) Draw base lines (H line, V LH, V RH lines) on the screen as shown in the illustration.
HINT:
- The base lines differ for "low-beam inspection" and "high-beam inspection".
- Mark the headlight bulb center marks on the screen. If the center mark cannot be observed on the headlight, use the center of the headlight bulb or the manufacturer's name marked on the headlight as the center mark.

(1) H Line (Headlight height):
Draw a horizontal line across the screen so that it passes through the center marks. The H line should be at the same height as the headlight bulb center marks of the low-beam headlights.

(2) V LH Line, V RH Line (Center mark position of left-hand (LH) and right-hand (RH) headlight):
Draw two vertical lines so that they intersect the H line at each center mark (aligned with the center of the low-beam headlight bulbs).

4. INSPECT HEADLIGHT AIMING

(a) Cover or disconnect the connector of the headlight on the opposite side to prevent light from the headlight not being inspected from affecting headlight aiming inspection.

NOTICE:

Do not keep the headlight covered for more than 3 minutes. The headlight lens is made of synthetic resin, and may easily melt or be damaged due to heat.

HINT:

When checking the aim of the high-beam, cover the low-beam or disconnect the connector.

(b) Start the engine.

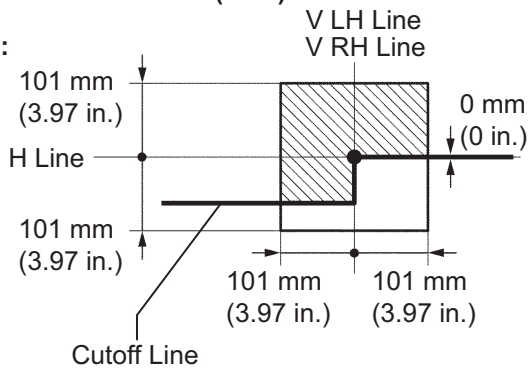
NOTICE:

Engine rpm must be 1,500 or more.

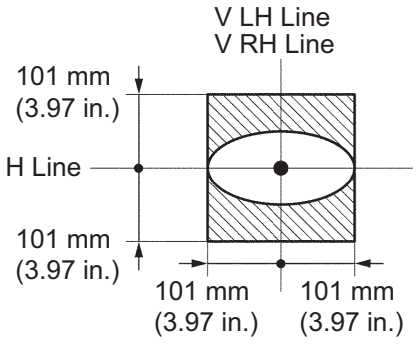
(c) Turn on the headlight and make sure that the cutoff line falls within the specified area as shown in the illustration.

Aligning distance is 7.62 m (25 ft):

Low Beam:

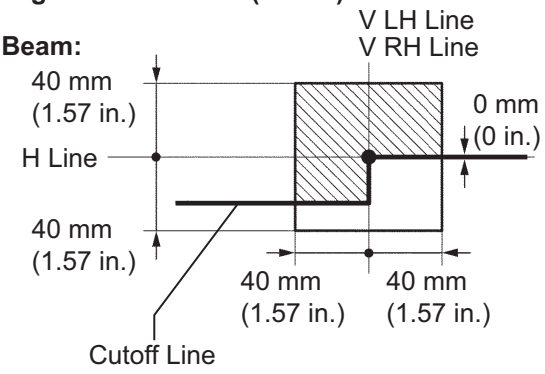


High Beam:

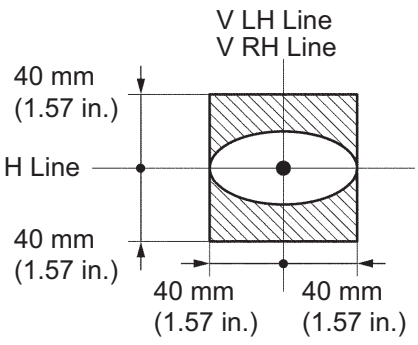


Aligning distance is 3 m (9.84 ft):

Low Beam:



High Beam:



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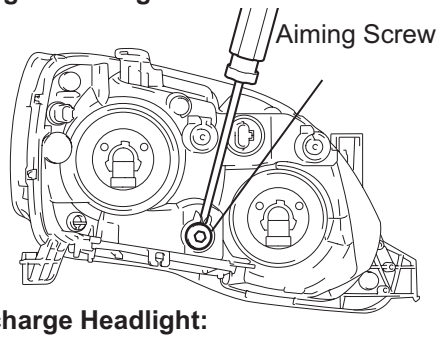
HINT:

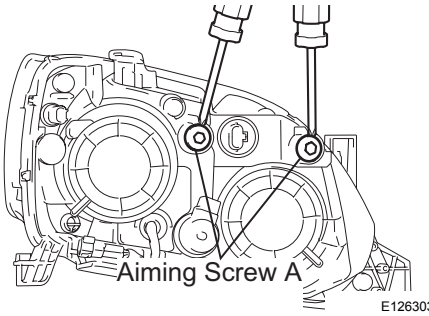
- Since the low-beam light and the high-beam light are a unit, if the aim on one is correct, the other should also be correct. However, check both beams just to make sure.

- Alignment distance is 7.62 m (25 ft):
  The cutoff line is 101 mm (3.97 in.) above and below the H line as well as left and right of the V line with low-beam (SAE J599).
- Alignment distance is 3 m (9.84 ft):
  The cutoff line is 40 mm (1.57 in.) above and below the H line as well as left and right of the V line with low-beam (SAE J599).
- Alignment distance is 7.62 m (25 ft):
  The cutoff line is 101 mm (3.97 in.) above and below the H line as well as left and right of the V line with high-beam (SAE J599).
- Alignment distance is 3 m (9.84 ft):
  The cutoff line is 40 mm (1.57 in.) above and below the H line as well as left and right of the V line with high-beam (SAE J599).
- Alignment distance is 7.62 m (25 ft):
  The cutoff line is 53 mm (2.08 in.) below the H line with low-beam.
- Alignment distance is 3 m (9.84 ft):
  The cutoff line is 21 mm (0.82 in.) below the H line with low-beam.

Halogen Headlight:



Discharge Headlight:



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5. ADJUST HEADLIGHT AIMING

(a) Adjust the aim vertically:
Adjust the headlight aim into the specified range by turning aiming screw A with a screwdriver.

NOTICE:

The final turn of the aiming screw should be made in the clockwise direction. If the screw is tightened excessively, loosen and then retighten it, so that the final turn of the screw is in the clockwise direction.

HINT:

- Perform low-beam aim adjustment.
- The headlight aim moves up when turning the aiming screw clockwise, and moves down when turning the aiming screw counterclockwise.
- On discharge headlight, both screw as should be turned the same number on turned in the same direction.

REASSEMBLY

1. **INSTALL HEADLIGHT SOCKET & WIRE**
2. **INSTALL HEADLIGHT LEVELING MOTOR LH**
3. **INSTALL HEADLIGHT LEVELING ECU ASSEMBLY**
4. **INSTALL HEADLIGHT NO.2 BULB**
5. **INSTALL DISCHARGE HEADLIGHT BULB**
6. **INSTALL HEADLIGHT NO.1 BULB**
7. **INSTALL CLEARANCE LIGHT BULB**
8. **INSTALL FRONT TURN SIGNAL LIGHT BULB**
9. **INSTALL HEADLIGHT BRACKET LH**

INSTALLATION

1. **INSTALL HEADLIGHT ASSEMBLY**
2. **INSTALL FRONT BUMPER ASSEMBLY (See page ET-4)**
3. **INSTALL RADIATOR GRILLE SUB-ASSEMBLY (See page ET-4)**

REPAIR

HINT:

- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.
- If the area where the headlight unit LH is installed is broken, the repairs listed below can be performed inexpensively through the use of a repair use bracket. This may only be done if the headlight assembly LH itself is not damaged.

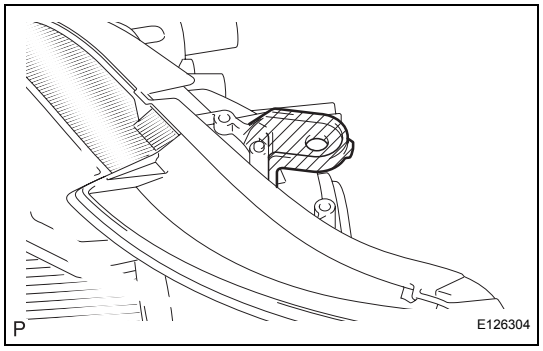
1. **REMOVE RADIATOR GRILLE SUB-ASSEMBLY (See page ET-2)**
2. **REMOVE FRONT BUMPER ASSEMBLY (See page ET-2)**
3. **REMOVE HEADLIGHT ASSEMBLY (See page LI-111)**
4. **REMOVE HEADLIGHT BRACKET (See page LI-111)**
5. **REMOVE HEADLIGHT PROTECTOR RETAINER UPPER**

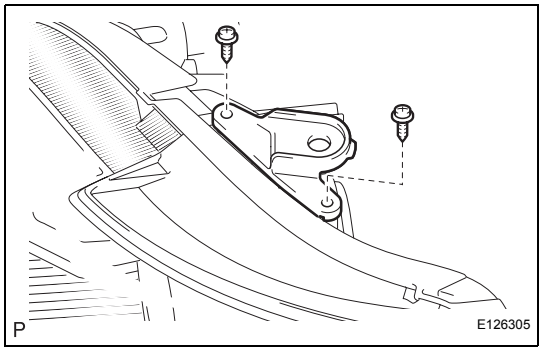
   HINT:

   - If the installation area of the headlight assembly LH is damaged, use the supply bracket for low-cost repair.
   - Ensure that the headlight assembly LH is not damaged.

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

   NOTICE:
   After cutting off the part, place the headlight protector retainer UPR LH against the bosses and gradually file away until installation is possible.





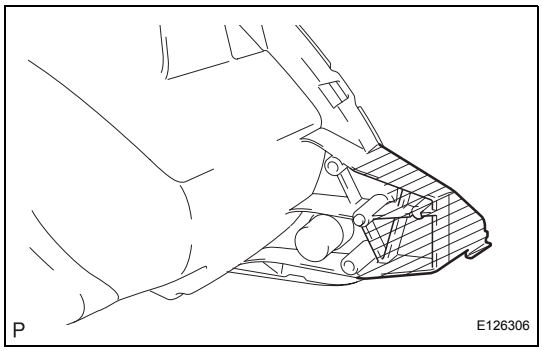
   (b) Install the headlight protector retainer UPR LH with the 2 screws.

6. **REMOVE HEADLIGHT PROTECTOR RETAINER LOWER**

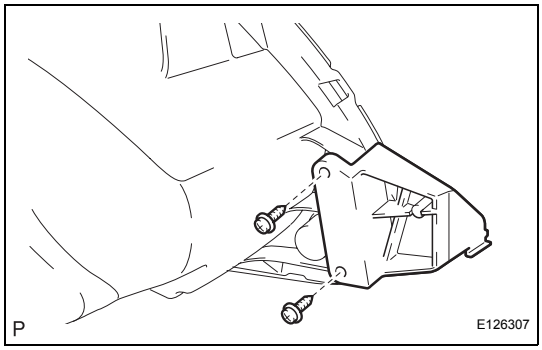
   HINT:

   - If the installation area of the headlight assembly LH is damaged, use the supply bracket for low-cost repair.
   - Ensure that the headlight assembly LH is not damaged.

LI



(a) Cut off the part shaded in the illustration and sand smooth with sandpaper.
NOTICE:
After cutting off the part, place the headlight protector retainer LWR LH against the bosses and gradually file away until installation is possible.

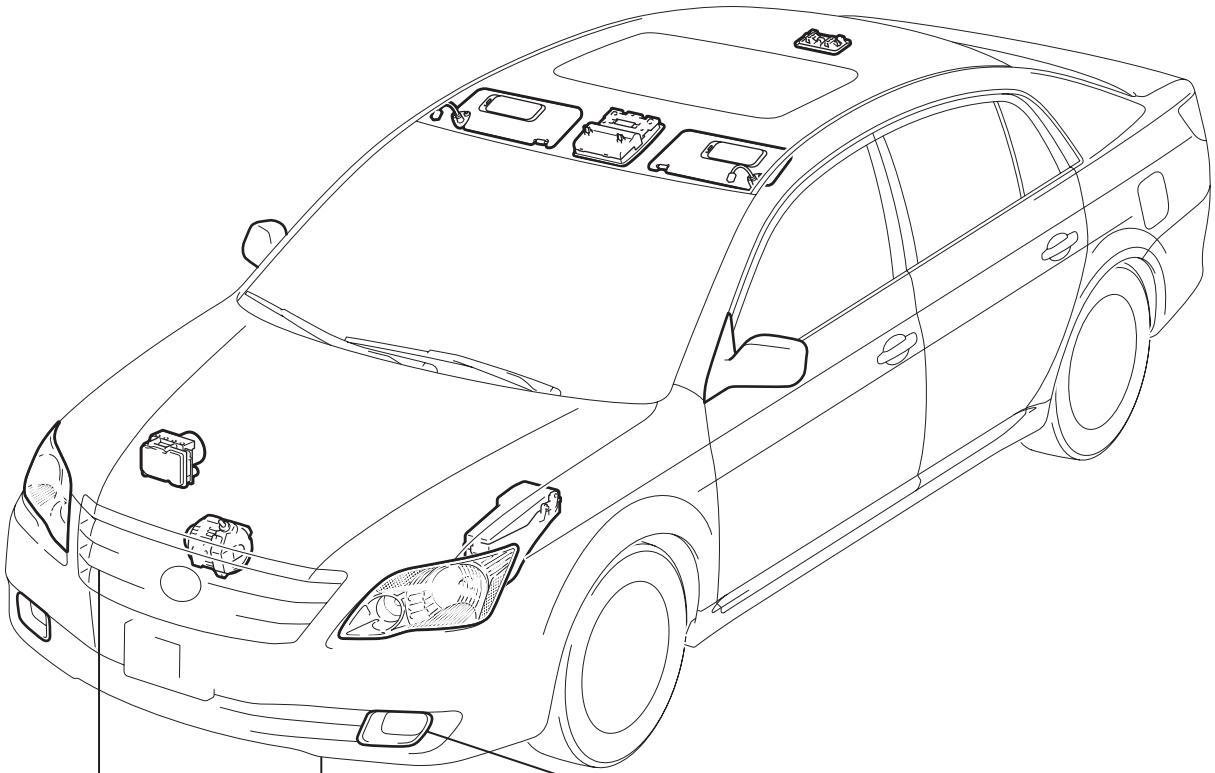


(b) Install the headlight protector retainer LWR LH with the 2 screws.

7. **INSTALL FRONT BUMPER ASSEMBLY (See page ET-4)**
8. **INSTALL RADIATOR GRILLE SUB-ASSEMBLY (See page ET-4)**
9. **PREPARE VEHICLE FOR HEADLIGHT AIMING ADJUSTMENT (See page LI-114)**
10. **PREPARE FOR HEADLIGHT AIMING (for Using a Tester) (See page LI-114)**
11. **PREPARE FOR HEADLIGHT AIMING (for Using a Screen) (See page LI-114)**
12. **INSPECT HEADLIGHT AIMING (See page LI-116)**
13. **ADJUST HEADLIGHT AIMING (See page LI-117)**
14. **PREPARE VEHICLE FOR FOG LIGHT AIMING ADJUSTMENT (See page LI-121)**
15. **PREPARE FOR FOG LIGHT AIMING (See page LI-122)**
16. **INSPECT FOG LIGHT AIMING (See page LI-123)**
17. **ADJUST FOG LIGHT AIMING (See page LI-124)**

FOG LIGHT ASSEMBLY

COMPONENTS



FRONT BUMPER ASSEMBLY

RADIATOR GRILLE SUB-ASSEMBLY

FOG LIGHT ASSEMBLY

- FOG LIGHT BRACKET
- FOG LIGHT BULB

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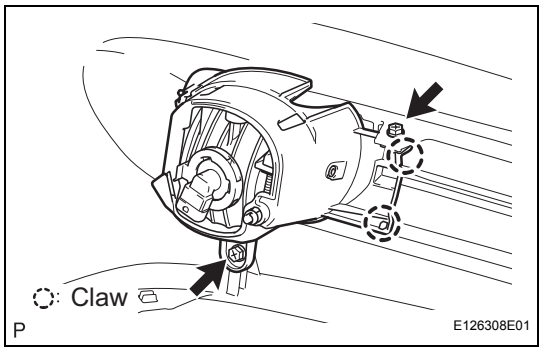
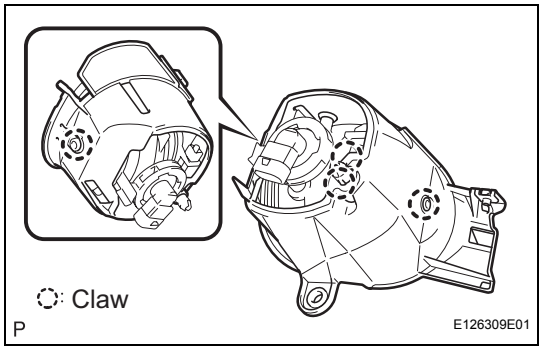
REMOVAL

HINT:
- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.
- Installation is in the reverse order of removal.

1. **REMOVE RADIATOR GRILLE SUB-ASSEMBLY (See page ET-2)**
2. **REMOVE FRONT BUMPER ASSEMBLY (See page ET-2)**
3. **REMOVE FOG LIGHT ASSEMBLY**
   (a) Remove the 2 screws.
   (b) Disengage the 2 claws and remove the fog light assembly LH.

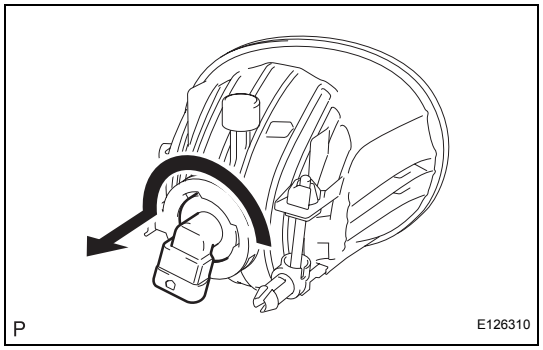




DISASSEMBLY

1. **REMOVE FOG LIGHT BRACKET**
   (a) Disengage the 4 claws and fog light bracket LH.

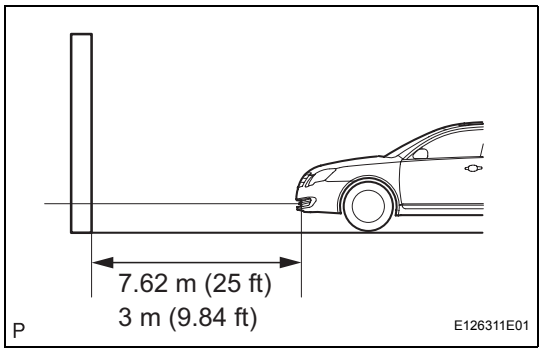
2. **REMOVE FOG LIGHT BULB**
   (a) Turn the fog light bulb in the direction indicated by the arrow and remove it.



ADJUSTMENT

1. PREPARE VEHICLE FOR FOG LIGHT AIMING ADJUSTMENT

(a) Prepare the vehicle:
- Ensure there is no damage or deformation to the body around the fog lights.
- Fill the fuel tank.
- Make sure that the oil is filled to the specified level.
- Make sure that the coolant is filled to the specified level.
- Inflate the tires to the appropriate pressure.
- Place the spare tire, tools, and jack in their original positions.
- Unload the trunk.
- Sit a person of average weight (68 kg, 150 lb) in the driver's seat.



2. PREPARE FOR FOG LIGHT AIMING

(a) Prepare the vehicle according to the following conditions:
- Place the vehicle in a location that is dark enough to clearly observe the cutoff line. The cutoff line is a distinct line, below which light from the fog lights can be observed and above which it cannot.
- Place the vehicle at a 90° angle to the wall.
- Create a 7.62 m (25 ft) distance between the vehicle (fog light bulb center) and the wall.
- Place the vehicle on a level surface.
- Bounce the vehicle up and down to settle the suspension.

NOTICE:

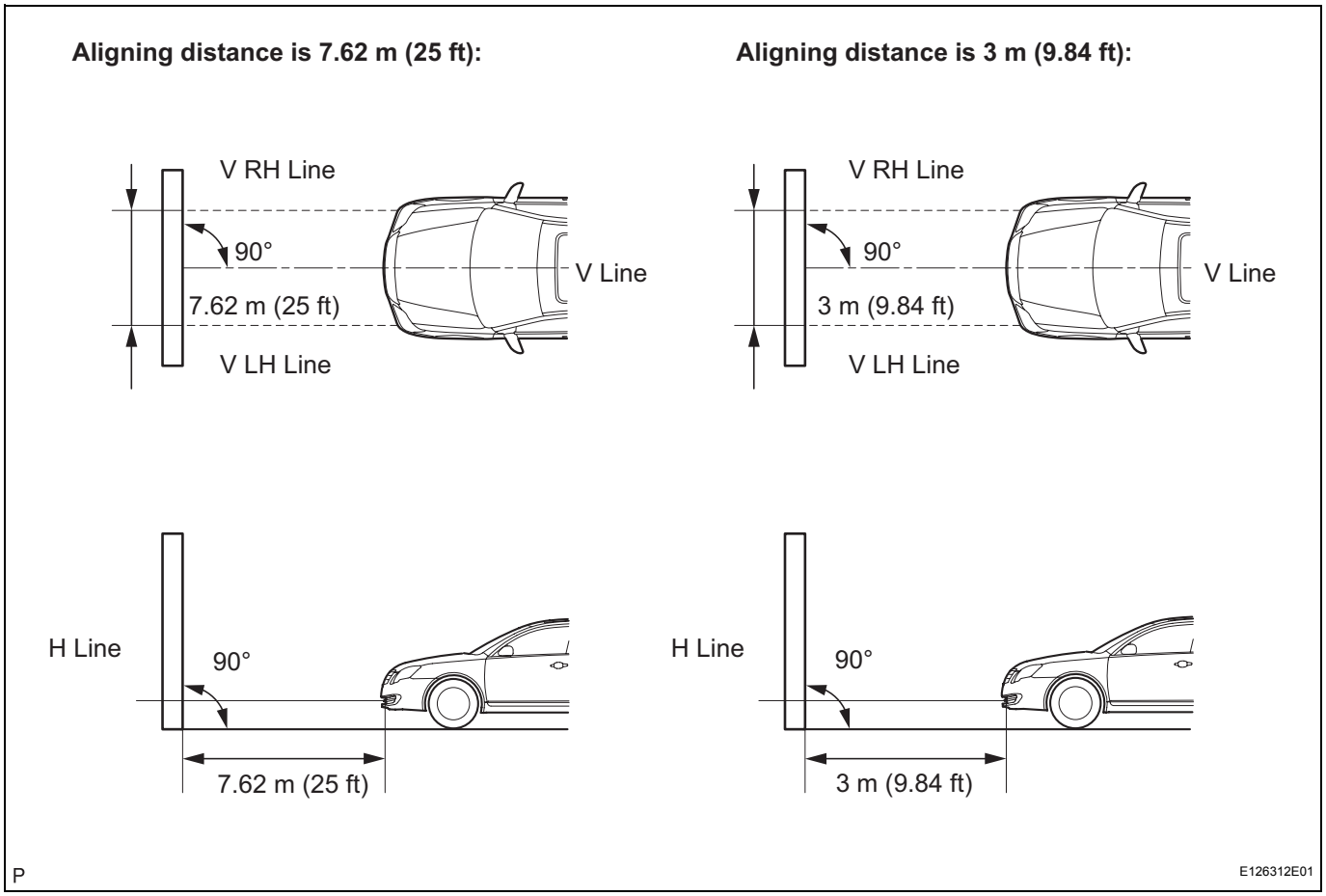
A distance of 7.62 m (25 ft) between the vehicle (fog light bulb center) and the wall is necessary for proper aim adjustment. If unavailable, secure a distance of exactly 3 m (9.84 ft) for check and adjustment. (The target zone will change with the distance, so follow the instructions in the illustration.)

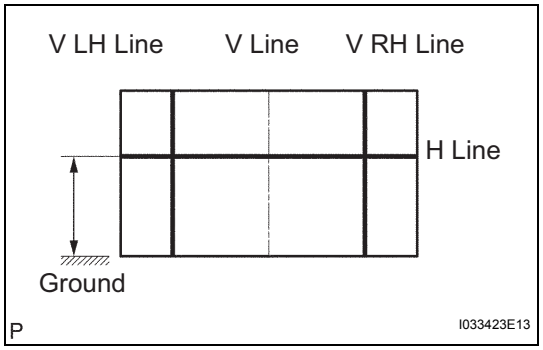
(b) Prepare a piece of thick white paper (approximately 2 m (6.6 ft) (height) x 4 m (13.1 ft) (width)) to use as a screen.

(c) Draw a vertical line down the center of the screen (V line).

(d) Set the screen as shown in the illustration.

HINT:
- Stand the screen perpendicular to the ground.
- Align the V line on the screen with the center of the vehicle.



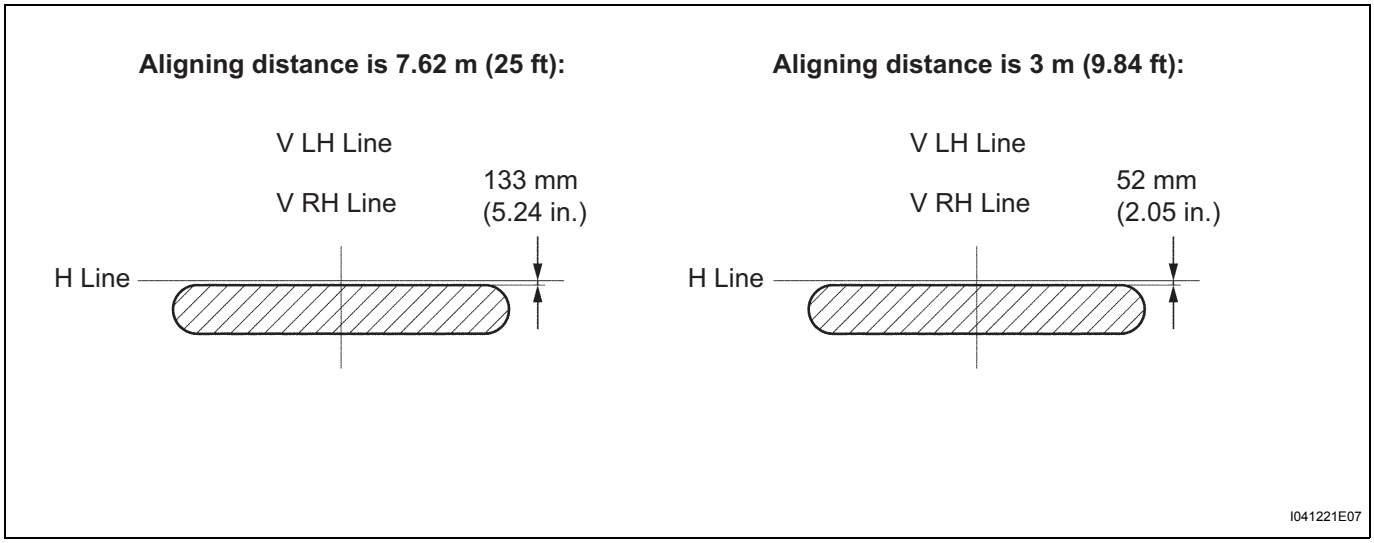


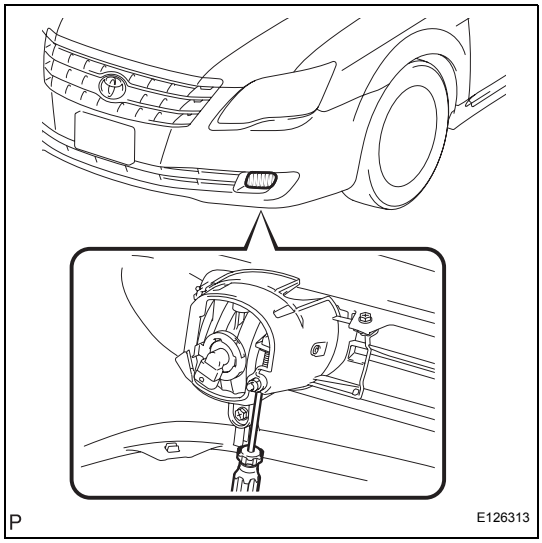
(e) Draw base lines (H line, V LH, V RH lines) on the screen as shown in the illustration.
HINT:
Mark the fog light bulb center marks on the screen. If the center mark cannot be observed on the fog light, use the center of the fog light bulb or the manufacturer's name marked on the fog light as the center mark.
(1) H Line (Fog light height):
Draw a horizontal line across the screen so that it passes through the center marks. The H line should be at the same height as the fog light bulb center marks of the low-beam fog lights.
(2) V LH Line, V RH Line (Center mark position of left-hand (LH) and right-hand (RH) fog lights):
Draw two vertical lines so that they intersect the H line at each center mark.

3. INSPECT FOG LIGHT AIMING

(a) Cover or disconnect the connector of the fog light on the opposite side to prevent light from the fog light not being inspected from affecting fog light aiming inspection.
(b) Start the engine.
NOTICE:
Engine rpm must be 1,500 or more.

(c) Turn on the fog light and make sure that the cutoff line falls within the specified area, as shown in the illustration.





4. ADJUST FOG LIGHT AIMING

(a) Adjust the fog light aim into the specified range by turning the aiming screw with a screwdriver.

NOTICE:

The final turn of the aiming screw should be made in the clockwise direction. If the screw is tightened excessively, loosen and then retighten it, so that the final turn of the screw is in the clockwise direction.

REASSEMBLY

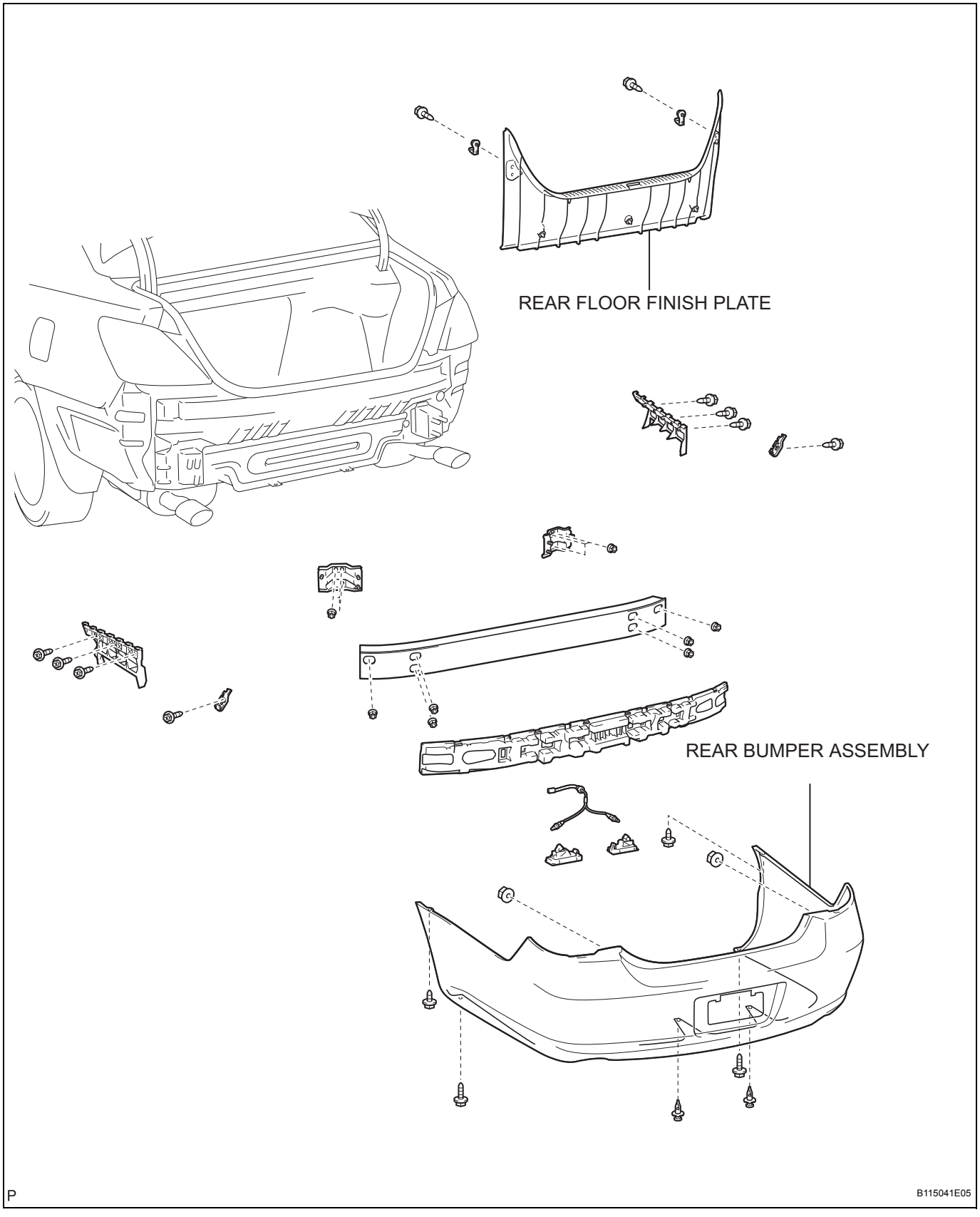
1. **INSTALL FOG LIGHT BULB**
2. **INSTALL FOG LIGHT BRACKET**

INSTALLATION

1. **INSTALL FOG LIGHT ASSEMBLY**
2. **INSTALL FRONT BUMPER ASSEMBLY (See page ET-4)**
3. **INSTALL RADIATOR GRILLE SUB-ASSEMBLY (See page ET-4)**

REAR COMBINATION LIGHT ASSEMBLY

COMPONENTS



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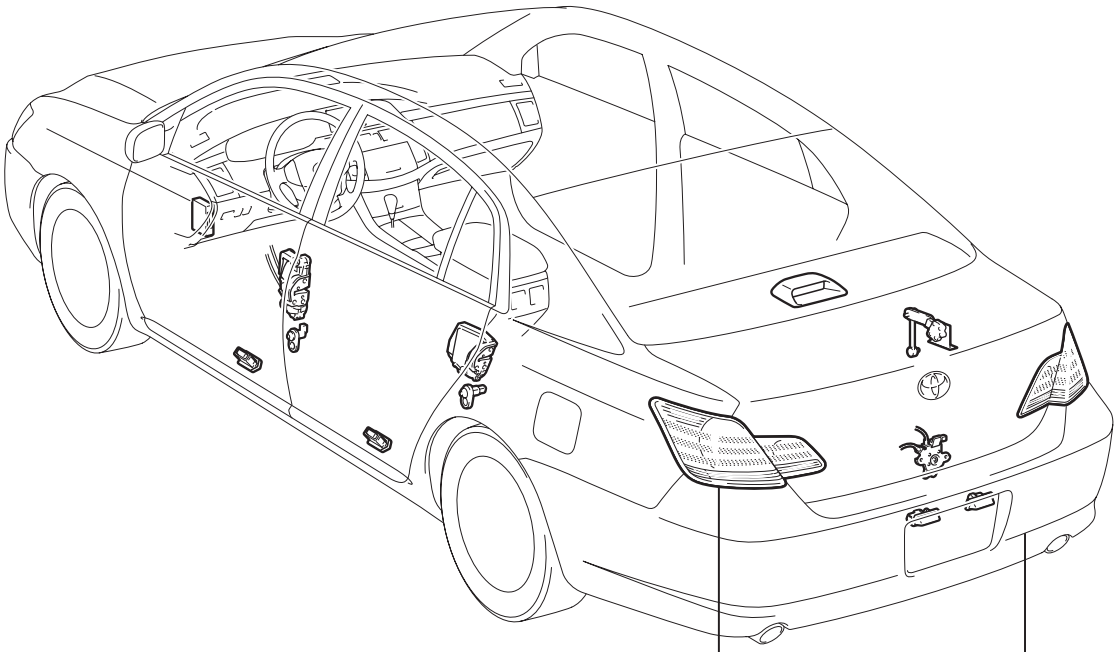

REAR BUMPER ASSEMBLY

REAR COMBINATION LIGHT ASSEMBLY LH

- REAR COMBINATION LIGHT BRACKET LH
- REAR COMBINATION LIGHT SOCKET & WIRE
- REAR COMBINATION LIGHT BULB
- REAR COMBINATION LIGHT BODY GASKET LH

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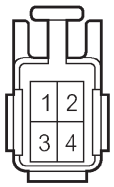
Wire Harness Side:



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ON-VEHICLE INSPECTION

1. INSPECT REAR COMBINATION LIGHT ASSEMBLY

(a) Connect the (+) lead from the voltmeter to terminal 2 and the (-) lead from the voltmeter to terminal 3.

(b) Measure the voltage according to the value(s) in the table below.

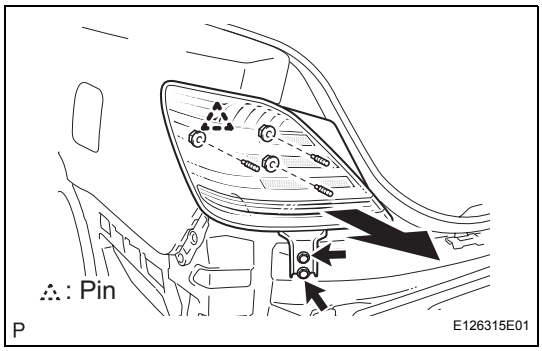
Standard voltage

Tester Connection	Condition	Specified Condition
1 - 3	Light control switch OFF	Below 1 V
1 - 3	Light control switch TAIL	10 to 14 v
2 - 3	Brake pedal released	Below 1 V
2 - 3	Brake pedal depressed	10 to 14 v

REMOVAL

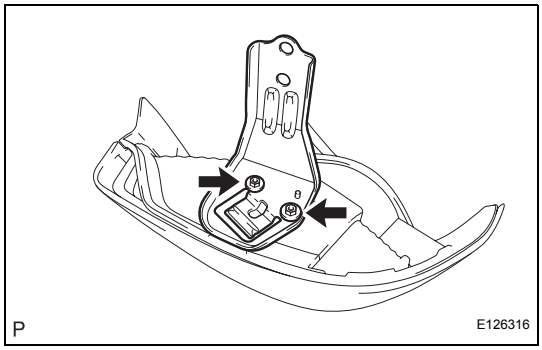
HINT:
- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.
- Installation is in the reverse order of removal.

1. **REMOVE REAR FLOOR FINISH PLATE (See page ET-6)**
2. **REMOVE REAR BUMPER ASSEMBLY (See page ET-6)**
3. **REMOVE REAR COMBINATION LIGHT ASSEMBLY LH**
   (a) Disconnect the connector.
   (b) Remove the 3 nuts and the 2 bolts.
   (c) Remove the pin and the rear combination light assembly LH.

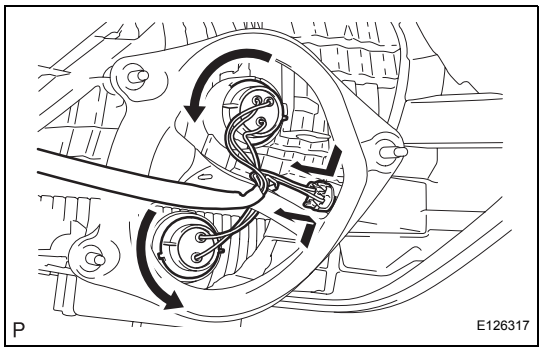


DISASSEMBLY

1. **REMOVE REAR COMBINATION LIGHT BRACKET LH**
   (a) Remove the 2 nuts and the rear combination light bracket LH.



2. **REMOVE REAR COMBINATION LIGHT SOCKET & WIRE**
   (a) Remove the rear combination light socket & wire as shown in the illustration.
3. **REMOVE REAR COMBINATION LIGHT BULB**
4. **REMOVE REAR COMBINATION LIGHT BODY GASKET LH**



REASSEMBLY

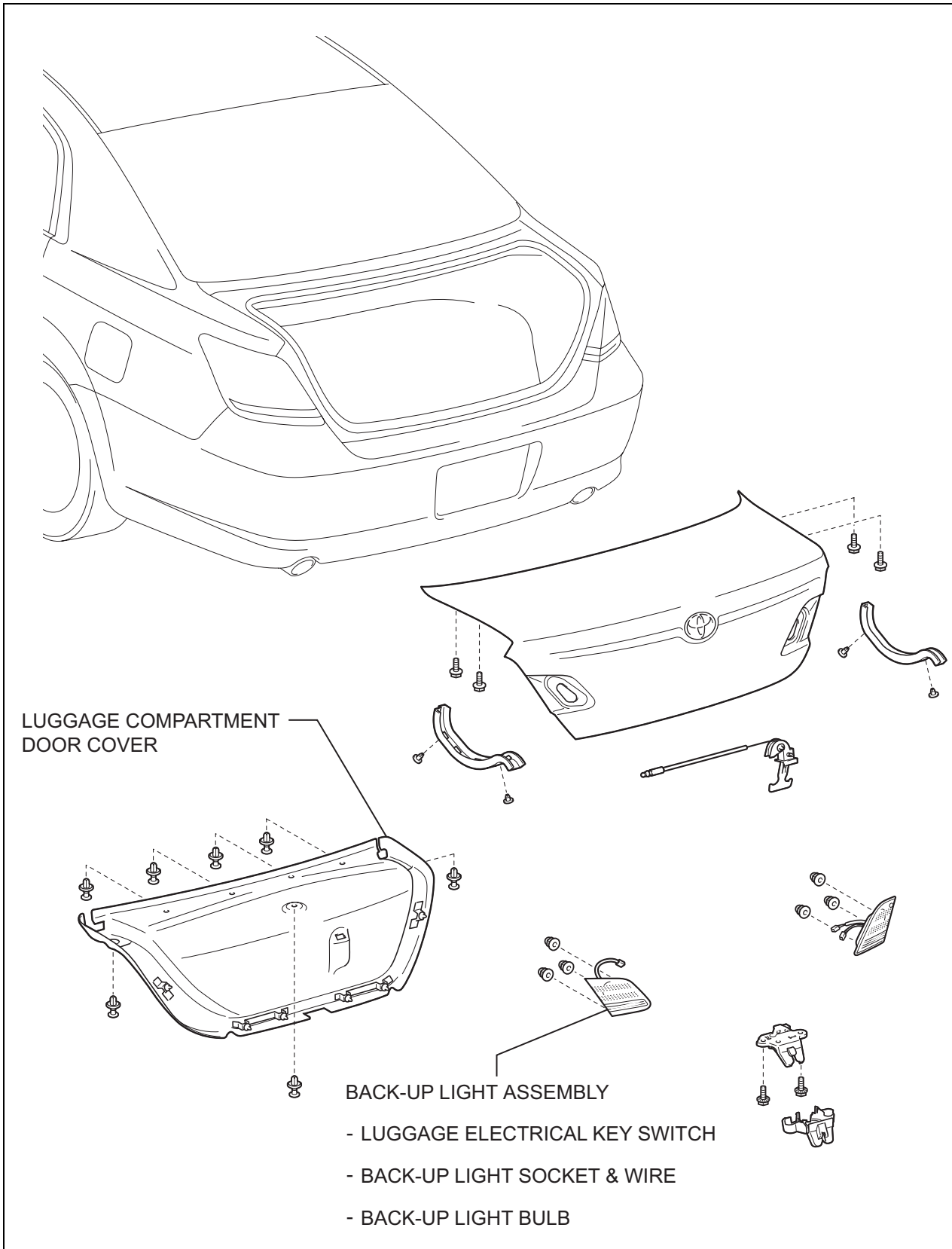
1. **INSTALL REAR COMBINATION LIGHT BODY GASKET LH**
2. **INSTALL REAR COMBINATION LIGHT BULB**
3. **INSTALL REAR COMBINATION LIGHT SOCKET & WIRE**
4. **INSTALL REAR COMBINATION LIGHT BRACKET LH**

INSTALLATION

1. INSTALL REAR COMBINATION LIGHT ASSEMBLY LH
2. INSTALL REAR BUMPER ASSEMBLY (See page ET-8)
3. INSTALL REAR FLOOR FINISH PLATE

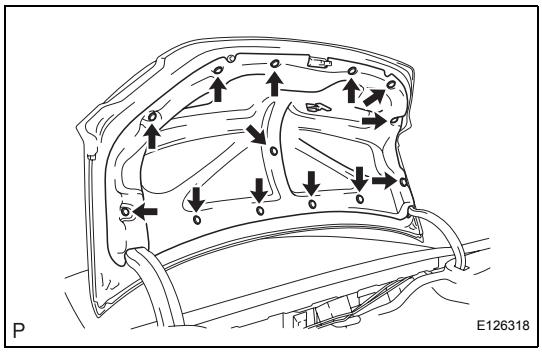
BACK-UP LIGHT ASSEMBLY

COMPONENTS

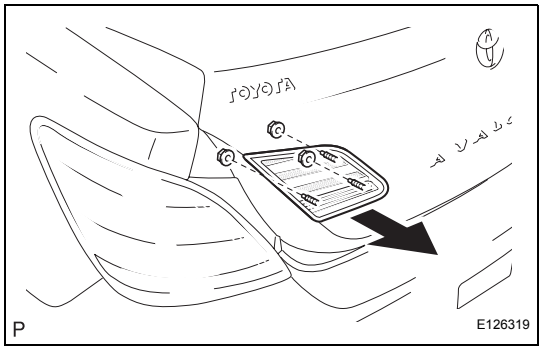


REMOVAL

HINT:
- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.
- Installation is in the reverse order of removal.

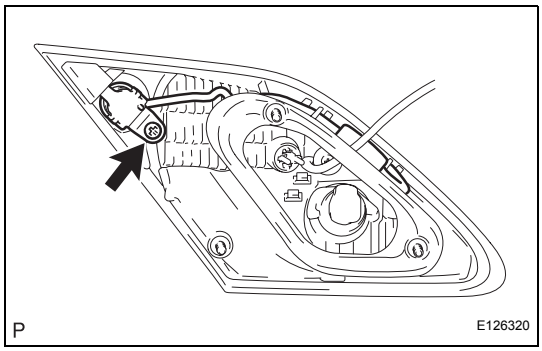


1. REMOVE LUGGAGE COMPARTMENT DOOR COVER
(a) Remove the 13 clips and the luggage compartment door cover.

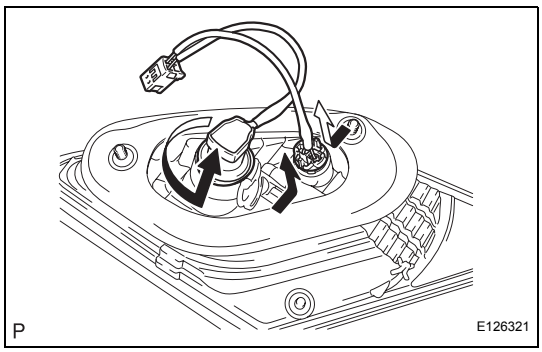


2. REMOVE BACK-UP LIGHT ASSEMBLY
(a) Disconnect the connector.
(b) Remove the 3 nuts and the rear light assembly LH.

DISASSEMBLY



1. REMOVE LUGGAGE ELECTRICAL KEY SWITCH
(a) Remove the screw and the luggage electrical key switch.



2. REMOVE BACK-UP LIGHT SOCKET & WIRE
(a) Remove the rear light socket & wire as shown in the illustration.

3. REMOVE BACK-UP LIGHT BULB

4. REMOVE BACK-UP LIGHT LH GASKET

REASSEMBLY

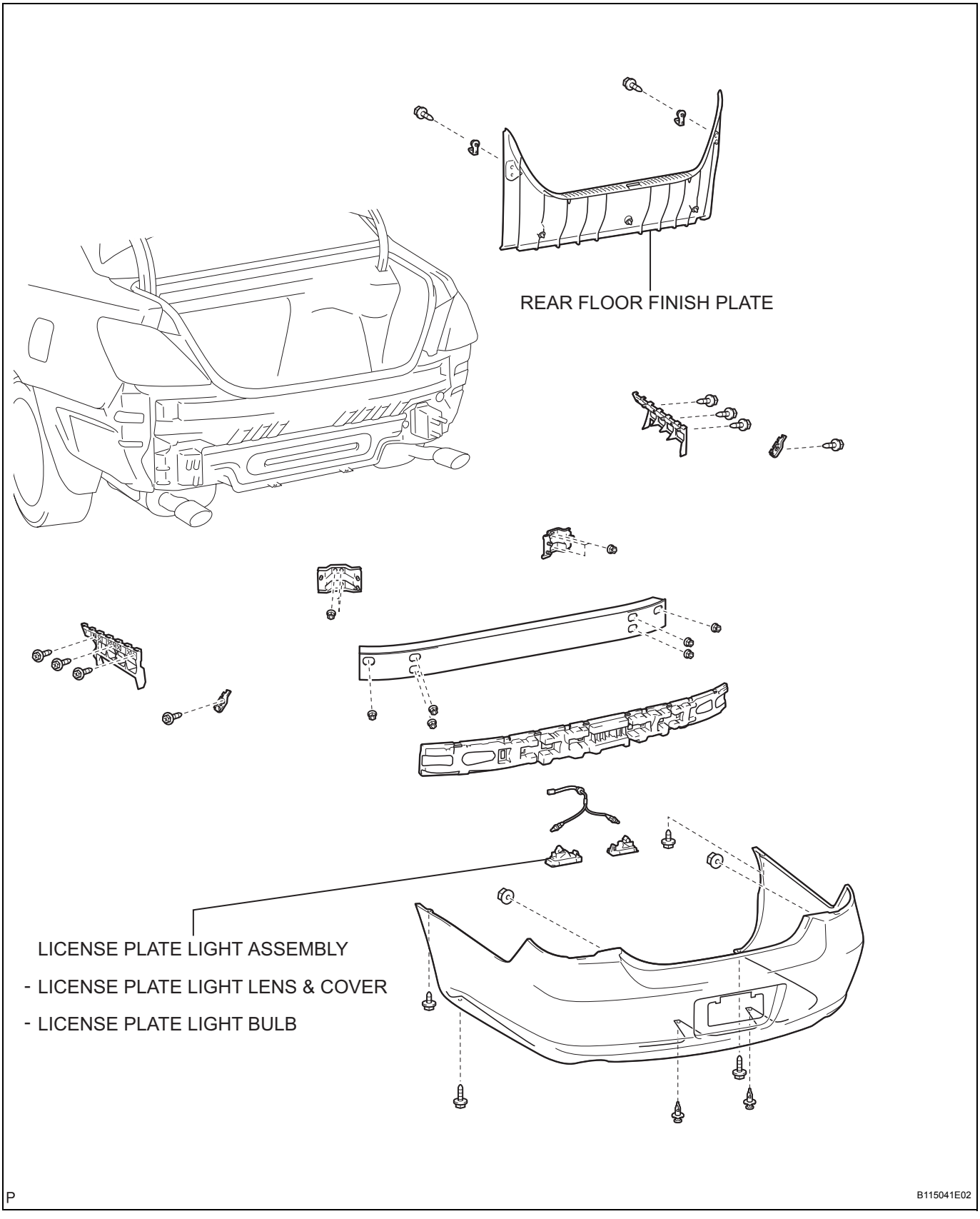
1. **INSTALL BACK-UP LIGHT LH GASKET**
2. **REMOVE BACK-UP LIGHT BULB**
3. **REMOVE REAR LIGHT SOCKET & WIRE**
4. **REMOVE LUGGAGE ELECTRICAL KEY SWITCH**

INSTALLATION

1. **INSTALL BACK-UP LIGHT ASSEMBLY**
2. **INSTALL LUGGAGE COMPARTMENT DOOR COVER**

LICENSE PLATE LIGHT ASSEMBLY

COMPONENTS

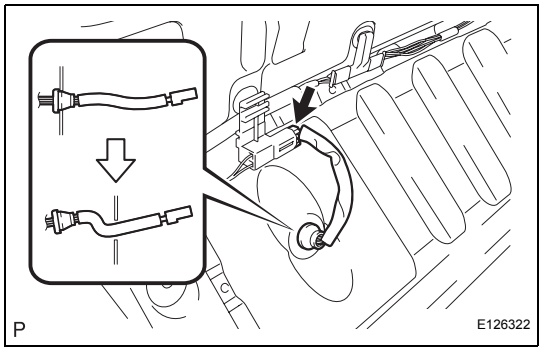


REMOVAL

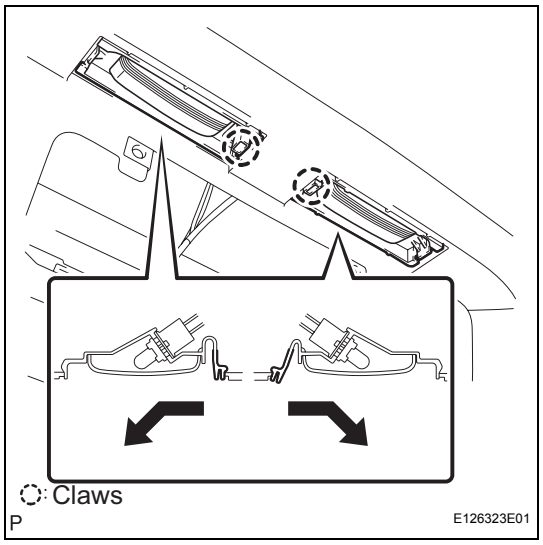
HINT:
Installation is in the reverse order of removal.

1. **REMOVE REAR FLOOR FINISH PLATE (See page ET-6)**

2. **REMOVE LICENSE PLATE LIGHT ASSEMBLY**
   (a) Disconnect the connector.



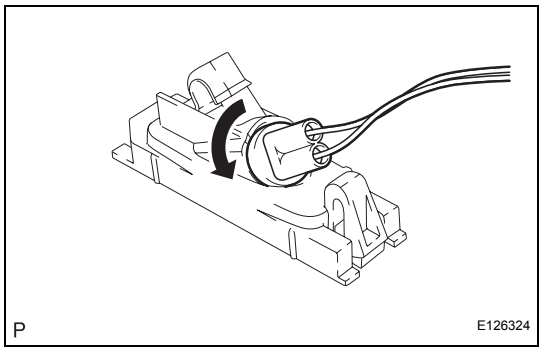
   (b) Remove the grommet as shown in the illustration.
   (c) Disengage the 2 claws and remove the license plate light assembly as shown in the illustration.



DISASSEMBLY

1. **REMOVE LICENSE PLATE LIGHT LENS & COVER**
   (a) Remove the license plate light lens & cover as shown in the illustration.

2. **REMOVE LICENSE PLATE LIGHT BULB**



REASSEMBLY

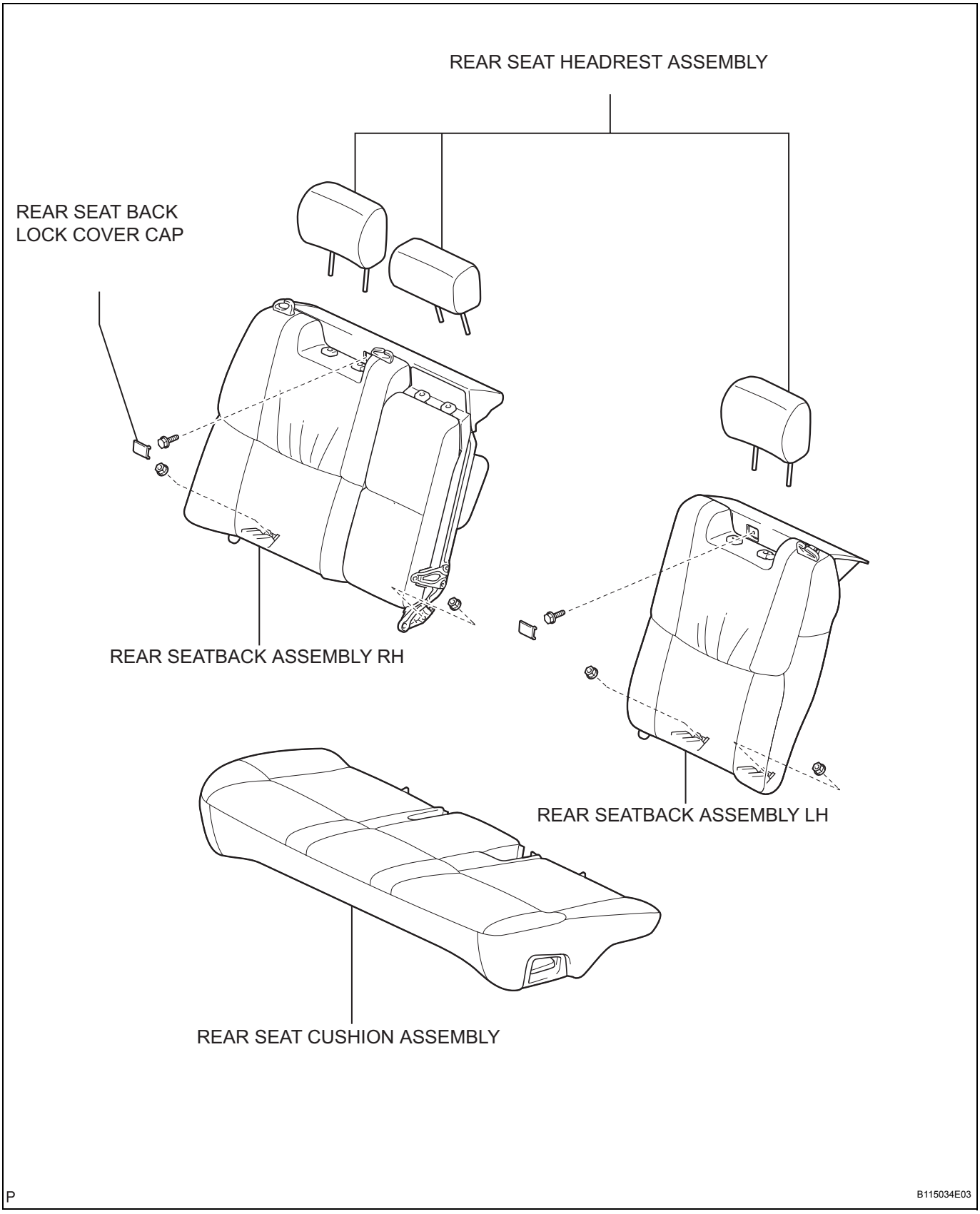
1. **INSTALL LICENSE PLATE LIGHT BULB**
2. **INSTALL LICENSE PLATE LIGHT LENS & COVER**

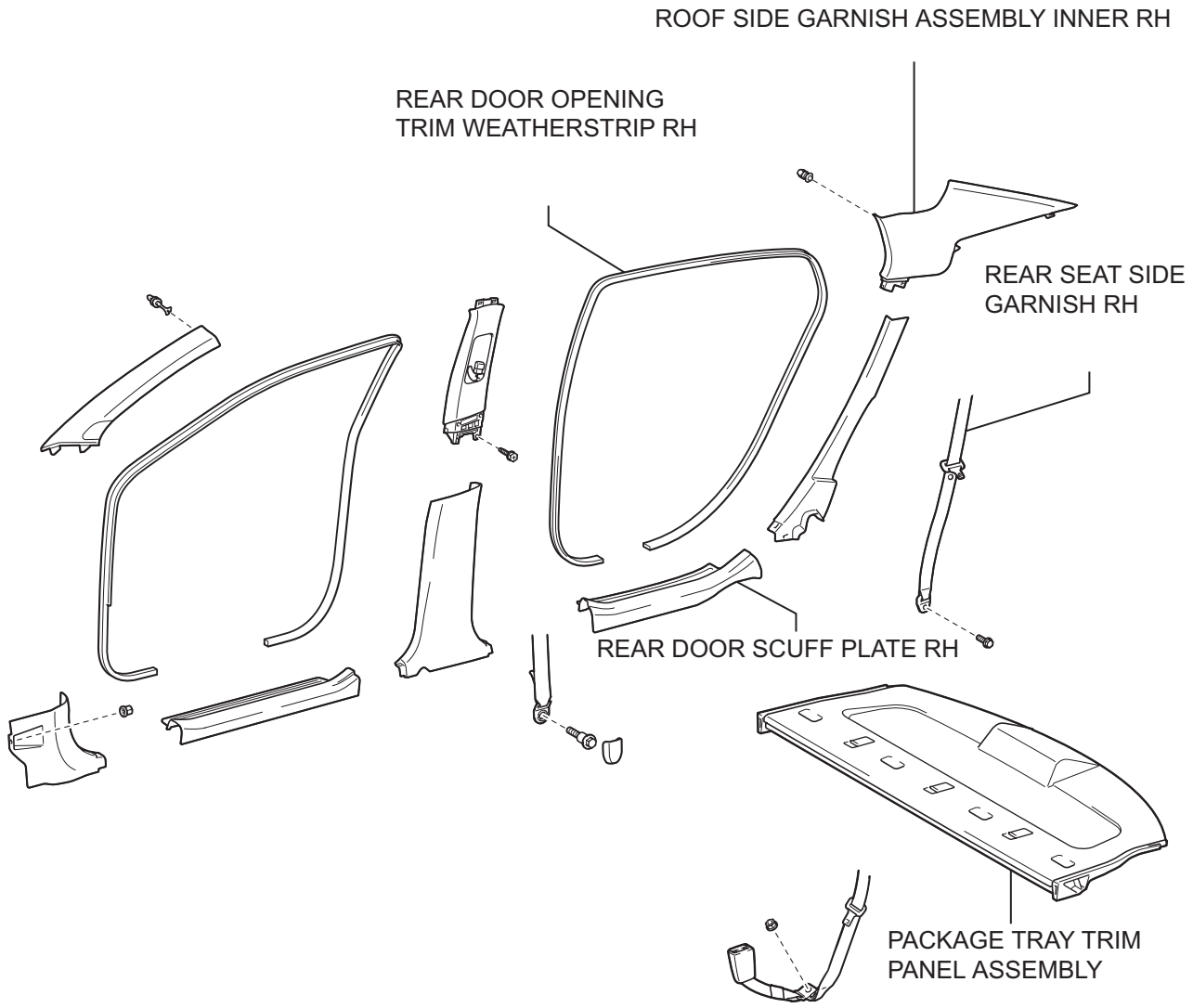
INSTALLATION

1. **INSTALL LICENSE PLATE LIGHT ASSEMBLY**
2. **INSTALL REAR FLOOR FINISH PLATE**

HIGH MOUNTED STOP LIGHT ASSEMBLY

COMPONENTS




ROOF SIDE GARNISH ASSEMBLY INNER RH
REAR DOOR OPENING
TRIM WEATHERSTRIP RH
REAR SEAT SIDE
GARNISH RH
REAR DOOR SCUFF PLATE RH
PACKAGE TRAY TRIM
PANEL ASSEMBLY
P
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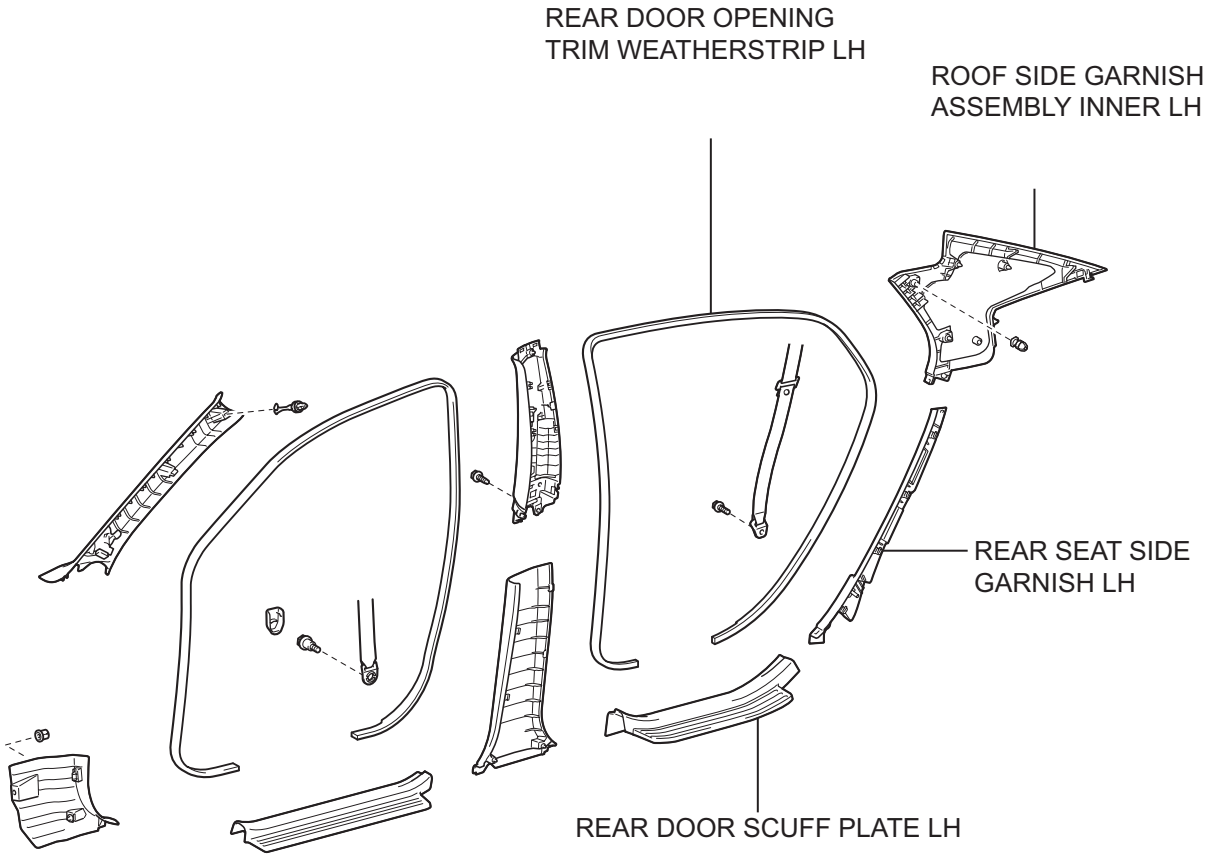

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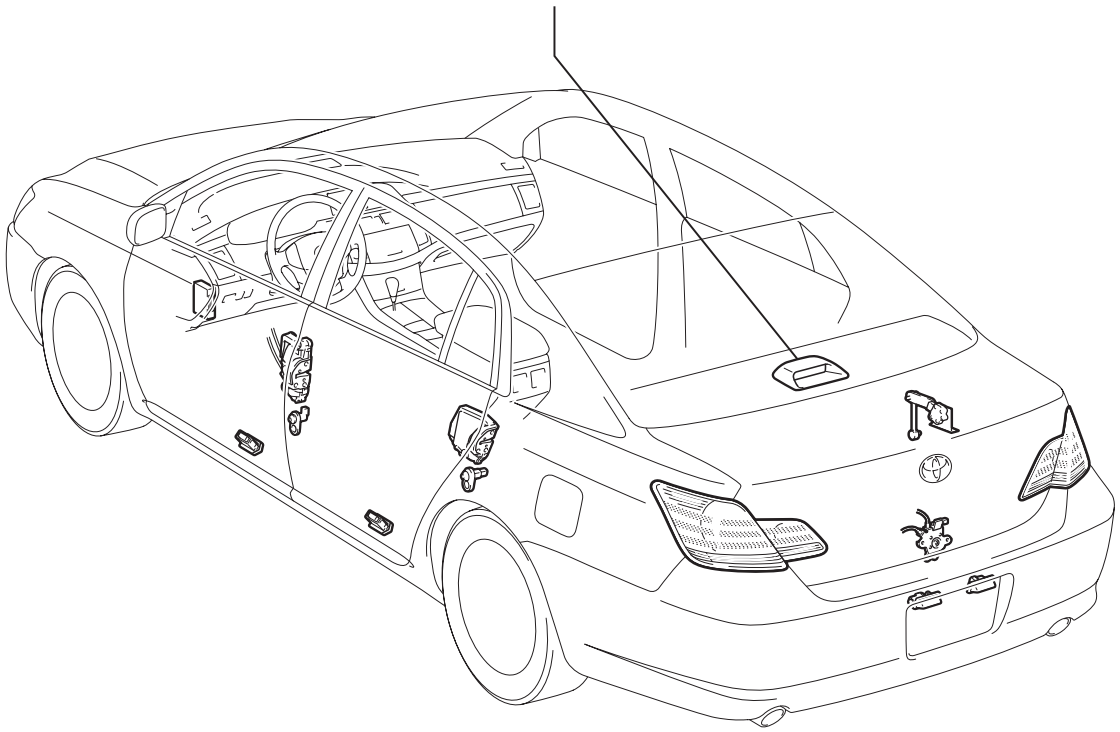
HIGH MOUNTED STOP
LIGHT ASSEMBLY



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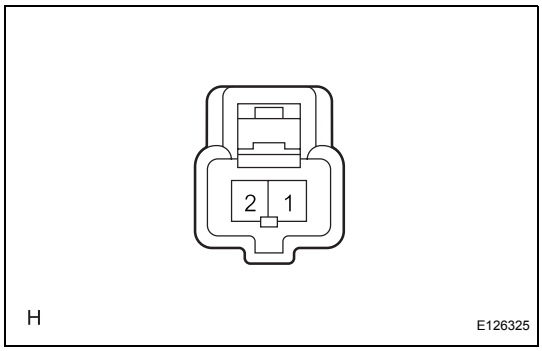


ON-VEHICLE INSPECTION

1. INSPECT CENTER STOP LIGHT ASSEMBLY

(a) Connect the (+) lead from the voltmeter to terminal 1 and the (-) lead from the voltmeter to terminal 2.

(b) Measure the voltage according to the value(s) in the table below.

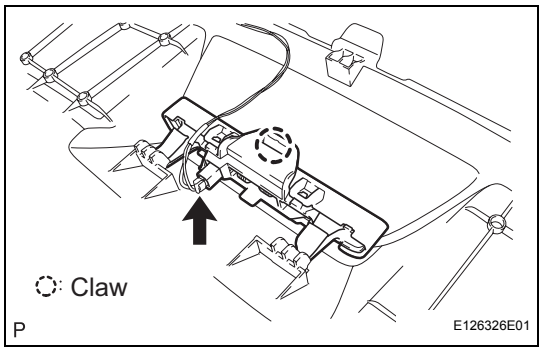
Standard voltage

Tester Connection	Condition	Specified Condition
1 - 2	Brake pedal released	Below 1.5 V
1 - 2	Brake pedal depressed	8 to 14 V

REMOVAL

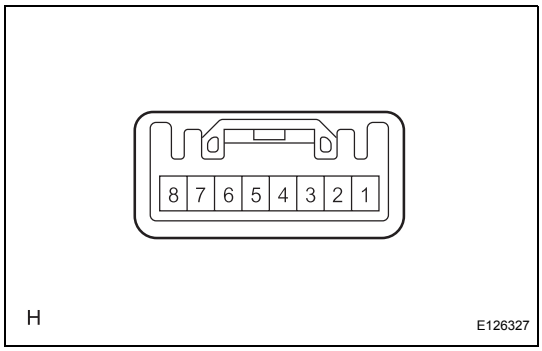
HINT:
installation is in the reverse order of removal.

1. **DISCONNECT BATTERY NEGATIVE TERMINAL**
2. **REMOVE REAR SEAT CUSHION ASSEMBLY (See page SE-68)**
3. **REMOVE REAR SEAT HEADREST ASSEMBLY**
4. **REMOVE REAR SEAT BACK LOCK COVER CAP (See page SE-68)**
5. **REMOVE REAR SEATBACK ASSEMBLY LH (See page SE-68)**
6. **REMOVE REAR SEATBACK ASSEMBLY RH (See page SE-69)**
7. **REMOVE REAR DOOR SCUFF PLATE LH (See page IR-12)**
8. **REMOVE REAR DOOR SCUFF PLATE RH (See page IR-12)**
9. **REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP LH**
10. **REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP RH**
11. **REMOVE REAR SEAT SIDE GARNISH LH (See page IR-14)**
12. **REMOVE REAR SEAT SIDE GARNISH RH (See page IR-14)**
13. **REMOVE ROOF SIDE GARNISH ASSEMBLY INNER LH (See page IR-14)**
14. **REMOVE ROOF SIDE GARNISH ASSEMBLY INNER RH (See page IR-14)**
15. **REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY (See page SB-31)**
16. **REMOVE CENTER STOP LIGHT ASSEMBLY**
    (a) Disconnect the connector.
    (b) Disengage the claw and remove the center stop light assembly.



INSTALLATION

1. **INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY**
2. **INSTALL REAR SEATBACK ASSEMBLY RH (See page SE-76)**
3. **INSTALL REAR SEATBACK ASSEMBLY LH (See page SE-77)**
4. **INSTALL REAR SEAT CUSHION ASSEMBLY**
5. **INSTALL ROOF SIDE GARNISH ASSEMBLY INNER LH (See page IR-19)**
6. **INSTALL ROOF SIDE GARNISH ASSEMBLY INNER RH (See page IR-19)**
7. **INSTALL REAR SEATBACK ASSEMBLY RH (See page SE-76)**
8. **INSTALL REAR SEATBACK ASSEMBLY LH (See page SE-77)**
9. **INSTALL REAR SEAT CUSHION ASSEMBLY**
10. **CONNECT BATTERY NEGATIVE TERMINAL**
11. **PERFORM INITIALIZATION**
    (IN-29)
12. **INSPECT SRS WARNING LIGHT**
    (AC-37)



PERSONAL LIGHT ASSEMBLY

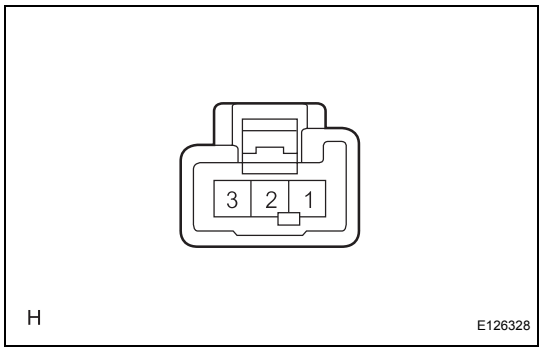
INSPECTION

1. INSPECT PERSONAL LIGHT ASSEMBLY

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

Resistance

Tester connection	Condition	Specified condition
4 - 2	OFF	10 kΩ or higher
4 - 2	Driver side personal light switch ON	Continuity
4 - 2	Passenger side personal light switch ON	Continuity



REAR ROOM LIGHT ASSEMBLY

INSPECTION

1. INSPECT REAR ROOM LIGHT ASSEMBLY

(a) Connect the (+) lead from the battery to terminal 3 and the (-) lead to terminal 2, and check that the rear room light comes on when the switch is in the ON position.

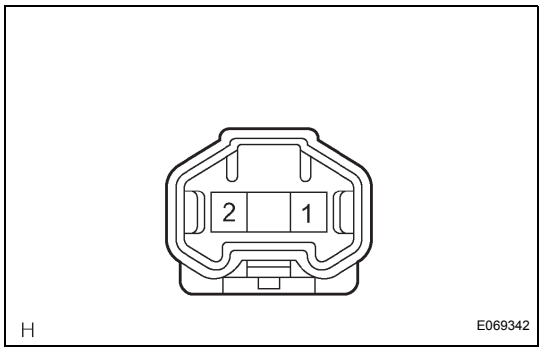
OK:

The light comes on.

(b) Connect the (+) lead from the battery to terminal 3 and the (-) lead to terminal 1, and check that the rear room light comes on when the switch is in the DOOR position.

OK:

The light comes on.



DOOR COURTESY LIGHT

INSPECTION

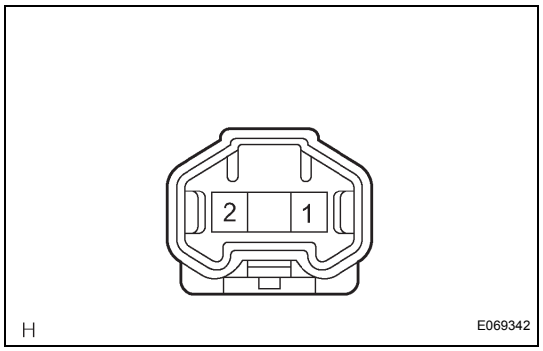
1. INSPECT COURTESY LIGHT ASSEMBLY

(a) Inspect the courtesy light.

(1) Connect the (+) lead from the battery to terminal 2 and the (-) lead to terminal 1, then check that the courtesy light comes on.

OK:

The light comes on.



LUGGAGE COMPARTMENT ROOM LIGHT

INSPECTION

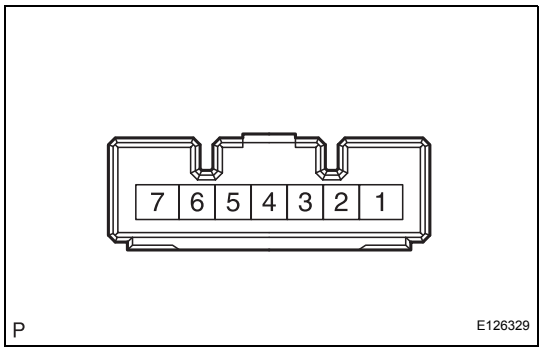
1. INSPECT LUGGAGE COMPARTMENT LIGHT ASSEMBLY

(a) Inspect the luggage compartment light.

(1) Connect the (+) lead from the battery to terminal 1 and the (-) lead to terminal 2, then check that the luggage compartment light comes on.

OK:

The light comes on.



IGNITION KEY CYLINDER LIGHT

INSPECTION

1. INSPECT TRANSPONDER KEY AMPLIFIER

(a) Inspect key cylinder light operation.

(1) Connect the (+) lead from the battery to terminal 2 and the (-) lead to terminal 6, and check that the light comes on.

Standard:

The light comes on.

VANITY LIGHT

INSPECTION

1. INSPECT LH VISOR ASSEMBLY

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

Standard resistance

Switch operation	Specified condition
ON (Open)	Below 1 Ω
OFF (Close)	10 kΩ or higher

2. INSPECT RH VISOR ASSEMBLY

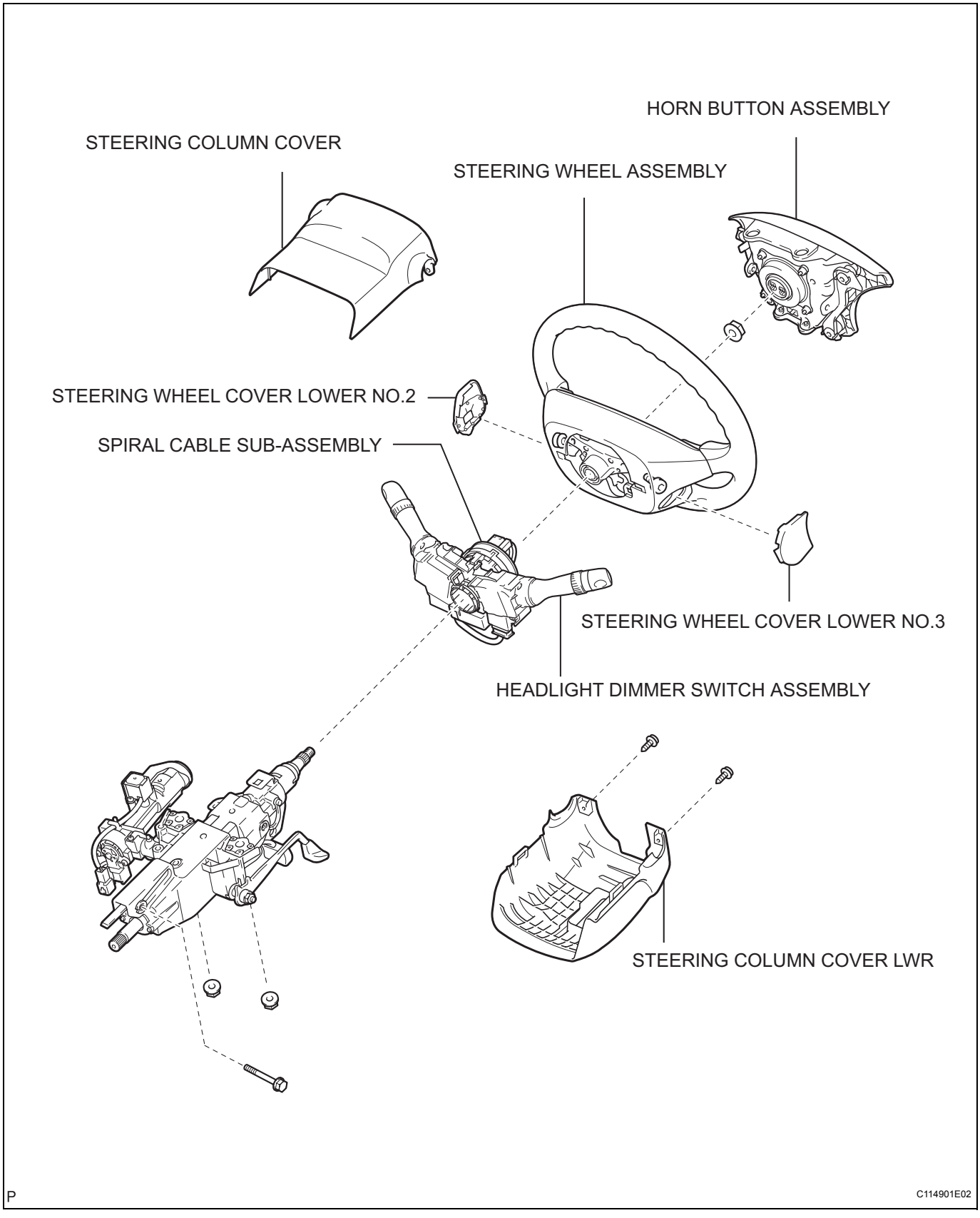
(a) Measure the resistance according to the value(s) in the table below.

Standard resistance

Switch operation	Specified condition
ON (Open)	Below 1 Ω
OFF (Close)	10 kΩ or higher

HEADLIGHT DIMMER SWITCH

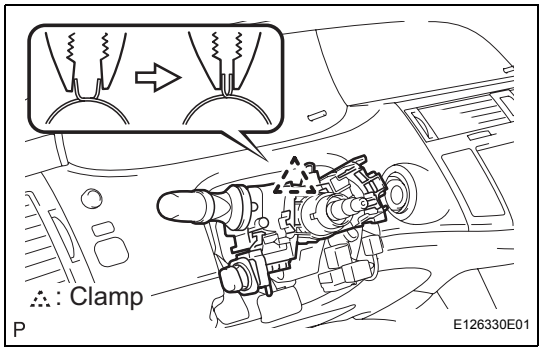
COMPONENTS



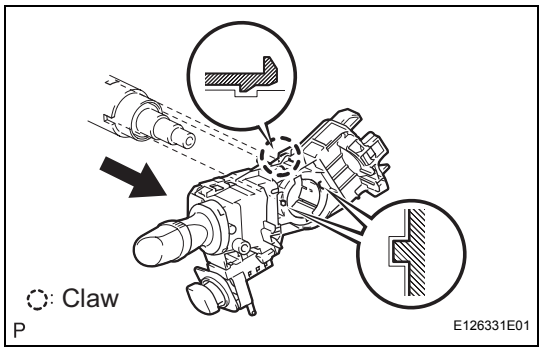
REMOVAL

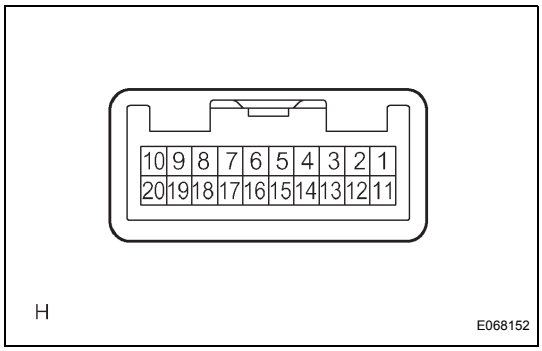
HINT:
Install is in the reverse order of removal.

1. **DISCONNECT BATTERY NEGATIVE TERMINAL**
   (a) Wait for 90 seconds after disconnecting the cable to prevent the airbag working.
2. **PLACE FRONT WHEELS FACING STRAIGHT AHEAD**
3. **REMOVE STEERING WHEEL COVER LOWER NO.3 (See page RS-304)**
4. **REMOVE STEERING WHEEL COVER LOWER NO.2 (See page RS-304)**
5. **REMOVE HORN BUTTON ASSEMBLY (See page RS-304)**
6. **REMOVE STEERING WHEEL ASSEMBLY (See page SR-36)**
7. **REMOVE STEERING COLUMN COVER LWR (See page SR-36)**
8. **REMOVE STEERING COLUMN COVER (See page SR-36)**
9. **REMOVE SPIRAL CABLE SUB-ASSEMBLY**
10. **REMOVE HEADLIGHT DIMMER SWITCH ASSEMBLY**
    (a) Disconnect the connector.
    (b) Disengage the clamp from the headlight dimmer switch assembly as shown in the illustration.



    (c) Disengage the claw and remove the headlight dimmer switch assembly as shown in the illustration.





INSPECTION

1. INSPECT HEADLIGHT DIMMER SWITCH ASSEMBLY

(a) Inspect the light control switch.

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

Standard resistance

Tester Connection	Switch Condition	Specified Condition
19 - 11 - 13 - 12	OFF	10 kΩ or higher
19 - 13	TAIL	Below 1 Ω
19 - 11 - 13	HEAD	Below 1 Ω
19 - 12	AUTO	Below 1 Ω

(b) Inspect the headlight dimmer switch.

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

Standard resistance

Tester Connection	Switch Condition	Specified Condition
14 - 19	FLASH	Below 1 Ω
19 - 20	LOW BEAM	Below 1 Ω
15 - 19	HI BEAM	Below 1 Ω

(c) Inspect the turn signal switch.

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

Standard resistance

Tester Connection	Switch Condition	Specified Condition
16 - 17 - 19	Right turn	Below 1 Ω
16 - 17 - 18 - 19	Neutral	10 kΩ or higher
17 - 19 - 18	Left turn	Below 1 Ω

(d) Inspect the front fog light switch.

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

Standard resistance

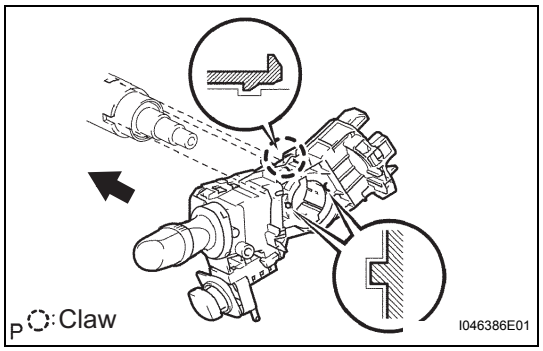
Tester Connection	Switch Condition	Specified Condition
7 - 8	OFF	10 kΩ or higher
7 - 8	Fog light switch ON	Below 1 Ω

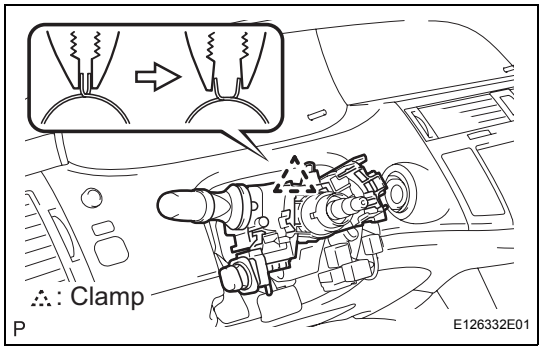
(e) Inspect the rear fog light switch.

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

Standard resistance

Tester Connection	Switch Condition	Specified Condition
7 - 8 - 9	OFF	10 kΩ or higher
7 - 8 - 9	ON	Below 1 Ω

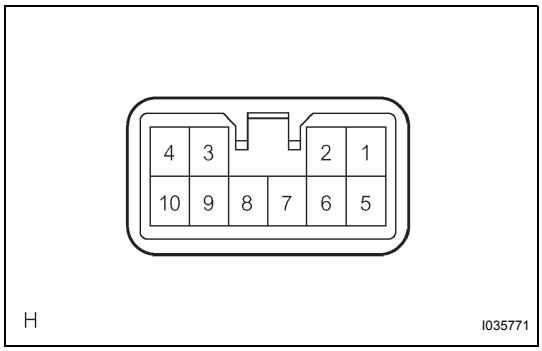




INSTALLATION

1. **INSTALL HEADLIGHT DIMMER SWITCH ASSEMBLY**
   (a) Install the headlight dimmer switch assembly with the claw as shown in the illustration.
   HINT:
   Make sure that the claw is completely engaged.

   (b) Install the headlight dimmer switch assembly with the clamp.
   (c) Connect the connector.
2. **INSTALL SPIRAL CABLE SUB-ASSEMBLY**
3. **INSTALL STEERING COLUMN COVER (See page SR-46)**
4. **INSTALL STEERING COLUMN COVER LWR (See page SR-46)**
5. **ADJUST SPIRAL CABLE SUB-ASSEMBLY**
6. **INSTALL STEERING WHEEL ASSEMBLY (See page SR-46)**
7. **INSPECT STEERING WHEEL CENTER POINT (See page SR-47)**
8. **INSTALL HORN BUTTON ASSEMBLY (See page RS-305)**
9. **INSTALL STEERING WHEEL COVER LOWER NO.2 (See page RS-305)**
10. **INSTALL STEERING WHEEL COVER LOWER NO.3 (See page RS-305)**
11. **CONNECT BATTERY NEGATIVE TERMINAL**
12. **INSPECT HORN BUTTON ASSEMBLY**
13. **INSPECT SRS WARNING LIGHT**
    (RS-1)
14. **PERFORM INITIALIZATION**
    (a) Some systems need initialization when disconnecting the cable from the negative battery terminal (IN-29).



HAZARD WARNING SWITCH

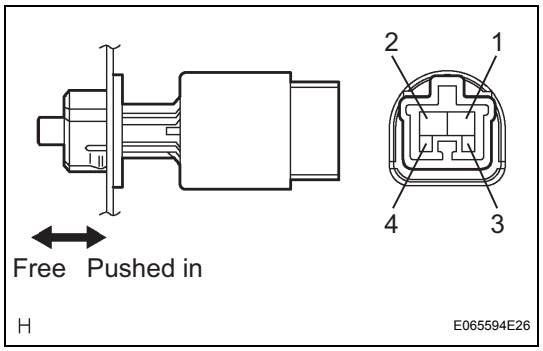
INSPECTION

1. INSPECT HAZARD WARNING SIGNAL SWITCH ASSEMBLY

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

Standard resistance

Tester Connection	Condition	Specified Condition
5 - 6	Hazard warning switch ON	Below 1 Ω
5 - 6	Hazard warning switch OFF	10 kΩ or higher



STOP LIGHT SWITCH

INSPECTION

1. INSPECT STOP LIGHT SWITCH ASSEMBLY

(a) Inspect the stop light switch assembly.

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

Standard resistance

Tester Connection	Switch Condition	Specified Condition
1 - 2	Switch pin free	10 kΩ 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 kΩ or higher

FRONT DOOR COURTESY SWITCH

INSPECTION

1. INSPECT FRONT DOOR COURTESY LIGHT SWITCH

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

Standard resistance

Switch operation	Specified condition
ON (When the shaft is pressed)	10 kΩ or higher
OFF (When the shaft is not pressed)	Below 1 Ω

REAR DOOR COURTESY SWITCH

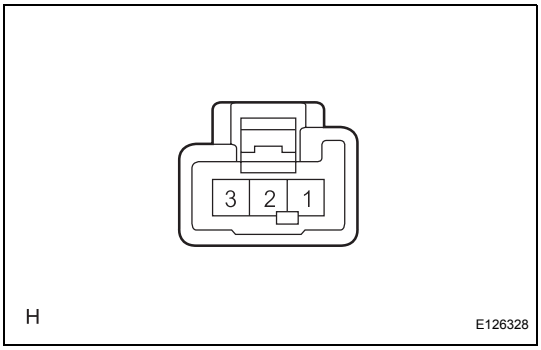
INSPECTION

1. INSPECT REAR DOOR COURTESY LIGHT SWITCH

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

Standard resistance

Switch operation	Specified condition
ON (When the shaft is pressed)	10 kΩ or higher
OFF (When the shaft is not pressed)	Below 1 Ω



BACK DOOR COURTESY SWITCH

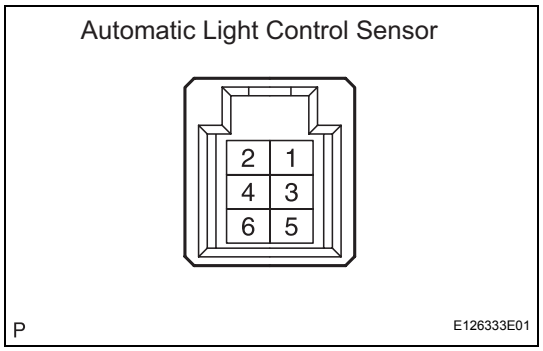
INSPECTION

1. INSPECT LUGGAGE COMPARTMENT DOOR LOCK ASSEMBLY

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

Standard resistance

Tester connection	Condition	Specified condition
2 - 3	Back door is closed	10 kΩ or higher
2 - 3	Back door is open	Below 1 Ω



AUTOMATIC LIGHT CONTROL SENSOR

ON-VEHICLE INSPECTION

1. INSPECT AUTOMATIC LIGHT CONTROL SENSOR

(a) Measure the continuity, waveform and voltage according to the value(s) in the table below.

NOTICE:

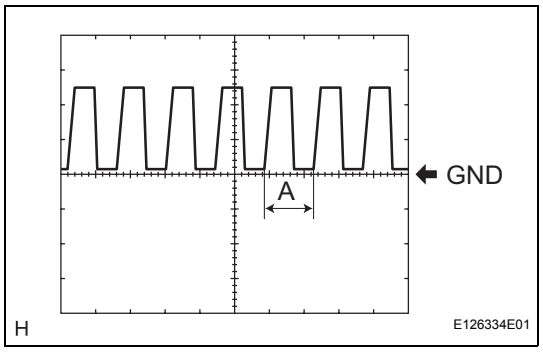
With connector connected, perform inspection from the backside of the connector.

Standard voltage

Tester connection	Condition	Specified condition
6 - 3	Always	10 to 14 V
5 - 3	Ignition switch on (IG), Headlight dimmer SW in AUTO	Pulse generation (See waveform 1)

Standard resistance

Tester connection	Condition	Specified condition
3 - Body ground	Always	Below 1 Ω



(b) Waveform 1

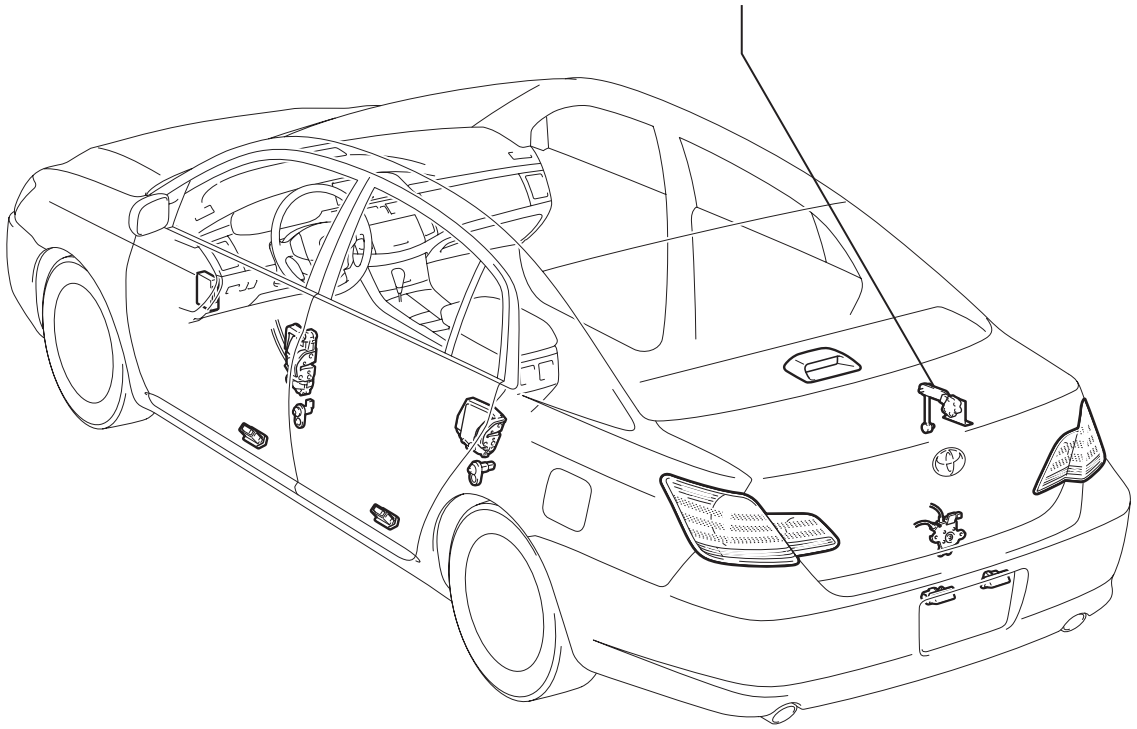
Item	Description
Terminal	CLTS (5) - CLTE (3)
Gauge	5 V/DIV, 5 ms/DIV
Condition	Ignition switch ON (IG), Headlight dimmer SW in AUTO

HINT:

If the ambient light becomes brighter, width A will become narrower.

HEIGHT CONTROL SENSOR

COMPONENTS



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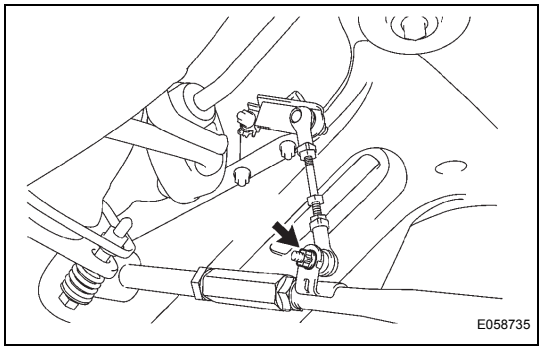
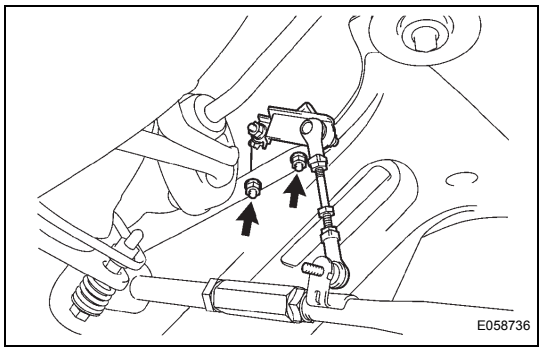
REMOVAL

HINT:
Installation is in the reverse order of removal.



1. REMOVE HEIGHT CONTROL SENSOR SUB-ASSEMBLY REAR RH

(a) Disconnect the connector.
(b) Place matchmarks with the one on the height control sensor sub-assembly rear RH and bracket.
(c) Remove a nut.



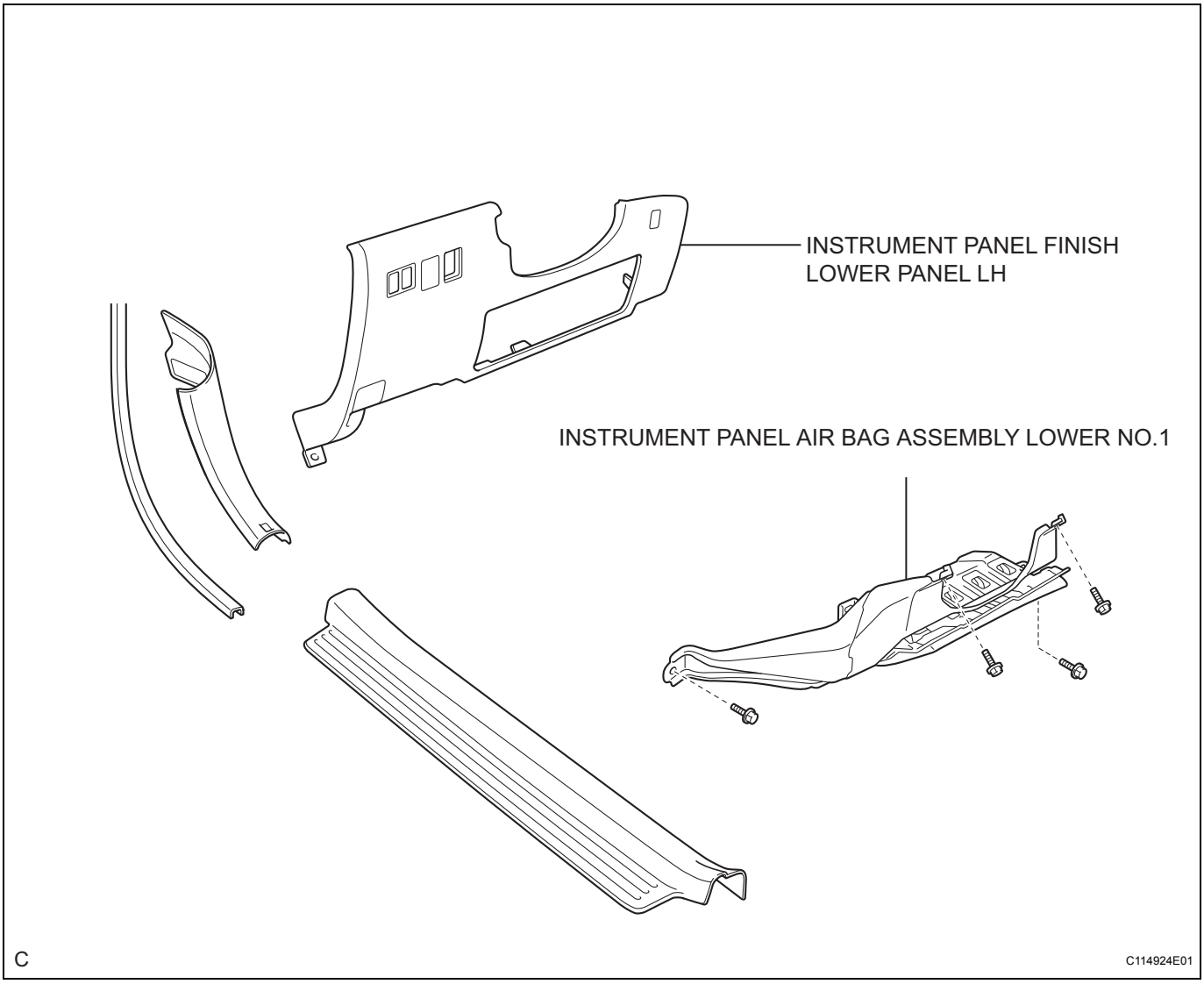
(d) Remove the 2 nuts and height control sensor sub-assembly rear RH.

INSTALLATION

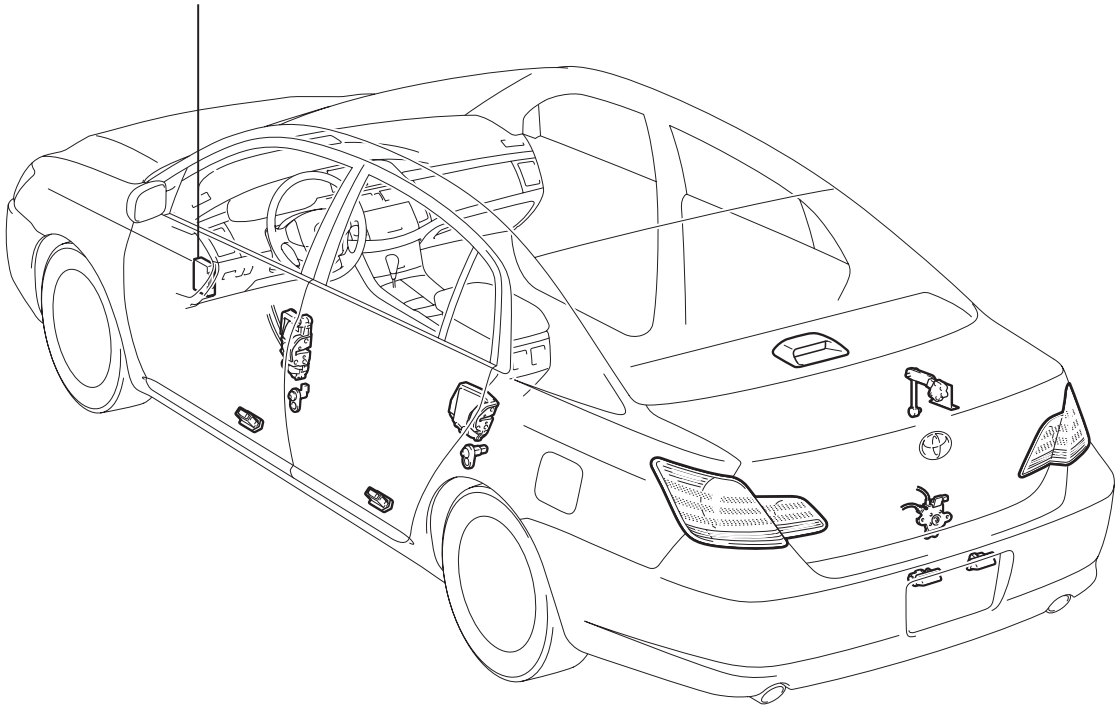
1. **INSTALL HEIGHT CONTROL SENSOR SUB-ASSEMBLY REAR RH**
   (a) Install the height control sensor link rear RH with the 2 nuts.
   Torque: 8.0 N*m (81 kgf*cm, 71 in.*lbf)
   (b) Align the matchmarks with the one on the height control sensor sub-assembly rear RH and bracket.
   (c) Install the height control sensor sub-assembly rear RH.
   Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)
   (d) Connect the connector.
   (e) Install a nut.
   (f) When the work like the vehicle height may be changed is performed, for example, removal and installation of the height control sensor, or replacement of the suspension, etc., initialize the sensor, then adjust the optical axis (See page LI-16).
2. **VEHICLE PREPARATION FOR HEADLIGHT AIM ADJUSTMENT (See page LI-114)**
3. **PREPARATION FOR HEADLIGHT AIMING (Using a tester) (See page LI-114)**
4. **PREPARATION FOR HEADLIGHT AIMING (Using a screen) (See page LI-114)**
5. **HEADLIGHT AIMING INSPECTION (See page LI-116)**
6. **HEADLIGHT AIMING ADJUSTMENT (See page LI-117)**

HEADLIGHT LEVELING ECU

COMPONENTS



HEADLIGHT LEVELING ECU ASSEMBLY



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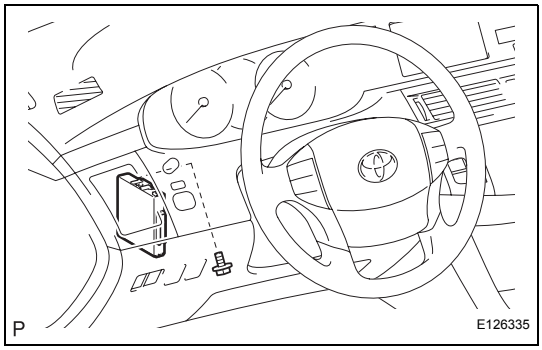
REMOVAL

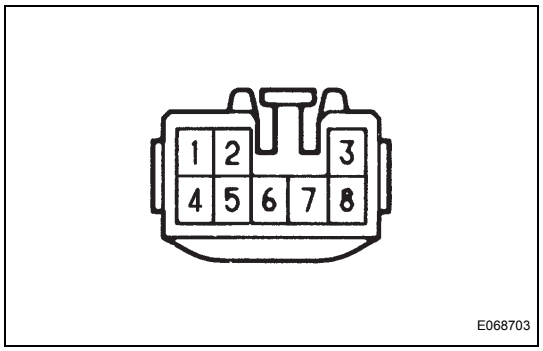
HINT:
Installation is in the reverse order of removal.

1. **REMOVE INSTRUMENT PANEL FINISH LOWER PANEL LH**
2. **REMOVE INSTRUMENT PANEL AIR BAG ASSEMBLY LOWER NO.1**
3. **REMOVE HEADLIGHT LEVELING ECU ASSEMBLY**
   (a) Disconnect the connector.
   (b) Remove the bolt and the headlight leveling ECU assembly.



INSTALLATION

1. **INSTALL INSTRUMENT PANEL AIR BAG ASSEMBLY LOWER NO.1**
2. **INSTALL INSTRUMENT PANEL FINISH LOWER PANEL LH**



TURN SIGNAL FLASHER ASSEMBLY

ON-VEHICLE INSPECTION

1. INSPECT TURN SIGNAL FLASHER ASSEMBLY

(a) Disconnect the connector from the turn signal flasher.

(b) Measure the voltage according to the value(s) in the table below.

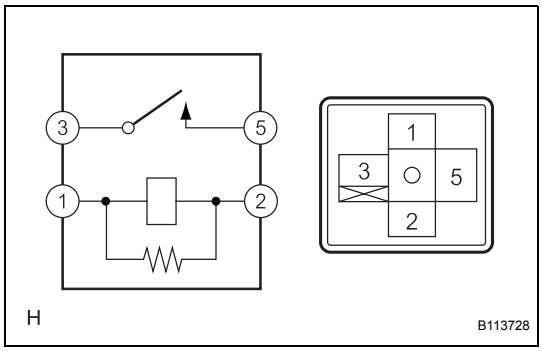
Standard voltage

Tester connection	Condition	Specified condition
1 - body ground	Turn ignition switch on (IG)	10 to 14 V
1 - body ground	Turn ignition switch off	Below 1 V
4 - body ground	Always	10 to 14 V
7 - body ground	Always	Below 1 V

(c) Connect the connector to turn on the signal flasher and turn the ignition switch on (IG). inspect the wire harness side connector from the back according to the conditions listed in the table below.

Standard voltage

Tester connection	Condition	Specified condition
2 - body ground	Hazard switch OFF → ON	0 V → 10 to 14 V (60 to 120 time per minute)
2 - body ground	Turn signal switch (right turn) OFF → ON	0 V → 10 to 14 V (60 to 120 time per minute)
3 - body ground	Hazard switch OFF → ON	0 V → 10 to 14 V (60 to 120 time per minute)
3 - body ground	Turn signal switch (left turn) OFF → ON	0 V → 10 to 14 V (60 to 120 time per minute)
5 - body ground	Turn signal switch (left turn) OFF → ON	10 to 14 V → 0 V
6 - body ground	Turn signal switch (right turn) OFF → ON	10 to 14 V → 0 V
8 - body ground	Hazard switch OFF → ON	10 to 14 V → 0 V



HEADLIGHT RELAY

INSPECTION

1. INSPECT HEADLIGHT RELAY

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

Standard resistance

Tester connection	Specified condition
3 - 5	10 kΩ or higher
3 - 5	Below 1 Ω (When battery voltage is applied to terminal 1 - 2)