LIGHTING SYSTEM

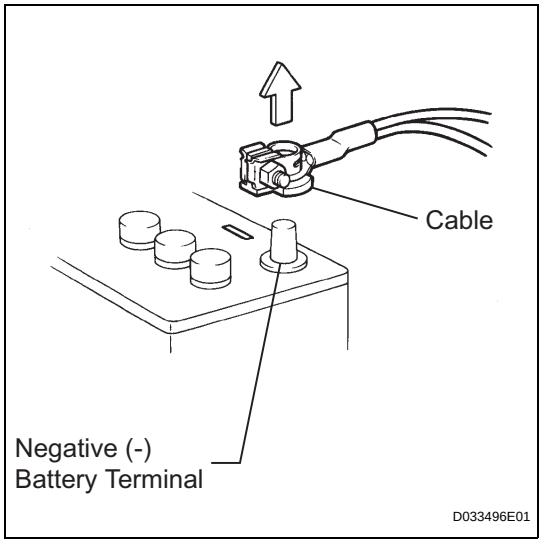
PRECAUTION

1. DISCONNECT AND RECONNECT CABLE OF NEGATIVE BATTERY TERMINAL

NOTICE:

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

System Name	See procedure
METER / GAUGE SYSTEM	See page ME-10

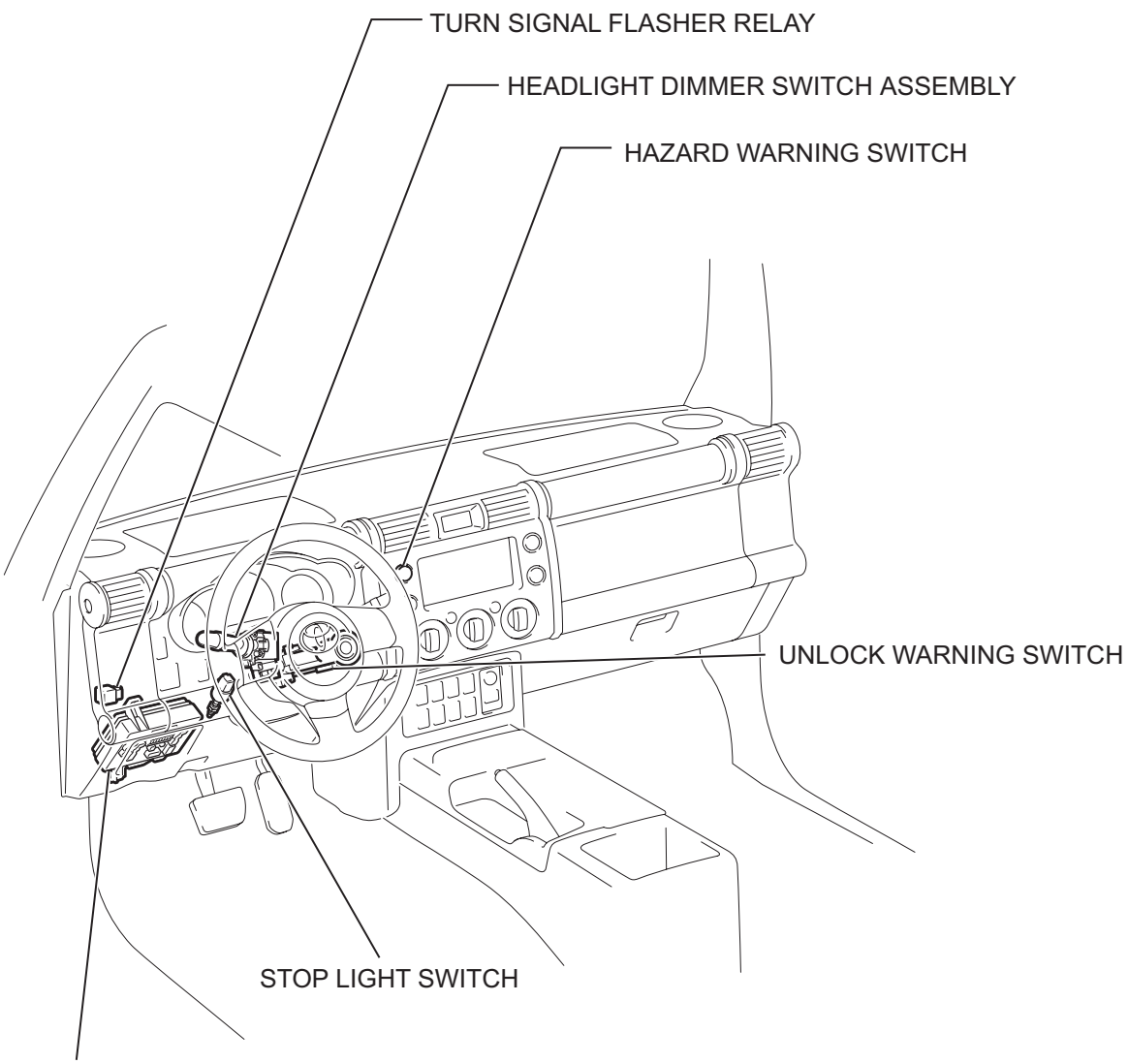


(a) Before performing electronic work, disconnect the cable from the negative (-) battery terminal in order to prevent it from shorting and burning out.

(b) Before disconnecting and reconnecting the battery cable, turn the ignition switch OFF and the headlight dimmer switch OFF. Then loosen the terminal nut completely. Do not damage the cable or terminal.

(c) When the battery cable is disconnected, the clock and radio settings and stored DTCs are erased. Therefore, before disconnecting the battery cable, make a notes of them.

PARTS LOCATION



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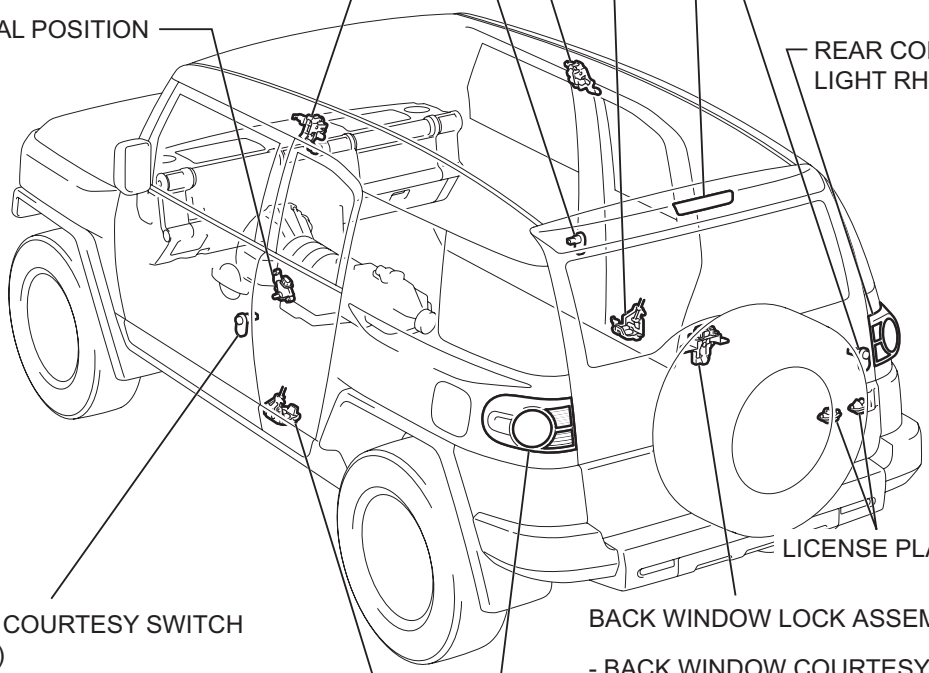

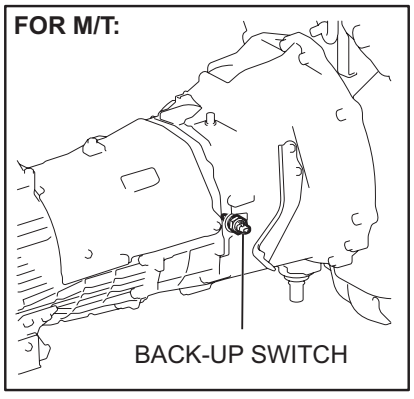

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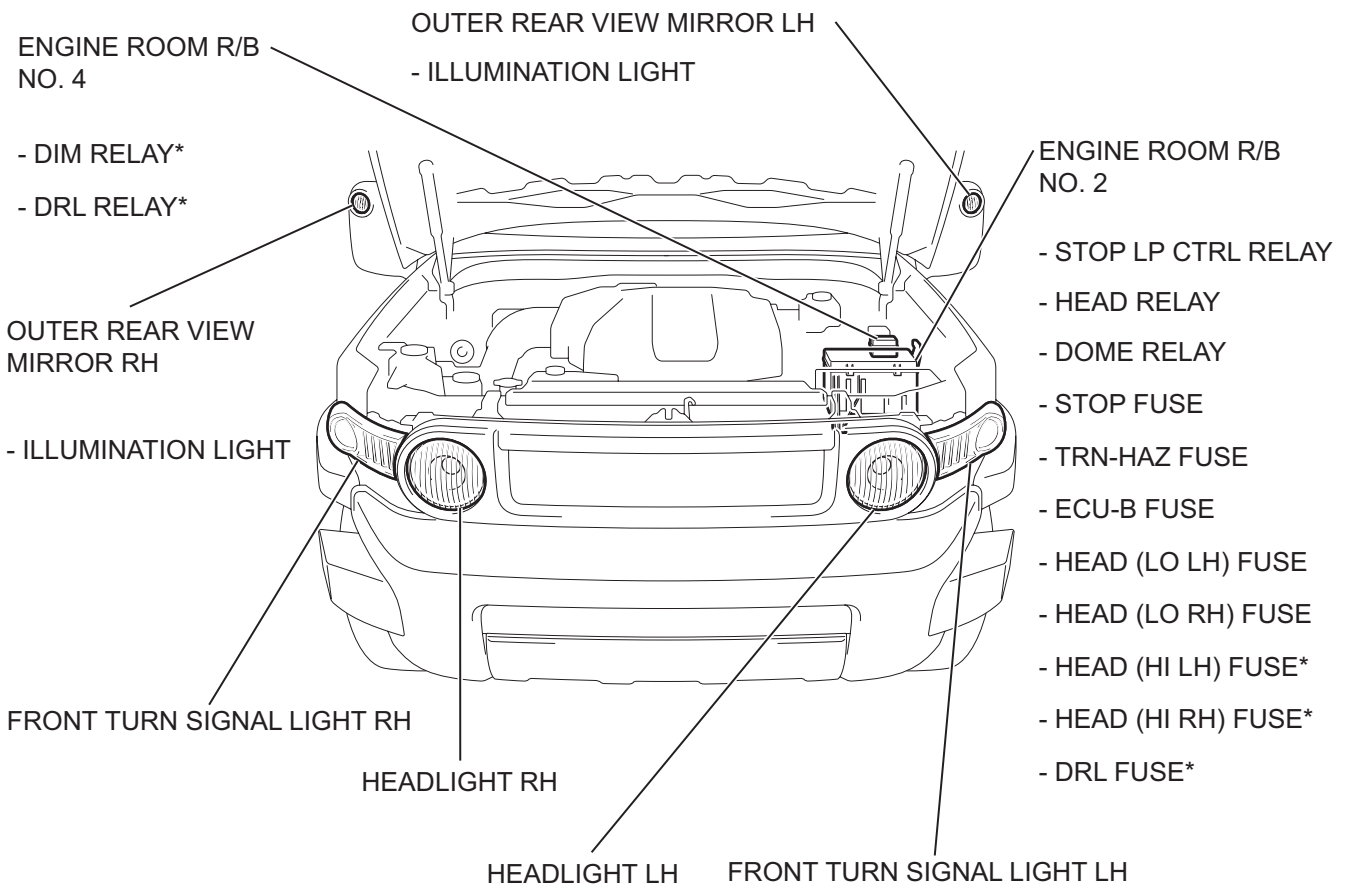
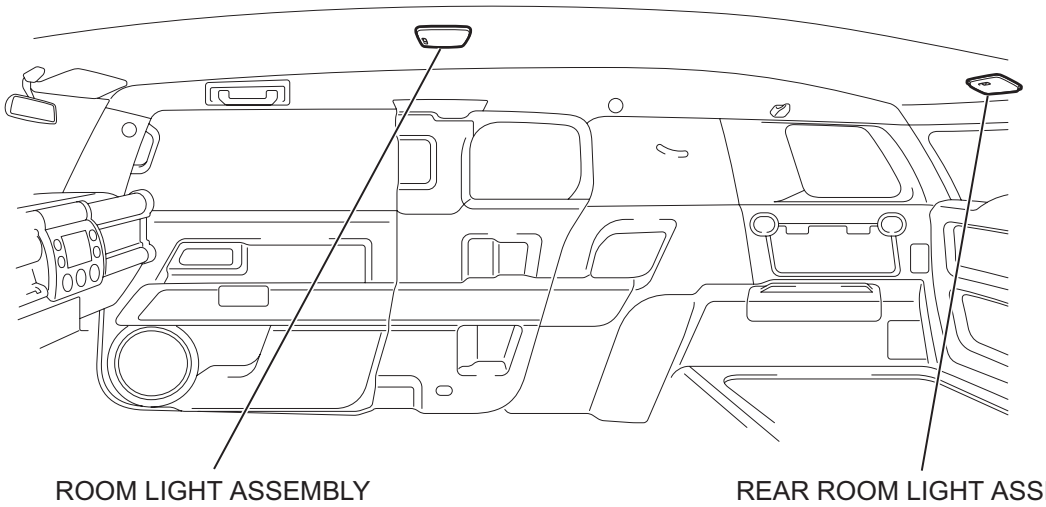
LI



*: W/ DAY TIME RUNNING LIGHT SYSEM



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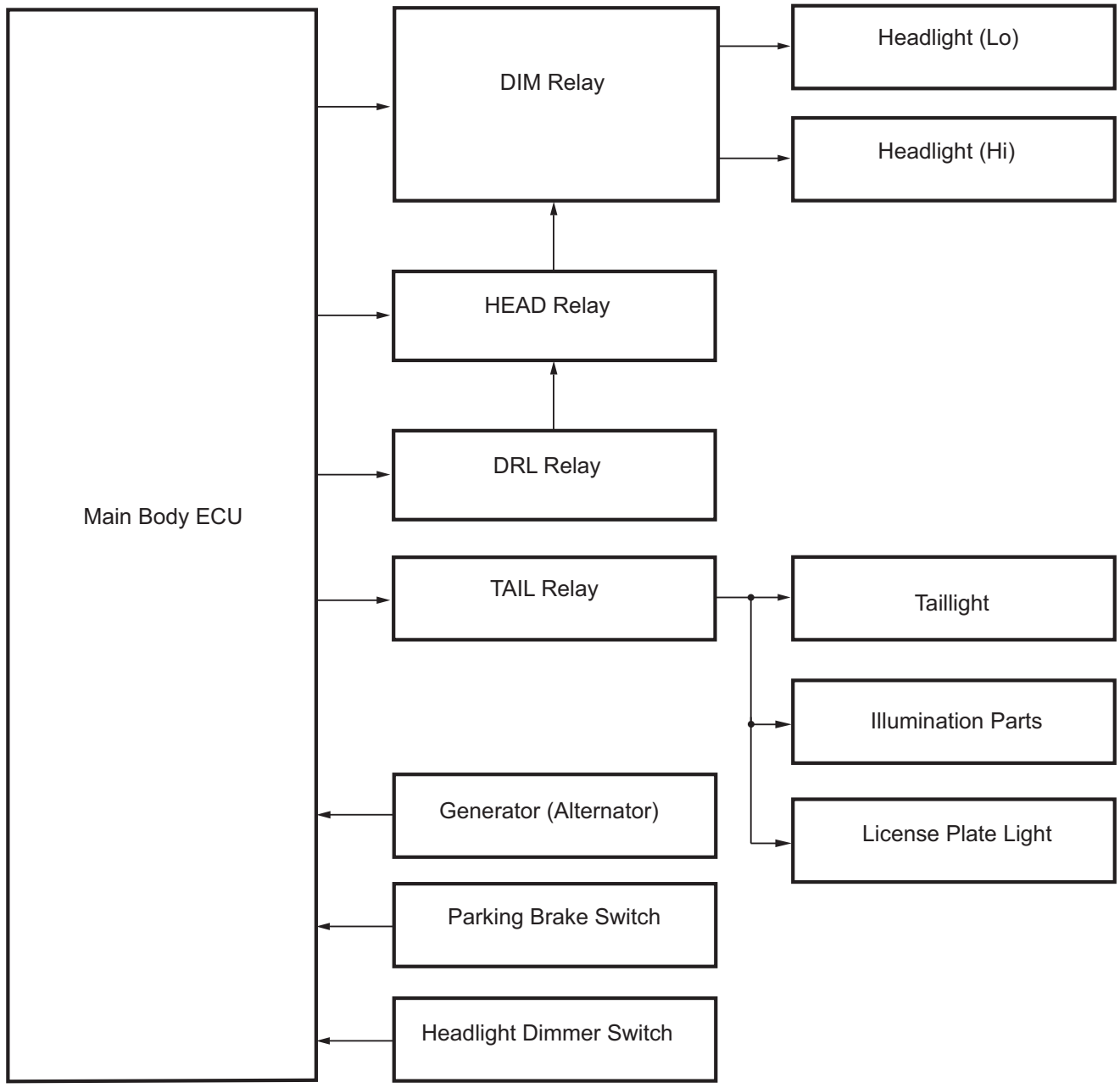
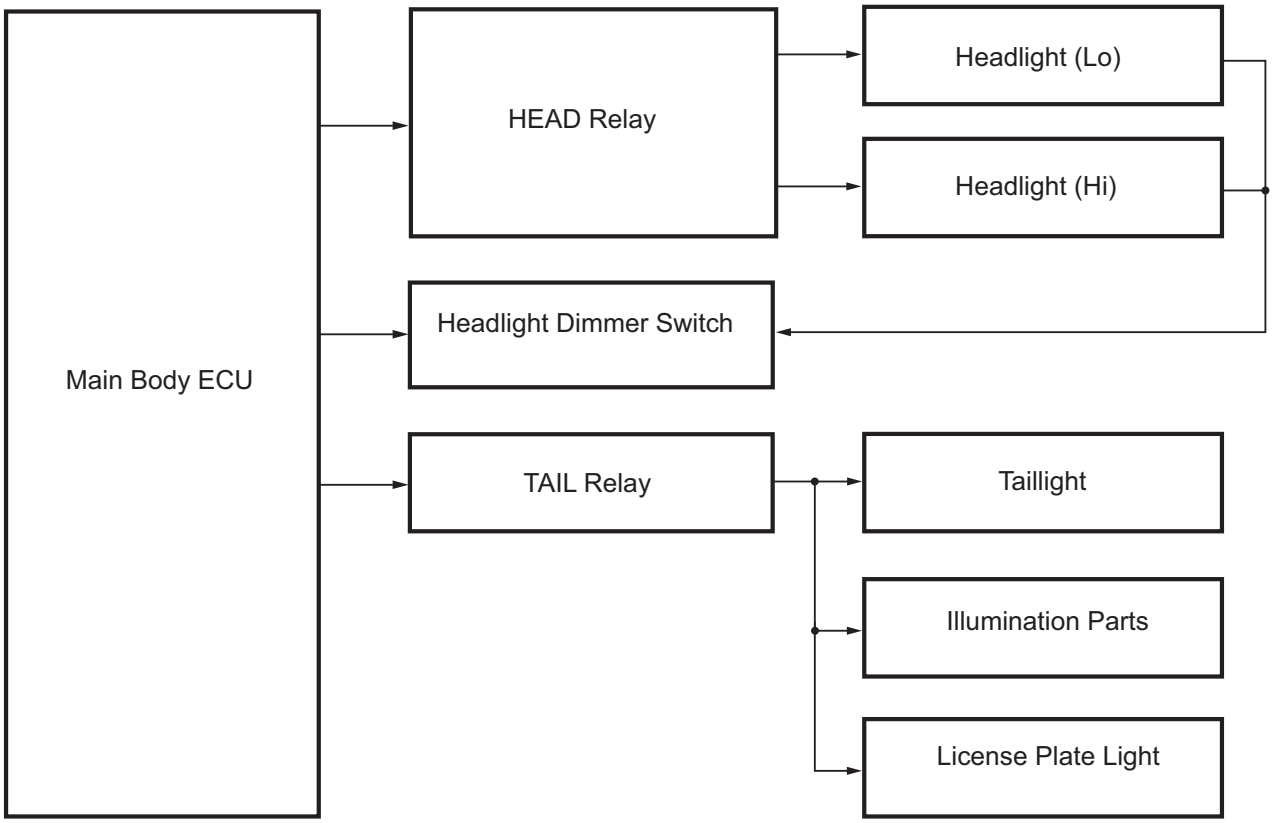
SYSTEM DIAGRAM

w/ Daytime Running Light System:



w/o Daytime Running Light System:



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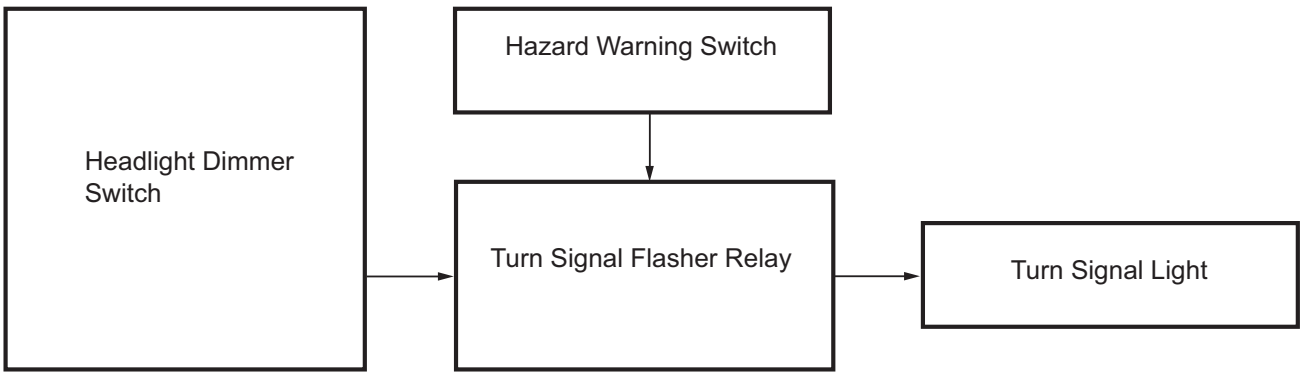

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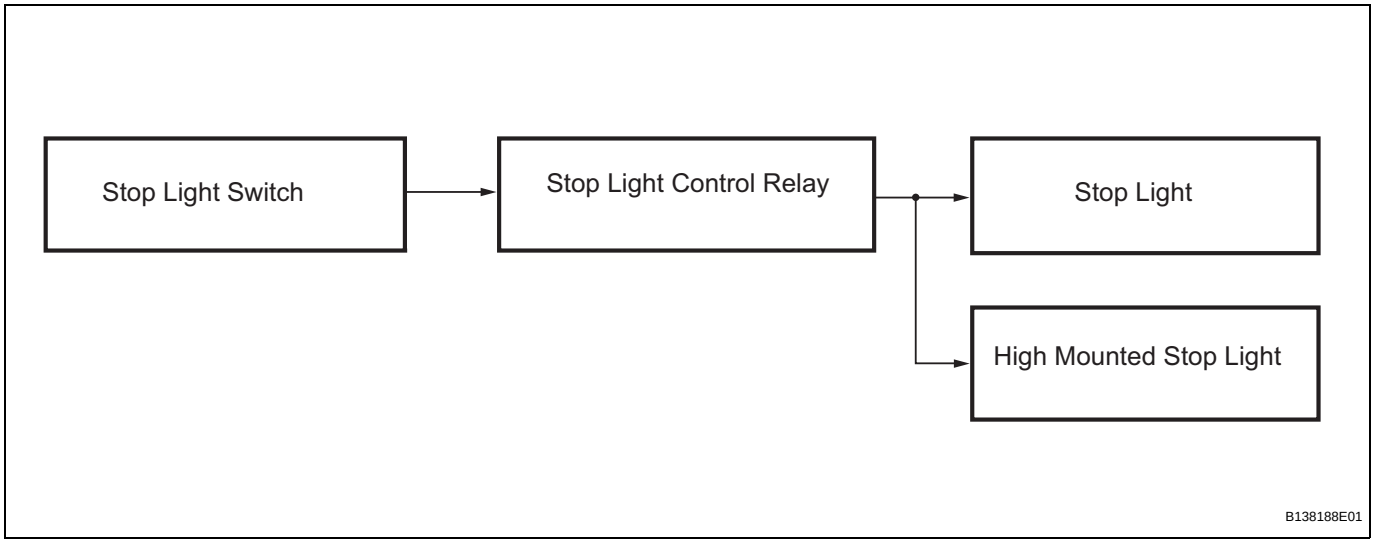
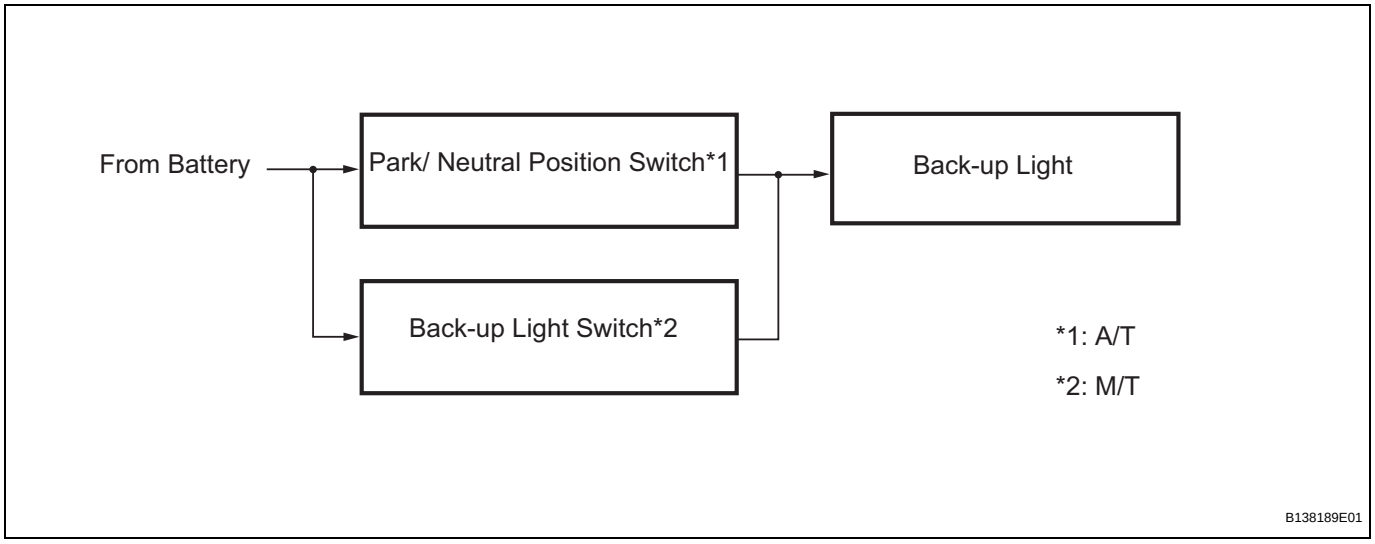
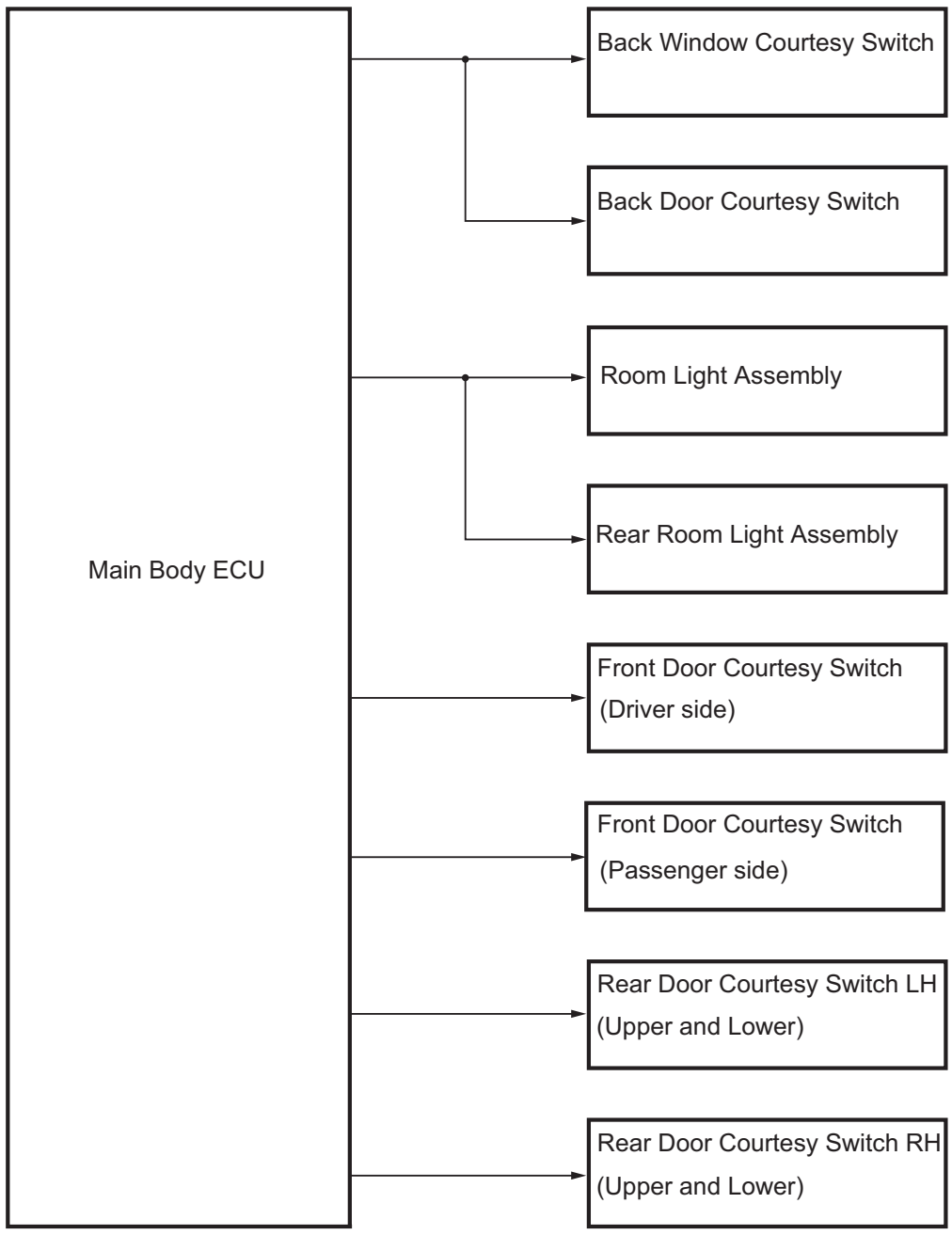

Stop Light Switch
Stop Light Control Relay
Stop Light
High Mounted Stop Light
B138188E01


From Battery
Park/ Neutral Position Switch*1
Back-up Light
Back-up Light Switch*2
*1: A/T
*2: M/T
B138189E01


Main Body ECU
Back Window Courtesy Switch
Back Door Courtesy Switch
Room Light Assembly
Rear Room Light Assembly
Front Door Courtesy Switch
(Driver side)
Front Door Courtesy Switch
(Passenger side)
Rear Door Courtesy Switch LH
(Upper and Lower)
Rear Door Courtesy Switch RH
(Upper and Lower)
B138190E01

SYSTEM DESCRIPTION

1. LIGHTING SYSTEM

(a) Illumination control system (Illuminated entry system):
When the doors are unlocked through a key or transmitter operation, or when a door is opened or closed, the illuminated entry system turns on the room light assembly.

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

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

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

(b) Battery saver system:
When the ignition switch is turned off and the any of the doors is open continuously for 30 minutes, the main body ECU turns the illumination operation signal off. As a result, the room light assembly, taillights, and the headlights turn off.

(1) The main body ECU receives the following signals (B).
- Door courtesy switch signal
- Ignition switch signal

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

(3) The main body ECU controls the illumination period of the following parts based on the signals listed in C.
- Room light assembly
- Headlight (Low)
- Position light (Front and Rear)

(c) Manual light control system:
This system functions when lights such as the headlights and taillights are illuminated through manual operation of the light control switch.

(1) The main body ECU receives the following signals (D).
- Light control switch signal
- Headlight dimmer switch signal

(2) The main body ECU controls the following signals based on the signals listed in D (E).
- HEAD relay operation signal
- TAIL relay operation signal
- Running light relay assembly operation signal

(3) The main body ECU controls the on/off operation of the following parts based on the signals listed in E.
- Headlight (Low)
- Headlight (High)
- Position light (Front and Rear)

(d) Light auto turn off system (for U. S. A):
With the light control switch in the TAIL or HEAD position, the headlights and taillights go off 30 seconds after the ignition switch is turned off and all the doors are closed. However, when all the doors are locked using the door lock button, ignition key, or LOCK button on the transmitter, the headlights and taillights go off immediately.
Light auto turn off system (for Canada):
With the light control switch in the TAIL or HEAD position, the headlights and taillights go off immediately after the ignition switch is turned off and the driver door is opened.
(1) The main body ECU receives the following signals (F).
- Door courtesy switch signal
- Ignition switch signal

(2) The main body ECU controls the following signals based on the signals listed in F (G).
- HEAD relay operation signal
- TAIL relay operation signal
- Running light relay assembly operation signal

(3) The main body ECU controls the illumination period of the following parts based on the signals listed in G.
- Headlight (Low)
- Headlight (High)
- Position light (Front and Rear)

(e) Daytime running light system:
This system is directly connected to the low-beam headlights and is designed to automatically activate the daytime running lights in order to increase the visibility of the vehicle.
(1) The main body ECU receives the following signals (I).
- Ignition switch signal
- Generator signal
- Parking brake switch signal
- Light control switch signal

(2) The main body ECU controls the following signal based on the signals listed in I.
- Running light relay assembly operation signal

(3) The main body ECU controls the on/off operation of the following part.
- Headlight (Low)

HOW TO PROCEED WITH TROUBLESHOOTING

HINT:
- Use these procedures to troubleshoot the lighting system.
- *: Use the intelligent tester.

1	VEHICLE BROUGHT TO WORKSHOP

NEXT

2	CUSTOMER PROBLEM ANALYSIS CHECK AND SYMPTOM CHECK

NEXT

3	INSPECT BATTERY VOLTAGE

Standard voltage:
11 to 14 V
If the voltage is below 11 V, recharge or replace battery before proceeding.

NEXT

4	INSPECT COMMUNICATION FUNCTION OF LARGE-SCALE MULTIPLEX COMMUNICATION SYSTEM (BEAN)*

(a) Use the intelligent tester to check if the Multiplex Communication System (MPX) is functioning normally.
Result

Result	Proceed to
MPX DTC is not output	A
MPX DTC is output	B

B → **GO TO MULTIPLEX COMMUNICATION SYSTEM**

A

5	PROBLEM SYMPTOMS TABLE

Result

Result	Proceed to
If fault is not listed in problem symptoms table	A
If fault is listed in problem symptoms table	B

B → **Go to step 7**

LI

A

6	**OVERALL ANALYSIS AND TROUBLESHOOTING***

(a) Terminals of ECU (see page LI-15)
(b) DATA LIST / ACTIVE TEST (see page LI-18)

NEXT

7	**REPAIR OR REPLACE**

NEXT

8	**CONFIRMATION TEST**

NEXT

LI

END

CUSTOMIZE PARAMETERS

HINT:

- When the customer requests modification of items, first make sure that the functions can be customized.
- Make a note of the current settings before customization.
- When troubleshooting items, first make sure that the functions are set to their default settings.
- The following items can be customized.

ILLUMINATED ENTRY:

Display (Item)	Default	Contents	Setting
LIGHTING TIME (Lighting Time)	15 (second)	Changes illumination duration after door closure. (It will quickly fade out in case of turning the ignition switch ON)	7.5/ 15/ 30 (second)
I/L ON / UNLOCK (Room light illuminates when door key unlocked.)	ON	Function to light up the room light, when unlocking with the door key cylinder. (Room light illuminated when room light switch in DOOR position)	ON / OFF
I/L ON / ACC OFF (Room light illuminates when ignition switch turned off)	ON	Illuminates light when ignition switch turned from ACC to LOCK. (Room light illuminated when room light switch in DOOR position)	ON / OFF

HINT:

Sensitivity adjustment can hardly be confirmed. Please check by customer's actual driving.

PROBLEM SYMPTOMS TABLE

HINT:
Use the table below to help determine the causes of the problem symptom. The potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.

Headlight and taillight system

Symptom	Suspected area	See page
Neither headlight comes on. (w/o Daytime running light system)	Headlight relay circuit	LI-25
	Light control switch circuit	LI-47
	Harness or connector	-
	Main body ECU	-
Neither headlight comes on. (w/ Daytime running light system)	Headlight relay circuit	LI-25
	DRL Relay circuit	LI-28
	Light control switch circuit	LI-47
	Harness or connector	-
	Main body ECU	-
Only one headlight comes on.	Bulb	-
	HEAD fuse	-
	Harness or connector	-
LO-Beam lights do not come on.	Bulb	-
	Light control switch circuit	LI-47
	HEAD fuse	-
	DIM relay (w/ Daytime running light system)	LI-126
	Harness or connector	-
	Main body ECU	-
HI-Beam lights do not come on.	Bulb	-
	Light control switch circuit	LI-47
	HEAD fuse	-
	DIM relay (w/ Daytime running light system)	LI-126
	Harness or connector	-
	Main body ECU	-
No taillights come on. (Headlights normal)	Taillight relay circuit	LI-61
	Harness or connector	-
Only one taillight comes on.	Bulb	-
	Taillight relay circuit	LI-61
	Harness or connector	-
License plate light does not come on.	Taillight relay circuit	LI-61
	Harness or connector	-

Daytime running light system

Symptom	Suspected area	See page
Day time running light system does not operate	DRL Relay circuit	LI-28
	Light control switch circuit	LI-47
	Parking brake switch	PB-24
	Harness or connector	-
	Main body ECU	-

Stop light system

Symptom	Suspected area	See page
No stop lights come on.	Stop light switch circuit	LI-20
	Harness or connector	-
Only one stop light does not come on.	Bulb	-
	Stop light switch circuit	LI-20
	Harness or connector	-
High mounted stop light does not come on.	Stop light switch circuit	LI-20
	Harness or connector	-

Turn signal light system

Symptom	Suspected area	See page
No turn signal lights come on.	Turn signal light circuit	LI-32
	Harness or connector	-
Only one turn signal light does not come on.	Bulb	-
	Turn signal light circuit	LI-32
	Harness or connector	-

Hazard warning light system

Symptom	Suspected area	See page
Hazard warning light does not operate (Turn signal normal)	Hazard warning switch circuit	LI-38
	Harness or connector	-

Room light system

Symptom	Suspected area	See page
Room light assembly does not come on.	Bulb	-
	DOME Relay	-
	Illumination circuit	LI-58
	Door courtesy switch circuit	LI-51
	Harness or connector	-

Light auto turn off system

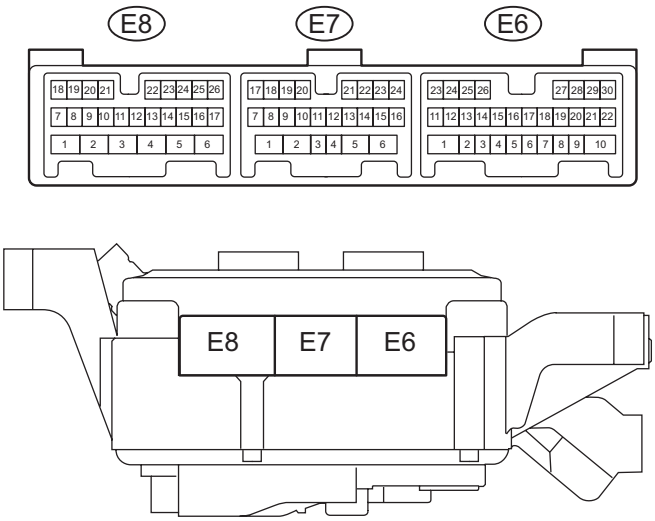
Symptom	Suspected area	See page
Light auto turn off system does not operate	Unlock warning switch	DL-102
	Headlight relay circuit	LI-25
	Door courtesy switch circuit	LI-51
	Harness or connector	-

TERMINALS OF ECU

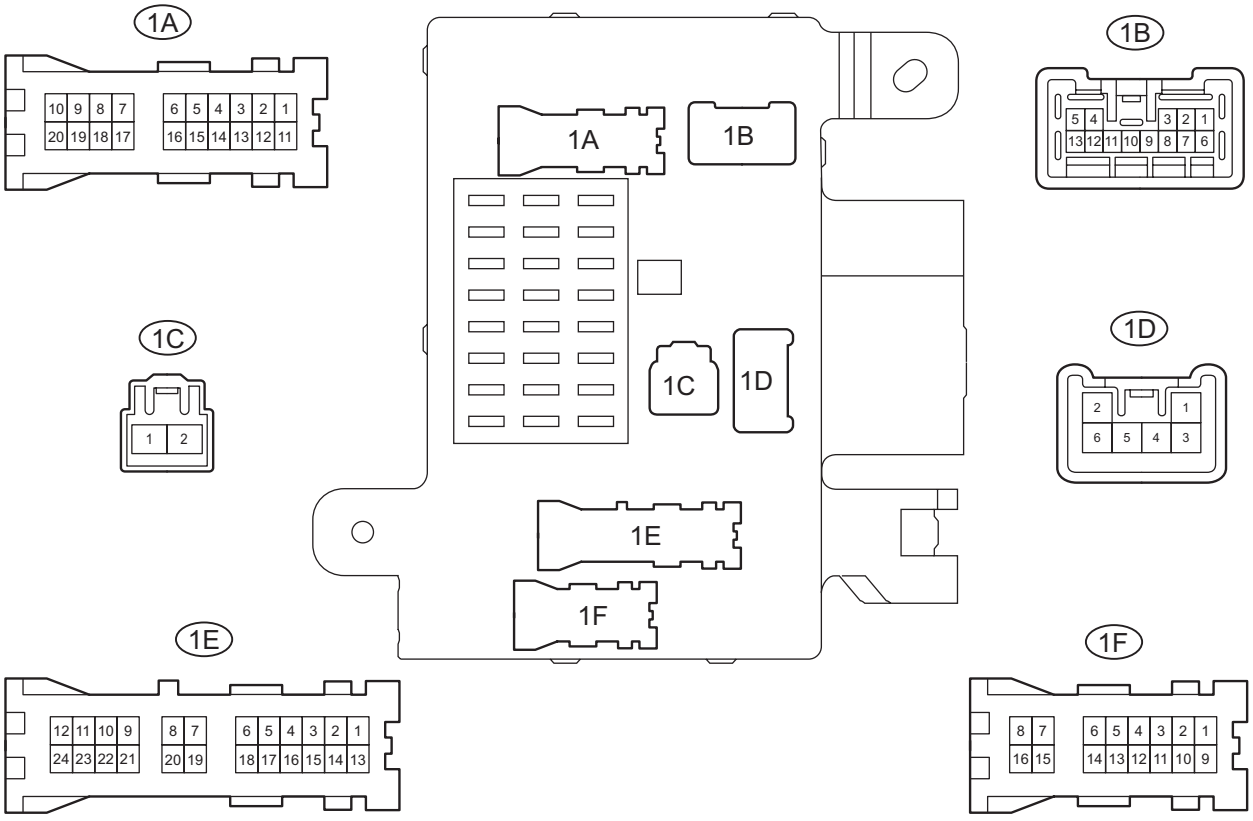
1. CHECK MAIN BODY ECU

Main Body ECU:

Left View:



Rear View:



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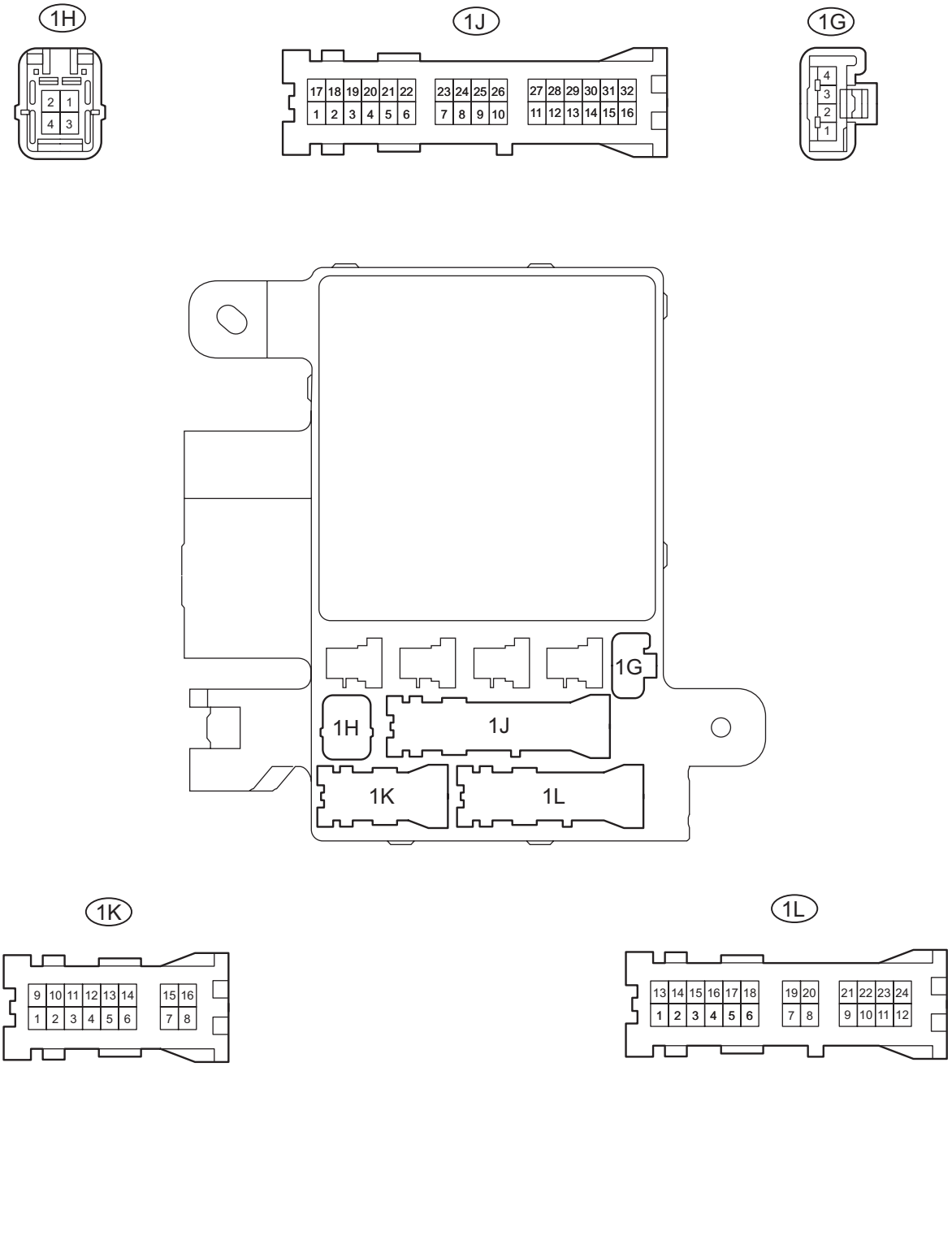
Main Body ECU:

Front View:



(a) Disconnect the 1A, 1B, 1E, and 1H main body ECU (driver side J/B) connectors.

(b) Measure the voltages and resistances of the wire harness side connectors.

Standard:

Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
GND1 (1H-2) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω
BECU (1B-4) - Body ground	W-R - Body ground	Power source circuit (From battery)	Always	11 to 14 V
BDR1 (1E-9) - Body ground	B-Y - Body ground	Power source circuit (From battery)	Always	11 to 14 V
GND2 (1A-7) - Body ground	W - Body ground	Ground	Always	Below 1 Ω

If the result is not as specified, there may be a malfunction in the wire harness.

(c) Reconnect the main body ECU (driver side J/B) connectors.

(d) Measure the voltages of the wire harness side connectors.

Standard voltage:

Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
SIG - (1F-8) Body ground	B-R - Body ground	Ignition switch signal	Ignition switch OFF	Below 1 V
			Ignition switch ON	10 to 14 V
ILE (1A-8) - Body ground	W - Body ground	Illumination signal (To room light assembly)	Driver door closed	10 to 14 V
			Driver door open	Below 1 V
HRLY (1B-8) - Body ground	Y-P - Body ground	HEAD signal (To HEAD relay)	Light control switch OFF or in TAIL	10 to 14 V
			Light control switch in HEAD	Below 1 V
TRLY (1E-16) - Body ground	V - Body ground	TAIL signal (To TAIL relay)	Light control switch OFF	10 to 14 V
			Light control switch in TAIL or HEAD	Below 1 V
ACC (1D-5) - Body ground	W-G - Body ground	Ignition switch (From battery) ACC signal circuit (To ignition switch)	Ignition switch OFF	Below 1 V
			Ignition switch ACC	10 to 14 V
H-ON (1B-3)* - Body ground	GR-G* - Body ground	DRL signal (To DRL relay)	Light control switch OFF or in TAIL position and engine running and parking brake off	Below 1 V
			Ignition switch OFF	10 to 14 V
LMRY (E6-3) - Body ground	GR-R - Body ground	DOME relay output signal (To DOME relay)	All doors locked	10 to 14 V
			Any door open	Below 1 V
DIM* (E6-7) - Body ground	R-G* - Body ground	DIM relay output signal (To DIM relay)	Dimmer switch in FLASH or HIGH	Below 1 V
			Dimmer switch in LOW	10 to 14 V
L* (E6-14) - Body ground	GR* - Body ground	Generator operate condition signal	Engine start Charge warning light ON	Below 1 V
			Engine start Charge warning light OFF	10 to 14 V
PKB* (E7-2) - Body ground	W-R* - Body ground	Parking brake switch signal	Parking brake switch ON	Below 1 V
			Parking brake switch OFF	10 to 14 V
BCTY (E7-7) - Body ground	W - Body ground	Back door courtesy switch and back window courtesy switch input	Back door or back window open	Below 1 V
			Back door and back window closed	11 to 14 V
RLCY (E7-11) - Body ground	P-B - Body ground	Rear LH door courtesy switch input	Rear LH door open	Below 1 V
			Rear LH door closed	11 to 14 V

Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
RRCY (E7-12) - Body ground	P-L - Body ground	Rear RH door courtesy switch input	Rear RH door open	Below 1 V
			Rear RH door closed	11 to 14 V
DCTY (E7-23) - Body ground	R-B - Body ground	Driver door courtesy switch input	Driver door open	Below 1 V
			Driver door closed	11 to 14 V
PCTY (E7-24) - Body ground	G-Y - Body ground	Front passenger door courtesy switch input	Front passenger door open	Below 1 V
			Front passenger door closed	11 to 14 V
HEAD (E8-1) - Body ground	R - Body ground	Light control switch (HEAD signal)	Light control switch OFF	11 to 14 V
			Light control switch is ON	Below 1 V
HU* (E8-2) - Body ground	R-G* - Body ground	Headlight dimmer switch (HIGH signal)	Headlight dimmer switch in HIGH	Below 1 V
			Headlight dimmer switch in LOW	11 to 14 V
HF (E8-7) - Body ground	R-W - Body ground	Headlight dimmer switch (FLASH signal)	Headlight dimmer switch in FLASH	Below 1 V
			Headlight dimmer switch in LOW or HIGH	11 to 14 V
TAIL (E8-8) - Body ground	G - Body ground	Light control switch (TAIL signal)	Light control switch in TAIL	Below 1 V
			Light control switch OFF	11 to 14 V
DRLP (E8-12) - Body ground	V-Y - Body ground	Open door warning light output	Open door warning light ON	Below 1.2 V
			Open door warning light OFF	10 to 14 V
HF2 (E8-20) - Body ground	Y-P - Body ground	Headlight dimmer switch (FLASH signal)	Headlight dimmer switch in FLASH	Below 1 V
			Headlight dimmer switch in LOW or HIGH	10 to 14 V

HINT:
*: w/ daytime running light system
If the result is not as specified, there may be a malfunction in the wire harness.

DATA LIST / ACTIVE TEST

1. READ DATA LIST

HINT:

Using the intelligent tester's DATA LIST allows a switch, sensor, actuator and other item values to be read without removing any parts. Reading the DATA LIST early in troubleshooting is one way to save time.

(a) Connect the intelligent tester with CAN VIM to the DLC3.

(b) Turn the ignition switch ON.

(c) Read the DATA LIST according to the prompts displayed on the tester.

BODY:

Item	Measurement Item/Dispay (Range)	Normal Condition	Diagnostic Note
D DOR CTY SW	Driver door courtesy switch signal/ON or OFF	ON :Driver door is open OFF: Driver door is closed	-
P DOR CTY SW	Front passenger door courtesy switch signal/ON or OFF	ON: Front passenger door is open OFF: Front passenger door is closed	-
Rr DOR CTY SW	Rear door courtesy switch signal/ ON or OFF	ON: Either right or left rear door is open OFF: Both right and left rear doors are closed	-
LUGG COURTSY SW	Back door and back window courtesy switch signal/ON or OFF	ON: Either back door or back window is open OFF: Both back door and back window are closed	-
DIMMER SW	Dimmer switch signal/ON or OFF	ON: Dimmer switch is ON (High Beam) or High flasher switch is ON OFF: Dimmer switch is OFF (Low Beam) or High flasher switch is OFF	-
HIGH FLASER SW	High flasher switch signal/ON or OFF	ON: High flasher switch is ON OFF: High flasher switch is OFF	-
HEAD LIGHT SW	Head light switch signal/ON or OFF	ON: Light control switch is in HEAD position OFF: Light control switch is not in HEAD position	-
TAIL LIGHT SW	Taillight switch signal/ON or OFF	ON: Light control switch is in TAIL or HEAD position OFF: Light control switch is OFF	-
ALT L SIG	Generator L terminal signal/ON or OFF	ON: Engine start Charge warning light is OFF OFF: Engine start Charge warning light is ON	-

2. PERFORM ACTIVE TEST

HINT:

Performing the intelligent tester's ACTIVE TEST allows relays, VSV, actuators and other items to be operated without removing any parts. Performing the ACTIVE TEST early in troubleshooting is one way to save time. The DATA LIST can be displayed during the ACTIVE TEST.

(a) Connect the intelligent tester with CAN VIM to the DLC3.

(b) Turn the ignition switch ON.
(c) Perform the ACTIVE TEST according to the prompts displayed on the tester.

BODY:

Item	Test Details/ Display (Range)	Diagnostic Note
ILLUMI OUTPUT	Illuminated Entry System ON/OFF	-
HAZARD	Hazard ON/OFF	-
TAIL LIGHT	Taillight Relay ON/OFF	-
HEAD LIGHT	Headlight Relay ON/OFF	-
HEAD LIGHT(HI)*	Headlight (High) ON / OFF	-
DRL RLY*	DRL relay ON/OFF	-
DOME RLY CUT	DOME relay cut ON/OFF	-
OPN DOR WRN LGT	Open door warning light ON/OFF	-

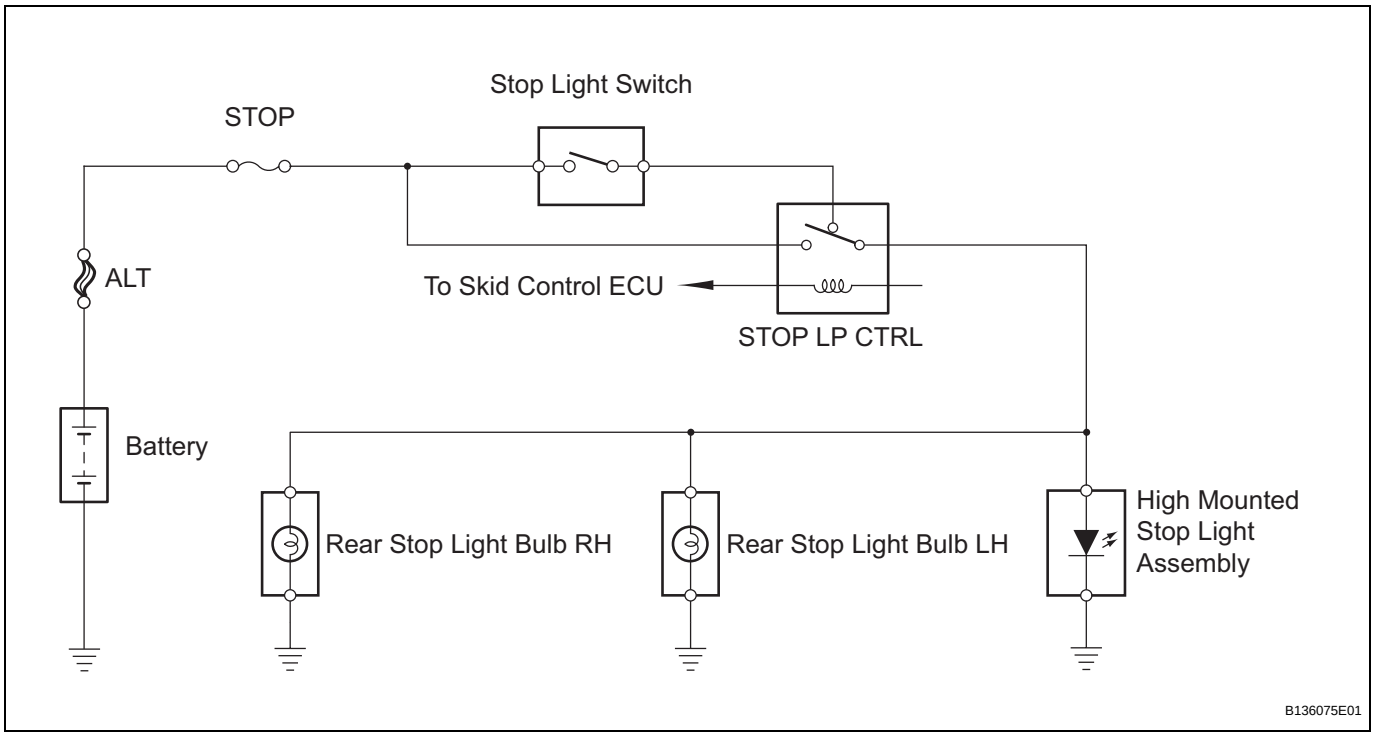
HINT:
*: w/ Daytime running light system

Stop Light Switch Circuit

DESCRIPTION

When the stop light switch is turned on, the current flows to the stop lights to illuminate.

WIRING DIAGRAM



INSPECTION PROCEDURE

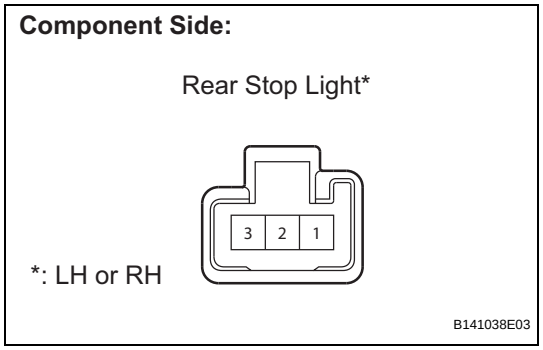
1	INSPECT FUSE (STOP)

(a) Remove the STOP fuse from the engine room R/B No. 2.
(b) Measure the resistance.
Standard resistance:
Below 1 Ω
(c) Reinstall the STOP fuse.

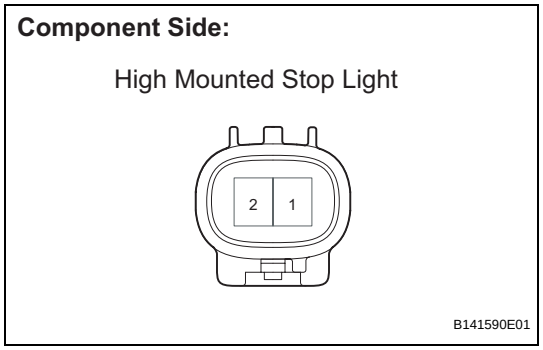
NG → **REPLACE FUSE**

OK

2 INSPECT BULB (REAR STOP LIGHT BULB)



(a) Remove the rear stop light bulbs.



(b) Remove the high mounted stop light assembly.
(c) Apply battery voltage to the terminals and check that the rear stop light and high mounted stop light illuminates.

Standard

Rear stop light

Measurement Condition	Standard
Positive battery - Terminal 3 Negative battery - Terminal 1	Stop light bulb illuminates

High mounted stop light

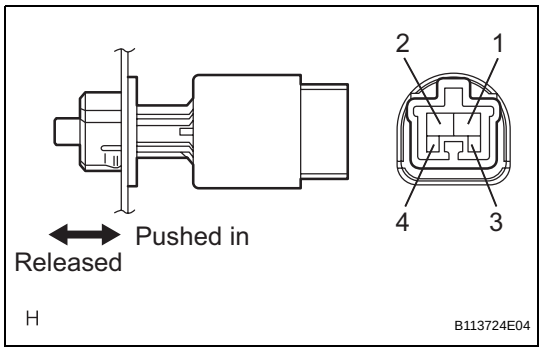
Measurement Condition	Standard
Positive battery - Terminal 2 Negative battery - Terminal 1	High mounted stop light illuminates

(d) Reinstall the rear stop light bulbs.
(e) Reinstall the high mounted stop light assembly.

NG → REPLACE BULB

OK

3 INSPECT STOP LIGHT SWITCH



(a) Remove the stop light switch.
(b) Measure the resistance.

Standard resistance

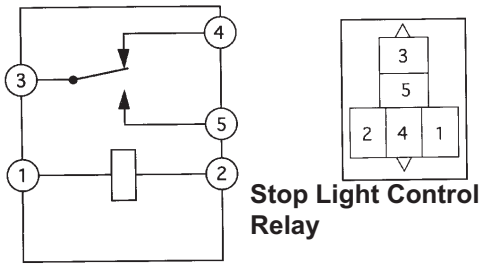
Tester Connection	Condition	Specified Condition
1 - 2	Switch pin released	Below 1 Ω
3 - 4	Switch pin pushed in	10 kΩ or higher
1 - 2	Switch pin pushed in	10 kΩ or higher
3 - 4	Switch pin released	Below 1 Ω

(c) Reinstall the stop light switch.

NG → REPLACE STOP LIGHT SWITCH

OK

4	INSPECT STOP LP CTRL RELAY



(a) Remove the STOP LP CTRL relay from the engine room R/B No. 2
(b) Measure the resistance.
Standard resistance

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

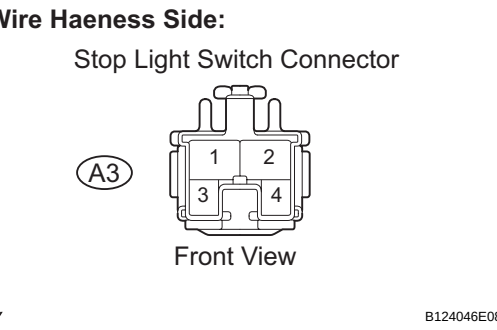
(c) Reinstall the STOP LP CTRL relay.

NG → **REPLACE STOP LP CTRL RELAY**

OK

LI

5	CHECK HARNESS AND CONNECTOR (FUSE - STOP LIGHT SWITCH)



(a) Disconnect the A3 stop light switch connector.
(b) Measure the voltage.
Standard voltage

Tester Connection	Condition	Specified Condition
A3-2 - Body ground	Always	11 to 14 V

(c) Reconnect the stop light switch connector.

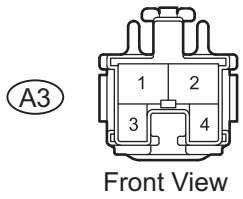
NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

6	**CHECK HARNESS AND CONNECTOR (STOP LIGHT SWITCH - STOP LIGHT CONTROL RELAY)**

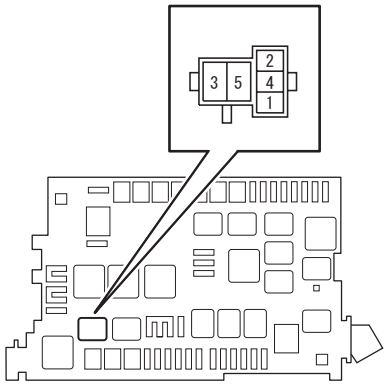
Wire Harness Side:

Stop Light Switch Connector



Front View

Engine Room R/B No. 2:



B136076E01

OK

(a) Disconnect the A3 stop light switch connector.
(b) Remove the STOP LP CTRL relay from the engine room R/B No. 2.
(c) Measure the resistance.

Standard resistance

Tester Connection	Specified Condition
A3-1 - STOP LP CTRL relay terminal 5	Below 1 Ω
A3-1 or STOP LP CTRL relay terminal 5 - Body ground	10 kΩ or higher

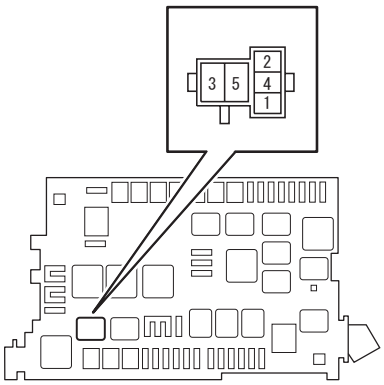
(d) Reconnect the stop light switch connector.
(e) Reinstall the STOP LP CTRL relay.

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

LI

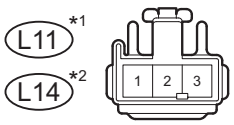
7	**CHECK HARNESS AND CONNECTOR (STOP LIGHT CONTROL RELAY - REAR STOP LIGHT)**

Engine Room R/B No. 2:



Wire Harness Side:

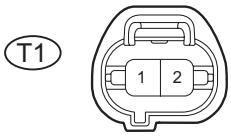
Rear Stop Light Connector



Front View

*1: LH
*2: RH

High Mounted Stop Light Connector



Front View

B136077E01

(a) Remove the STOP LP CTRL relay from the engine room R/B No. 2
(b) Disconnect the L11 and L14 rear stop light connectors.
(c) Disconnect the T1 high mounted stop light connector.
(d) Measure the resistance.

Standard resistance

Tester Connection	Specified Condition
STOP LP CTRL relay terminal 3 - L11-3	Below 1 Ω
STOP LP CTRL relay terminal 3 - L14-3	Below 1 Ω
STOP LP CTRL relay terminal 3 - T1-2	Below 1 Ω
STOP LP CTRL relay terminal 3 - Body ground	10 kΩ or higher

(e) Reinstall the STOP LP CTRL relay.
(f) Reconnect the stop light connectors.
(g) Reconnect the high mounted stop light connector.

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

OK

REPAIR OR REPLACE HARNESS OR CONNECTOR (REAR STOP LIGHT - BODY GROUND)

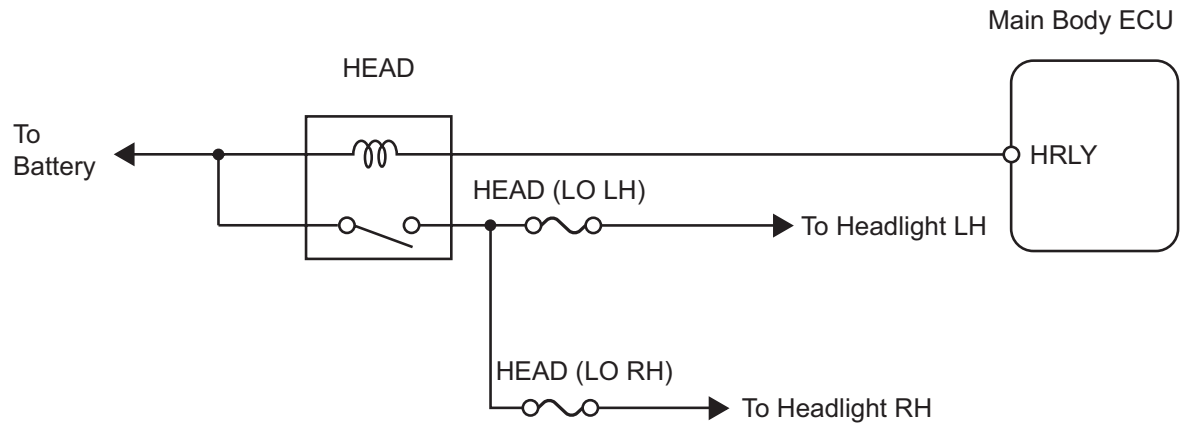
Headlight Relay Circuit

DESCRIPTION

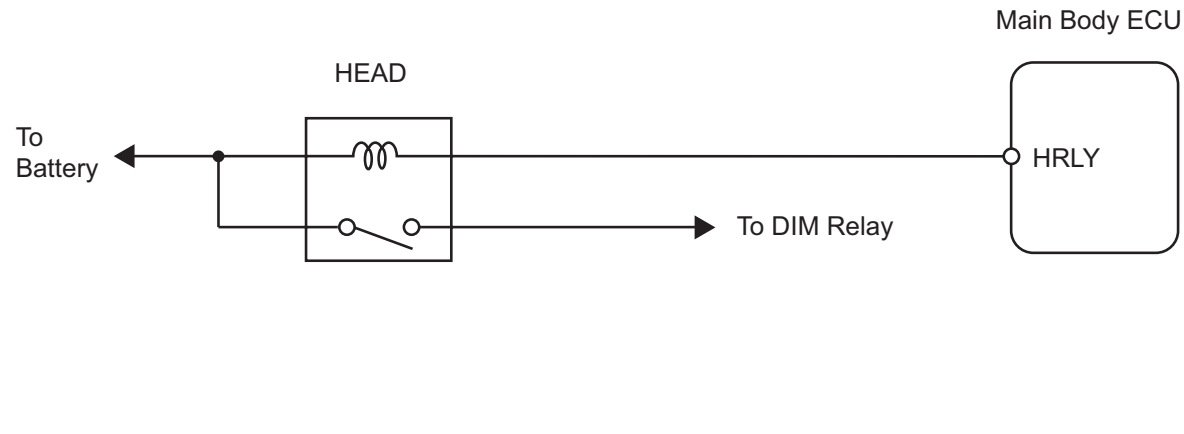
The headlight dimmer switch sends a signal to the main body ECU.

WIRING DIAGRAM

w/o Daytime running light system:



w/ Daytime running light system:



INSPECTION PROCEDURE

1	PERFORM ACTIVE TEST BY INTELLIGENT TESTER (HEAD LIGHT)

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

BODY

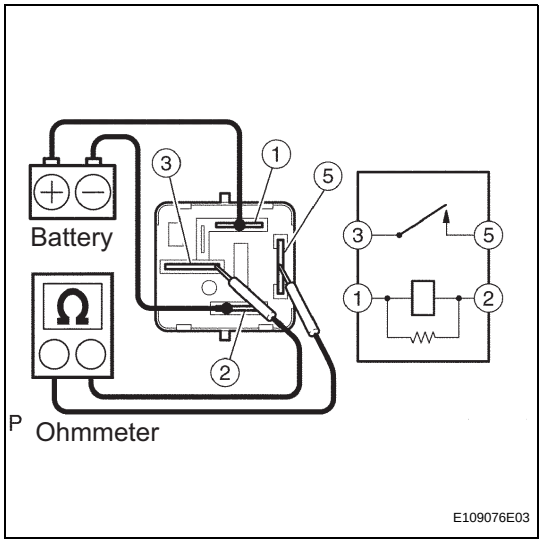
Item	Test Details	Diagnostic Note
HEAD LIGHT	Headlight relay ON / OFF	-

OK:
Headlight assembly (low) illuminates.

OK	**PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

NG

2 INSPECT HEADLIGHT RELAY



(a) Remove the HEAD relay from the engine room R/B No. 2.
(b) Measure the resistance.
Standard resistance

Tester connection	Specified Condition
3 - 5	10 kΩ or higher
3 - 5	Below 1 Ω (When battery voltage is applied between terminals 1 and 2)

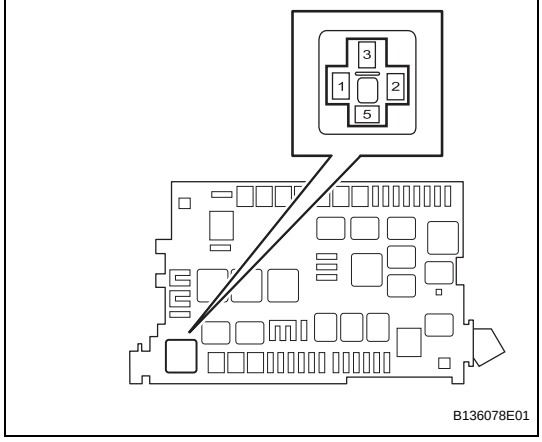
(c) Reinstall the HEAD relay.

NG	**REPLACE HEADLIGHT RELAY**

OK

3 CHECK HARNESS AND CONNECTOR (BATTERY - HEADLIGHT RELAY)

Engine Room R/B No. 2:



(a) Remove the HEAD relay from the engine room R/B No. 2.
(b) Measure the voltage.
Standard voltage

Tester connection	Condition	Specified Condition
HEAD relay terminal 1 - Body ground	Always	11 to 14 V

(c) Reinstall the HEAD relay.

NG	**REPAIR OR REPLACE HARNESS OR CONNECTOR**

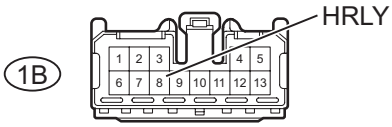
OK

LI

4	CHECK HARNESS AND CONNECTOR (HEADLIGHT RELAY - MAIN BODY ECU)

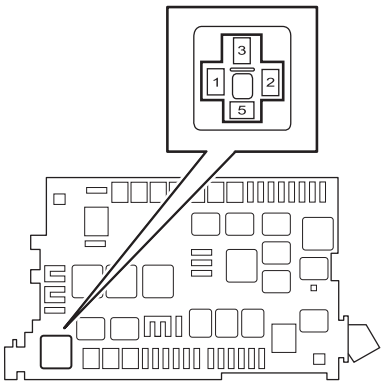
Wire Harness Side:

Main Body ECU Connector



Front View

Engine Room R/B No. 2:



B136079E01

(a) Remove the HEAD relay from the engine room R/B No. 2.
(b) Disconnect the 1B main body ECU connector.
(c) Measure the resistance.

Standard resistance

Tester connection	Specified Condition
HEAD relay terminal 2 - 1B-8 (HRLY)	Below 1 Ω
HEAD relay terminal 2 or 1B-8 (HRLY) - Body ground	10 kΩ or higher

(d) Reinstall the HEAD relay.
(e) Reconnect the main body ECU connector.

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

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

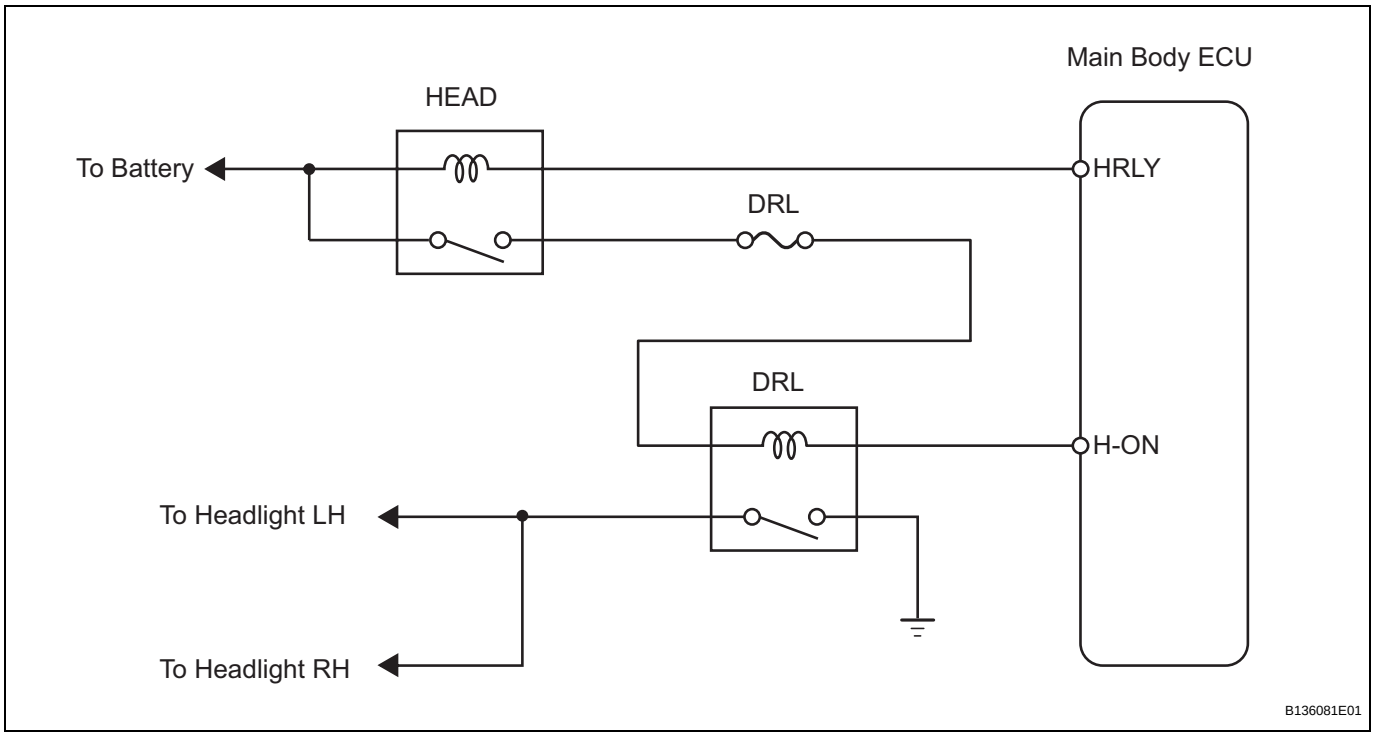
LI

DRL Relay Circuit

SYSTEM DESCRIPTION

The main body ECU controls the DRL relay.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	PERFORM ACTIVE TEST BY INTELLIGENT TESTER (DRL RLY)

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

BODY

Item	Test Details	Diagnostic Note
DRL RLY	DRL relay ON / OFF	-

OK:
Headlight assembly (low) illuminates.

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

NG

2	INSPECT FUSE (DRL FUSE)

(a) Remove the DRL fuse from the engine room R/B No. 2.

(b) Measure the resistance.

Standard resistance:

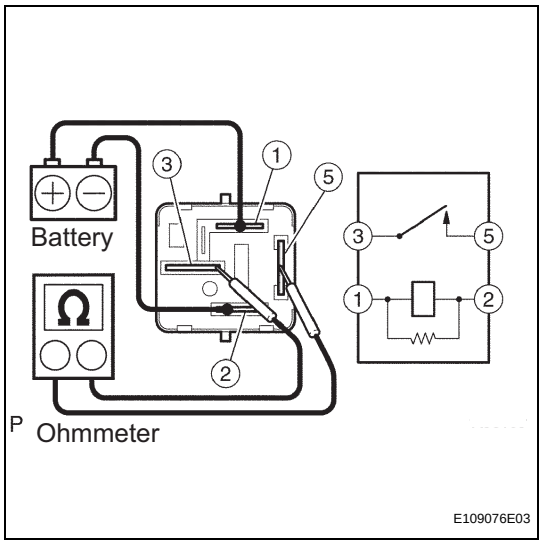
Below 1 Ω

(c) Reinstall the DRL fuse.

NG → **REPLACE FUSE**

OK

3 INSPECT DAYTIME RUNNING LIGHT RELAY



(a) Remove the DRL relay from the engine room R/B No. 4.

(b) Measure the resistance.

Standard resistance

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

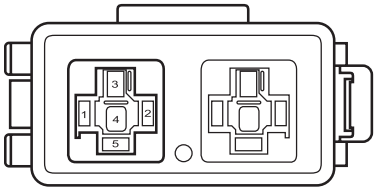
(c) Reinstall the DRL relay.

NG → **REPLACE DAYTIME RUNNING LIGHT RELAY**

OK

4 CHECK HARNESS AND CONNECTOR (BATTERY - DAYTIME RUNNING LIGHT RELAY)

Engine Room R/B No. 4:



(a) Remove the DRL relay from the engine room R/B No. 4.

(b) Measure the voltage.

Standard voltage

Tester connection	Condition	Specified Condition
DRL relay terminal 1 - Body round	Light control switch is in HEAD position	11 to 14 V
DRL relay terminal 1 - Body round	Light control switch is in OFF or TAIL position	Below 1 V

(c) Reinstall the DRL relay.

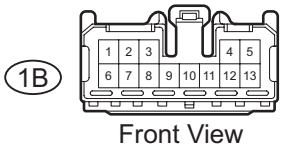
NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

5	CHECK HARNESS AND CONNECTOR (DAYTIME RUNNING LIGHT RELAY - MAIN BODY ECU)

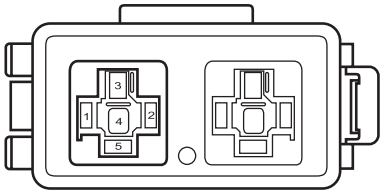
Wire Harness Side:

Main Body ECU Connector



Front View

Engine Room R/B No. 4:



B136083E01

(a) Remove the DRL relay from the engine room R/B No. 4.
(b) Disconnect the 1B main body ECU connector.
(c) Measure the resistance.

Standard resistance

Tester Connection	Specified Condition
DRL relay terminal 2 - 1B-3 (H-ON)	Below 1 Ω
DRL relay terminal 2 or 1B-3 (H-ON) - Body ground	10 kΩ or higher

(d) Reinstall the DRL relay.
(e) Reconnect the main body ECU connector.

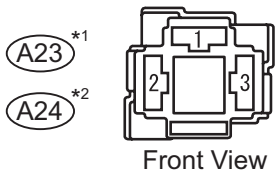
NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

6	CHECK HARNESS AND CONNECTOR (DAYTIME RUNNING LIGHT RELAY - HEADLIGHT, BODY GROUND)

Wire Harness Side:

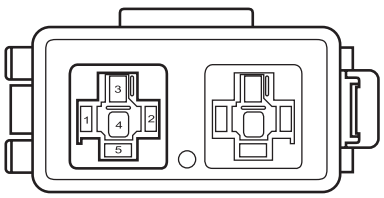
Headlight Connector



Front View

*1: LH
*2: RH

Engine Room R/B No. 4:



B136084E01

(a) Remove the DRL relay from the engine room R/B No. 4.
(b) Disconnect the A23 and A24 headlight connectors.
(c) Measure the resistance.

Standard resistance

Tester Connection	Specified Condition
DRL relay terminal 3 - A23-3	Below 1 Ω
DRL relay terminal 3 or A23-3 - Body ground	10 kΩ or higher
DRL relay terminal 3 - A24-3	Below 1 Ω
DRL relay terminal 3 or A24-3 - Body ground	10 kΩ or higher
DRL relay terminal 5 - Body ground	Below 1 Ω

(d) Reinstall the DRL relay.
(e) Reconnect the headlight connectors.

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

OK

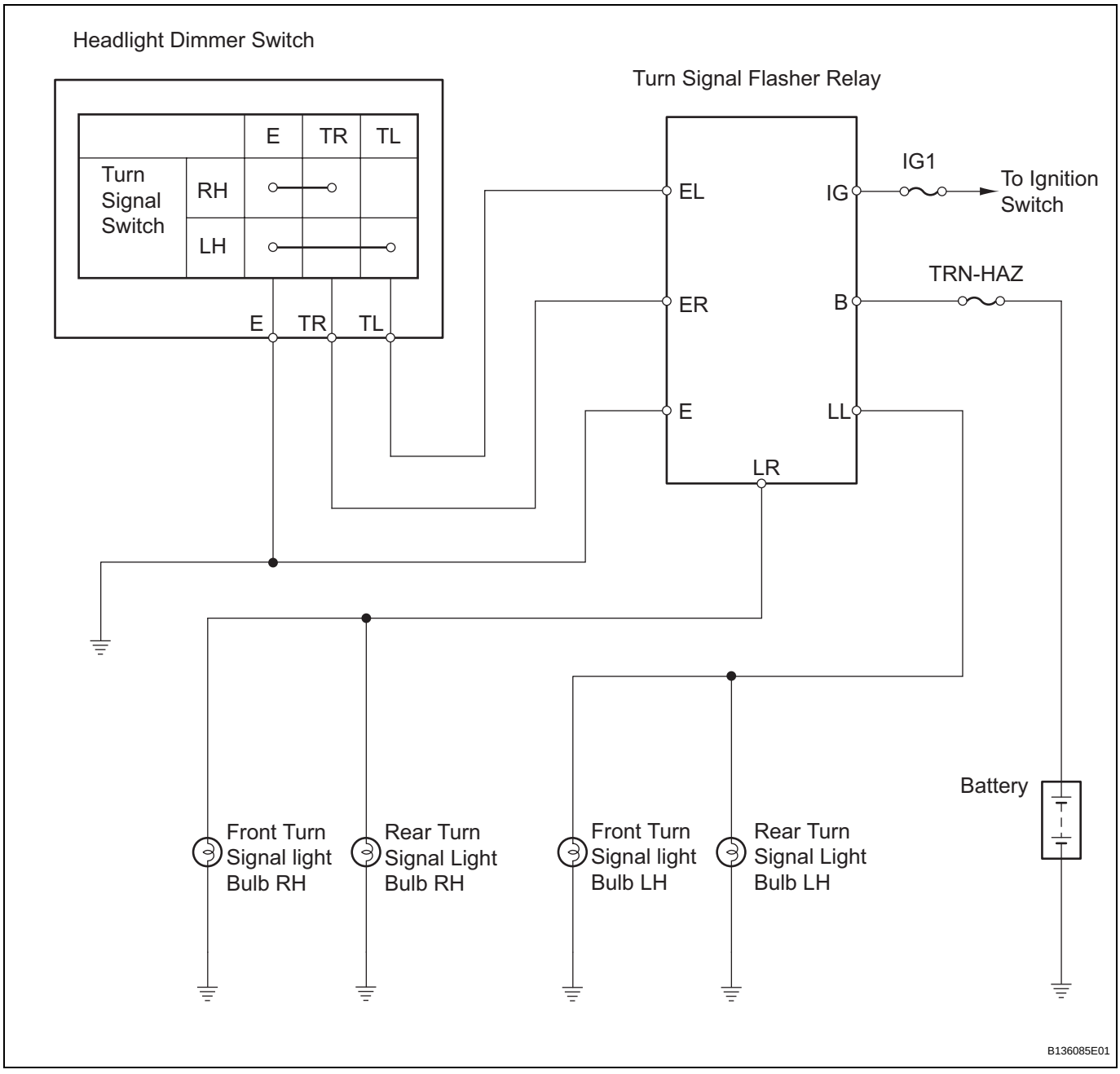
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

Turn Signal Light Circuit

DESCRIPTION

The turn signal flasher relay turns on when it receives signals from the headlight dimmer switch integrated with the turn signal switch, causing the turn signal lights to flash.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	**CHECK OPERATION (TURN SIGNAL LIGHT)**

(a) When the turn signal light switch is operated, check that the appropriate turn signal light flashes.

Result

Condition	Proceed to
No lights flash	A
Front turn signal light (LH or RH) does not flash	B
Rear turn signal light (LH or RH) does not flash	C

B → Go to step 8

C → Go to step 10

A

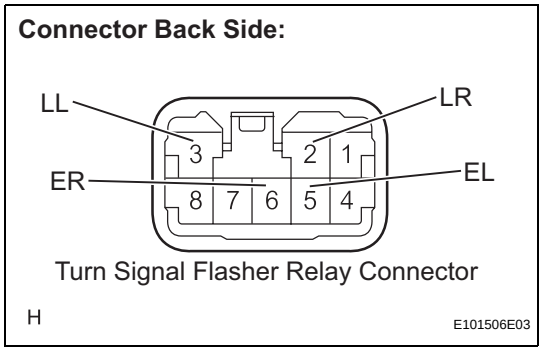
2 INSPECT FUSE (IG1, TRN-HAZ)

(a) Remove the IG1 fuse from the main body ECU.
(b) Remove the TRN-HAZ fuse from the engine room R/B No.2.
(c) Measure the resistance.
Standard resistance:
Below 1 Ω
(d) Reinstall the IG1 and TRN-HAZ fuses.

NG → REPLACE FUSE

OK

3 INSPECT TURN SIGNAL FLASHER RELAY



(a) Measure the voltage.
Standard voltage

Tester Connection	Condition	Specified Condition
2 (LR) - Body ground	Turn signal switch (right turn) OFF → ON	0 V → 11 to 14 V (60 to 120 times per minute)
3 (LL) - Body ground	Turn signal switch (left turn) OFF → ON	0 V → 11 to 14 V (60 to 120 times per minute)
5 (EL) - Body ground	Turn signal switch (left turn) OFF → ON	11 to 14 V → 0 V
6 (ER) - Body ground	Turn signal switch (right turn) OFF → ON	11 to 14 V → 0 V

NG → REPLACE TURN SIGNAL FLASHER RELAY

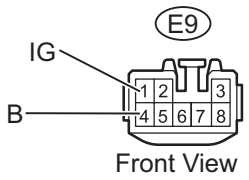
OK

LI

4 CHECK HARNESS AND CONNECTOR (FUSE - TURN SIGNAL FLASHER RELAY)

Wire Harness Side:

Turn Signal Flasher Relay Connector



E120966E07

(a) Disconnect the E9 turn signal flasher relay connector.
(b) Measure the voltage.
Standard voltage

Tester Connection	Condition	Specified Condition
E9-1(IG) - Body ground	Ignition switch ON	11 to 14 V
E9-4 (B) - Body ground	Always	11 to 14 V

(c) Reconnect the turn signal flasher relay connector.

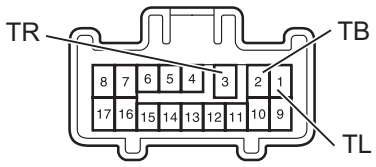
NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

5 INSPECT HEADLIGHT DIMMER SWITCH

Component Side:

Headlight Dimmer Switch



B136086E01

(a) Remove the headlight dimmer switch.
(b) Inspect the turn signal light switch.
(c) Measure the resistance.
Standard resistance

Tester Connection	Condition	Specified Condition
2 (TB) - 3 (TR)	Right	Below 1 Ω
2 (TB) - 3 (TR)	Neutral	10 kΩ or higher
2 (TB) - 1 (TL)	Left	Below 1 Ω
2 (TB) - 1 (TL)	Neutral	10 kΩ or higher

(d) Reinstall the headlight dimmer switch.

NG → **REPLACE HEADLIGHT DIMMER SWITCH**

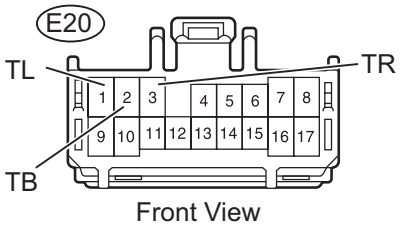
OK

LI

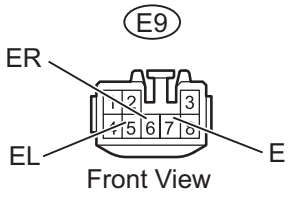
6	CHECK HARNESS AND CONNECTOR (TURN SIGNAL FLASHER RELAY - HEADLIGHT DIMMER SWITCH)

Wire Harness Side:

Headlight Dimmer Switch Connector



Turn Signal Flasher Relay Connector



B136087E01

(a) Disconnect the E20 headlight dimmer switch connector.
(b) Disconnect the E9 turn signal flasher relay connector.
(c) Measure the resistance.
Standard resistance

Tester Connection	Specified Condition
E20-2 (TB) - E9 -7 (E)	Below 1 Ω
E20-2 (TB) or E9 -7 (E) - Body ground	10 kΩ or higher
E20-1 (TL) - E9-5 (EL)	Below 1 Ω
E20-1 (TL) or E9-5 (EL) - Body ground	10 kΩ or higher
E20-3 (TR) - E9-6 (ER)	Below 1 Ω
E20-3 (TR) or E9-6 (ER) - Body ground	10 kΩ or higher

(d) Reconnect the headlight dimmer switch connector.
(e) Reconnect the turn signal flasher relay connector.

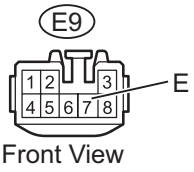
NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

7	CHECK HARNESS AND CONNECTOR (TURN SIGNAL FLASHER RELAY - BODY GROUND)

Wire Harness Side:

Turn Signal Flasher Relay Connector



E120966E08

(a) Disconnect the E9 turn signal flasher relay connector.
(b) Measure the resistance.
Standard resistance

Tester Connection	Specified Condition
E9-7 (E) - Body ground	Below 1 Ω

(c) Reconnect the turn signal flasher relay connector.

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

OK

REPAIR OR REPLACE HARNESS OR CONNECTOR (HEADLIGHT DIMMER SWITCH - BODY GROUND)

LI

8	**INSPECT BULB (FRONT TURN SIGNAL LIGHT BULB)**

Component Side:

Front Turn Signal Light*

*: LH or RH

B136088E01

(a) Remove the front turn signal light.
(b) Apply battery voltage to the terminals and check that the front turn signal light illuminates.
Standard

Measurement Condition	Standard
Positive battery - Terminal 3 Negative battery - Terminal 2	Front turn signal light illuminates

(c) Reinstall the front turn signal light.

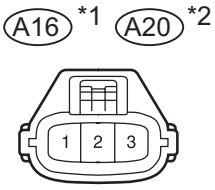
NG → **REPLACE BULB**

OK

9	**CHECK HARNESS AND CONNECTOR (TURN SIGNAL FLASHER RELAY - FRONT TURN SIGNAL LIGHT)**

Wire Harness Side:

Front Turn Signal Light Connector

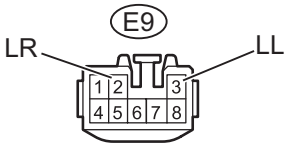


Front View

*1: LH

*2: RH

Turn Signal Flasher Relay Connector



Front View

B136089E01

(a) Disconnect the E9 turn signal flasher relay connector.
(b) Disconnect the A16 and A20 front turn signal light connectors.
(c) Measure the resistance.
Standard resistance

Tester Connection	Specified Condition
E9-2 (LR) - A20-3	Below 1 Ω
E9-2 (LR) or A20-3 - Body ground	10 kΩ or higher
E9-3 (LL) - A16-3	Below 1 Ω
E9-3 (LL) or A16-3 - Body ground	10 kΩ or higher

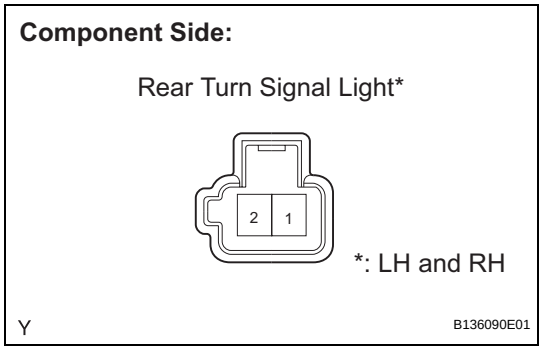
(d) Reconnect the turn signal flasher relay connector.
(e) Reconnect the front turn signal light connectors.

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

OK

REPAIR OR REPLACE HARNESS OR CONNECTOR (FRONT TURN SIGNAL LIGHT - BODY GROUND)

10 INSPECT BULB (REAR TURN SIGNAL LIGHT BULB)



(a) Remove the rear turn signal light.
(b) Apply battery voltage to the terminals and check that the rear turn signal light illuminates.

Standard

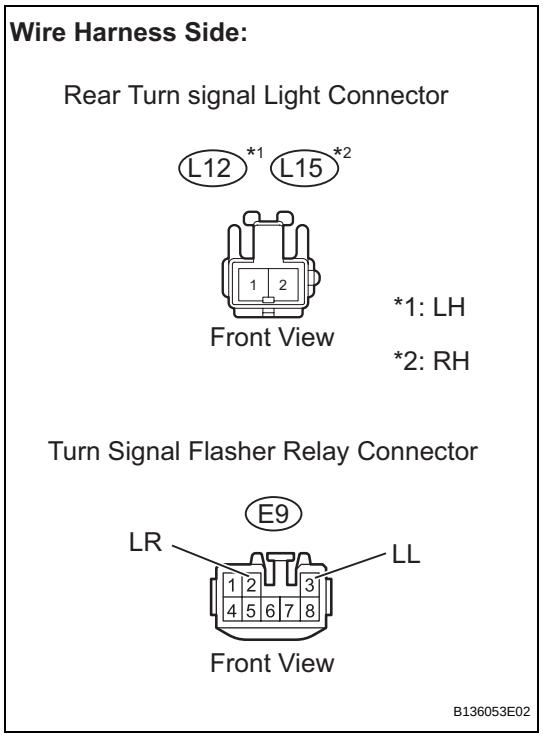
Measurement Condition	Standard
Positive battery - Terminal 1 Negative battery - Terminal 2	Rear turn signal light illuminates

(c) Reinstall the rear turn signal light.

NG → **REPLACE BULB**

OK

11 CHECK HARNESS AND CONNECTOR (TURN SIGNAL FLASHER RELAY - REAR TURN SIGNAL LIGHT)



(a) Disconnect the E9 turn signal flasher relay connector.
(b) Disconnect the L12 and L15 rear turn signal light connectors.
(c) Measure the resistance.

Standard resistance

Tester Connection	Specified Condition
E9-2 (LR) - L15-1	Below 1 Ω
E9-2 (LR) or L15-1 - Body ground	10 kΩ or higher
E9-3 (LL) - L12-1	Below 1 Ω
E9-3 (LL) or L12-1 - Body ground	10 kΩ or higher

(d) Reconnect the turn signal flasher relay connector.
(e) Reconnect the rear turn signal light connectors.

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

OK

REPAIR OR REPLACE HARNESS OR CONNECTOR (REAR TURN SIGNAL LIGHT ASSEMBLY - BODY GROUND)

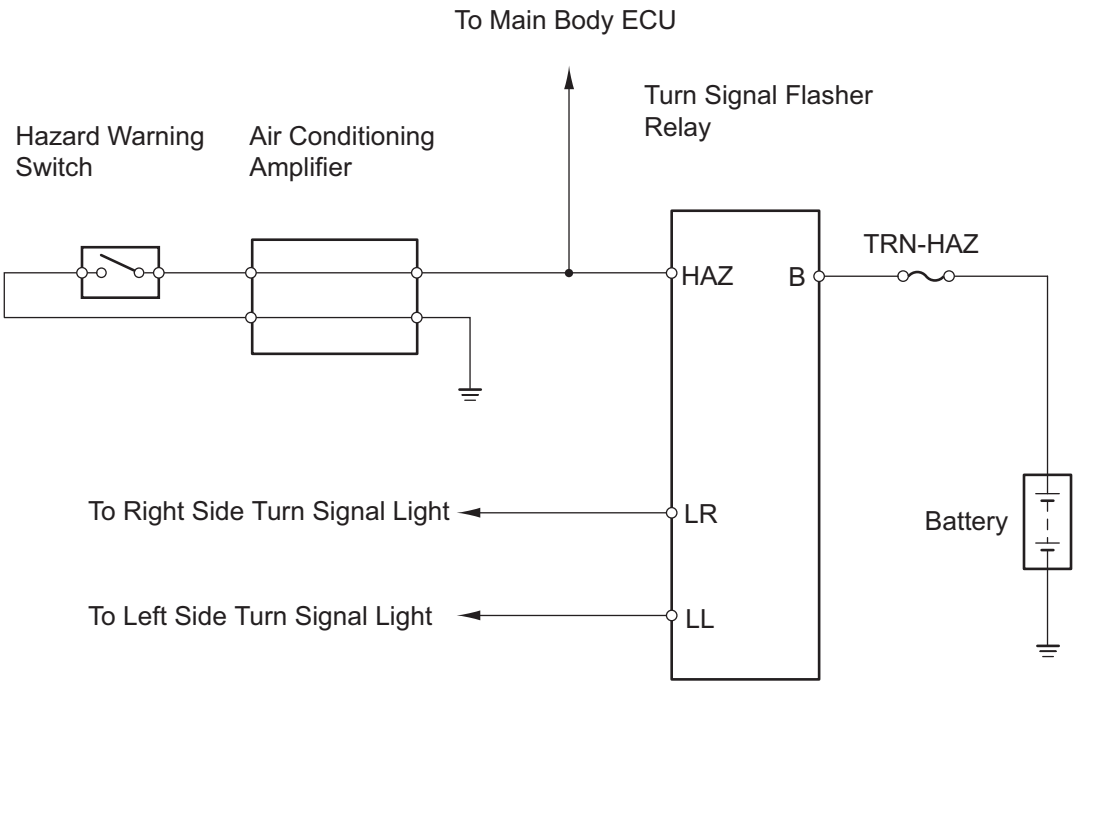
LI

Hazard Warning Switch Circuit

DESCRIPTION

When the hazard warning switch is turned on, the turn signal flasher relay turns on to flash the hazard warning signal lights.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	PERFORM ACTIVE TEST BY INTELLIGENT TESTER

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

BODY

Item	Test Details/Display (Range)	Diagnostic Note
HAZARD	HAZARD ON/OFF	-

OK:
All turn signal lights flash.

OK	Go to step 4

NG

2	INSPECT FUSE (TRN-HAZ)

(a) Remove the TRN-HAZ fuse from the engine room R/B No.2.
(b) Measure the resistance.
Standard resistance:
Below 1 Ω
(c) Reinstall the TRN-HAZ fuse.

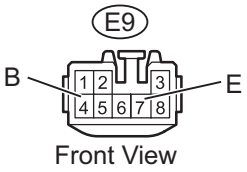
NG → **REPLACE FUSE**

OK

3	CHECK HARNESS AND CONNECTOR (FUSE - TURN SIGNAL FLASHER RELAY - BODY GROUND)

Wire Harness Side:

Turn Signal Flasher Relay Connector



E120966E09

(a) Disconnect the E9 turn signal flasher relay connector.
(b) Measure the voltage.
Standard voltage

Tester Connection	Condition	Specified Condition
E9-4 (B) - Body ground	Always	11 to 14 V

(c) Measure the resistance.
Standard resistance

Tester Connection	Condition	Specified Condition
E9-7 (E) - Body ground	Always	Below 1 Ω

(d) Reconnect the turn signal flasher relay connector.

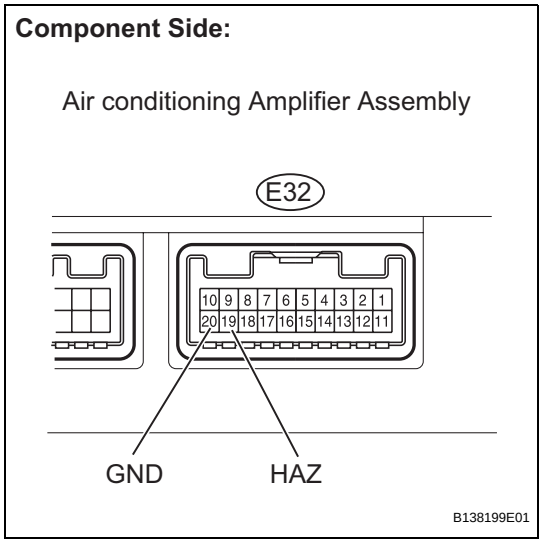
NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

REPLACE TURN SIGNAL FLASHER RELAY

LI

4	INSPECT AIR CONDITIONING AMPLIFIER ASSEMBLY (HAZARD WARNING SWITCH)



(a) Disconnect the E32 air conditioning amplifier connector.
(b) Measure the resistance.
Standard resistance

Tester Connection	Condition	Specified Condition
19 (HAZ) - 20 (GND)	Hazard warning switch OFF	10 kΩ or higher
19 (HAZ) - 20 (GND)	Hazard warning switch ON	Below 3 Ω

(c) Reconnect the air conditioning amplifier connector.

OK → **Go to step 6**

NG

5	INSPECT INTEGRATION CONTROL AND PANEL ASSEMBLY (HAZARD WARNING SWITCH)

(a) Temporarily replace the integration control and panel assembly with a new or normally functioning one.
(b) Check the hazard warning switch operation.

OK:
All turn signal lights flash.

NG → **REPLACE AIR CONDITIONING AMPLIFIER ASSEMBLY**

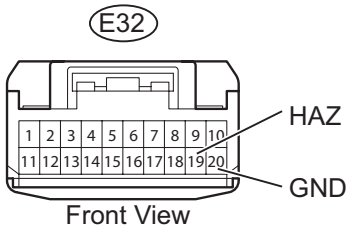
OK

END (INTEGRATION CONTROL AND PANEL ASSEMBLY IS FAULTY)

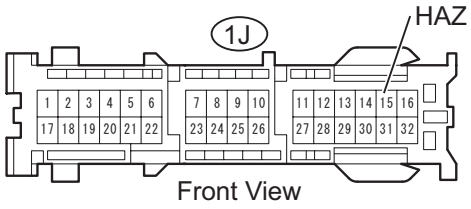
6	CHECK HARNESS AND CONNECTOR (AIR CONDITIONING AMPLIFIER - MAIN BODY ECU, BODY GROUND)

Wire Harness Side:

Air Conditioning Amplifier Connector



Main Body ECU Connector



B136096E01

(a) Disconnect the E32 air conditioning amplifier connector.
(b) Disconnect the 1J main body ECU connector.
(c) Measure the resistance.

Standard resistance

Tester Connection	Specified Condition
E32-19 (HAZ) - 1J-15 (HAZ)	Below 1 Ω
E32-19 (HAZ) or 1J-15 (HAZ) - Body ground	10 kΩ or higher
E32-20 (GND) - Body ground	Below 1 Ω

(d) Reconnect the air conditioning amplifier connector.
(e) Reconnect the main body ECU connector.

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

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

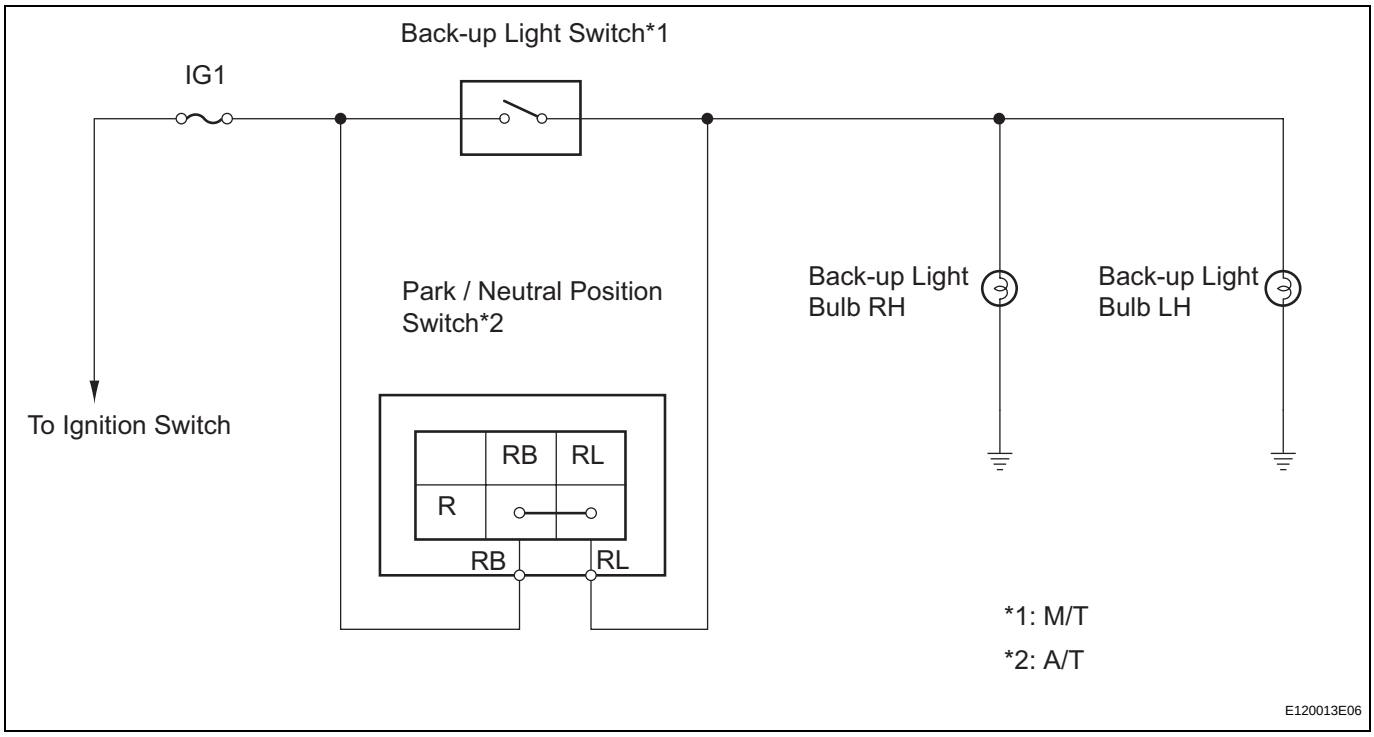
LI

Back-up Light Circuit

DESCRIPTION

A/T models: The park / neutral position switch turns on when the shift lever is moved into the R position, causing the back-up lights to illuminate.
M/T models: The back-up light switch turns on when the shift lever is moved into the R position, causing the back-up lights to illuminate.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	**INSPECT FUSE (IG1)**

(a) Remove the IG1 fuse from the main body ECU.
(b) Measure the resistance.
Standard resistance:
Below 1 Ω
(c) Reinstall the IG1 fuse.

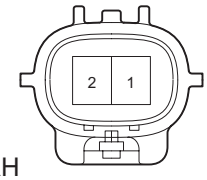
NG → **REPLACE FUSE**

OK

2 INSPECT BULB (BACK-UP LIGHT BULB)

Component Side:

Back-up Light*



*: LH and RH

B141591E01

(a) Remove the back-up light bulb.
(b) Apply battery voltage to the terminals and check that the back-up light illuminates.
Standard

Measurement Condition	Standard
Positive battery - Terminal 1 Negative battery - Terminal 2	back-up light illuminates

(c) Reinstall the back-up light bulb.

NG → **REPLACE BULB**

OK

3 CHECK TRANSAXLE TYPE

(a) Check the vehicle's transaxle type.
Result

Transaxle Type	Proceed To
A/T	A
M/T	B

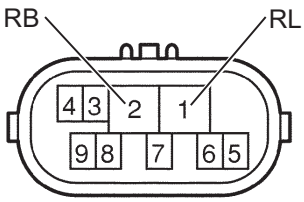
B → **Go to step 7**

A

4 INSPECT PARK / NEUTRAL POSITION SWITCH

Component Side:

Park / Neutral Position Switch



C110340E33

(a) Disconnect the B35 park / neutral position switch.
(b) Measure the resistance.
Standard resistance

Tester Connection	Shift Position	Specified Connection
2 (RB) - 1 (RL)	R	Below 1 Ω
2 (RB) - 1 (RL)	Except R	10 kΩ or higher

(c) Reconnect the park / neutral position switch.

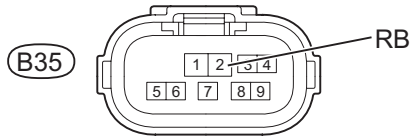
NG → **REPLACE PARK / NEUTRAL POSITION SWITCH**

OK

5 CHECK HARNESS AND CONNECTOR (FUSE - PARK / NEUTRAL POSITION SWITCH)

Wire Harness Side:

Park / Neutral Position Switch Connector



Front View

Y B124048E07

(a) Disconnect the B35 park / neutral position switch connector.
(b) Measure the voltage.
Standard voltage

Tester Connection	Condition	Specified Condition
B35-2 (RB) - Body ground	Ignition switch ON	11 to 14 V

(c) Reconnect the park / neutral position switch connector.

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

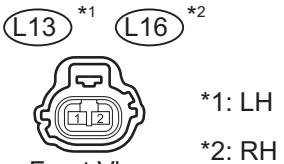
OK

6 CHECK HARNESS AND CONNECTOR (PARK / NEUTRAL POSITION SWITCH - REAR BACK-UP LIGHT)

LI

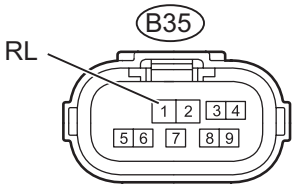
Wire Harness Side:

Back-up Light Connector



Front View

Park/ Neutral Position Switch Connector



Front View

B138183E01

(a) Disconnect the B35 park / neutral position switch connector.
(b) Disconnect the L13 and L16 back-up light connectors.
(c) Measure the resistance.
Standard resistance

Tester Connection	Specified Condition
B35-1 (RL) - L13-1	Below 1 Ω
B35-1 (RL) - L16-1	Below 1 Ω
L13-1 - Body ground	10 kΩ or higher
L16-1 - Body ground	10 kΩ or higher

(d) Reconnect the park / neutral position switch connector.
(e) Reconnect the back-up light connectors.

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

OK

REPAIR OR REPLACE HARNESS OR CONNECTOR (BACK-UP LIGHT - BODY GROUND)

7 INSPECT BACK-UP LIGHT SWITCH

Component Side:

Back-up Light Switch

Y B135322E03

(a) Disconnect the B42 back-up light switch connector.
(b) Measure the resistance.
Standard resistance

Tester Connection	Shift Position	Specified Connection
1 - 2	R	Below 1 Ω
1 - 2	Except R	10 kΩ or higher

(c) Reconnect the back-up light switch connector.

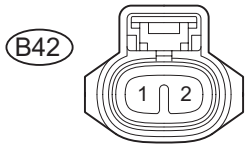
NG → **REPLACE BACK-UP LIGHT SWITCH**

OK

8 CHECK HARNESS AND CONNECTOR (FUSE - BACK-UP LIGHT SWITCH)

Wire Harness Side:

Back-up Light Switch Connector



Front View

Y B135323E02

(a) Disconnect the B42 back-up light switch connector.
(b) Measure the voltage.
Standard voltage

Tester Connection	Condition	Specified Condition
B42-2 - Body ground	Ignition switch ON	11 to 14 V

(c) Reconnect the back-up light switch connector.

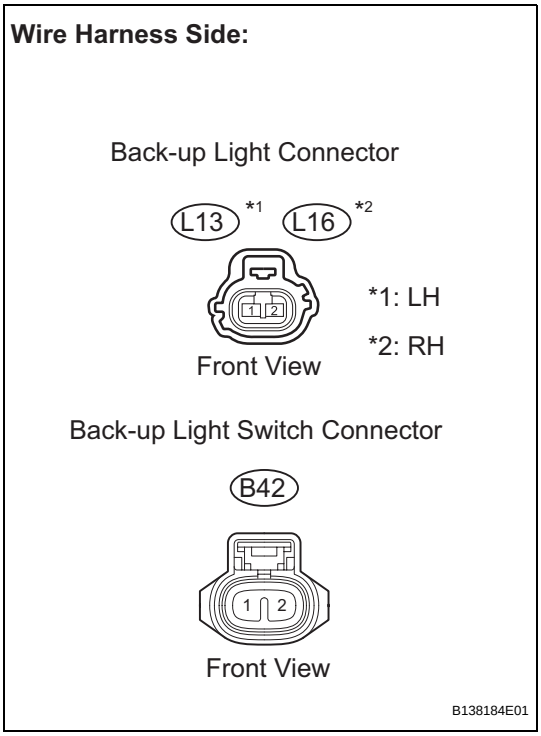
NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

LI

9	CHECK HARNESS AND CONNECTOR (BACK-UP LIGHT SWITCH - BACK-UP LIGHT)

Wire Harness Side:



(a) Disconnect the B42 back-up light switch connector.
(b) Disconnect the L13 and L16 back-up light connectors.
(c) Measure the resistance.

Standard resistance

Tester Connection	Specified Condition
B42-1 - L13-1	Below 1 Ω
B42-1 - L16-1	Below 1 Ω
L13-1 - Body ground	10 kΩ or higher
L16-1 - Body ground	10 kΩ or higher

(d) Reconnect the back-up light switch connector.
(e) Reconnect the back-up light connectors.

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

OK

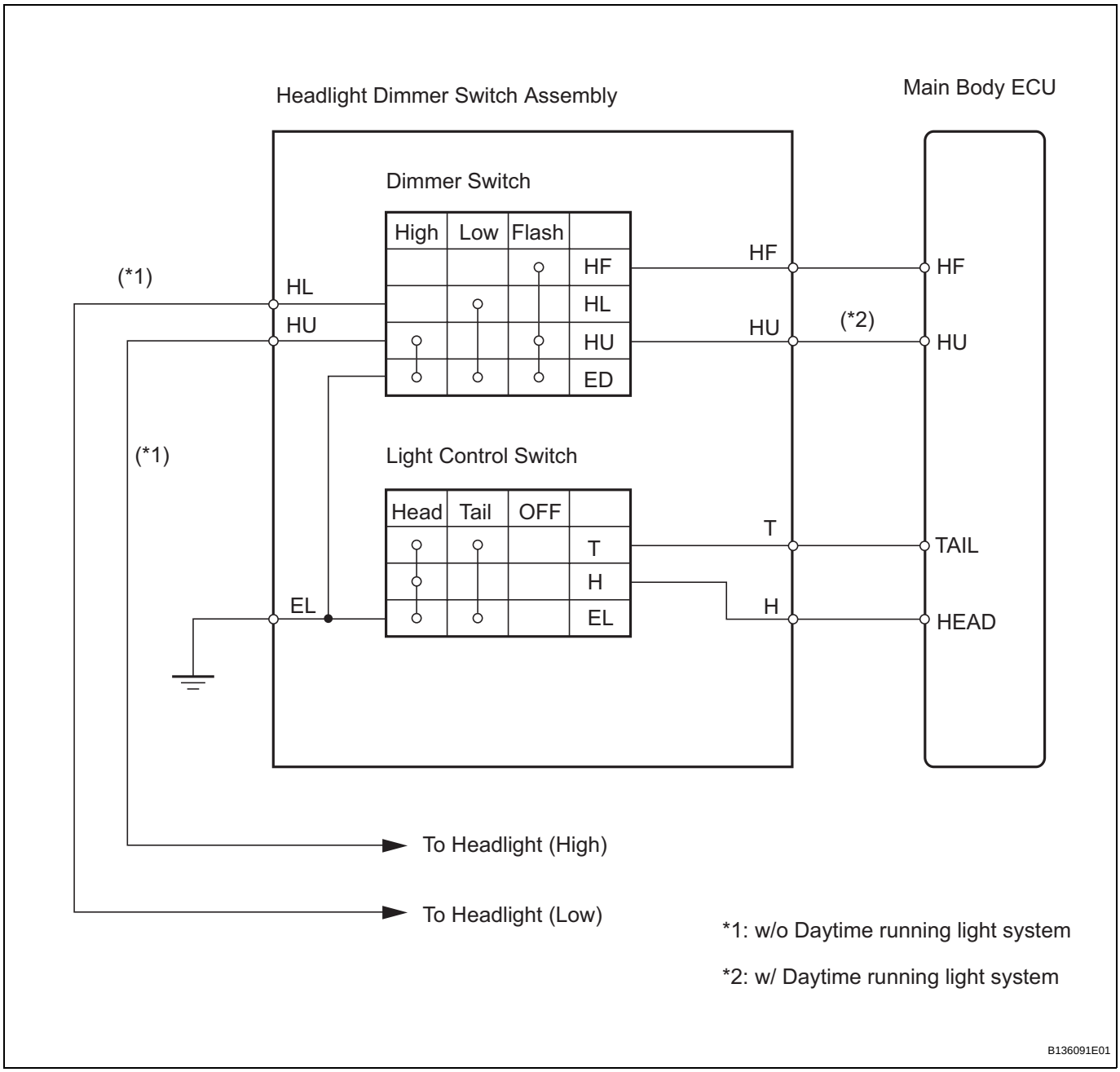
REPAIR OR REPLACE HARNESS OR CONNECTOR (BACK-UP LIGHT - BODY GROUND)

Light Control Switch Circuit

DESCRIPTION

This circuit detects the state of the headlight dimmer switch.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	READ VALUE OF INTELLIGENT TESTER

(a) Connect the intelligent tester with CAN VIM to the DLC3.
(b) Turn the ignition switch ON.
(c) Turn the intelligent tester on.

(d) Select the item(s) in the DATA LIST, and read the display on the intelligent tester.

BODY

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
HIGH FLASER SW	Passing light switch signal / ON or OFF	ON: Headlight dimmer switch is in FLASH (PASS) position OFF: Headlight dimmer switch is not in FLASH (PASS) position	-
DIMMER SW	Dimmer switch signal/ON or OFF	ON: Dimmer switch is ON (High Beam) or High flasher switch is ON OFF: Dimmer switch is OFF (Low Beam) or High flasher switch is OFF	-
HEAD LIGHT SW	Headlight control switch signal / ON or OFF	ON: Light control switch is in HEAD position OFF: Light control switch is not in HEAD position	-
TAIL LIGHT SW	Taillight switch signal / ON or OFF	ON: Light control switch is in TAIL or HEAD position OFF: Light control switch is in OFF position	-

LI

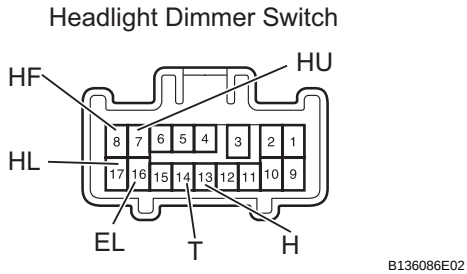
OK:
Condition information can be displayed.

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

NG

2 INSPECT HEADLIGHT DIMMER SWITCH ASSEMBLY

Component Side:



(a) Remove the headlight dimmer switch assembly.
(b) Measure the resistance.
(1) Light Control Switch:
Standard resistance

Tester Connection	Condition	Specified Condition
14 (T) - 16 (EL)	OFF	10 kΩ or higher
13 (H) - 16 (EL)		
14 (T) - 16 (EL)	TAIL	Below 1 Ω
13 (H) - 16 (EL)		10 kΩ or higher
14 (T) - 16 (EL)	HEAD	Below 1 Ω
13 (H) - 16 (EL)		Below 1 Ω

(2) Headlight Dimmer Switch Switch:
Standard resistance

Tester Connection	Condition	Specified Condition
7 (HU) - 16 (EL)	HIGH BEAM	Below 1 Ω
17 (HL) - 16 (EL)	LOW BEAM	Below 1 Ω
7 (HU) - 8 (HF) - 16 (EL)	FLASH	Below 1 Ω

(c) Reinstall the headlight dimmer switch assembly.

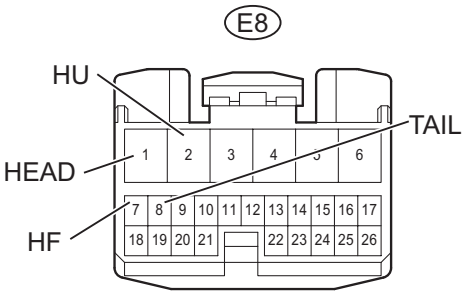
NG → REPLACE HEADLIGHT DIMMER SWITCH ASSEMBLY

OK

3 CHECK HARNESS AND CONNECTOR (HEADLIGHT DIMMER SWITCH - MAIN BODY ECU)

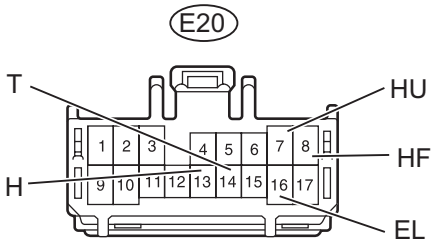
Wire Harness Side:

Main Body ECU Connector



Front View

Headlight Dimmer Switch Assembly Connector



Front View

B138177E01

(a) Disconnect the E8 main body ECU connector.
(b) Disconnect the E20 headlight dimmer switch assembly connector.
(c) Measure the resistance.

Standard resistance

Tester Connection	Specified Condition
E20-8 (HF) - E8-7 (HF)	Below 1 Ω
E20-8 (HF) or E8-7 (HF) - Body ground	10 kΩ or higher
E20-14 (T) - E8-8 (TAIL)	Below 1 Ω
E20-14 (T) or E8-8 (TAIL) - Body ground	10 kΩ or higher
E20-13 (H) - E8-1 (HEAD)	Below 1 Ω
E20-13 (H) or E8-1 (HEAD) - Body ground	10 kΩ or higher
E20-7 (HU) - E8-2 (HU)*	Below 1 Ω
E20-7 (HU) or E8-2 (HU)* - Body ground	10 kΩ or higher
E20-16 (EL) - Body ground	Below 1 Ω

HINT:
*: w/ Daytime running light system
(d) Reconnect the main body ECU connector.
(e) Reconnect the headlight dimmer switch assembly connector.

NG → REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

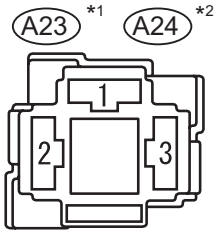
4 CHECK HARNESS AND CONNECTOR (HEADLIGHT DIMMER SWITCH - HEADLIGHT*)

HINT:
*: w/o Daytime running light system

LI

Wire Harness Side:

Headlight Connector

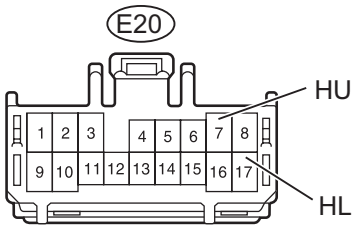


Front View

*1: LH

*2: RH

Headlight dimmer Switch Assembly Connector



Front View

B138178E01

(a) Disconnect the E20 headlight dimmer switch assembly connector.
(b) Disconnect the A23 and A24 headlight connectors.
(c) Measure the resistance.

Standard resistance

Tester Connection	Specified Condition
E20-17 (HL) - A23-1	Below 1 Ω
E20-17 (HL) - A24-1	Below 1 Ω
E20-7 (HU) - A23-2	Below 1 Ω
E20-7 (HU) - A24-2	Below 1 Ω

(d) Reconnect the headlight dimmer switch assembly connector.
(e) Reconnect the headlight connectors.

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

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

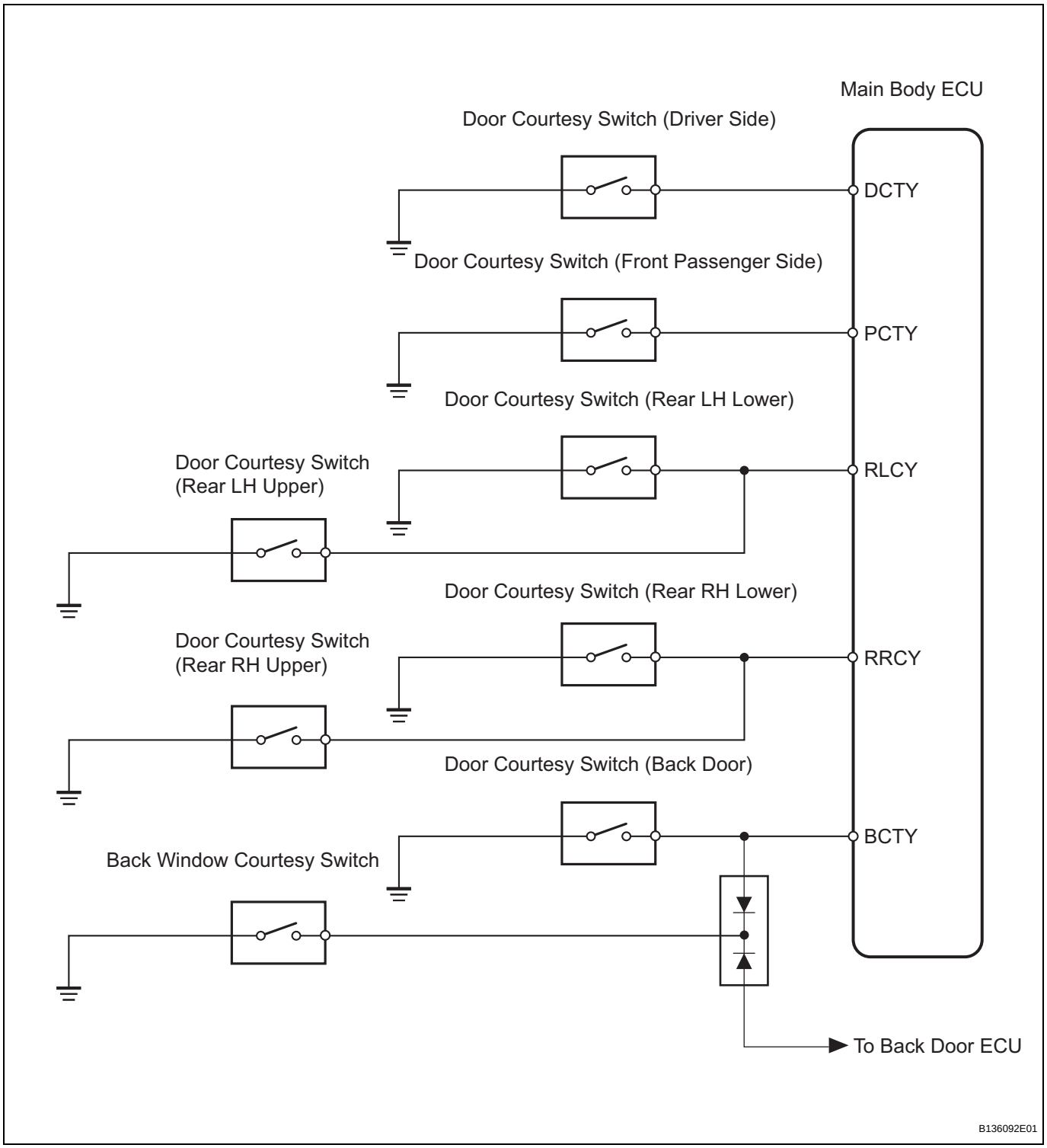
LI

Door Courtesy Switch Circuit

DESCRIPTION

The main body ECU detects the condition of each door courtesy switch.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	READ VALUE OF INTELLIGENT TESTER (DOOR COURTESY SWITCH)

(a) Connect the intelligent tester with CAN VIM to the DLC3.
(b) Turn the ignition switch ON.
(c) Turn the intelligent tester main switch on.
(d) Select the item below in the DATA LIST for proper functioning to check the courtesy switch.

BODY

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
D DOR CTY SW	Driver door courtesy switch signal/ON or OFF	ON :Driver door open OFF: Driver door closed	-
P DOR CTY SW	Front passenger door courtesy switch signal/ON or OFF	ON: Front passenger door open OFF: Front passenger door closed	-
Rr DOR CTY SW	Rear door courtesy switch signal/ON or OFF	ON: Either right or left rear door open OFF: Both right and left rear doors closed	-
LUGG COURTSY SW	Back door and back window courtesy switch signal/ON or OFF	ON: Either back door or back window open OFF: Both back door and back window closed	-

OK:
Condition sign can be displayed.

Result

Result	Proceed to
OK	A
Driver side door courtesy switch does not operate	B
Front passenger side door courtesy switch does not operate	C
Both rear door courtesy switches do not operate	D
Back door courtesy switch or back window courtesy switch does not operate	E

B → Go to step 2
C → Go to step 4
D → Go to step 6
E → Go to step 8

A

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

2	INSPECT DOOR COURTESY SWITCH (DRIVER SIDE)

Inspection (See page LI-114)

OK:

Door courtesy switch is normal.

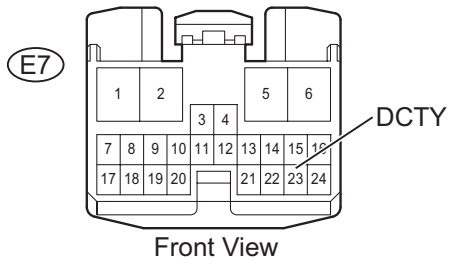
NG → **REPLACE DOOR COURTESY SWITCH (DRIVER SIDE)**

OK

3 CHECK HARNESS AND CONNECTOR (DOOR COURTESY SWITCH (DRIVER SIDE) - MAIN BODY ECU)

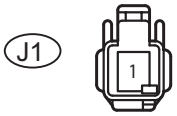
Wire Harness Side:

Main Body ECU Connector



Front View

Door Courtesy Switch (Driver Side) Connector



Front View

B138179E01

(a) Disconnect the E7 main body ECU connector.
(b) Disconnect the J1 door courtesy switch connector.
(c) Measure the resistance

Standard resistance

Tester Connection	Condition	Specified Condition
E7-23 (DCTY) - J1-1	Always	Below 1 Ω
E7-23 (DCTY) or J1-1 - Body ground	Always	10 kΩ or higher

(d) Reconnect the main body ECU connector.
(e) Reconnect the door courtesy switch connector.

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

OK

REPLACE MAIN BODY ECU

4 INSPECT DOOR COURTESY SWITCH (FRONT PASSENGER SIDE)

Inspection (See page LI-114)

OK:

Door courtesy switch is normal.

NG → **REPLACE DOOR COURTESY SWITCH (FRONT PASSENGER SIDE)**

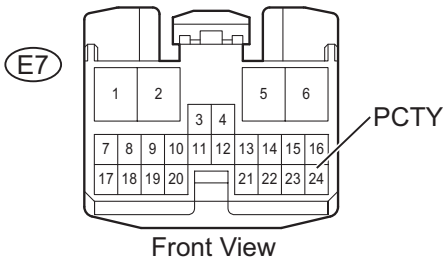
OK

LI

5	CHECK HARNESS AND CONNECTOR (DOOR COURTESY SWITCH(FRONT PASSENGER SIDE) - MAIN BODY ECU)

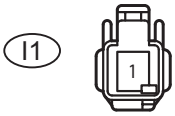
Wire Harness Side:

Main Body ECU Connector



Front View

Door Courtesy Switch (Front Passenger Side) Connector



Front View

B138179E03

(a) Disconnect the E7 main body ECU connector.
(b) Disconnect the I1door courtesy switch connector.
(c) Measure the resistance.

Standard resistance

Tester Connection	Condition	Specified Condition
E7-24 (PCTY) - I1-1	Always	Below 1 Ω
E7-24 (PCTY) or I1-1 - Body ground	Always	10 kΩ or higher

(d) Reconnect the main body ECU connector.
(e) Reconnect the door courtesy switch connector.

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

OK

REPLACE MAIN BODY ECU

6	INSPECT REAR DOOR COURTESY SWITCH (REAR LH UPPER, REAR LH LOWER, REAR RH UPPER, REAR RH LOWER)

(a) Inspect the rear door lock upper assembly (See page LI-117)
(b) Inspect the rear door lock lower assembly (See pageLI-120)

OK:

Door courtesy switch is normal.

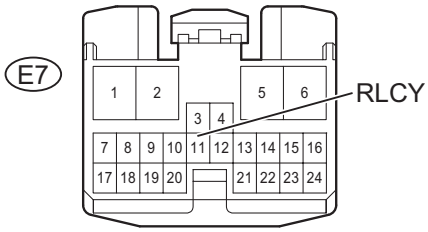
NG → **REPLACE REAR DOOR COURTESY SWITCH (REAR DOOR LOCK ASSEMBLY)**

OK

7	**CHECK HARNESS AND CONNECTOR (REAR DOOR COURTESY SWITCH - MAIN BODY ECU)**

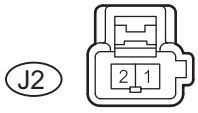
Wire Harness Side:

Main Body ECU Connector



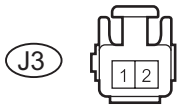
Front View

Door Courtesy Switch (LH Upper) Connector



Front View

Door Courtesy Switch (LH Lower) Connector



Front View

B138180E01

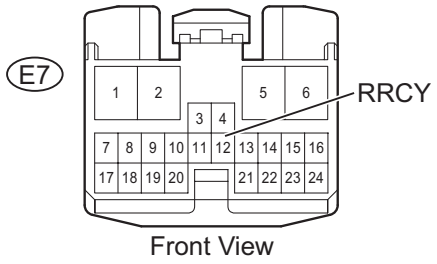
(a) Check the wire harness between the main body ECU and rear door courtesy switch LH (upper and lower).
  (1) Disconnect the E7 main body ECU connector.
  (2) Disconnect the J2 and J3 door courtesy switch connectors.
  (3) Measure the resistance.
  Standard resistance

Tester Connection	Condition	Specified Condition
E7-11 (RLCY) - J2-2	Always	Below 1 Ω
E7-11 (RLCY) - J3-1	Always	Below 1 Ω
E7-11 (RLCY) or J2-2 or J3-1- Body ground	Always	10 kΩ or higher

  (4) Reconnect the main body ECU connector.
  (5) Reconnect the door courtesy switch connectors.

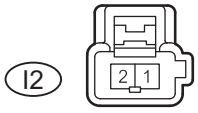
Wire Harness Side:

Main Body ECU Connector



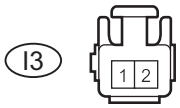
Front View

Door Courtesy Switch (RH Upper) Connector



Front View

Door Courtesy Switch (RH Lower) Connector



Front View

B138180E02

(b) Check the wire harness between the main body ECU and rear door courtesy switch RH (upper and lower).
(1) Disconnect the E7 main body ECU connector.
(2) Disconnect the I2 and I3 door courtesy switch connectors.
(3) Measure the resistance.
Standard resistance

Tester Connection	Condition	Specified Condition
E7-12 (RRCY) - I2-2	Always	Below 1 Ω
E7-12 (RRCY) - I3-1	Always	Below 1 Ω
E7-12 (RRCY) or I2-2 or I3-1- Body ground	Always	10 kΩ or higher

(4) Reconnect the main body ECU connector.
(5) Reconnect the door courtesy switch connectors.

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

OK

REPLACE MAIN BODY ECU

8	INSPECT BACK DOOR COURTESY SWITCH

Inspection (See page LI-122)
OK:
Door courtesy switch is normal.

NG → **REPLACE BACK DOOR COURTESY SWITCH**

OK

9	INSPECT BACK WINDOW LOCK ASSEMBLY (BACK WINDOW COURTESY SWITCH)

Inspection (See page WS-94)
OK:
Door courtesy switch is normal.

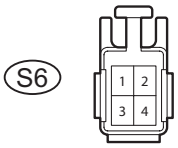
NG → **REPLACE BACK WINDOW LOCK ASSEMBLY**

OK

10	CHECK HARNESS AND CONNECTOR (BACK DOOR COURTESY, BACK WINDOW COURTESY - MAIN BODY ECU)

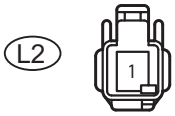
Wire Harness Side:

Back Window Courtesy Switch Connector



Front View

Back Door Courtesy Switch Connector



Front View

B138181E01

(a) Disconnect the L2 back door courtesy switch connector.
(b) Disconnect the S6 back window lock assembly connector.
(c) Measure the voltage.
Standard voltage

Tester Connection	Condition	Specified Condition
L2-1 - Body ground	Always	11 to 14 V
S6-4 - Body ground	Always	11 to 14 V

(d) Reconnect the back door courtesy switch connector.
(e) Reconnect the back window lock assembly connector.

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

OK

REPLACE MAIN BODY ECU

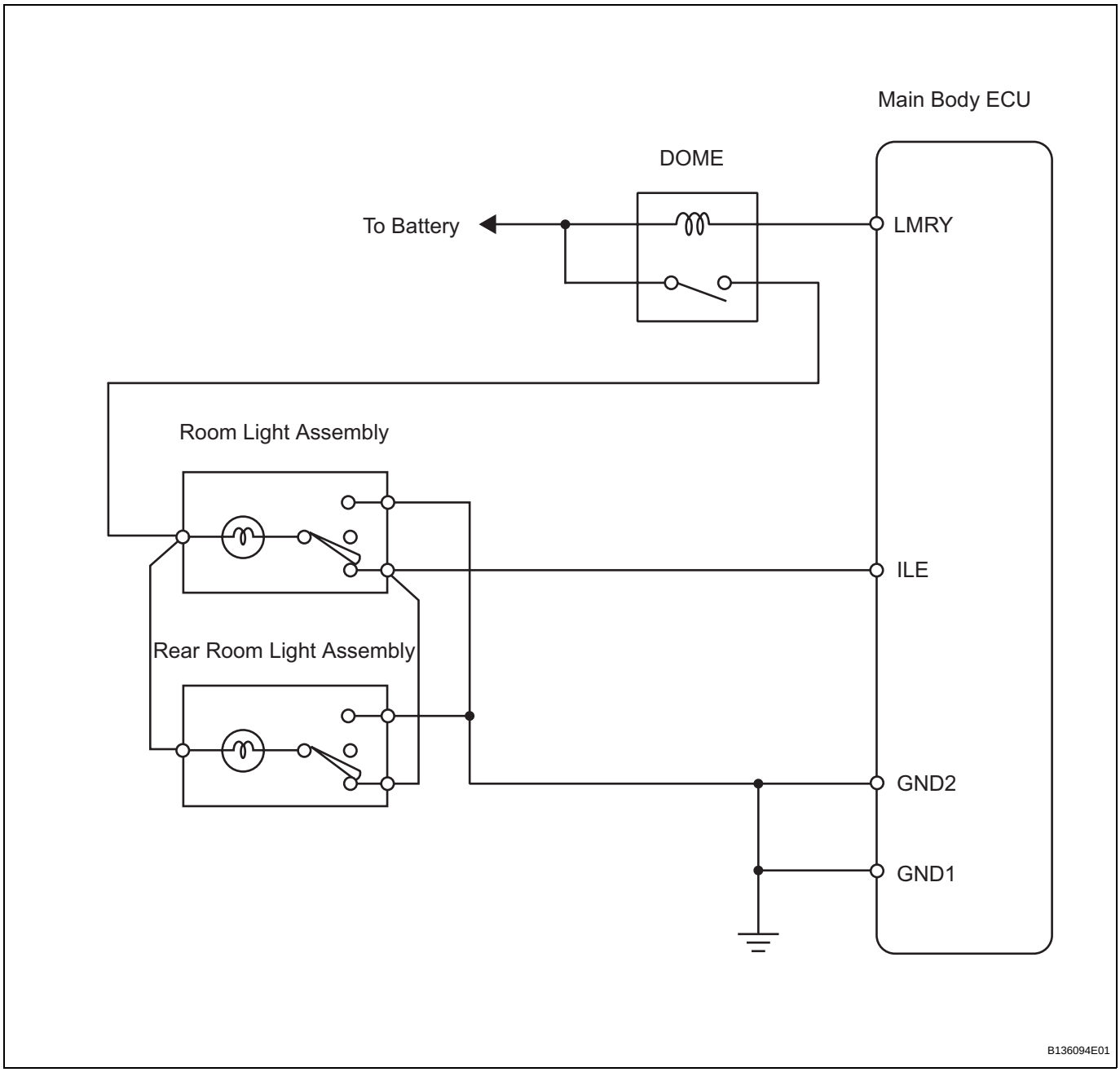
LI

Illumination Circuit

DESCRIPTION

Upon receiving signals from the switches, the main body ECU illuminates the lights.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	**PERFORM ACTIVE TEST BY INTELLIGENT TESTER**

(a) Connect the intelligent tester with CAN VIM to DLC3.
(b) Turn the ignition switch ON.
(c) Turn the intelligent tester on.

(d) Select the item(s) in the ACTIVE TEST, and check the operation.

BODY

Item	Test Details	Diagnostic Note
ILLUMI OUTPUT	Illuminated Entry System ON/OFF	-

OK:
The room light and rear room light come on. (Light switch is in DOOR position.)

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

NG

2 INSPECT ROOM LIGHT ASSEMBLY

(a) Inspect the room light assembly. (see page LI-96).

OK:
Room light assembly is normal.

NG → **REPLACE ROOM LIGHT ASSEMBLY**

OK

3 INSPECT REAR ROOM LIGHT ASSEMBLY

(a) Inspect the rear room light assembly. (see pageLI-100).

OK:
Rear room light assembly is normal.

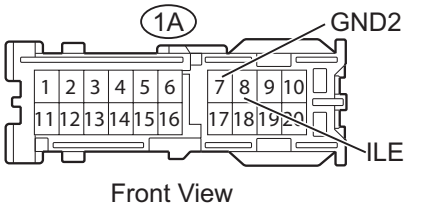
NG → **REPLACE REAR ROOM LIGHT ASSEMBLY**

OK

4 CHECK HARNESS AND CONNECTOR (MAIN BODY ECU - ROOM LIGHT, BODY GROUND)

Wire Harness Side:

Main Body ECU Connector



(a) Disconnect the 1A main body ECU connector.
(b) Measure the resistance.

Standard resistance

Tester Connection	Condition	Specified Condition
1A-8 (ILE) - 1A-7(GND2)	Room light switch is in DOOR position Rear room light switch is in OFF position	Below 1 Ω
1A-8 (ILE) - 1A-7(GND2)	Room light switch is in OFF position Rear room light switch is in DOOR position	Below 1 Ω
1A-8 (ILE) or 1A-7 (GND2)- Body ground	Always	10 kΩ or higher

(c) Reconnect the main body ECU connector.

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

LI

OK

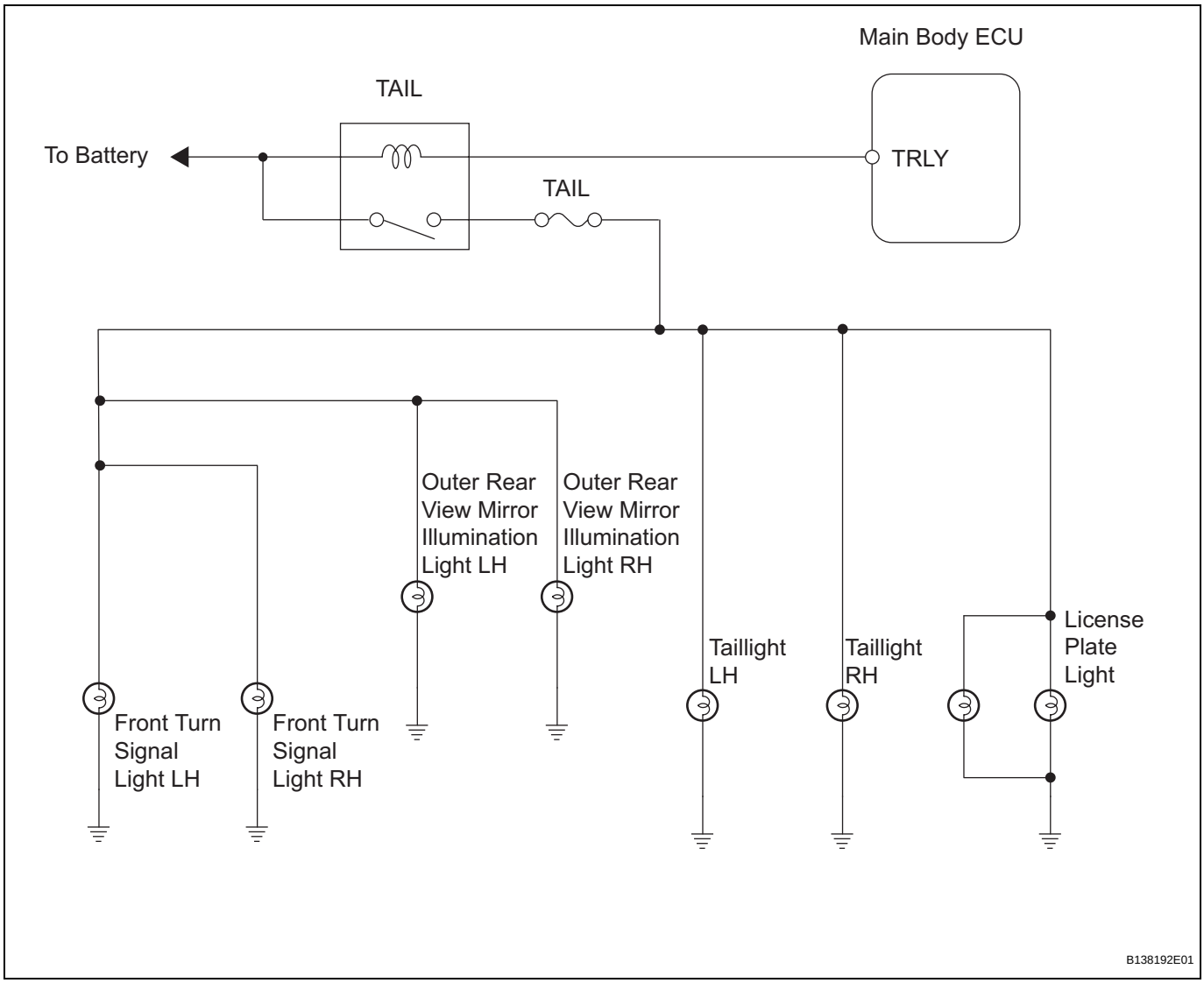
REPLACE MAIN BODY ECU

Taillight Relay Circuit

DESCRIPTION

The headlight dimmer switch sends a signal to the main body ECU.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	PERFORM ACTIVE TEST BY INTELLIGENT TESTER (ILLUMI OUTPUT)

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

BODY

Item	Test Details/ Display (Range)	Diagnostic Note
ILLUMI OUTPUT	Illuminated Entry System ON/OFF	-

Result

Result	Proceed to
OK	A
No illumination lights illuminate	B
Front turn signal light does not illuminate	C
Taillight or license plate light does not illuminate	D
Outer rear view mirror illumination light does not illuminate	E

B → **Go to step 2**

C → **Go to step 5**

D → **Go to step 7**

E → **Go to step 10**

A

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

LI

2 INSPECT FUSE (TAIL FUSE)

(a) Remove the TAIL fuse from the main body ECU.
(b) Measure the resistance.

Standard resistance:

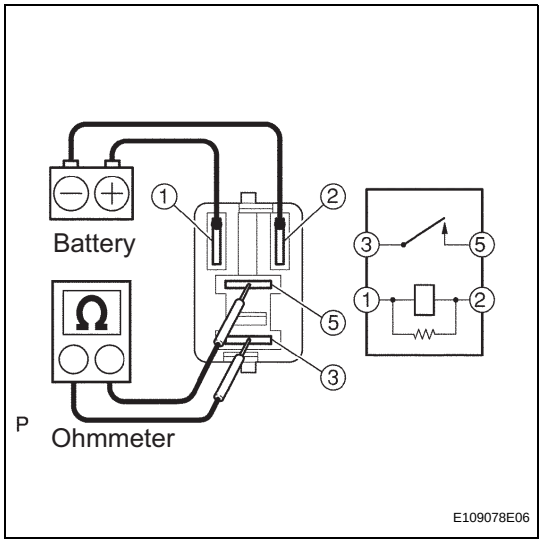
Below 1 Ω

(c) Reinstall the TAIL fuse.

NG → **REPLACE FUSE**

OK

3 INSPECT TAIL RELAY



(a) Remove the TAIL relay from the main body ECU.
(b) Measure the resistance.

Standard resistance

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

(c) Reinstall the TAIL relay.

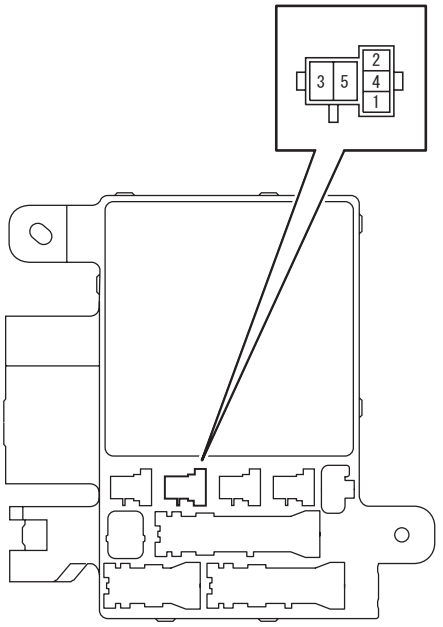
NG → **REPLACE TAIL RELAY**

OK

4	CHECK HARNESS AND CONNECTOR (BATTERY - TAIL RELAY)

Component Side:

Main Body ECU



B138193E01

(a) Remove the TAIL relay from the main body ECU.
(b) Measure the resistance.

Standard resistance

Tester Connection	Condition	Specified Condition
1 - Body ground	Always	11 to 14 V
5 - Body ground	Always	11 to 14 V

(c) Reinstall the TAIL relay.

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

OK

REPLACE MAIN BODY ECU

5	INSPECT BULB (FRONT TURN SIGNAL LIGHT)

Component Side:

Front Turn Signal Light*

*: LH or RH

B136088E01

(a) Remove the front turn signal lights.
(b) Apply battery voltage to the terminals and check that the front turn signal light illuminates.

Standard

Measurement Condition	Standard
Positive battery - Terminal 1 Negative battery - Terminal 2	Front turn signal light illuminates

(c) Reinstall the front turn signal lights.

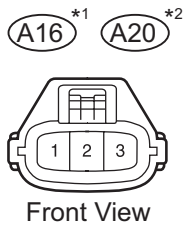
NG → **REPLACE BULB**

OK

6	CHECK HARNESS AND CONNECTOR (MAIN BODY ECU - FRONT TURN SIGNAL LIGHT)

Wire Harness Side:

Front Turn Signal Light Connector

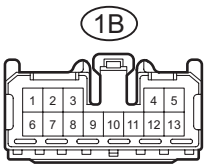


Front View

*1: LH

*2: RH

Main Body ECU Connector



Front View

B138191E01

(a) Disconnect the A16 and A20 front turn signal light connectors.
(b) Disconnect the 1B main body ECU connector.
(c) Measure the resistance.

Standard resistance

Tester Connection	Specified Condition
A16-1 - 1B-9	Below 1 Ω
A20-1 - 1B-11	Below 1 Ω
A16-1 or 1B-9 - Body ground	10 kΩ or higher
A20-1 or 1B-11 - Body ground	10 kΩ or higher

(d) Reconnect the front turn signal light connectors.
(e) Reconnect the main body ECU connector.

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

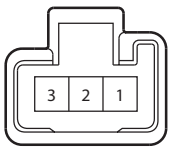
OK

REPAIR OR REPLACE HARNESS OR CONNECTOR (FRONT TURN SIGNAL LIGHT - BODY GROUND)

7	INSPECT BULB (TAILLIGHT)

Component Side:

Taillight*



*: LH or RH

B141038E01

(a) Remove the taillights.
(b) Apply battery voltage to the terminals and check that the taillight illuminates.

Standard

Measurement Condition	Standard
Positive battery - Terminal 1 Negative battery - Terminal 2	Taillight illuminates

(c) Reinstall the taillights.

NG → **REPLACE BULB**

OK

8 INSPECT BULB (LICENSE PLATE LIGHT)

Component Side:

License Plate Light

B138194E01

(a) Remove the license plate light.
(b) Apply battery voltage to the terminals and check that the license plate light illuminates.

Standard

Measurement Condition	Standard
Positive battery - Terminal 1 Negative battery - Terminal 2	Licence plate light illuminates

(c) Reinstall the license plate light.

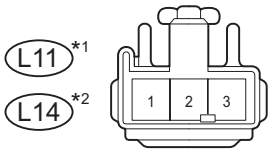
NG → **REPLACE BULB**

OK

9 CHECK HARNESS AND CONNECTOR (MAIN BODY ECU - TAILLIGHT, LICENSE PLATE LIGHT)

Wire Harness Side:

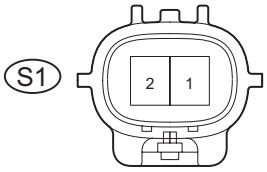
Taillight Connector



Front View

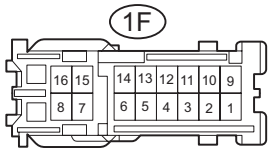
*1: LH
*2: RH

License Plate Light Connector



Front View

Main Body ECU Connector



Y

B138195E01

(a) Disconnect the L11 and L14 taillight connectors.
(b) Disconnect the S1 license plate light connector.
(c) Disconnect the 1F main body ECU connector.
(d) Measure the resistance.

Standard resistance

Tester Connection	Specified Condition
1F-13 - L11-2	Below 1 Ω
1F-13 - L14-2	Below 1 Ω
1F-13 - S1-2	Below 1 Ω
1F-13 or L11-2 or Body ground	10 kΩ or higher
1F-13 or L14-2 or Body ground	10 kΩ or higher
1F-13 or S1-2 or Body ground	10 kΩ or higher

(e) Reconnect the taillight connectors.
(f) Reconnect the license plate light connector.
(g) Reconnect the main body ECU connector.

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

OK

REPAIR OR REPLACE HARNESS OR CONNECTOR (TAILLIGHT, LICENSE PLATE LIGHT - BODY GROUND)

LI

10 INSPECT BULB (OUTER REAR VIEW MIRROR ILLUMINATION LIGHT)

Component Side:

Outer Rear View Mirror Assembly*

*: LH and RH

Y B138196E01

(a) Remove the outer rear view mirror assembly.
(b) Apply battery voltage to the terminals and check that the outer rear view mirror illumination light illuminates.

Standard

Measurement Condition	Standard
Positive battery - Terminal 2 Negative battery - Terminal 1	Outer rear view mirror illumination light illuminates

(c) Reinstall the outer rear view mirror assembly.

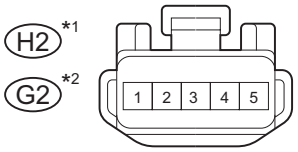
NG → **REPLACE BULB**

OK

11 CHECK HARNESS AND CONNECTOR (MAIN BODY ECU - OUTER REAR VIEW MIRROR ILLUMINATION LIGHT)

Wire Harness Side:

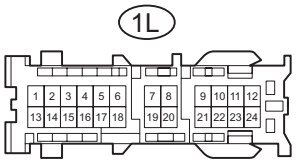
Outer Rear View Mirror Assembly Connector



Front View

*1: LH
*2: RH

Main Body ECU Connector



Front View

Y B138197E01

(a) Disconnect the H2 and G2 outer rear view mirror assembly connectors.
(b) Disconnect the 1L main body ECU connector.
(c) Measure the resistance.

Standard resistance

Tester Connection	Specified Condition
1L-5 - H2-2	Below 1 Ω
1L-5 - G2-2	Below 1 Ω

(d) Reconnect the outer rear view mirror assembly connector.
(e) Reconnect the main body ECU connector.

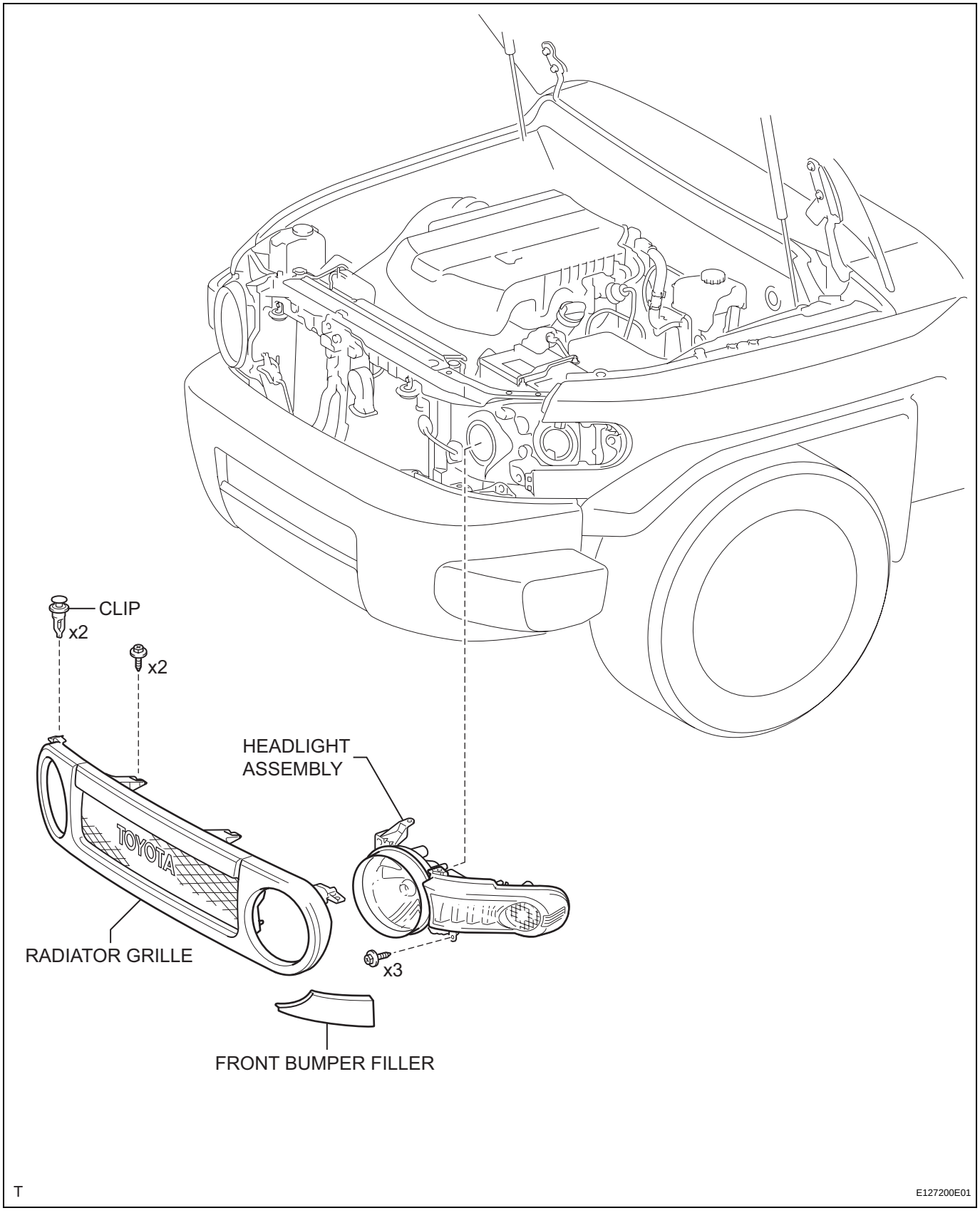
NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

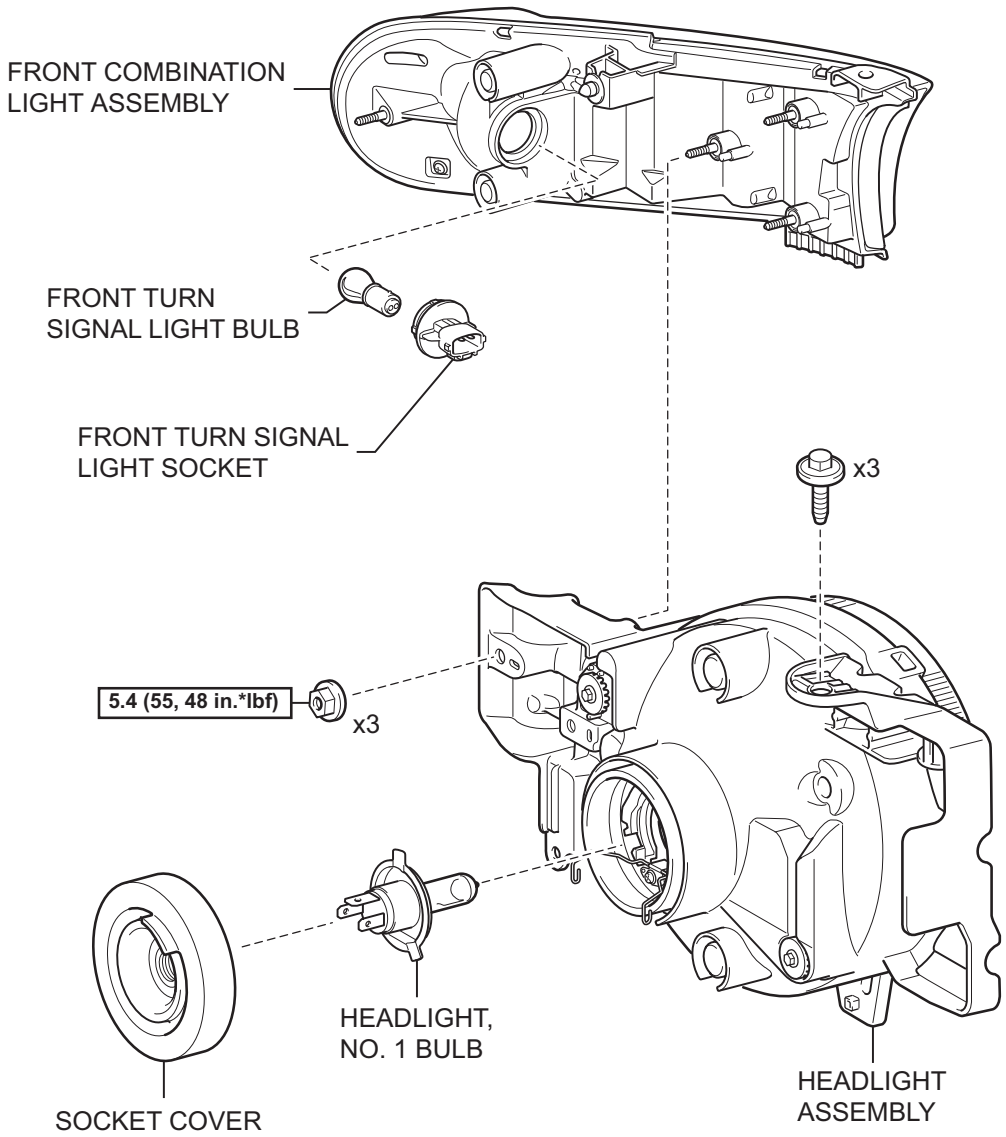
OK

REPAIR OR REPLACE HARNESS OR CONNECTOR (OUTER REAR VIEW MIRROR ILLUMINATION LIGHT - BODY GROUND)

HEADLIGHT ASSEMBLY

COMPONENTS





N*m (kgf*cm, ft*lbf) : Specified torque

T

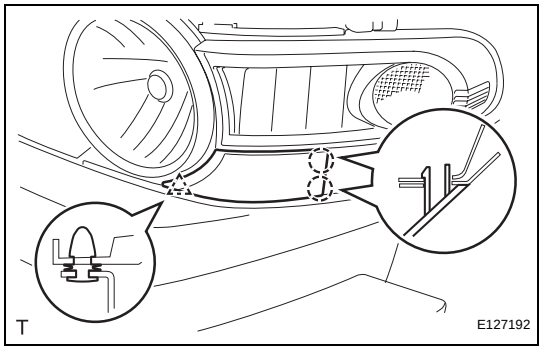
E127247E01

REMOVAL

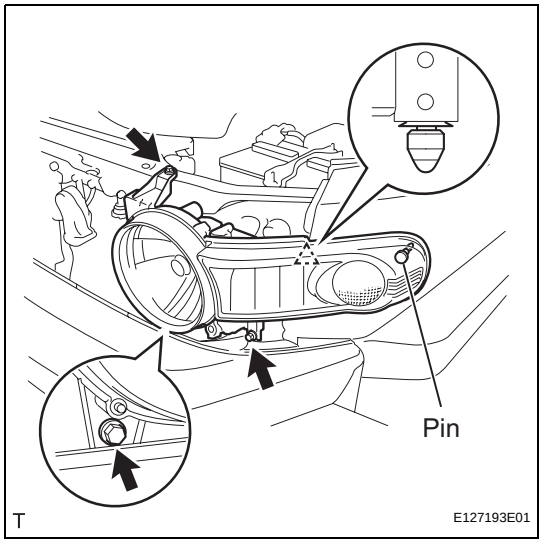
HINT:

- Use the same procedure for both the RH and LH sides.
- The procedure described below is for the LH side.

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
2. **REMOVE RADIATOR GRILLE (See page ET-4)**
3. **REMOVE FRONT BUMPER FILLER**
   (a) Disengage the 2 claws and clip and remove the front bumper filler.

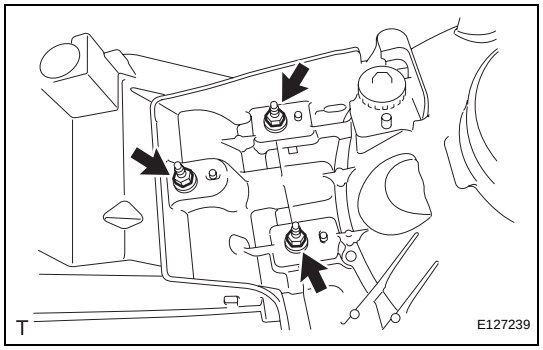


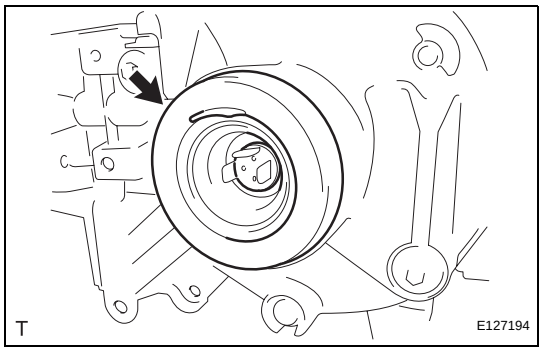
4. **REMOVE HEADLIGHT ASSEMBLY**
   (a) Disconnect the 2 connectors.
   (b) Remove the 3 screws.
   (c) Disengage the clip and pin and slide the headlight toward the front of the vehicle.



DISASSEMBLY

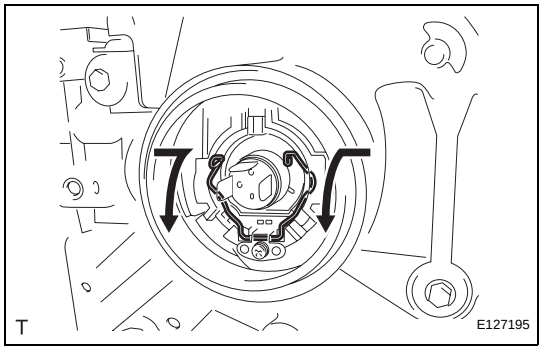
1. **REMOVE HEADLIGHT ASSEMBLY**
   (a) Remove the 3 nuts and the headlight.



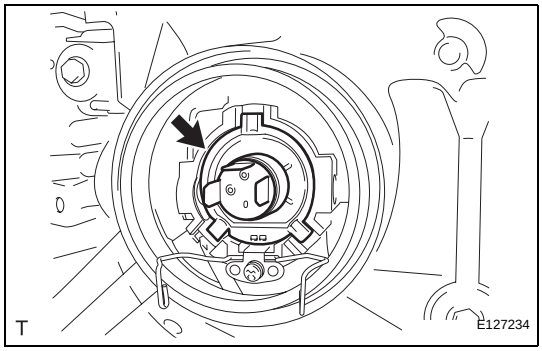


2. REMOVE HEADLIGHT, NO. 1 BULB

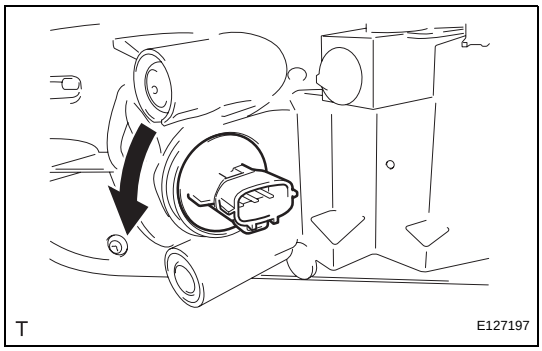
(a) Remove the socket cover.



(b) Push the set spring, and pull it in the direction indicated by the arrows in the illustration, to disengage it.



(c) Remove the headlight, No. 1 bulb.
NOTICE:
Do not touch the bulb glass with your fingers.



3. REMOVE FRONT TURN SIGNAL LIGHT BULB

(a) Turn the front turn signal light socket and bulb, in the direction indicated by the arrow in the illustration, to remove them.

(b) Remove the front turn signal light bulb from the light socket.

ADJUSTMENT

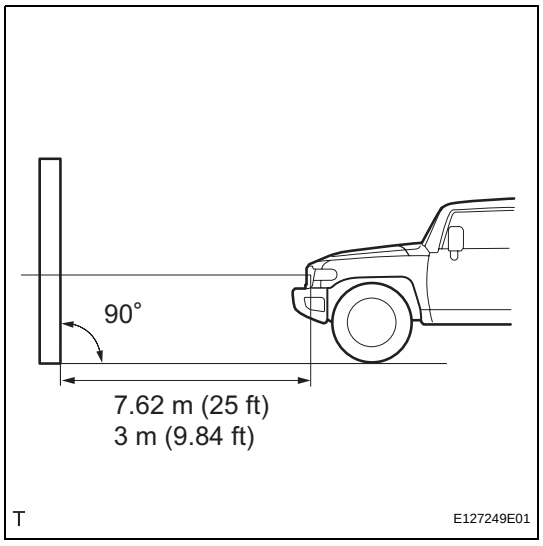
1. PREPARE VEHICLE FOR HEADLIGHT AIMING ADJUSTMENT

(a) Prepare the vehicle:
- Ensure that there is no damage or deformation of the body around the headlights.
- Fill the fuel tank.
- Fill the oil to the specified level.
- Fill the coolant 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 seat.

2. PREPARE FOR HEADLIGHT AIMING (for Using a Tester)

(a) Prepare the vehicle for headlight aim check.

(b) Adjust the headlight in accordance with headlight tester instructions.



3. PREPARE FOR HEADLIGHT AIMING (for Using a Screen)

(a) Prepare the vehicle in accordance with 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.
- Keep a 7.62 m (25 ft) distance between the center of the headlight bulb and the wall.
- Place the vehicle on a level surface.
- Bounce the vehicle up and down to settle the suspension.

NOTICE:

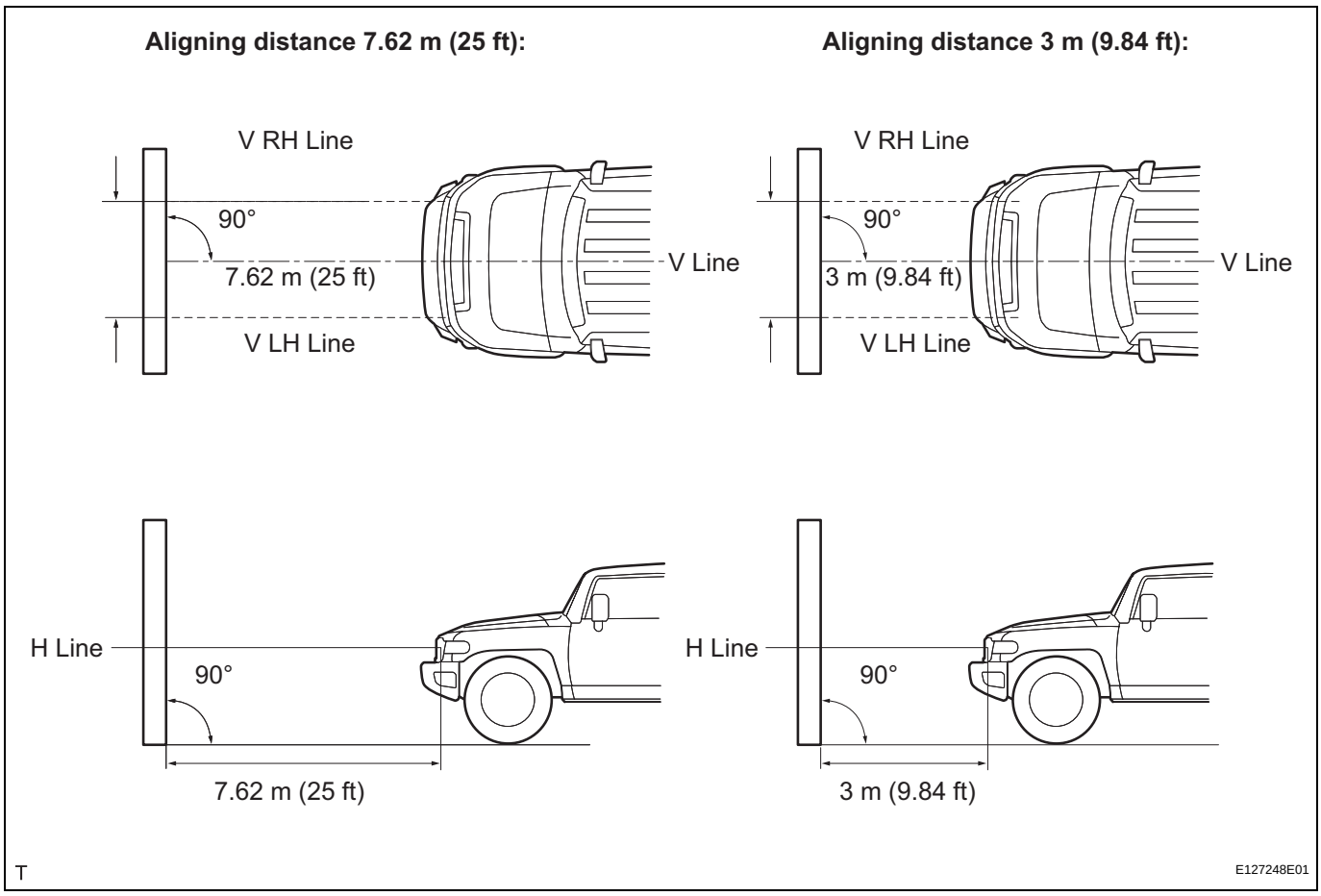
A distance of 7.62 m (25 ft) between the vehicle (the center of the headlight bulb) and the wall is necessary for proper aim adjustment. If unable to secure a distance of 7.62 m (25 ft), set a distance of exactly 3 m (9.84 ft) to check and adjust the headlight aim. (Since the target zone changes depending on the distance, follow the instructions shown in the illustration.)

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

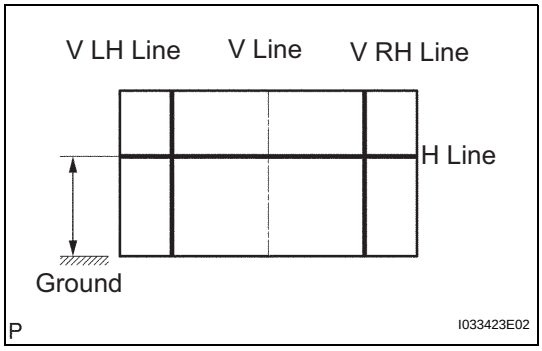
(c) Draw a vertical line down the center of the screen (V line).

LI

(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 and 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.

(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 and V RH Line (Center mark positions of left-hand (LH) and right-hand (RH) headlights):
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 the headlight on the opposite side or disconnect its connector, to prevent light from the headlight not being inspected from affecting the headlight aiming inspection.

NOTICE:

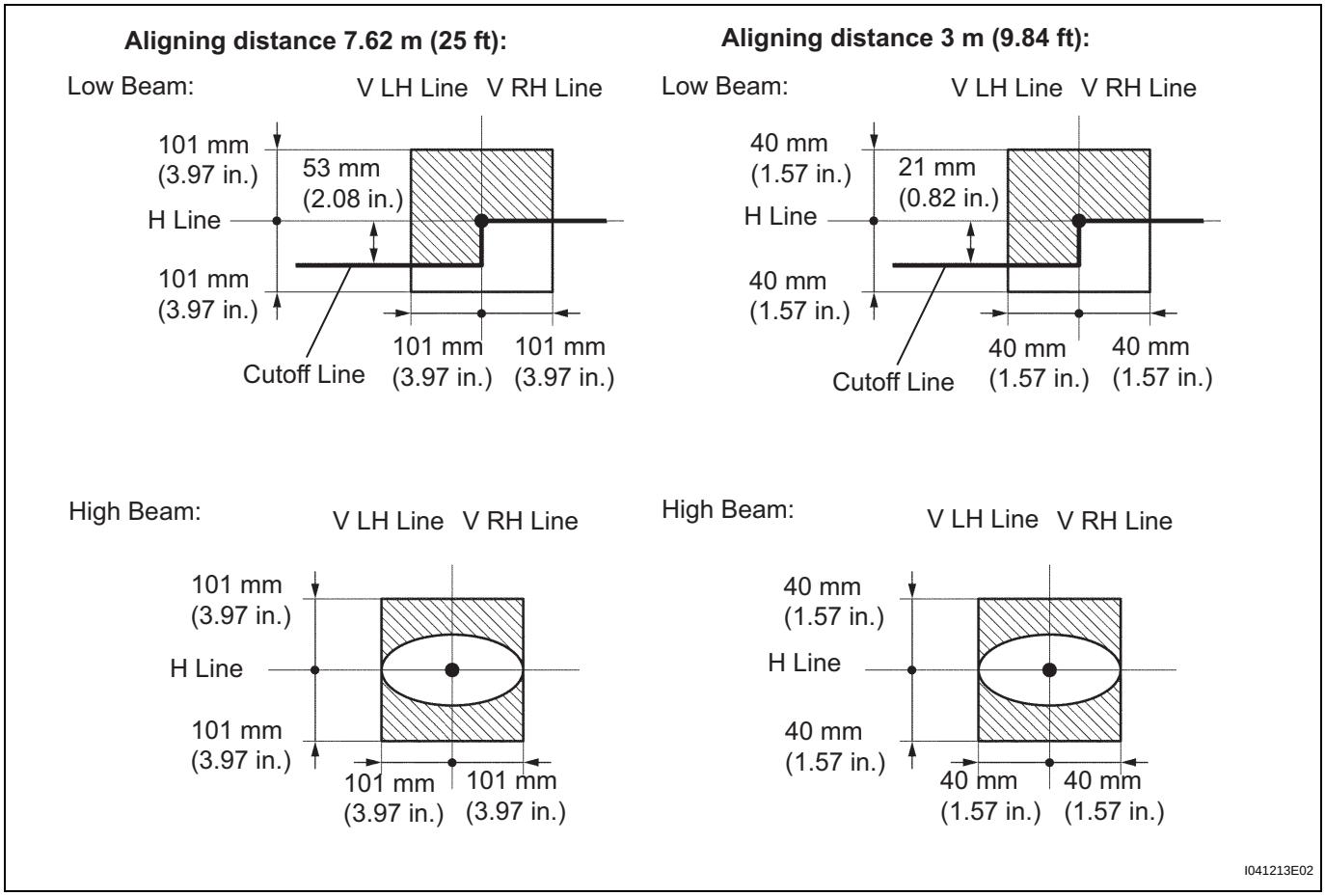
Do not keep the headlight covered for more than 3 minutes. The headlight lens is made of synthetic resin, and may easily melt or be damaged due to heat.

(b) Start the engine.

NOTICE:

Engine rpm must be 1,500 or more.

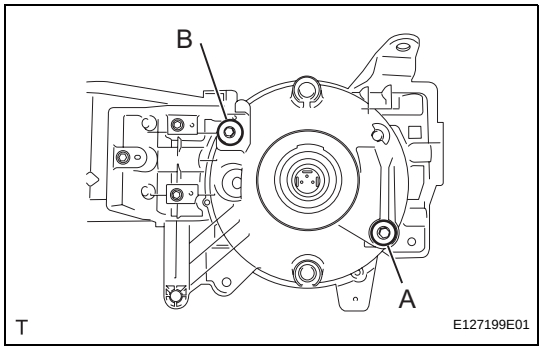
(c) Turn on the headlight and make sure that the cutoff line falls within the specified area, as shown in the illustration.



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 to the 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 to the 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 to the 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 to the 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.



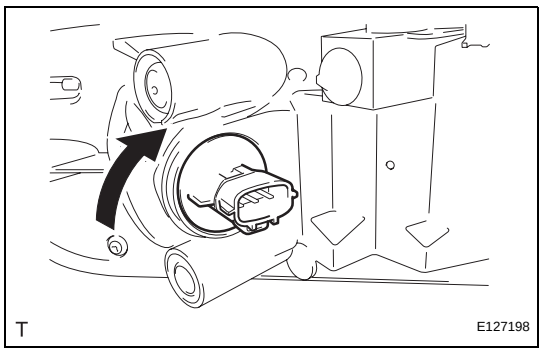
5. ADJUST HEADLIGHT AIMING

(a) Adjust the aiming vertically.
Adjust the headlight aim to within 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 it and then retighten it, so that the final turn of the screw is in the clockwise direction.

(b) Perform low-beam aim adjustment.
HINT:
The headlight aim moves down when the aiming screw is turned clockwise, and moves up when the aiming screw is turned counterclockwise.

(c) Adjust the aim horizontally.
Adjust the headlight aim to within the specified range by turning aiming screw B 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 it and then retighten it, so that the final turn of the screw is in the clockwise direction.

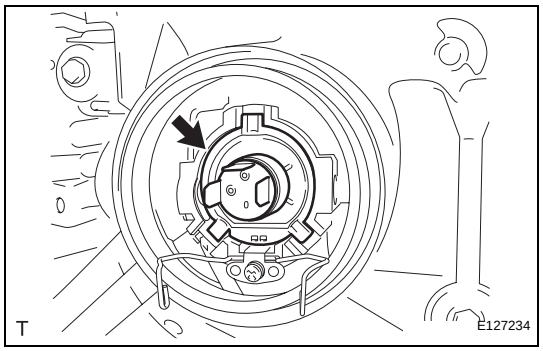
REASSEMBLY



1. INSTALL FRONT TURN SIGNAL LIGHT BULB

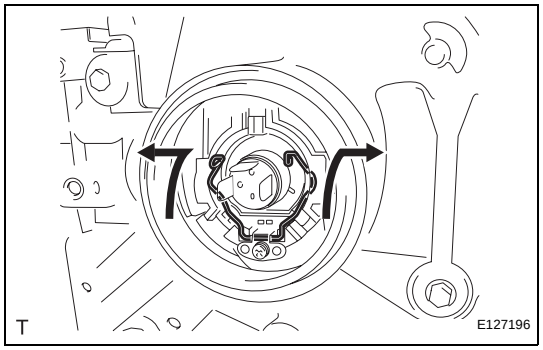
(a) Install the front turn signal light bulb into the light socket.

(b) Turn the front turn signal light socket and bulb, in the direction indicated by the arrow in the illustration, to install them.

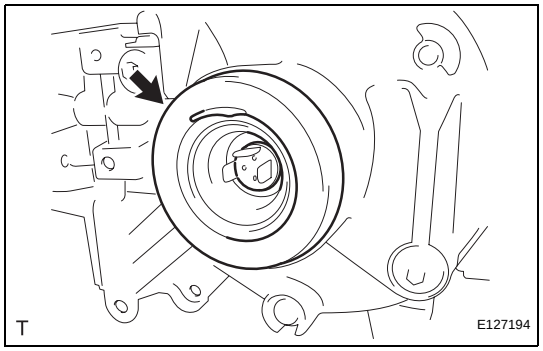


2. INSTALL HEADLIGHT, NO. 1 BULB

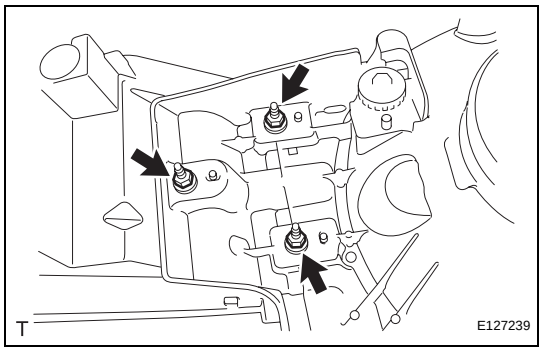
(a) Install the headlight, No. 1 bulb.



(b) Lock the set spring by moving it in the directions indicated by the arrows in the illustration.



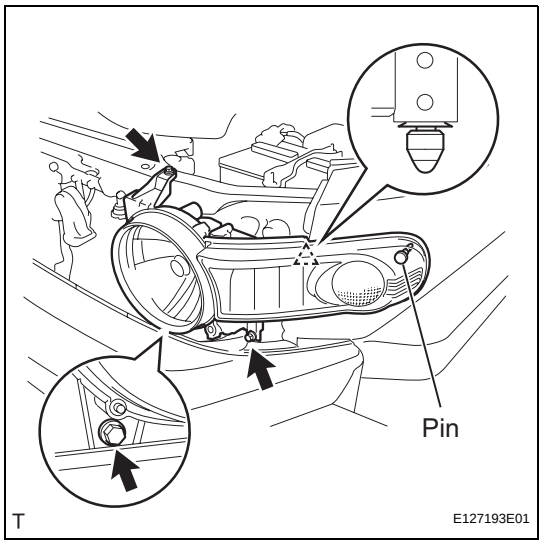
(c) Install the socket cover.



3. INSTALL HEADLIGHT ASSEMBLY

(a) Install the headlight with the 3 nuts.
Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)

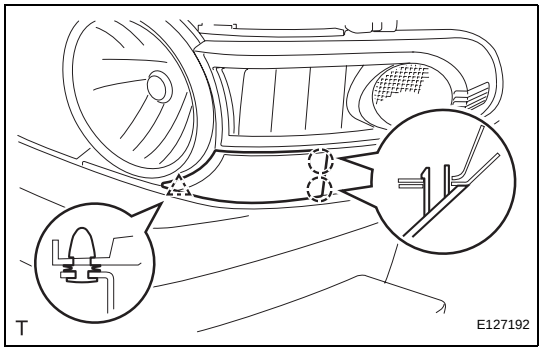
LI



INSTALLATION

1. INSTALL HEADLIGHT ASSEMBLY

(a) Install the headlight onto the vehicle.
(b) Tighten the 3 screws.
(c) Connect the 2 connectors.



2. INSTALL FRONT BUMPER FILLER

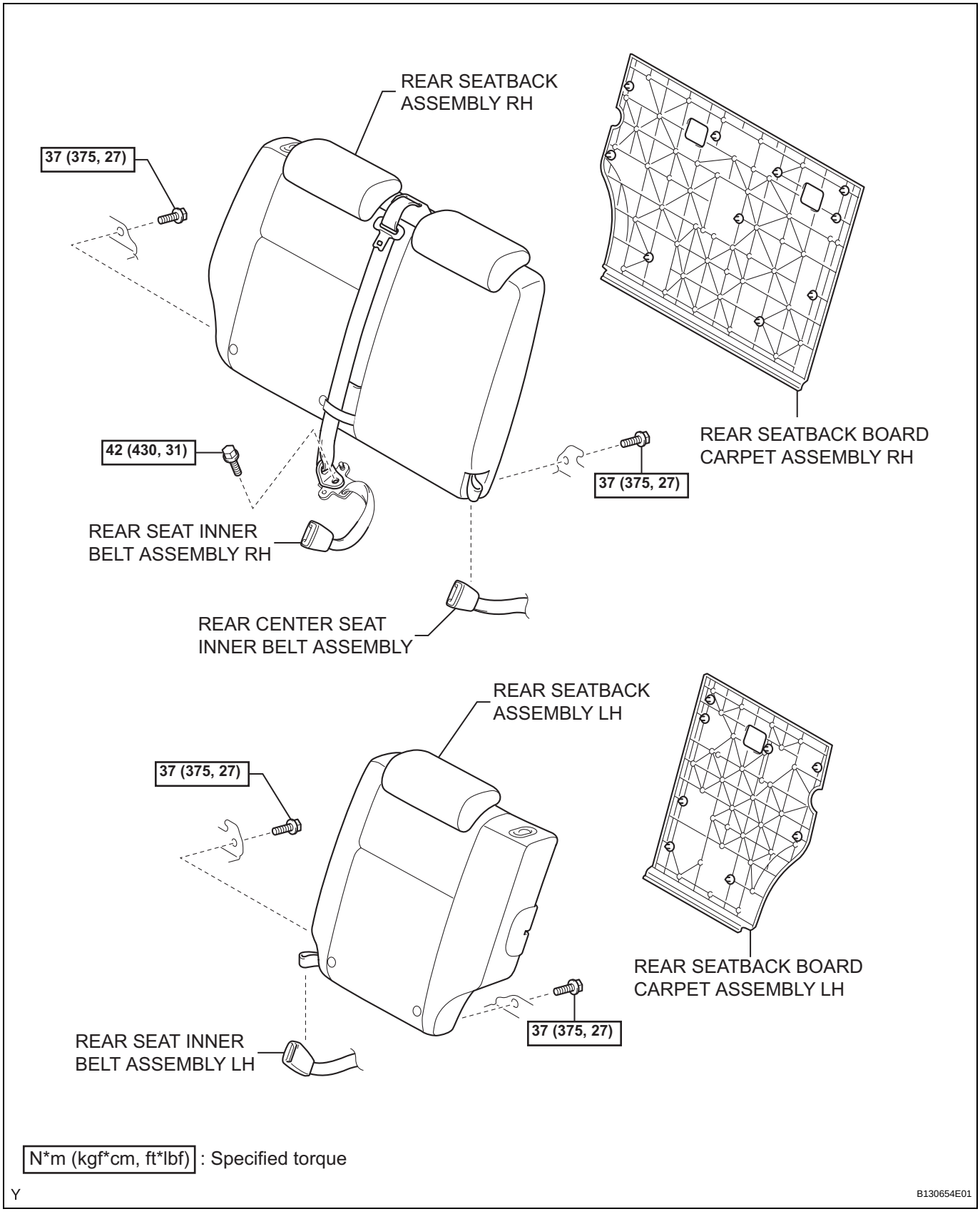
(a) Engage the 2 claws and clip and install the front bumper filler.

3. INSTALL RADIATOR GRILLE (See page ET-11)

4. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)

REAR COMBINATION LIGHT ASSEMBLY

COMPONENTS



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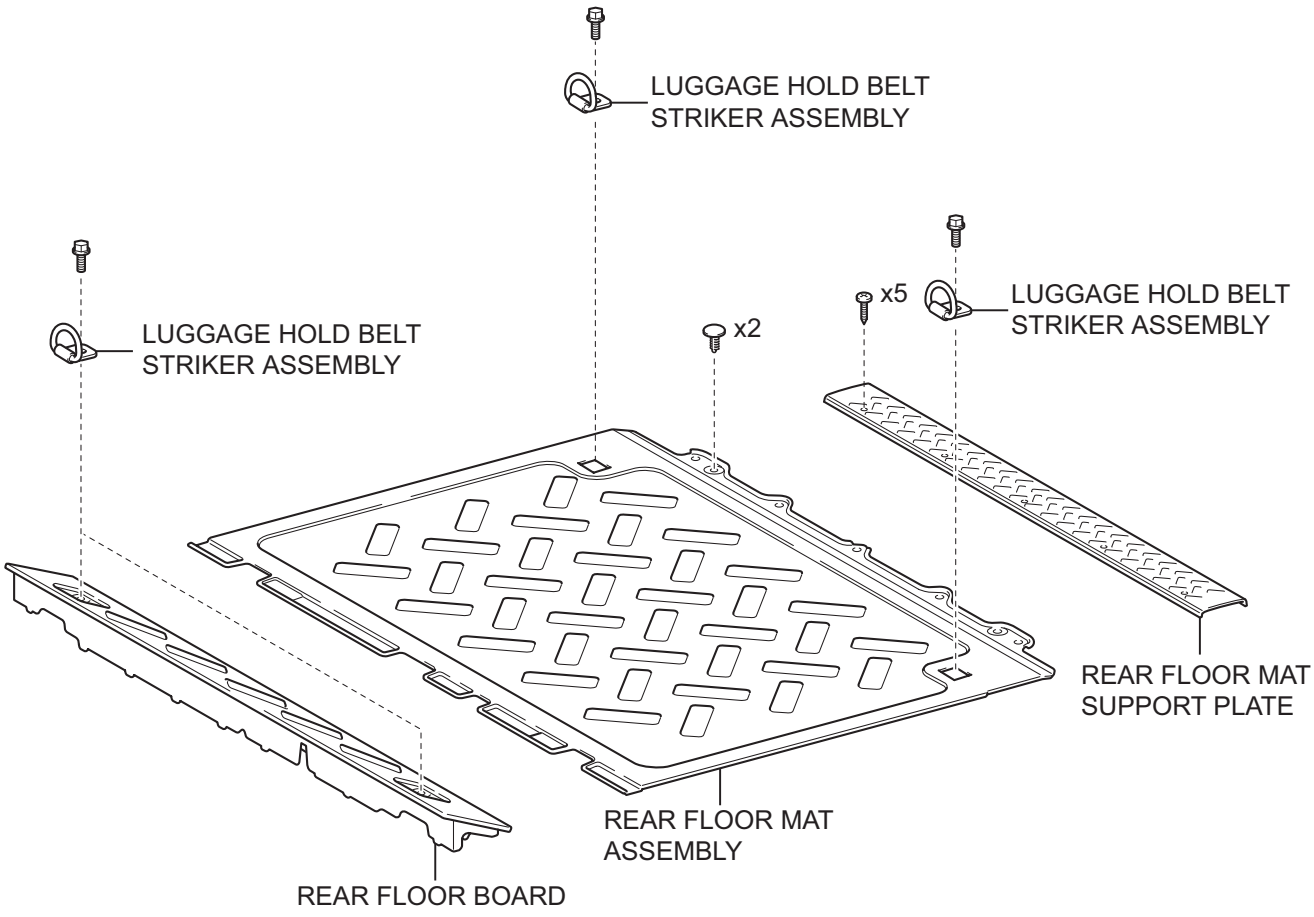
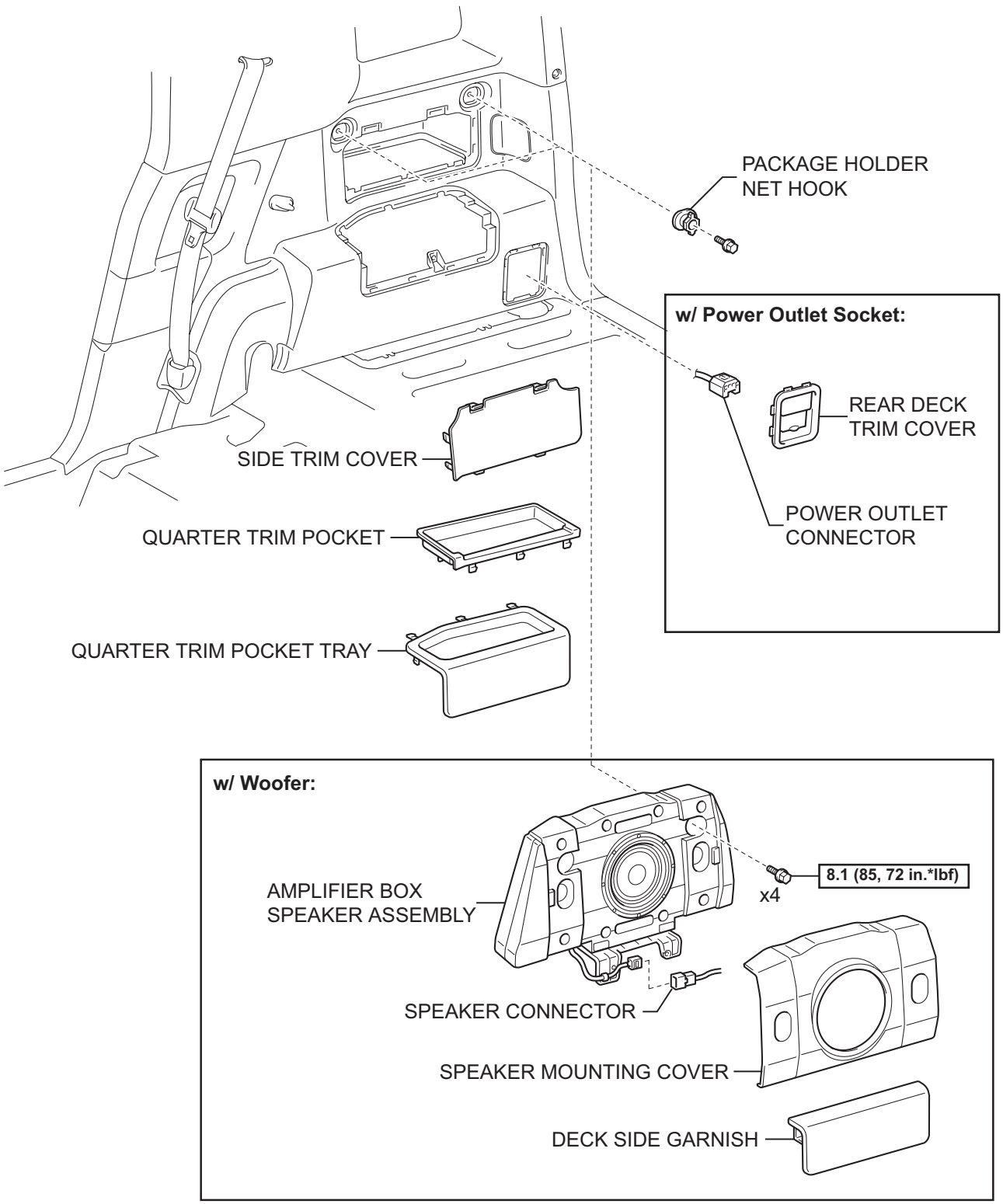


Y

B130655E01

RH Side:



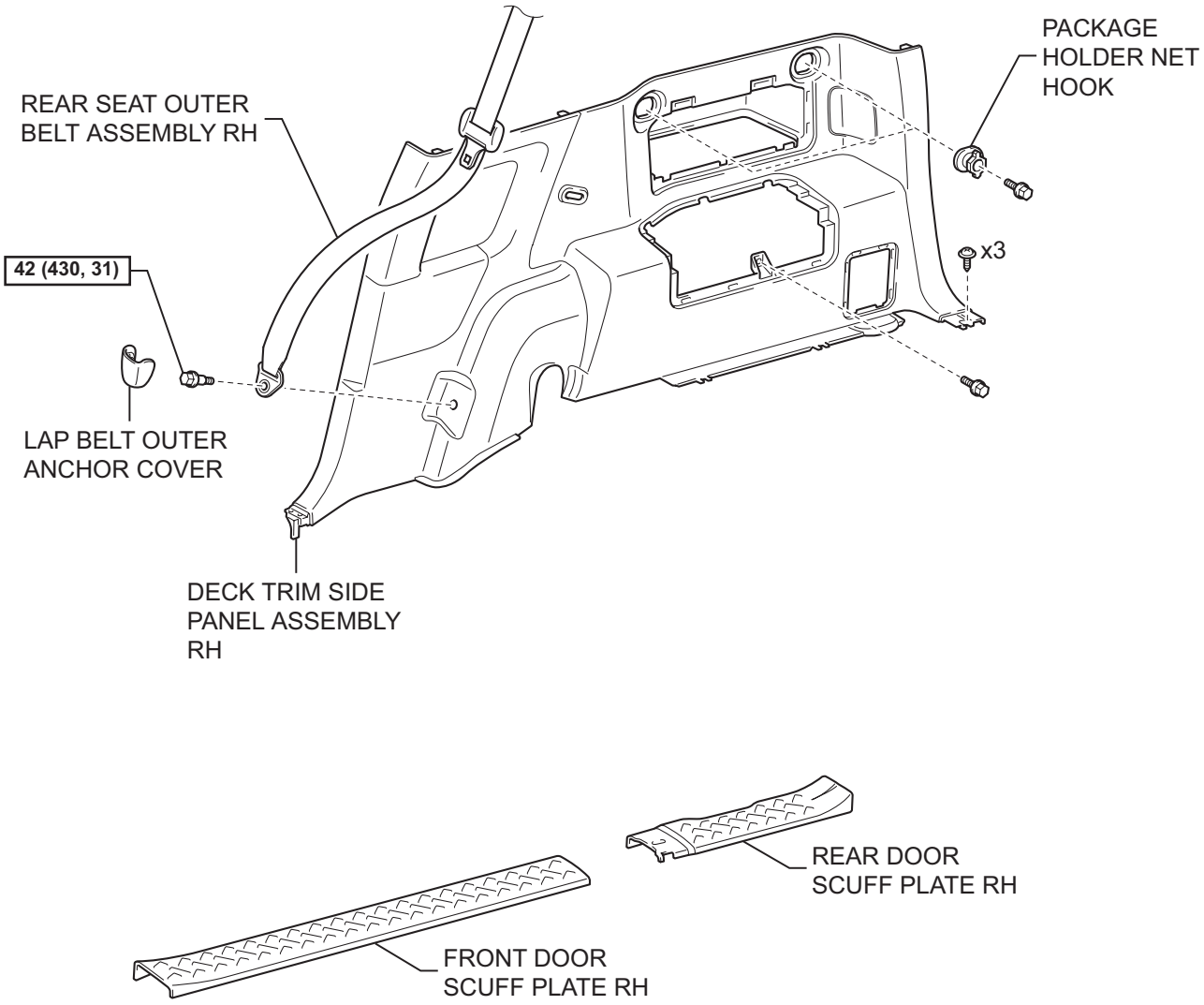
N*m (kgf*cm, ft*lbf) : Specified torque

Y

B134989E02

LI

RH Side:

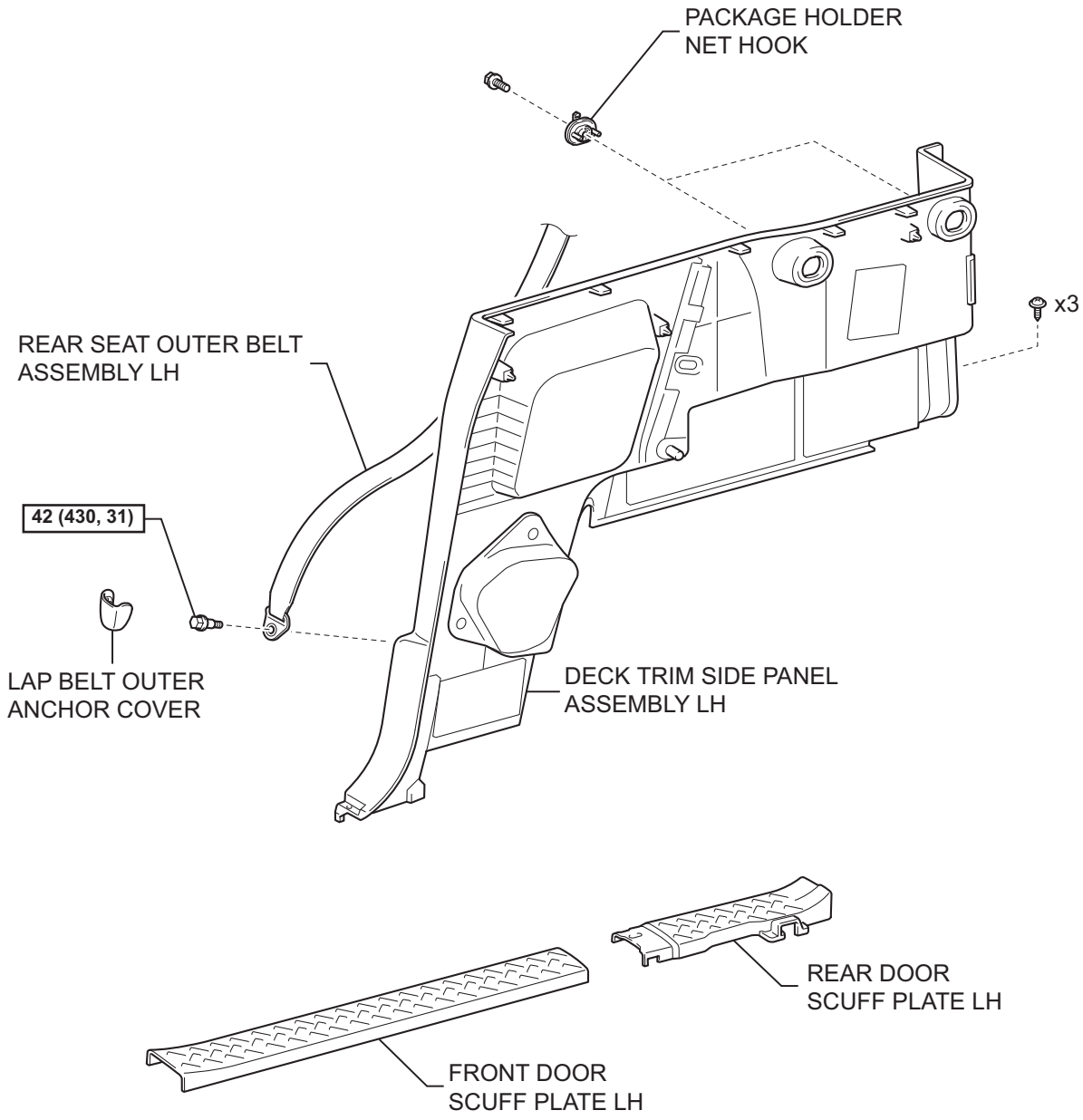


N*m (kgf*cm, ft*lbf) : Specified torque

Y

B140021E01

LH Side:

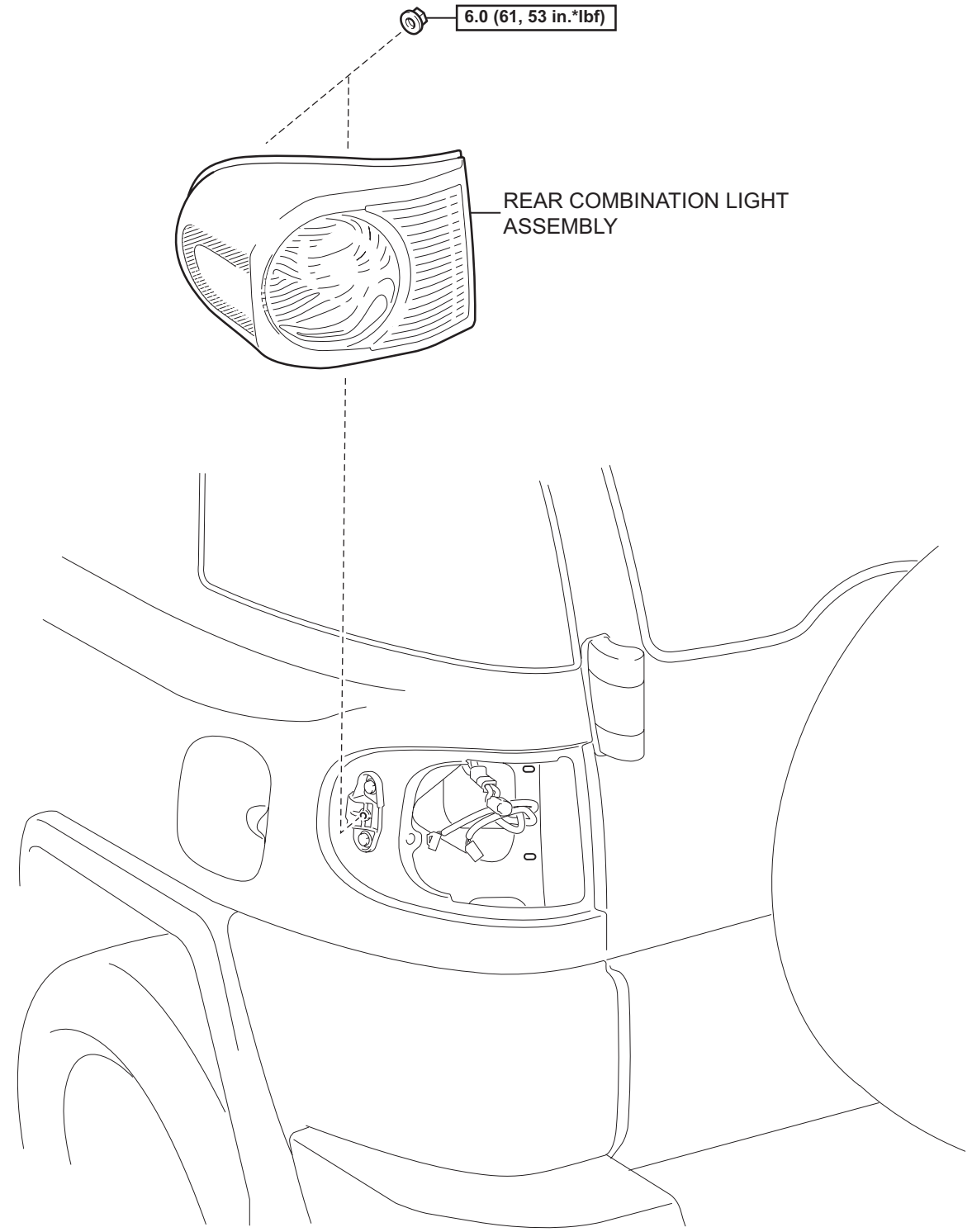


N*m (kgf*cm, ft*lbf) : Specified torque

Y

B140020E01

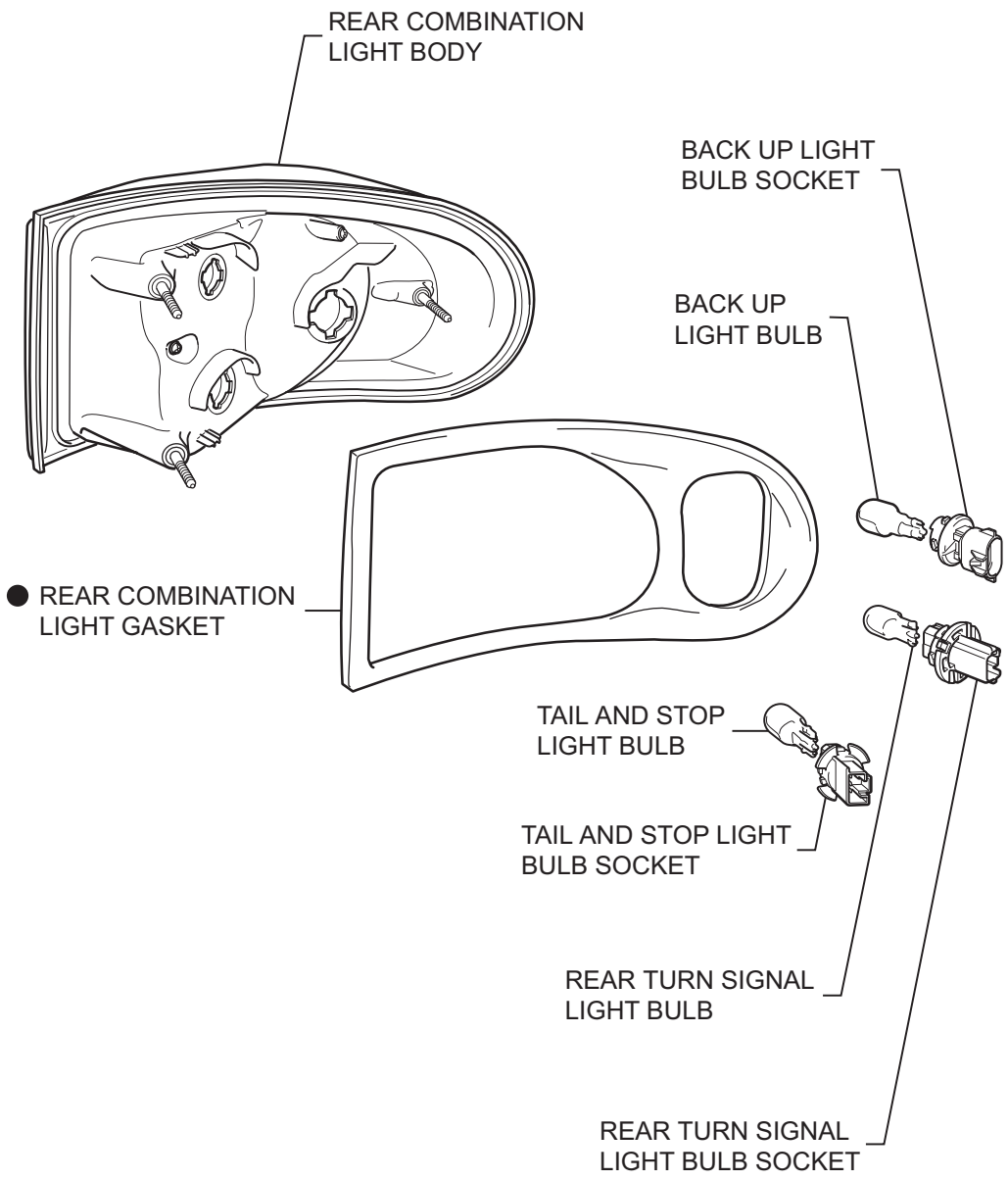
LI



N*m (kgf*cm, ft*lbf) : Specified torque

T

E127209E01



● Non-reusable part

T

E127210E01

LI

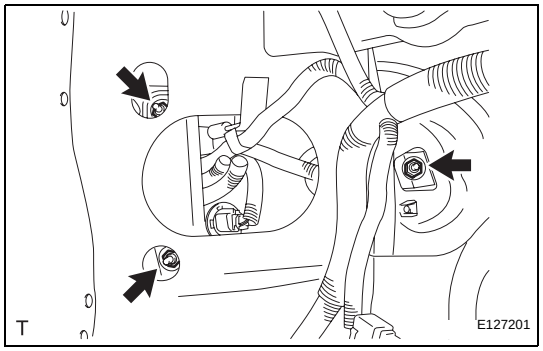
REMOVAL

HINT:

- Use the same procedure for both the RH and LH sides, unless otherwise specified.
- The procedure described below is for the LH side.

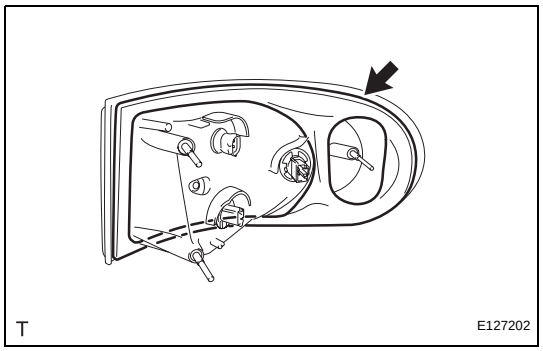
1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
2. **REMOVE REAR SEATBACK BOARD CARPET ASSEMBLY RH (See page SE-43)**
3. **REMOVE REAR SEATBACK ASSEMBLY RH (See page SE-43)**
4. **REMOVE REAR SEATBACK BOARD CARPET ASSEMBLY LH (See page SE-29)**
5. **REMOVE REAR SEATBACK ASSEMBLY LH (See page SE-29)**
6. **REMOVE REAR FLOOR BOARD (See page IR-13)**
7. **REMOVE REAR FLOOR MAT SUPPORT PLATE (See page IR-14)**
8. **REMOVE REAR FLOOR MAT ASSEMBLY (See page IR-15)**
9. **REMOVE LUGGAGE HOLD BELT STRIKER ASSEMBLY (See page IR-14)**
10. **REMOVE FRONT DOOR SCUFF PLATE RH (See page IR-15)**
11. **REMOVE FRONT DOOR SCUFF PLATE LH (See page IR-15)**
12. **REMOVE REAR DOOR SCUFF PLATE RH (See page IR-15)**
13. **REMOVE REAR DOOR SCUFF PLATE LH (See page IR-15)**
14. **REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP RH (See page IR-16)**
15. **REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP LH (See page IR-16)**
16. **REMOVE DECK SIDE GARNISH (w/ Woofer) (See page IR-18)**
17. **REMOVE SPEAKER MOUNTING COVER (w/ Woofer) (See page AV-90)**
18. **REMOVE BOX SPEAKER ASSEMBLY (w/ Woofer) (See page AV-90)**
19. **REMOVE PACKAGE HOLDER NET HOOK (See page IR-18)**
20. **REMOVE QUARTER TRIM POCKET TRAY (w/o Woofer) (See page IR-19)**

21. **REMOVE SIDE TRIM COVER (w/o Woofer) (See page IR-19)**
22. **REMOVE QUARTER TRIM POCKET (w/o Woofer) (See page IR-19)**
23. **REMOVE LAP BELT OUTER ANCHOR COVER (See page IR-20)**
24. **REMOVE REAR SEAT OUTER BELT ASSEMBLY RH (See page IR-20)**
25. **REMOVE REAR SEAT OUTER BELT ASSEMBLY LH (See page IR-20)**
26. **REMOVE REAR DECK TRIM COVER (w/ Power Outlet Socket) (See page IR-20)**
27. **REMOVE DECK TRIM SIDE PANEL ASSEMBLY RH (See page IR-21)**
28. **REMOVE DECK TRIM SIDE PANEL ASSEMBLY LH (See page IR-21)**
29. **REMOVE REAR COMBINATION LIGHT ASSEMBLY**
    (a) Remove the 3 nuts.
    (b) Disconnect the 3 connectors and remove the rear combination light.

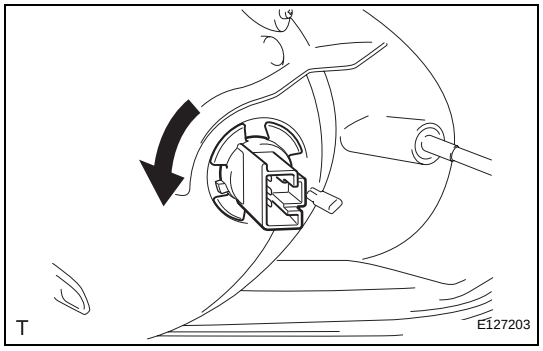


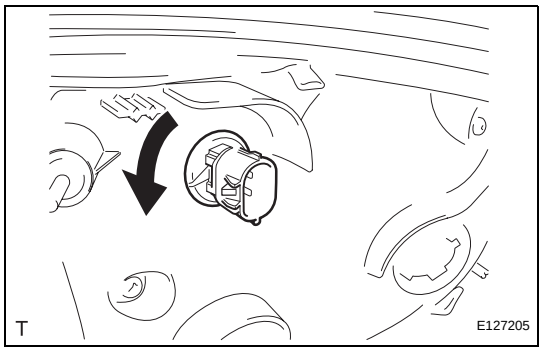
DISASSEMBLY

1. **REMOVE REAR COMBINATION LIGHT GASKET**
    (a) Remove the rear combination light gasket.
    NOTICE:
    - **Detach the gasket if it adheres to the body.**
    - **Do not reuse a removed gasket. Replace it with a new one to prevent water from entering.**



2. **REMOVE TAIL AND STOP LIGHT BULB**
    (a) Turn the rear combination light socket and bulb, in the direction indicated by the arrow in the illustration, to remove them.
    (b) Remove the rear combination light bulb from the light socket.

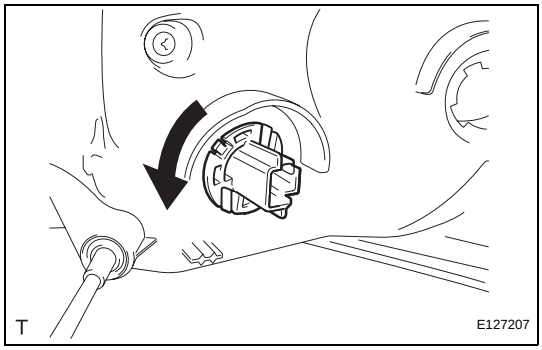




3. REMOVE BACK UP LIGHT BULB

(a) Turn the rear combination light socket and bulb, in the direction indicated by the arrow in the illustration, to remove them.

(b) Remove the rear combination light bulb from the light socket.



4. REMOVE REAR TURN SIGNAL LIGHT BULB

(a) Turn the rear combination light socket and bulb, in the direction indicated by the arrow in the illustration, to remove them.

(b) Remove the rear combination light bulb from the light socket.

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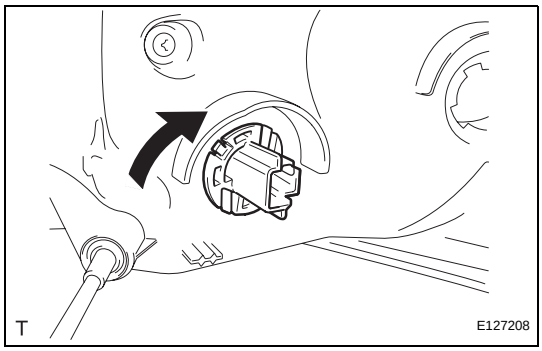
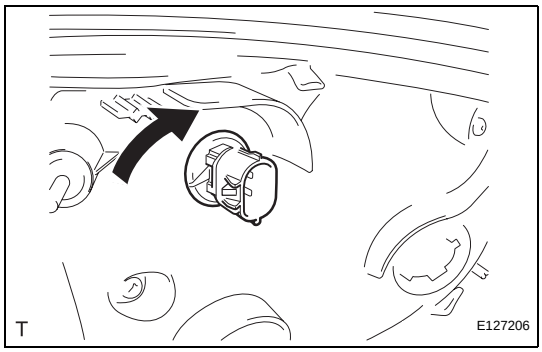
REASSEMBLY



1. INSTALL REAR TURN SIGNAL LIGHT BULB

(a) Install the rear combination light bulb into the light socket.

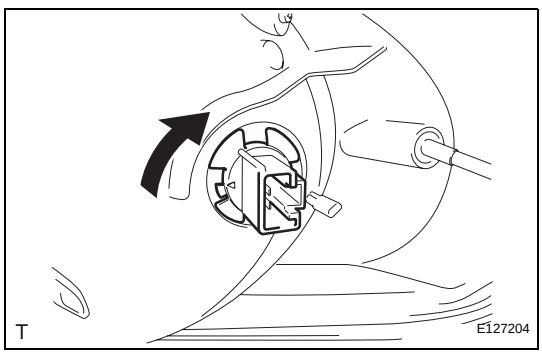
(b) Turn the rear combination light socket and bulb, in the direction indicated by the arrow in the illustration, to install them.



2. INSTALL BACK UP LIGHT BULB

(a) Install the rear combination light bulb into the light socket.

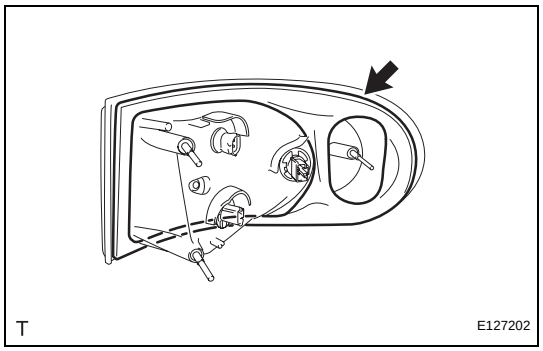
(b) Turn the rear combination light socket and bulb, in the direction indicated by the arrow in the illustration, to install them.

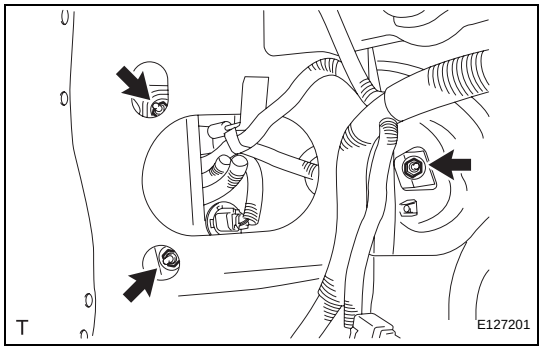


3. INSTALL TAIL AND STOP LIGHT BULB

(a) Install the rear combination light bulb into the light socket.

(b) Turn the rear combination light socket and bulb, in the direction indicated by the arrow in the illustration, to install them.





4. **INSTALL REAR COMBINATION LIGHT GASKET**
   (a) Install a new rear combination light gasket.

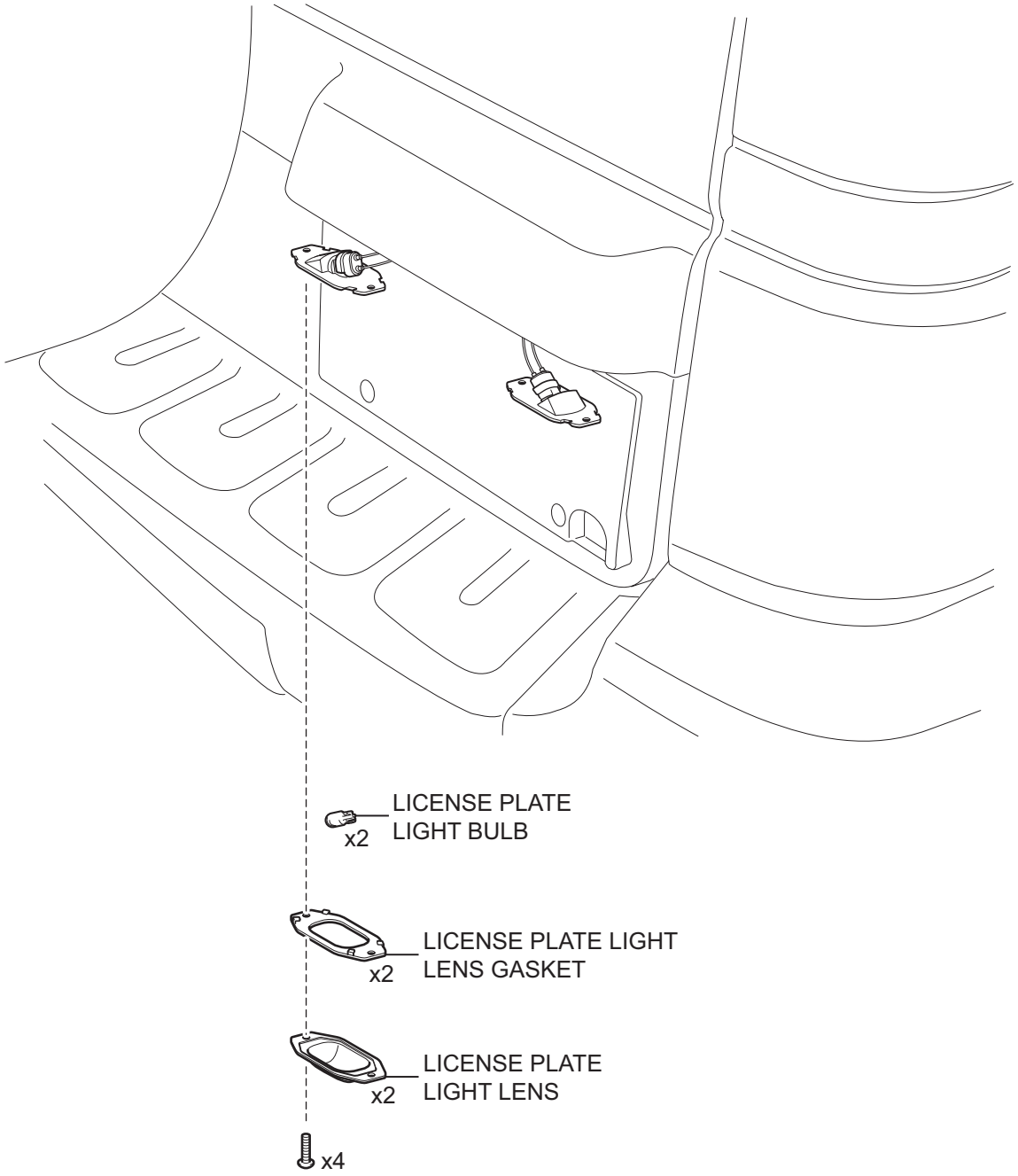
INSTALLATION

1. **INSTALL REAR COMBINATION LIGHT ASSEMBLY**
   (a) Connect the 3 connectors and install the rear combination light.
   (b) Install the 3 nuts.
   Torque: 6.0 N*m (61 kgf*cm, 53 in.*lbf)
2. **INSTALL DECK TRIM SIDE PANEL ASSEMBLY RH (See page IR-39)**
3. **INSTALL DECK TRIM SIDE PANEL ASSEMBLY LH (See page IR-39)**
4. **INSTALL REAR DECK TRIM COVER (w/ Power Outlet Socket) (See page IR-40)**
5. **INSTALL REAR SEAT OUTER BELT ASSEMBLY RH (See page IR-40)**
6. **INSTALL REAR SEAT OUTER BELT ASSEMBLY LH (See page IR-40)**
7. **INSTALL LAP BELT OUTER ANCHOR COVER (See page IR-41)**
8. **INSTALL BOX SPEAKER ASSEMBLY (w/ Woofer) (See page AV-90)**
9. **INSTALL SPEAKER MOUNTING COVER (w/ Woofer) (See page AV-91)**
10. **INSTALL DECK SIDE GARNISH (w/ Woofer) (See page IR-41)**
11. **INSTALL QUARTER TRIM POCKET (w/o Woofer) (See page IR-41)**
12. **INSTALL SIDE TRIM COVER (w/o Woofer) (See page IR-42)**
13. **INSTALL QUARTER TRIM POCKET TRAY (w/o Woofer) (See page IR-42)**
14. **INSTALL PACKAGE HOLDER NET HOOK (See page IR-42)**
15. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP RH (See page IR-44)**
16. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP LH (See page IR-44)**

17. **INSTALL REAR DOOR SCUFF PLATE RH (See page IR-45)**
18. **INSTALL REAR DOOR SCUFF PLATE LH (See page IR-45)**
19. **INSTALL FRONT DOOR SCUFF PLATE RH (See page IR-45)**
20. **INSTALL FRONT DOOR SCUFF PLATE LH (See page IR-45)**
21. **INSTALL LUGGAGE HOLD BELT STRIKER ASSEMBLY (See page IR-46)**
22. **INSTALL REAR FLOOR MAT ASSEMBLY (See page IR-46)**
23. **INSTALL REAR FLOOR MAT SUPPORT PLATE (See page IR-46)**
24. **INSTALL REAR FLOOR BOARD (See page IR-47)**
25. **INSTALL REAR SEATBACK ASSEMBLY RH (See page SE-54)**
26. **INSTALL REAR SEATBACK BOARD CARPET ASSEMBLY RH (See page SE-54)**
27. **INSTALL REAR SEATBACK ASSEMBLY LH (See page SE-38)**
28. **INSTALL REAR SEATBACK BOARD CARPET ASSEMBLY LH (See page SE-38)**
29. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**
    Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)

LICENSE PLATE LIGHT ASSEMBLY

COMPONENTS



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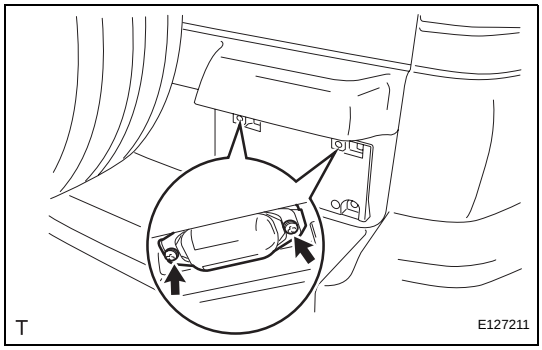
REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

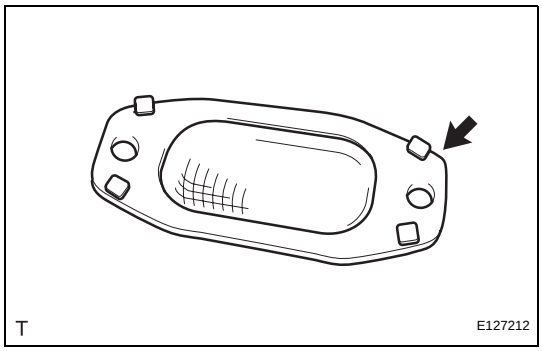
2. REMOVE LICENSE PLATE LIGHT LENS

(a) Remove the 2 screws and license plate light lens.



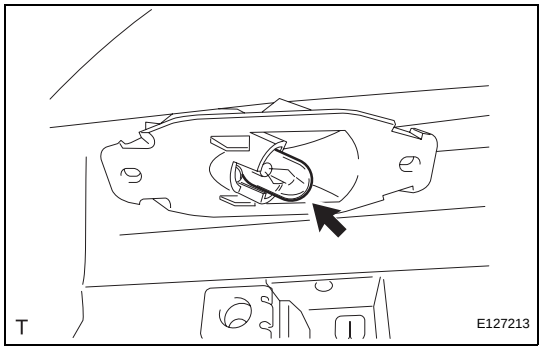
3. REMOVE LICENSE PLATE LIGHT LENS GASKET

(a) Remove the license plate light lens gasket.



4. REMOVE LICENSE PLATE LIGHT BULB

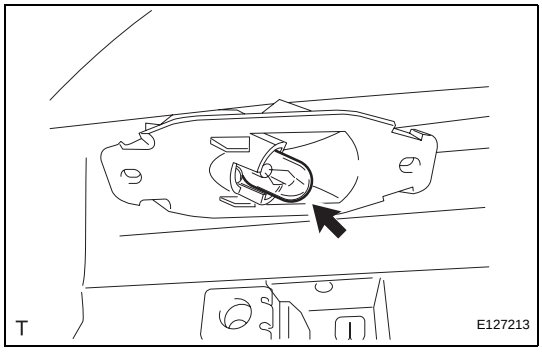
(a) Remove the license plate light bulb from the socket.



INSTALLATION

1. INSTALL LICENSE PLATE LIGHT BULB

(a) Install the license plate light bulb into the socket.



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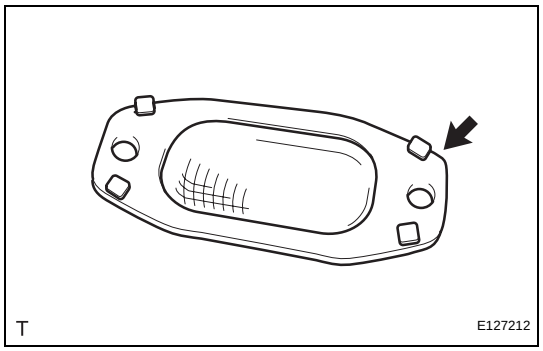
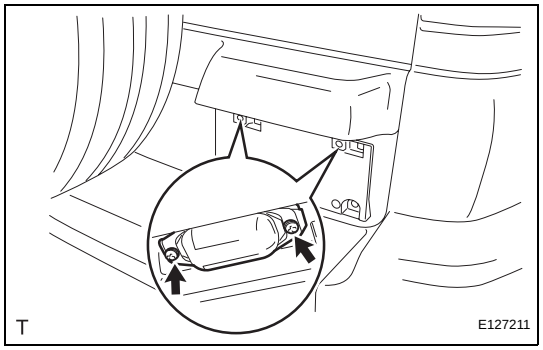


2. INSTALL LICENSE PLATE LIGHT LENS GASKET

(a) Install the license plate light lens gasket onto the license plate light lens.



3. INSTALL LICENSE PLATE LIGHT LENS

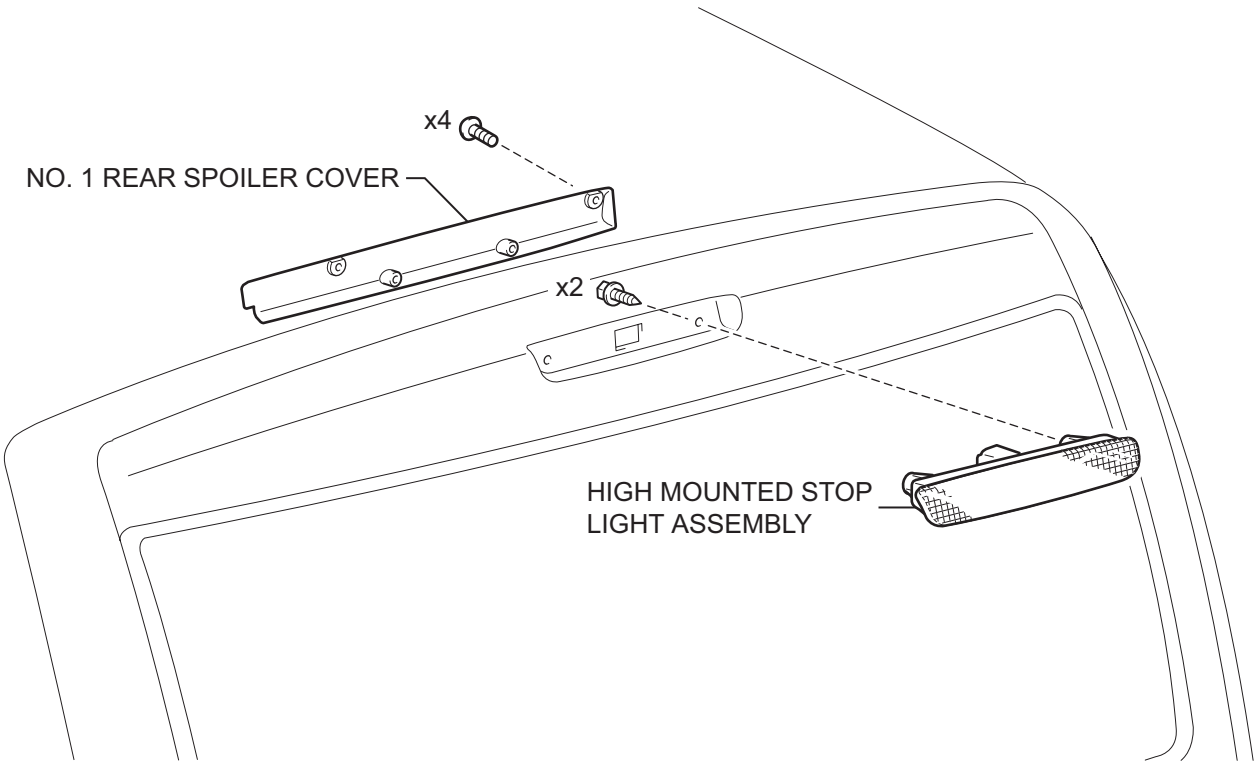
(a) Install the license plate light lens with the 2 screws.

4. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)

HIGH MOUNTED STOP LIGHT ASSEMBLY

COMPONENTS



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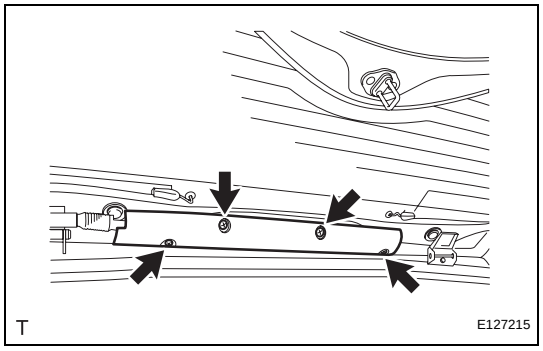
REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE NO. 1 REAR SPOILER COVER

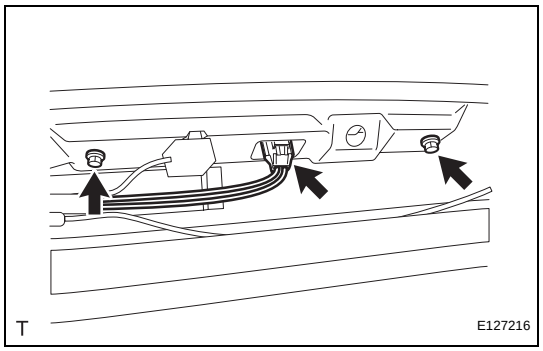
(a) Remove the 4 screws and No. 1 rear spoiler cover.



3. REMOVE HIGH MOUNTED STOP LIGHT ASSEMBLY

(a) Remove the 2 screws.

(b) Disconnect the connector and remove the high mounted stop light.

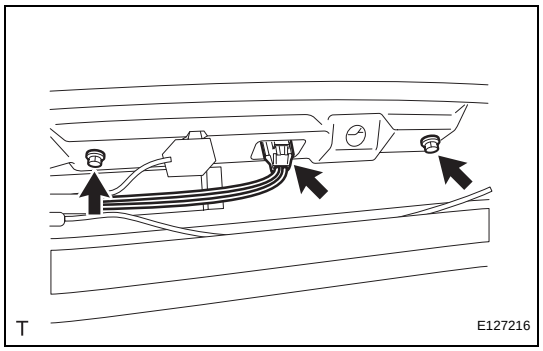


INSTALLATION

1. INSTALL HIGH MOUNTED STOP LIGHT ASSEMBLY

(a) Connect the connector.

(b) Install the high mounted stop light with the 2 screws.

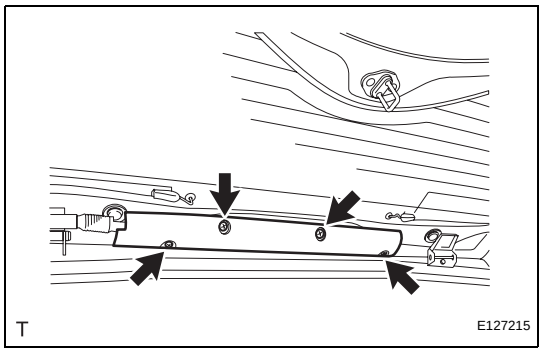


2. INSTALL NO. 1 REAR SPOILER COVER

(a) Install the No. 1 rear spoiler cover with the 4 screws.

3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)



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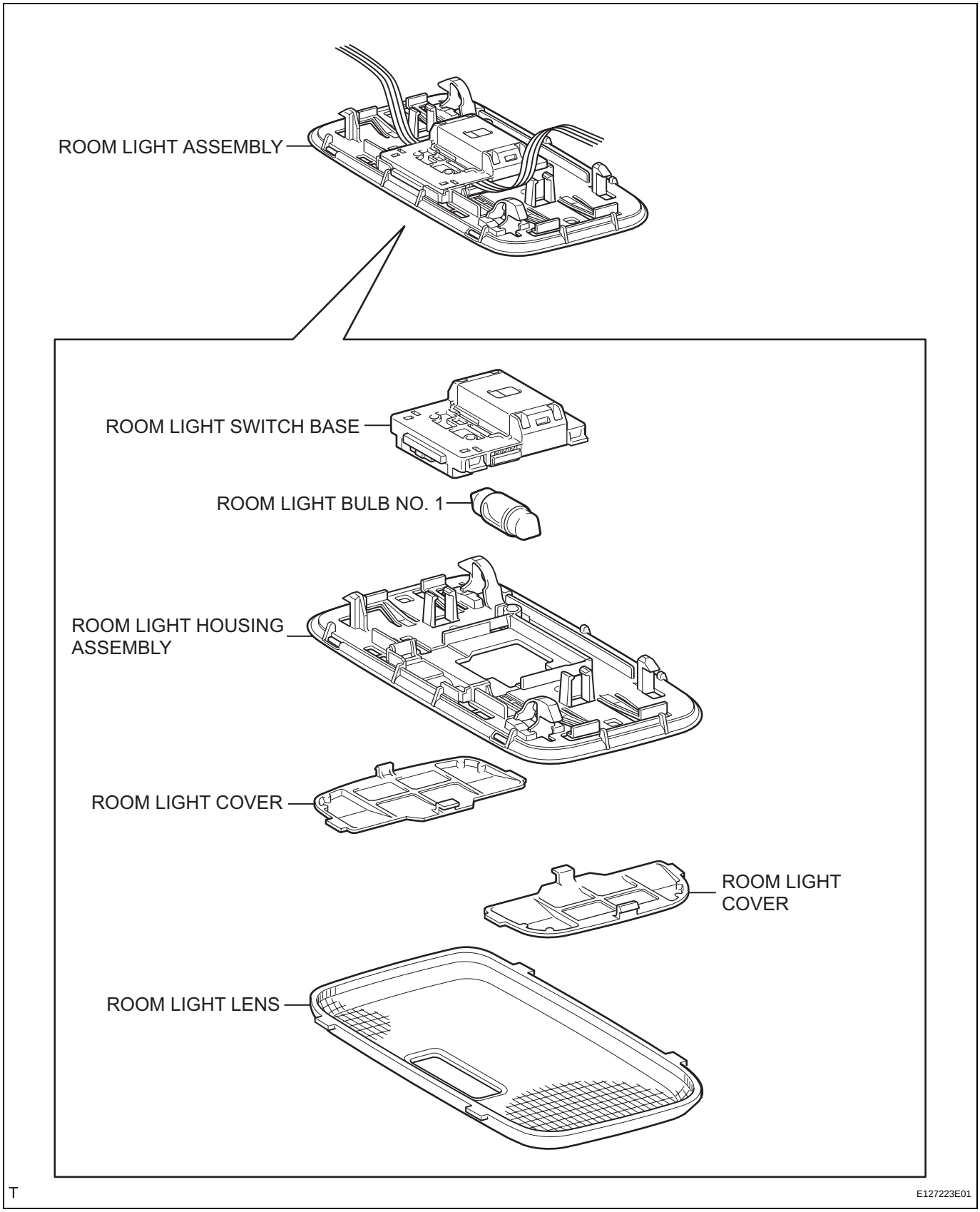
ROOM LIGHT ASSEMBLY

COMPONENTS

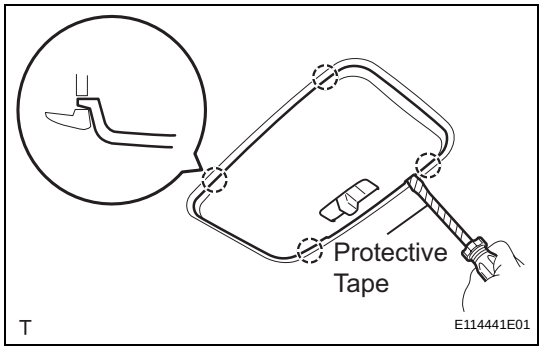


REMOVAL

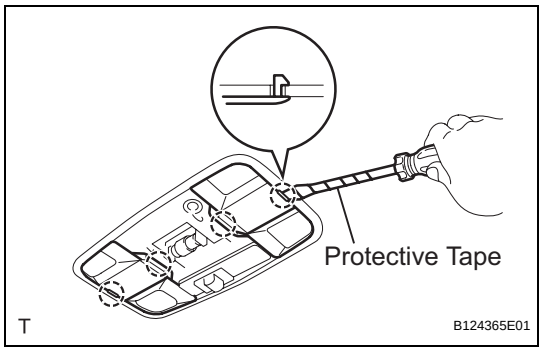
1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE ROOM LIGHT ASSEMBLY

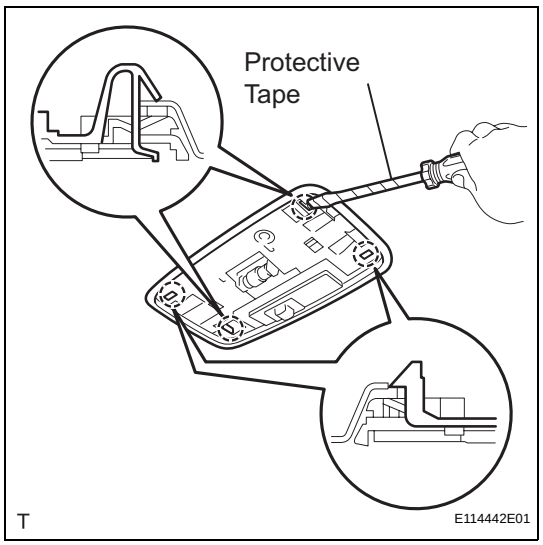
(a) Using a screwdriver with its tip wrapped in protective tape, disengage the 4 claws and remove the room light lens.



(b) Using a screwdriver with its tip wrapped in protective tape, disengage the 4 claws and remove the 2 covers.



(c) Using a screwdriver with its tip wrapped in protective tape, disengage the 4 claws.



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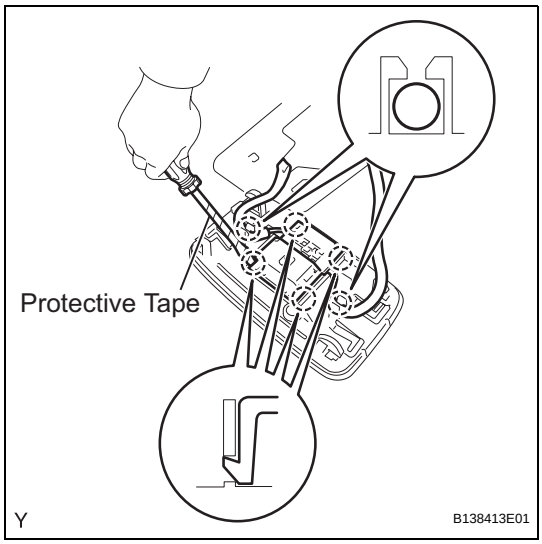
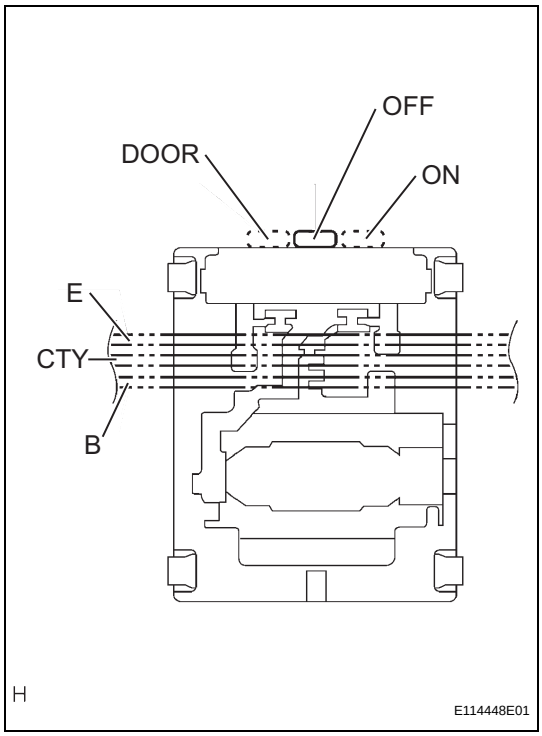


(d) Disengage the roof wire from the claw of the room light.
(e) Using a screwdriver with its tip wrapped in protective tape, disengage the 4 claws and remove the room light switch base.
(f) Remove room light bulb No. 1.



INSPECTION

1. INSPECT ROOM LIGHT ASSEMBLY

(a) Check the resistance.
(1) Using an ohmmeter, measure the resistance and check the results in accordance with the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
-	OFF	10 kΩ or higher
CTY - B	DOOR	Below 1 Ω
B - E	ON	Below 1 Ω

If the result is not as specified, replace the room light.

(b) Check the light operation.
(1) Connect the positive (+) battery lead to terminal B and the negative (-) battery lead to terminal CTY, then check that the light illuminates when the switch is in the DOOR position.

Standard:

Light illuminates.

If the light does not illuminate, replace the bulb.

(2) Connect the positive (+) battery lead to terminal B and the negative (-) battery lead to terminal E, then check that the light illuminates when the switch is in the ON position.

Standard:

Light illuminates.

If the light does not illuminate, replace the bulb.

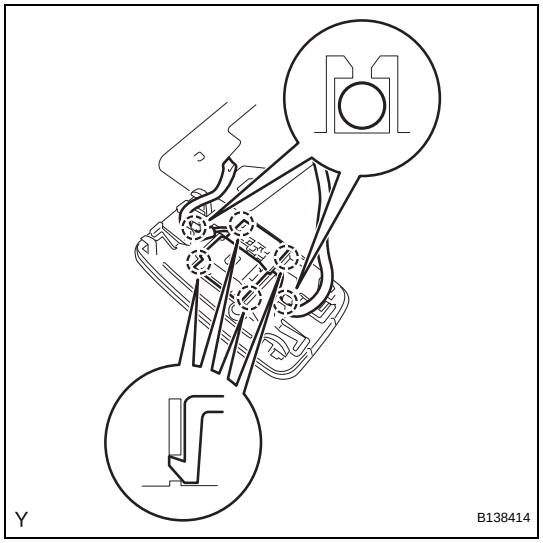
INSTALLATION

1. INSTALL ROOM LIGHT ASSEMBLY

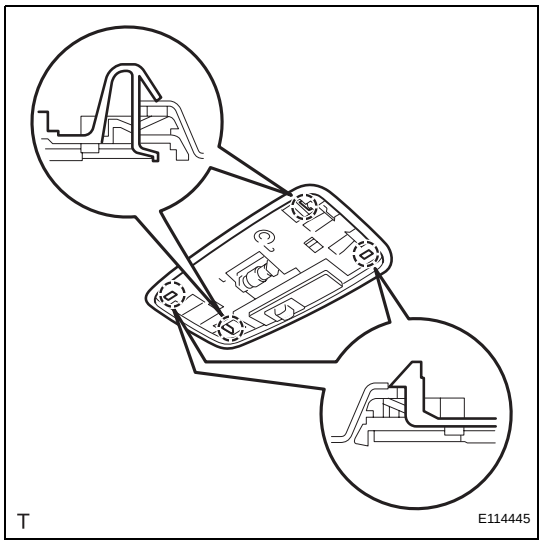
(a) Install room light bulb No. 1.

(b) Engage the 4 claws and install the room light switch base.

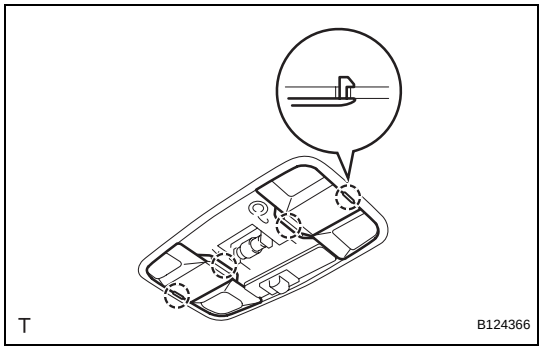
(c) Install the roof wire into the claw of the room light.



(d) Engage the 4 claws and install the room light.



(e) Engage the 4 claws and install the 2 covers.



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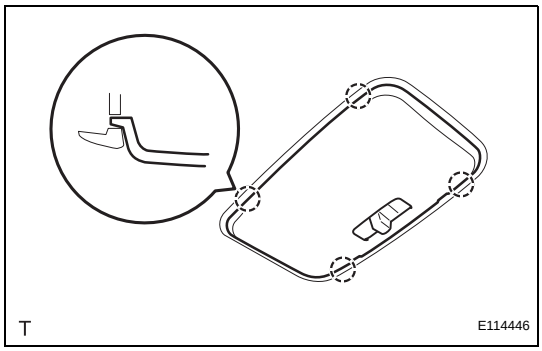
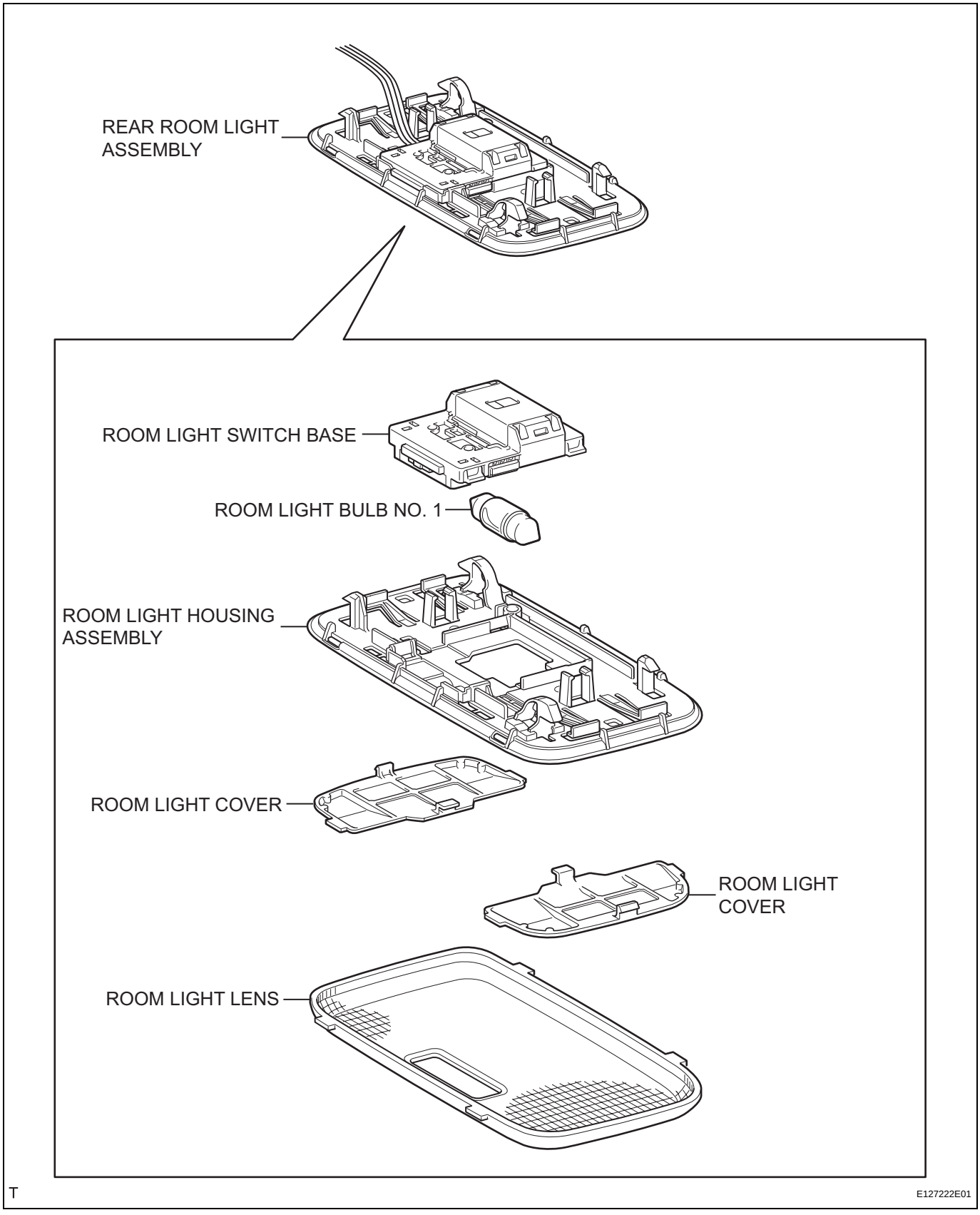


(f) Engage the 4 claws and install the room light lens.

2. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)

REAR ROOM LIGHT ASSEMBLY

COMPONENTS

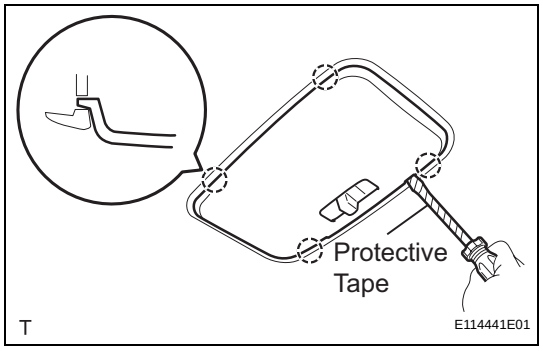


REMOVAL

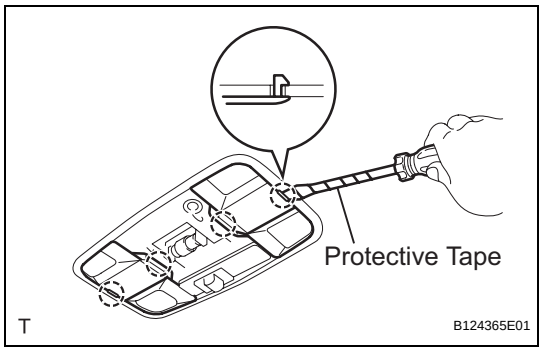
1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE REAR ROOM LIGHT ASSEMBLY

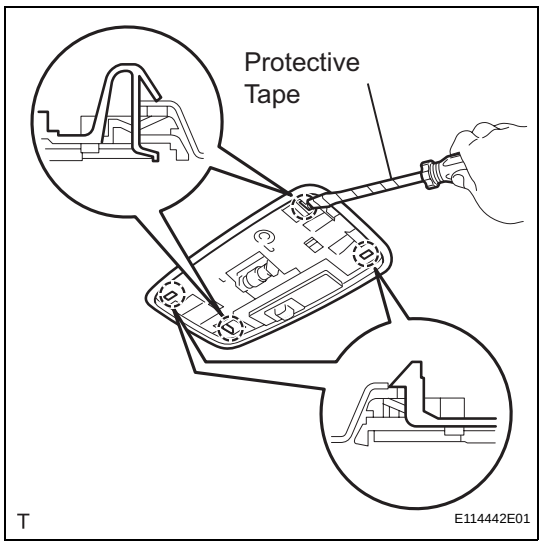
(a) Using a screwdriver with its tip wrapped in protective tape, disengage the 4 claws and remove the room light lens.



(b) Using a screwdriver with its tip wrapped in protective tape, disengage the 4 claws and remove the 2 covers.



(c) Using a screwdriver with its tip wrapped in protective tape, disengage the 4 claws.



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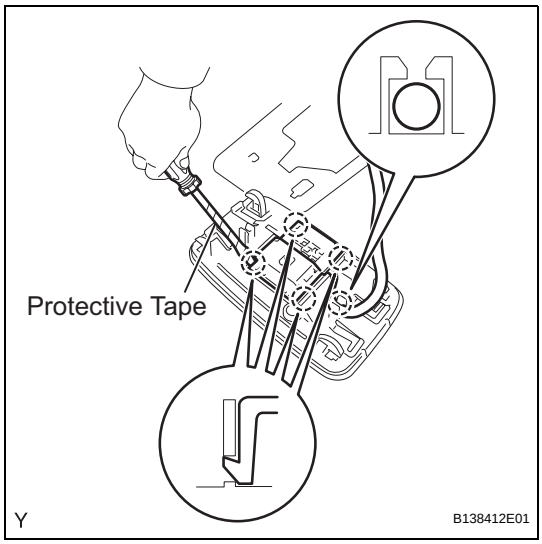
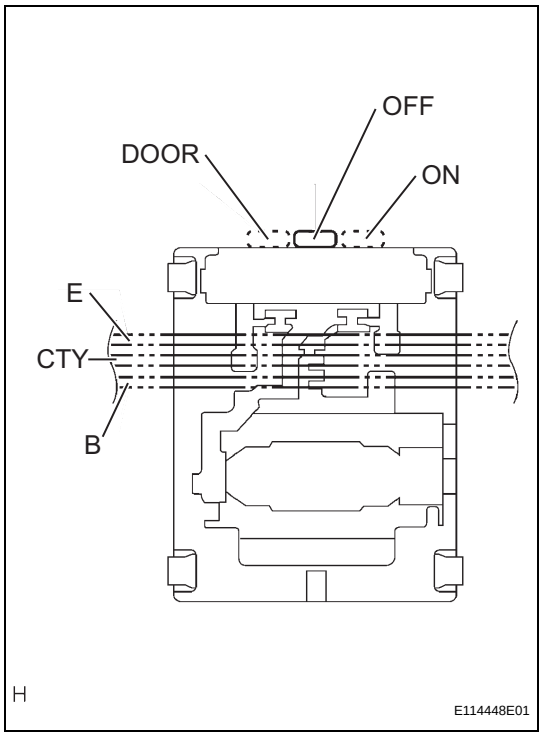


(d) Disengage the roof wire from the claw of the room light.
(e) Using a screwdriver with its tip wrapped in protective tape, disengage the 4 claws and remove the room light switch base.
(f) Remove room light bulb No. 1.



INSPECTION

1. INSPECT REAR ROOM LIGHT ASSEMBLY

(a) Check the resistance.
(1) Using an ohmmeter, measure the resistance and check the results in accordance with the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
-	OFF	10 kΩ or higher
CTY - B	DOOR	Below 1 Ω
B - E	ON	Below 1 Ω

If the result is not as specified, replace the room light.

(b) Check the light operation.
(1) Connect the positive (+) battery lead to terminal B and the negative (-) battery lead to terminal CTY, then check that the light illuminates when the switch is in the DOOR position.

Standard:

Light illuminates.

If the light does not illuminate, replace the bulb.

(2) Connect the positive (+) battery lead to terminal B and the negative (-) battery lead to terminal E, then check that the light illuminates when the switch is in the ON position.

Standard:

Light illuminates.

If the light does not illuminate, replace the bulb.

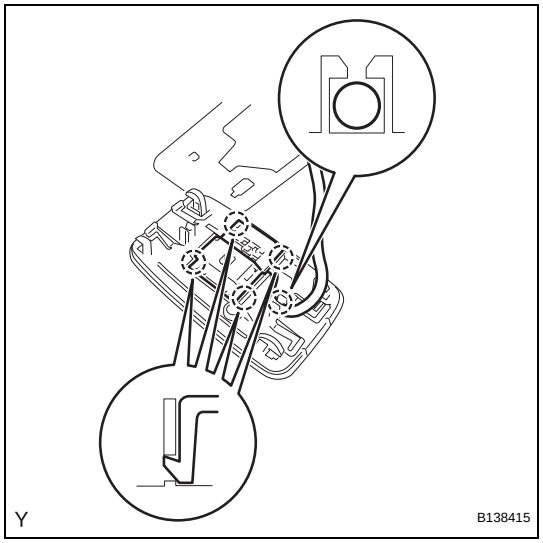
INSTALLATION

1. INSTALL REAR ROOM LIGHT ASSEMBLY

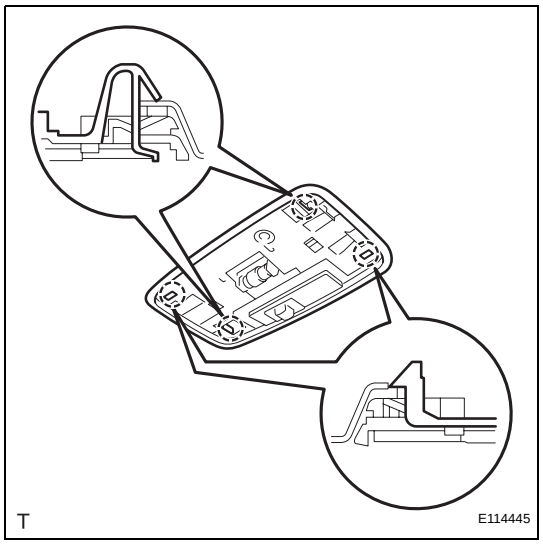
(a) Install room light bulb No. 1.

(b) Engage the 4 claws and install the room light switch base.

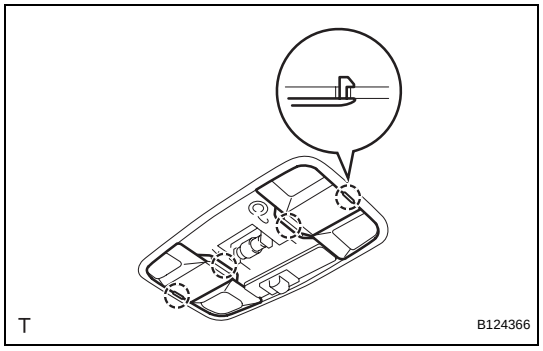
(c) Install the roof wire into the claw of the room light.



(d) Engage the 4 claws and install the room light.



(e) Engage the 4 claws and install the 2 covers.



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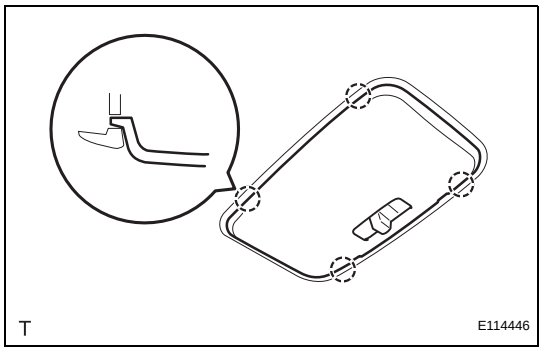
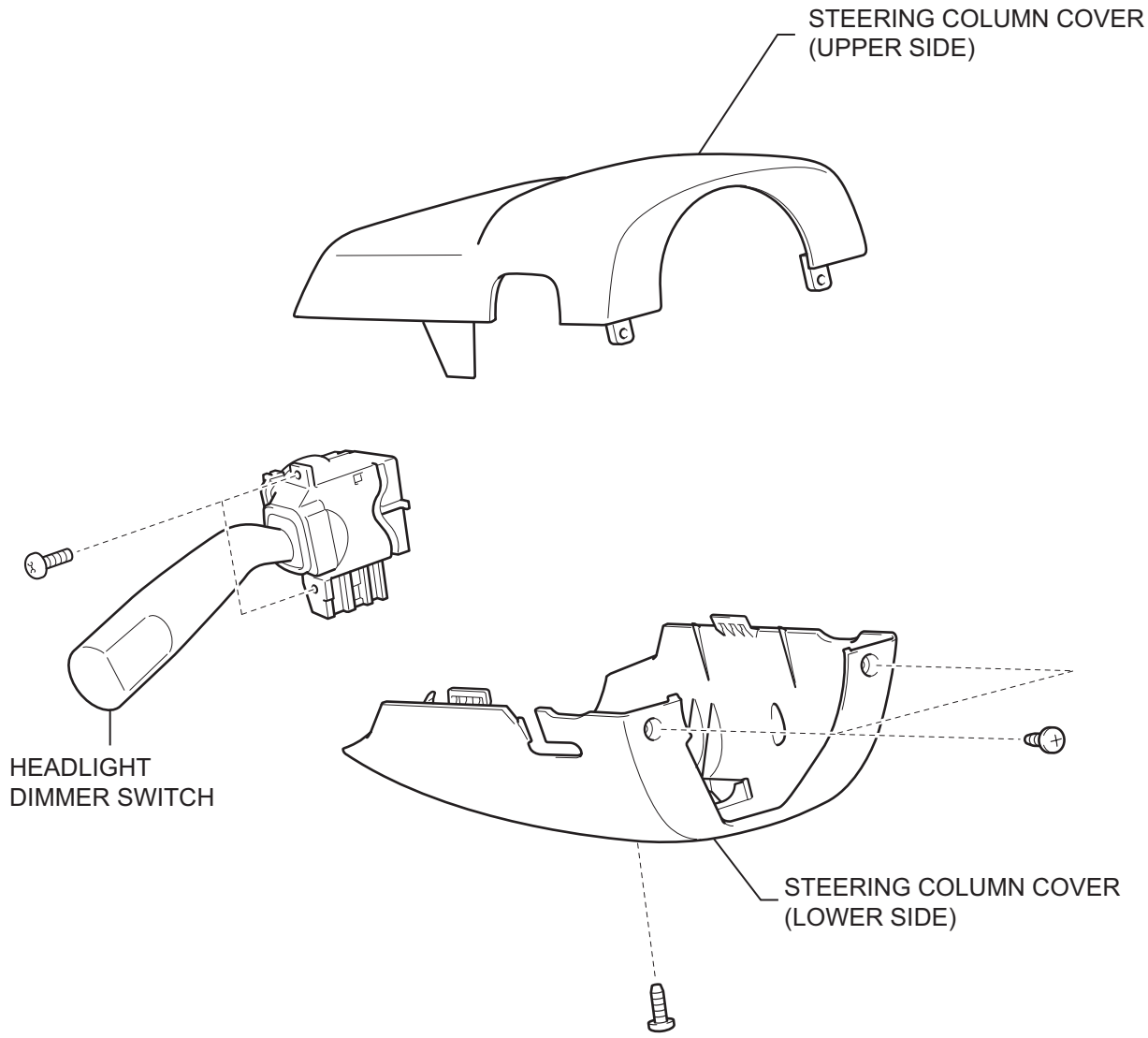


(f) Engage the 4 claws and install the room light lens.

2. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)

HEADLIGHT DIMMER SWITCH

COMPONENTS



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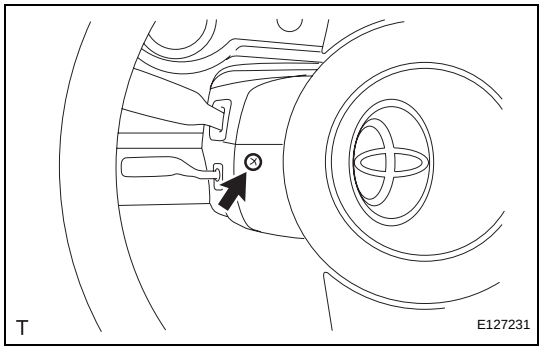
REMOVAL

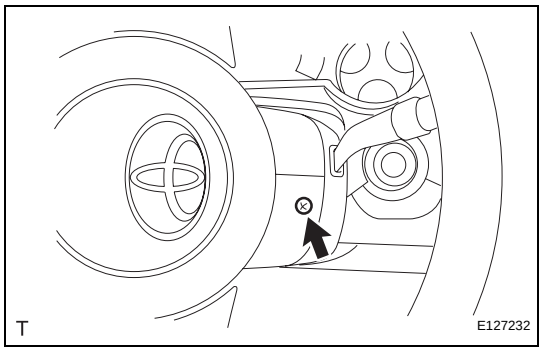
1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE STEERING COLUMN COVER

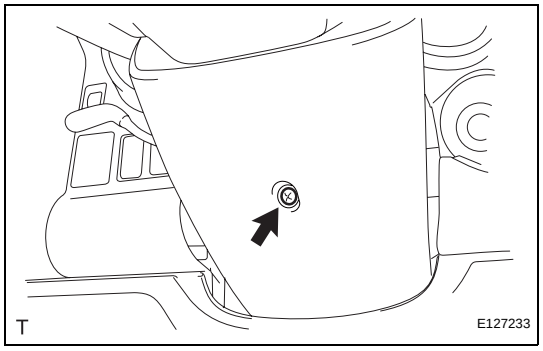
(a) Turn the steering wheel to the left and remove the screw indicated in the illustration.



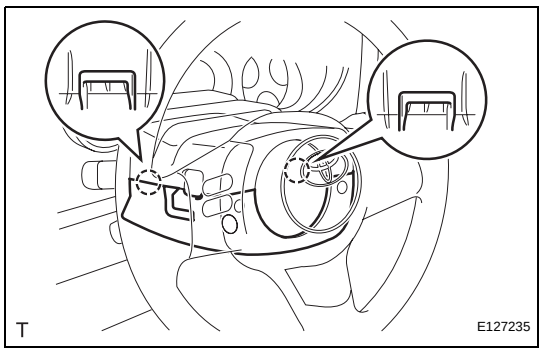
(b) Turn the steering wheel to the right and remove the screw indicated in the illustration.



(c) Remove the screw indicated in the illustration.



(d) Disengage the 2 claws and remove the lower steering column cover.



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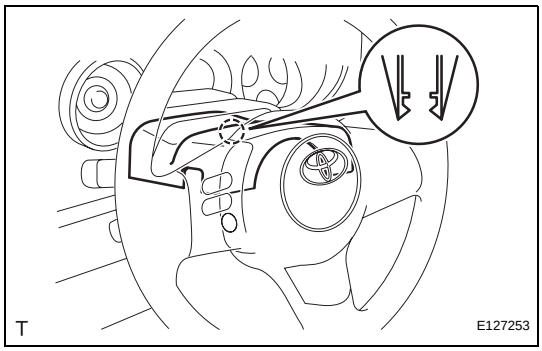
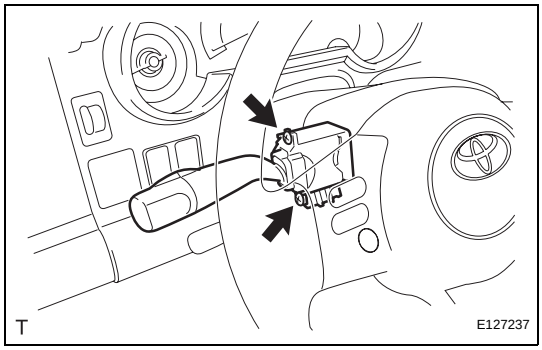


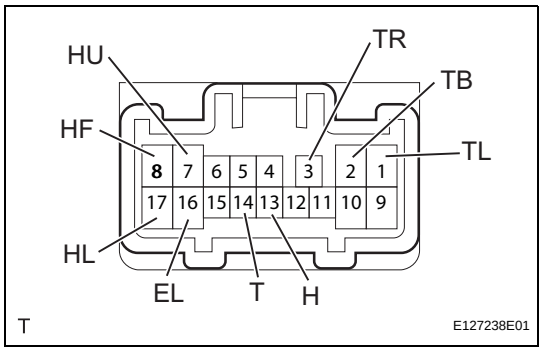
(e) Disengage the claw and remove the upper steering column cover.



3. REMOVE HEADLIGHT DIMMER SWITCH

(a) Disconnect the connector.

(b) Remove the 2 screws and headlight dimmer switch.



INSPECTION

1. INSPECT HEADLIGHT DIMMER SWITCH

(a) Check the resistance of the light control switch.

(1) Using an ohmmeter, measure the resistance and check the results in accordance with the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
14 - 16	OFF	10 kΩ or higher
13 - 16	OFF	10 kΩ or higher
14 - 16	TAIL	Below 1 Ω
14 - 16	HEAD	Below 1 Ω
13 - 16	HEAD	Below 1 Ω

If the result is not as specified, replace the headlight dimmer switch.

(b) Check the resistance of the headlight dimmer switch.

(1) Using an ohmmeter, measure the resistance and check the results in accordance with the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
8 - 16	FLASH	Below 1 Ω
7 - 16	FLASH	Below 1 Ω
16 - 17	LOW BEAM	Below 1 Ω
7 - 16	HI BEAM	Below 1 Ω

If the result is not as specified, replace the headlight dimmer switch.

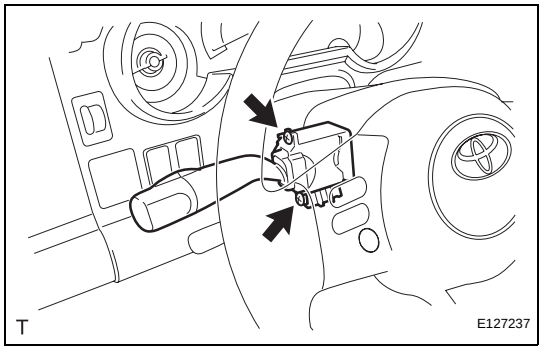
(c) Check the resistance of the turn signal switch.
(1) Using an ohmmeter, measure the resistance and check the results in accordance with the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
2 - 3	Right turn	Below 1 Ω
2 - 3	Neutral	10 kΩ or higher
1 - 2	Neutral	10 kΩ or higher
1 - 2	Left turn	Below 1 Ω

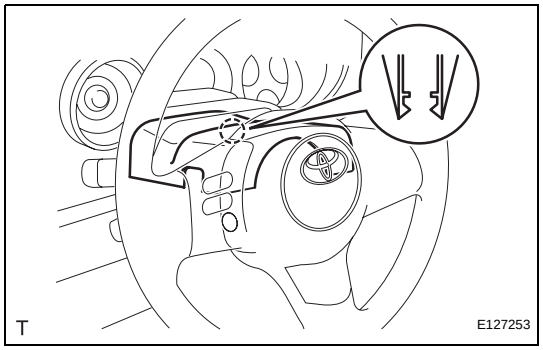
If the result is not as specified, replace the headlight dimmer switch.

INSTALLATION



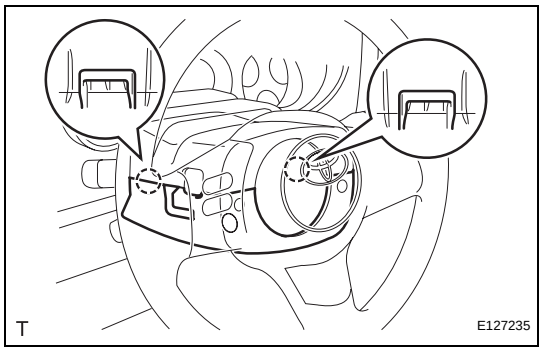
1. INSTALL HEADLIGHT DIMMER SWITCH

(a) Install the headlight dimmer switch with the 2 screws.
(b) Connect the connector.



2. INSTALL STEERING COLUMN COVER

(a) Engage the claw and install the upper steering column cover.



(b) Engage the 2 claws and install the lower steering column cover.

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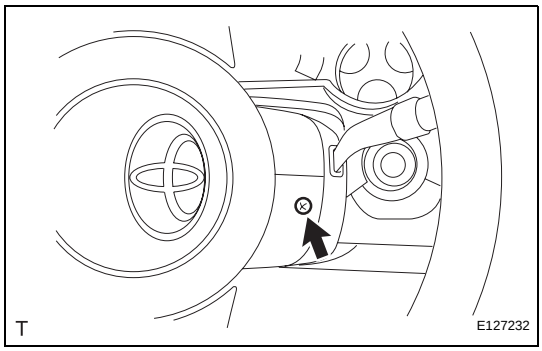
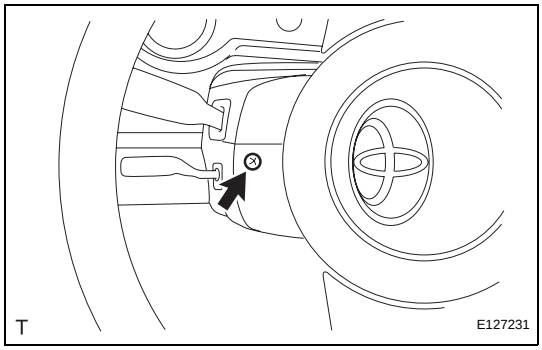
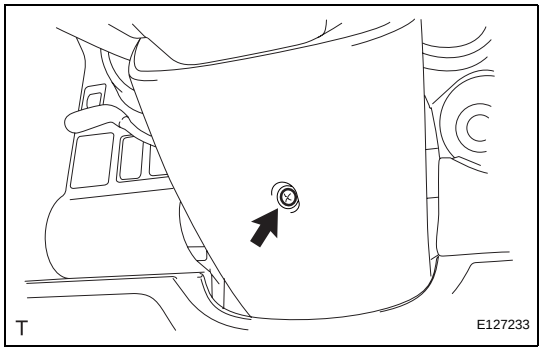


(c) Turn the steering wheel to the right and tighten the screw indicated in the illustration.



(d) Turn the steering wheel to the left and tighten the screw indicated in the illustration.

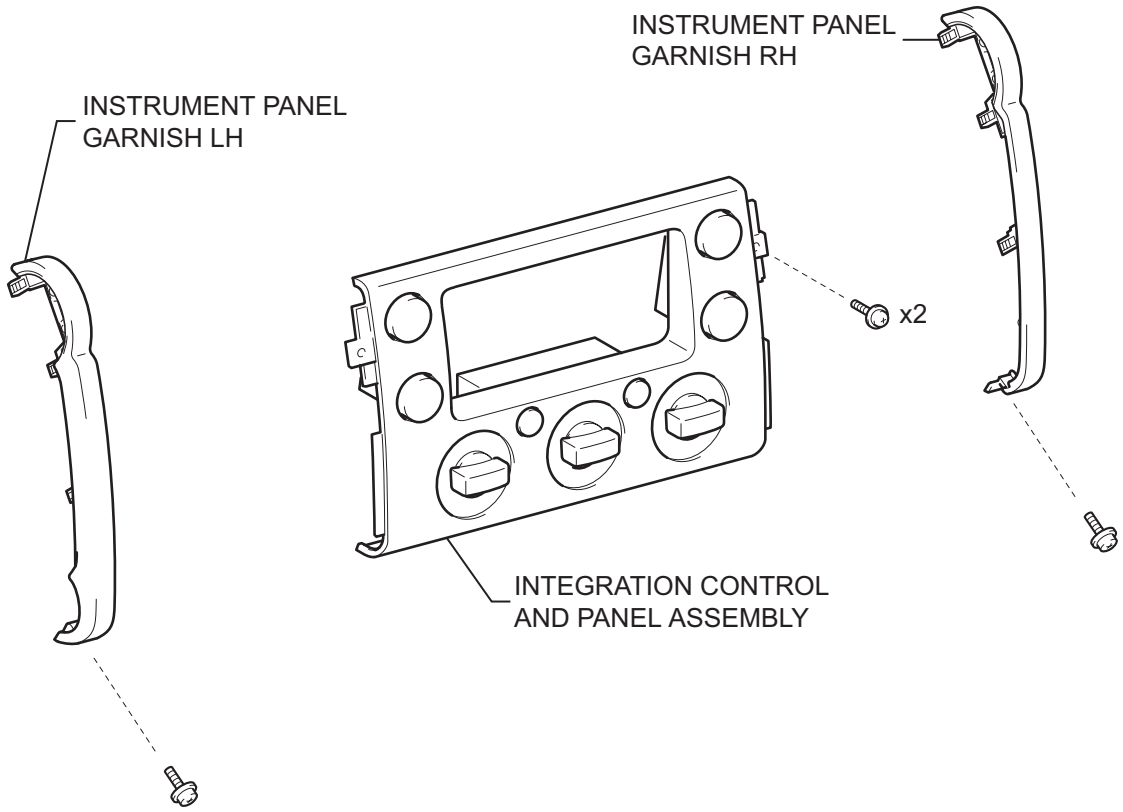


(e) Tighten the screw indicated in the illustration.

3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)

HAZARD WARNING SWITCH

COMPONENTS



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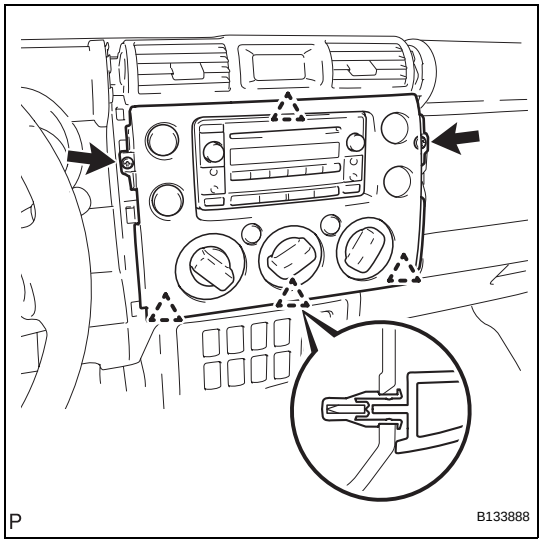
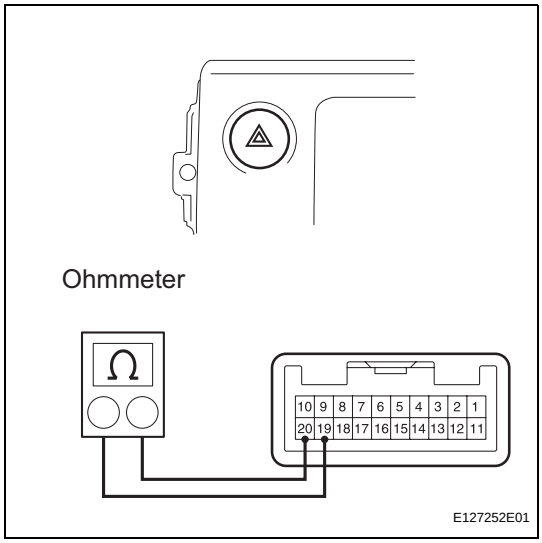
REMOVAL

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
2. **REMOVE INSTRUMENT PANEL GARNISH LH (See page IP-10)**
3. **REMOVE INSTRUMENT PANEL GARNISH RH (See page IP-10)**
4. **REMOVE INTEGRATION CONTROL AND PANEL ASSEMBLY**
   (a) Remove the 2 screws.
   (b) Disengage the 4 clips and remove the integration control and panel.



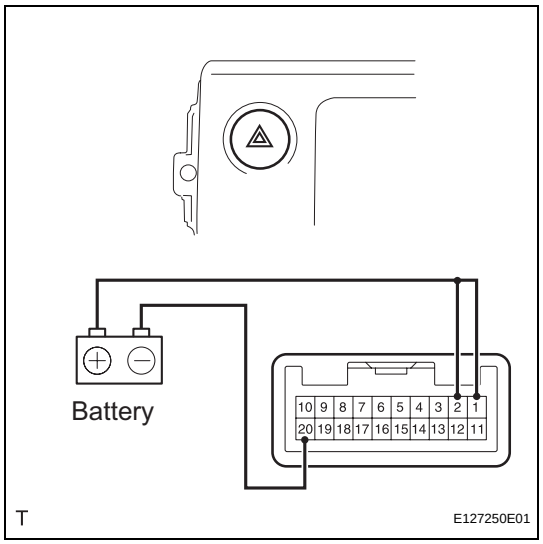


INSPECTION

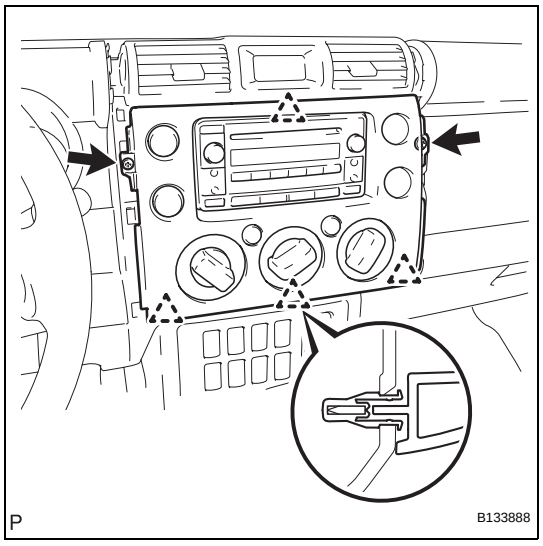
1. **INSPECT INTEGRATION CONTROL AND PANEL ASSEMBLY**
   (a) Check the resistance of the hazard warning switch.
      (1) Using an ohmmeter, measure the resistance and check the results in accordance with the value(s) in the table below.
      Standard Resistance

Tester Connection	Condition	Specified Condition
19 - 20	ON	Below 3 Ω
19 - 20	OFF	10 MΩ or higher

If the result is not as specified, replace the integration control and panel.



(b) Check the illumination operation.
(1) Connect the positive (+) battery lead to terminals 1 and 2, and the negative (-) battery lead to terminal 20, then check that the illumination illuminates.
Standard:
Illumination illuminates.
If the illumination does not illuminate, replace the integration control and panel.



INSTALLATION

1. **INSTALL INTEGRATION CONTROL AND PANEL ASSEMBLY**
   (a) Engage the 4 clips and install the integration control and panel.
   (b) Install the 2 screws.
2. **INSTALL INSTRUMENT PANEL GARNISH LH (See page IP-33)**
3. **INSTALL INSTRUMENT PANEL GARNISH RH (See page IP-33)**
4. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**
   Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)

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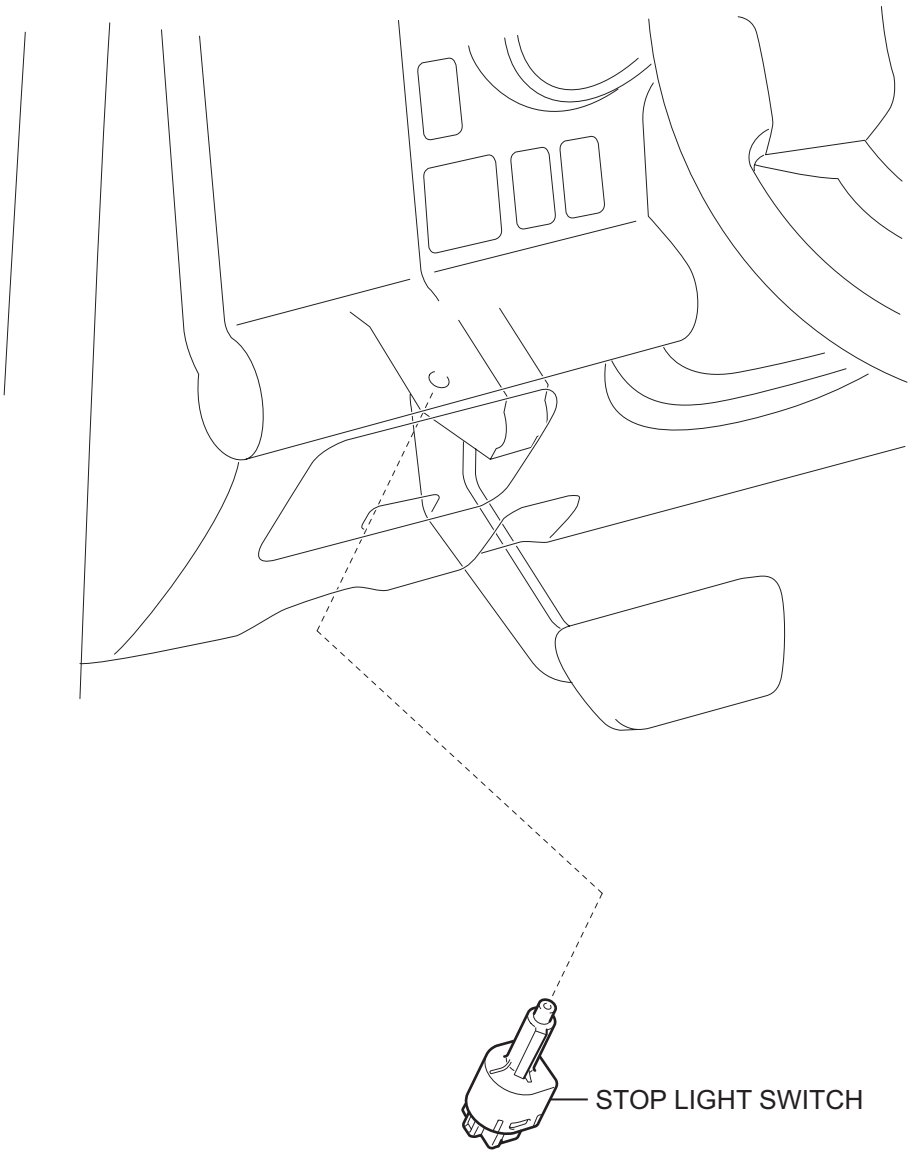
STOP LIGHT SWITCH

COMPONENTS



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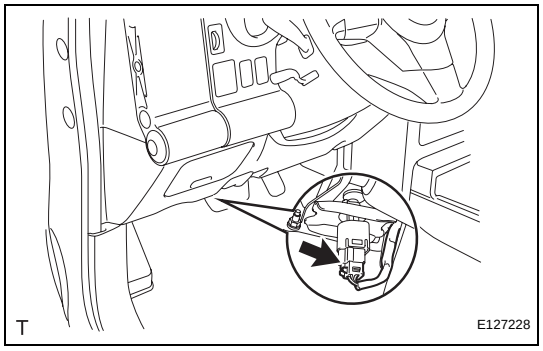
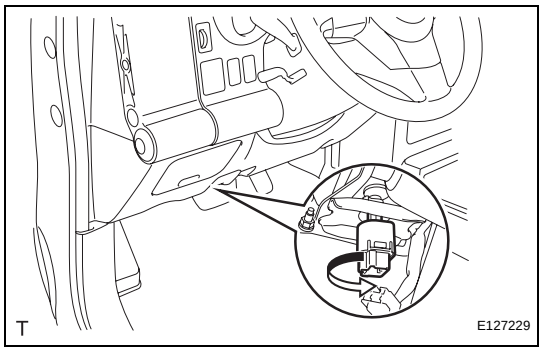
REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE STOP LIGHT SWITCH

(a) Remove the stop light switch connector from the stop light switch.





(b) Turn the stop light switch counterclockwise and remove it.

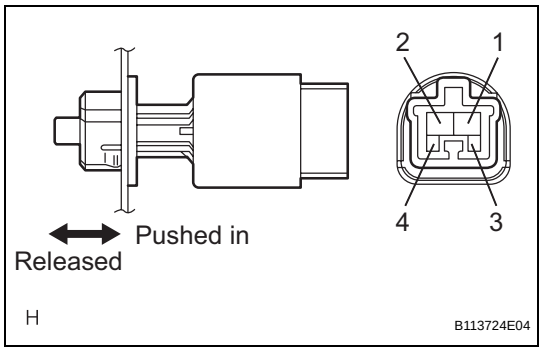
INSPECTION

1. INSPECT STOP LIGHT SWITCH

(a) Check the resistance.

(1) Using an ohmmeter, measure the resistance and check the results in accordance with the value(s) in the table below.

Standard Resistance



Tester Connection	Condition	Specified Condition
1 - 2	Switch pin released	Below 1 Ω
3 - 4	Switch pin released	10 kΩ or higher
1 - 2	Switch pin pushed in	10 kΩ or higher
3 - 4	Switch pin pushed in	Below 1 Ω

If the result is not as specified, replace the stop light switch.

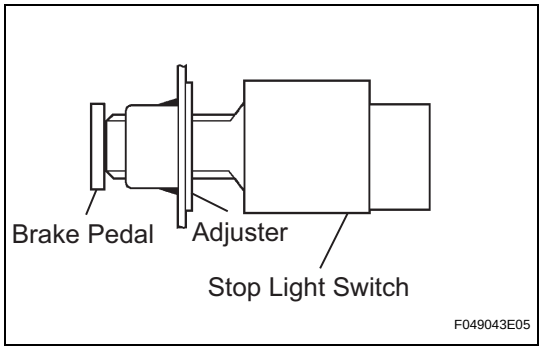
INSTALLATION

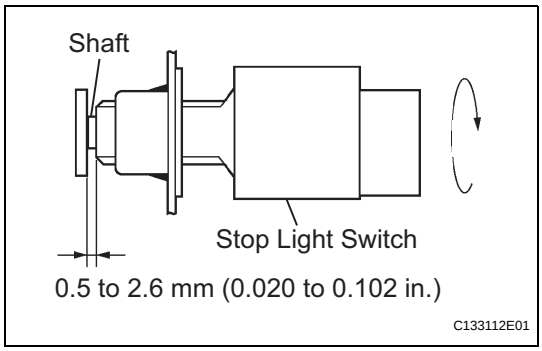
1. INSTALL STOP LIGHT SWITCH

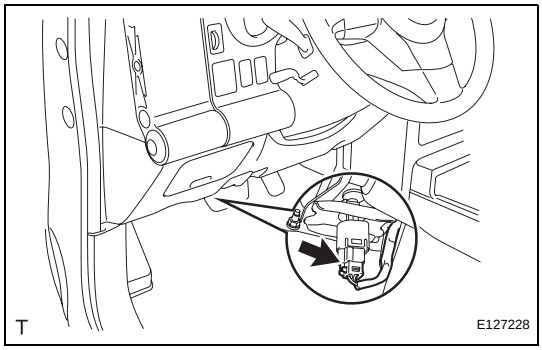
(a) Install the stop light switch into the adjuster until it slightly touches the brake pedal.

NOTICE:

Do not depress the brake pedal.







(1) Make a quarter turn clockwise to install the stop light switch.
NOTICE:
Do not depress the brake pedal.
HINT:
The turning torque for installing the stop light switch is as below.
Torque: 1.5 N*m (15 kgf*cm, 13 in.*lbf) or less

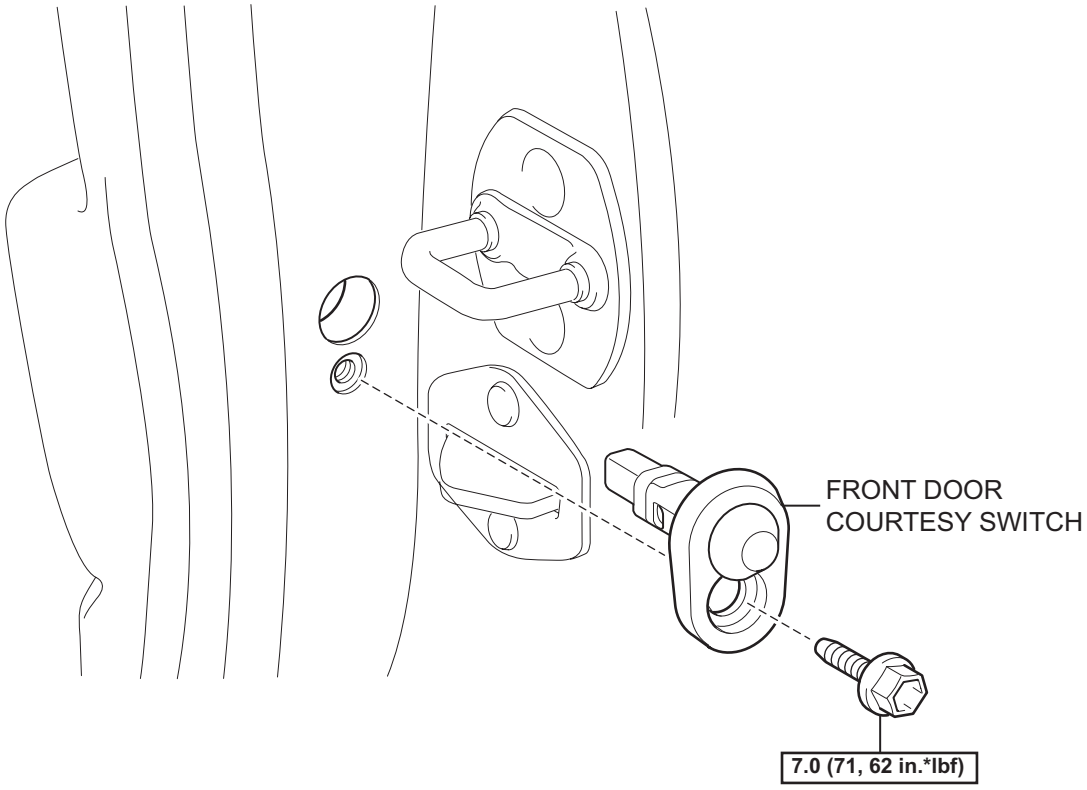
(b) Check the stop light switch clearance.
Stop light switch clearance:
0.5 to 2.6 mm (0.020 to 0.102 in.)

(c) Connect the stop light switch connector to the stop light switch.

2. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)

FRONT DOOR COURTESY SWITCH

COMPONENTS



N*m (kgf*cm, ft*lbf) : Specified torque

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REMOVAL

HINT:

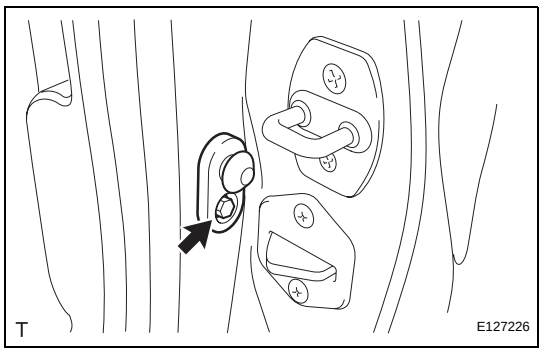
- Use the same procedure for both the RH and LH sides.
- The procedure described below is for the LH side.

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE FRONT DOOR COURTESY SWITCH

(a) Remove the bolt and front door courtesy switch.

(b) Disconnect the connector.



INSPECTION

1. INSPECT FRONT DOOR COURTESY SWITCH

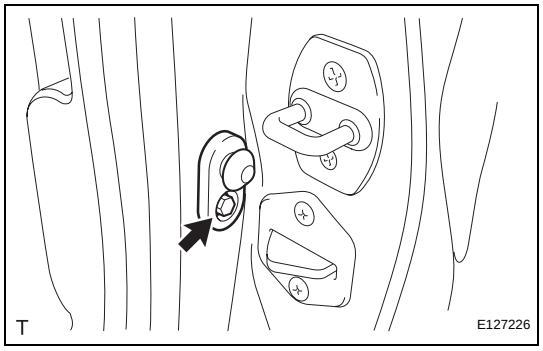
(a) Check the resistance.

(1) Using an ohmmeter, measure the resistance and check the results in accordance with the value(s) in the table below.

Standard Resistance

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

If the result is not as specified, replace the front door courtesy switch.



INSTALLATION

1. INSTALL FRONT DOOR COURTESY SWITCH

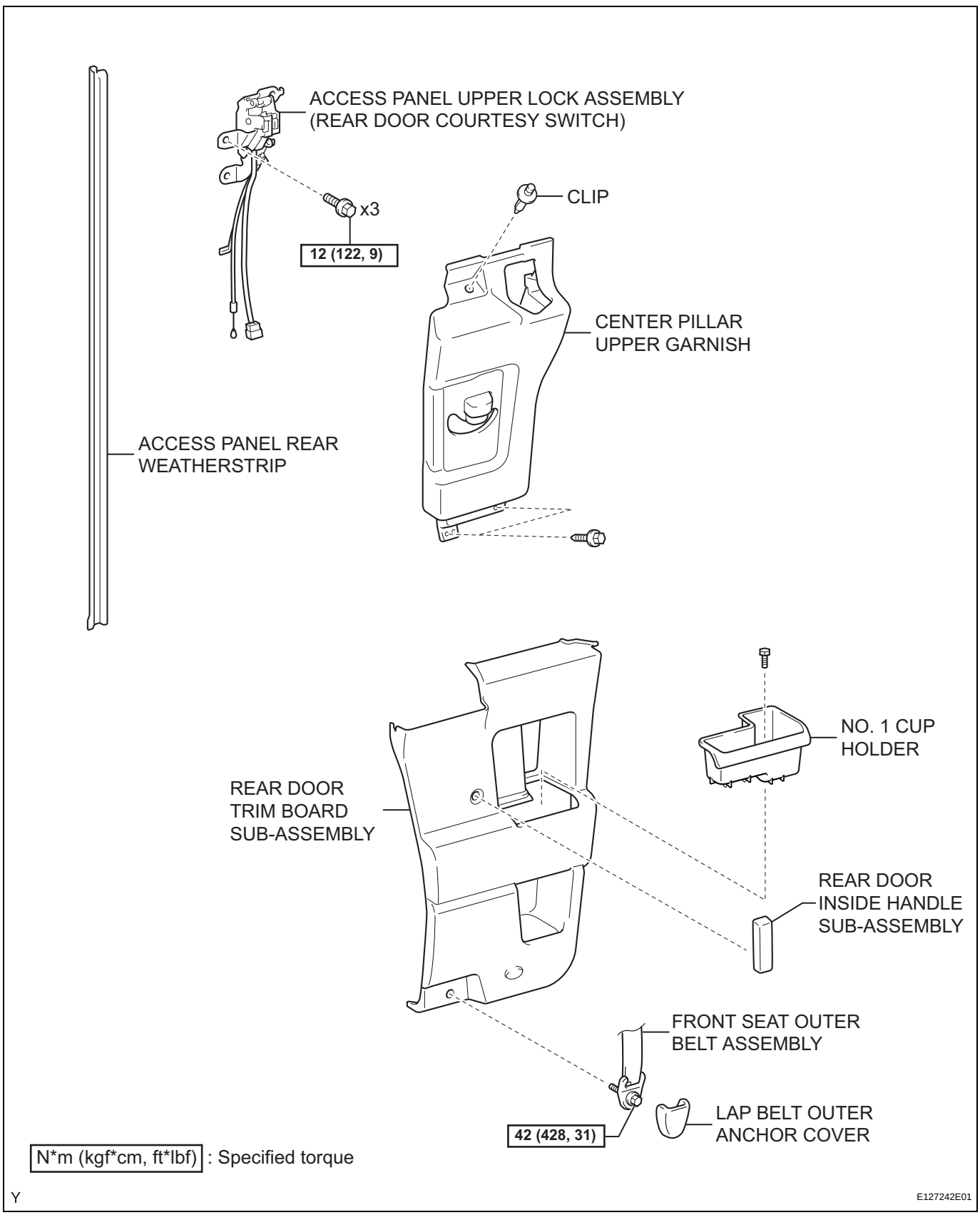
(a) Connect the connector.

(b) Install the front door courtesy switch with the bolt.
Torque: 7.0 N*m (71 kgf*cm, 62 in.*lbf)

2. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)

REAR DOOR COURTESY SWITCH (for Upper Side)

COMPONENTS



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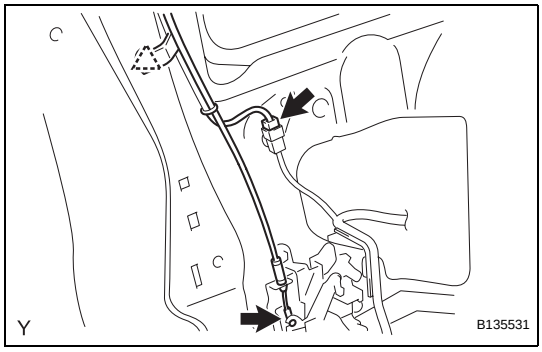
REMOVAL

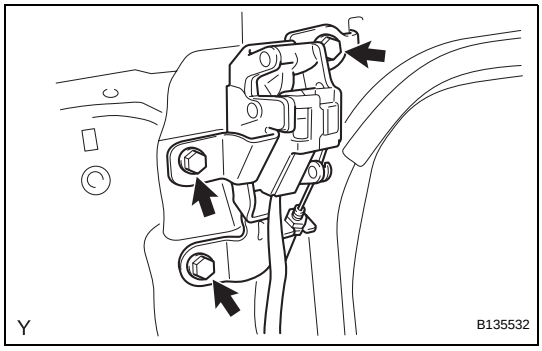
HINT:

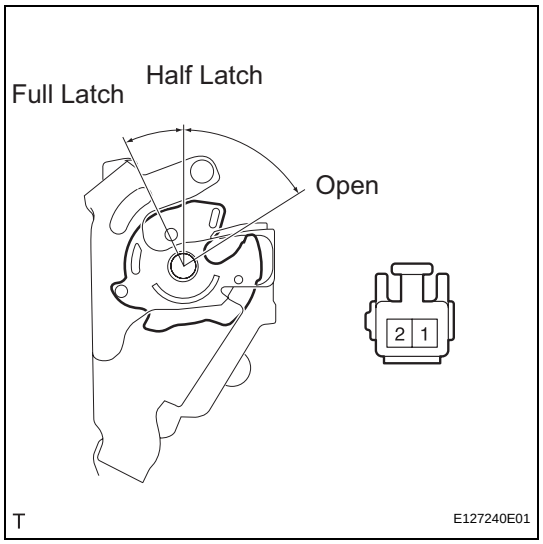
- Use the same procedure for both the RH and LH sides.
- The procedure described below is for the LH side.

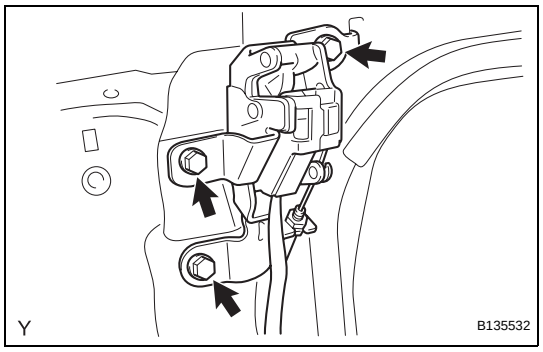
1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
2. **REMOVE ACCESS PANEL REAR WEATHERSTRIP (See page ED-29)**
3. **REMOVE LAP BELT OUTER ANCHOR COVER (See page ED-29)**
4. **REMOVE REAR DOOR INSIDE HANDLE SUB-ASSEMBLY (See page ED-29)**
5. **REMOVE NO. 1 CUP HOLDER (See page ED-29)**
6. **REMOVE REAR DOOR TRIM BOARD SUB-ASSEMBLY (See page ED-30)**
7. **REMOVE CENTER PILLAR UPPER GARNISH (See page ED-30)**
8. **REMOVE ACCESS PANEL UPPER LOCK ASSEMBLY**
   (a) Disconnect the connector, harness clamp and the access panel lock control cable.

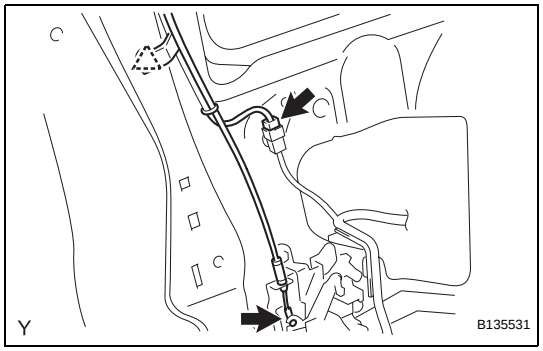


   (b) Remove the 3 bolts, then remove the access panel upper lock.









INSPECTION

1. INSPECT ACCESS PANEL UPPER LOCK ASSEMBLY

(a) Check the resistance of the rear door courtesy switch.

(1) Using an ohmmeter, measure the resistance between the terminals when the latch is operated with a screwdriver.

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Open	Below 1 Ω
1 - 2	Half Latch	Below 1 Ω
1 - 2	Full Latch	10 kΩ or higher

If the result is not as specified, replace the access panel upper lock.

INSTALLATION

1. INSTALL ACCESS PANEL UPPER LOCK ASSEMBLY

(a) Install the access panel upper lock with the 3 bolts.

Torque: 12 N*m (122 kgf*cm, 9 ft.*lbf)

(b) Connect the connector, harness clamp and access panel lock control cable.

2. INSTALL CENTER PILLAR UPPER GARNISH (See page ED-40)

3. INSTALL REAR DOOR TRIM BOARD SUB-ASSEMBLY (See page ED-41)

4. INSTALL NO. 1 CUP HOLDER (See page ED-41)

5. INSTALL REAR DOOR INSIDE HANDLE SUB-ASSEMBLY (See page ED-41)

6. INSTALL LAP BELT OUTER ANCHOR COVER (See page ED-42)

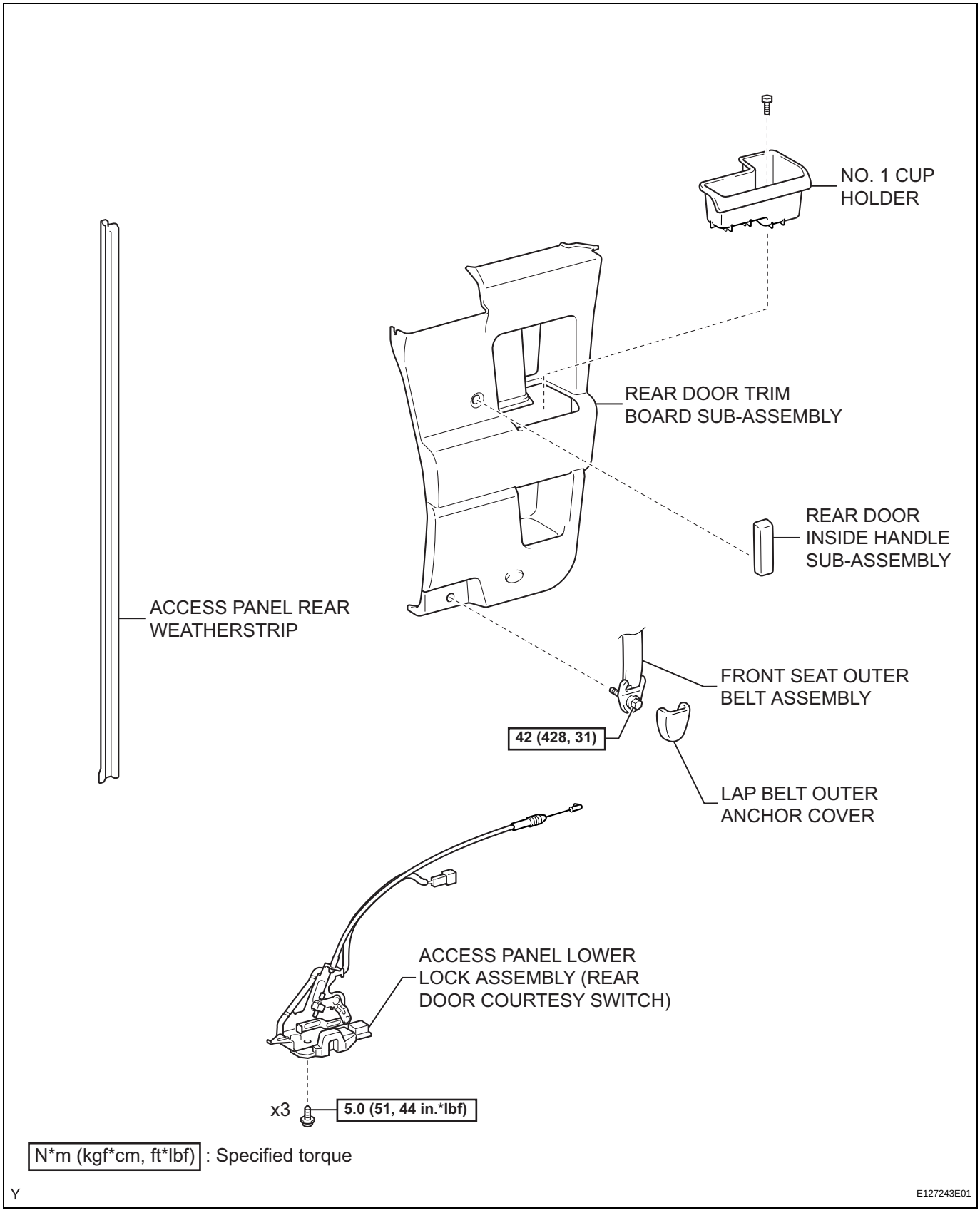
7. INSTALL ACCESS PANEL REAR WEATHERSTRIP (See page ED-42)

8. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)

REAR DOOR COURTESY SWITCH (for Lower Side)

COMPONENTS

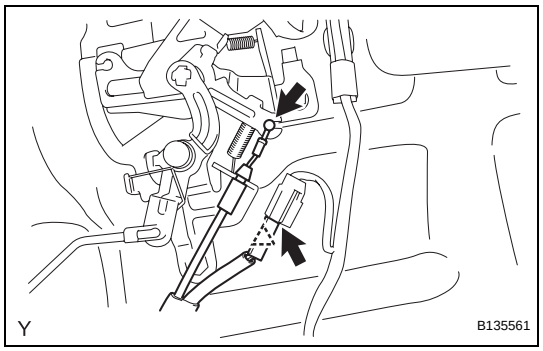


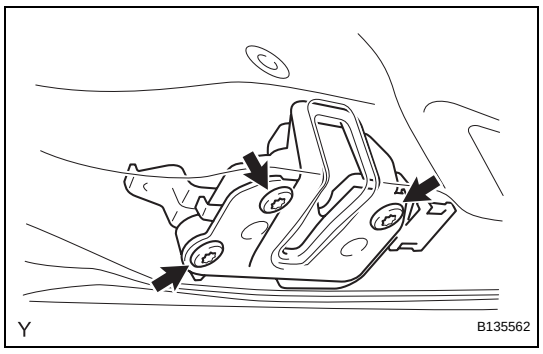
REMOVAL

HINT:

- Use the same procedure for both the RH and LH sides.
- The procedure described below is for the RH side.

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
2. **REMOVE ACCESS PANEL REAR WEATHERSTRIP (See page ED-29)**
3. **REMOVE LAP BELT OUTER ANCHOR COVER (See page ED-29)**
4. **REMOVE REAR DOOR INSIDE HANDLE SUB-ASSEMBLY (See page ED-29)**
5. **REMOVE NO. 1 CUP HOLDER (See page ED-29)**
6. **REMOVE REAR DOOR TRIM BOARD SUB-ASSEMBLY (See page ED-30)**
7. **REMOVE ACCESS PANEL LOWER LOCK ASSEMBLY**
   (a) Disconnect the connector, connector clamp and access panel lock control cable.





   (b) Using "Torx" socket wrench T30, remove the 3 screws.
   (c) Remove the access panel lower lock by sliding it upward.

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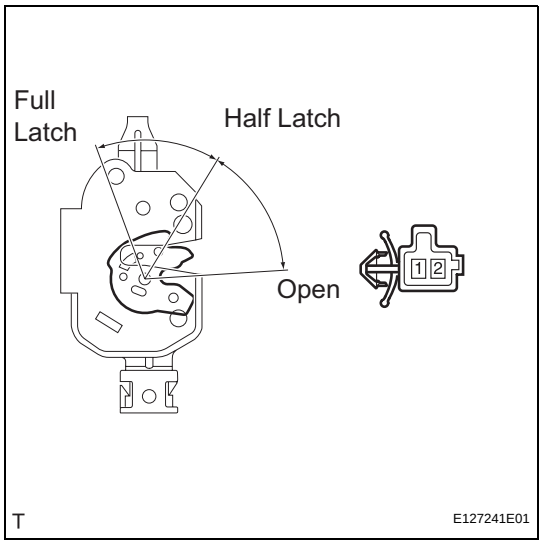


INSPECTION

1. INSPECT ACCESS PANEL LOWER LOCK ASSEMBLY

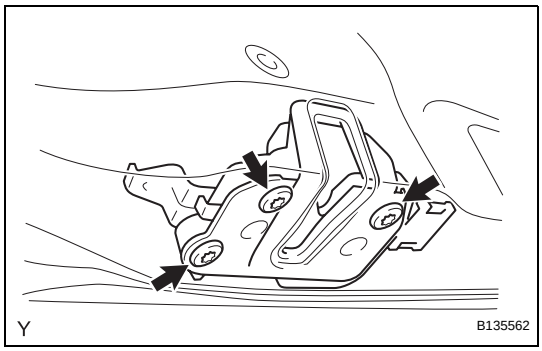
(a) Check the resistance of the rear door courtesy switch.

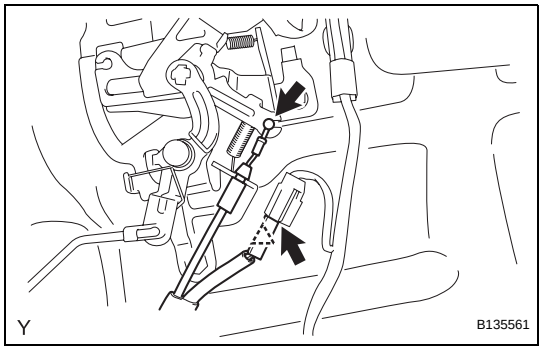
(1) Using an ohmmeter, measure the resistance between the terminals when the latch is operated with a screwdriver.

Standard Resistance

Tester Connection	Condition	Specified Condition
1 - 2	Open	Below 1 Ω
1 - 2	Half Latch	Below 1 Ω
1 - 2	Full Latch	10 kΩ or higher

If the result is not as specified, replace the access panel lower lock.





INSTALLATION

1. INSTALL ACCESS PANEL LOWER LOCK ASSEMBLY

(a) Install the access panel lower lock onto the rear door.

Torque: 5.0 N*m (51 kgf*cm, 44 in.*lbf)

(b) Connect the connector, connector clamp and access panel lock control cable.

2. INSTALL REAR DOOR TRIM BOARD SUB-ASSEMBLY (See page ED-41)

3. INSTALL NO. 1 CUP HOLDER (See page ED-41)

4. INSTALL REAR DOOR INSIDE HANDLE SUB-ASSEMBLY (See page ED-41)

5. INSTALL LAP BELT OUTER ANCHOR COVER (See page ED-42)

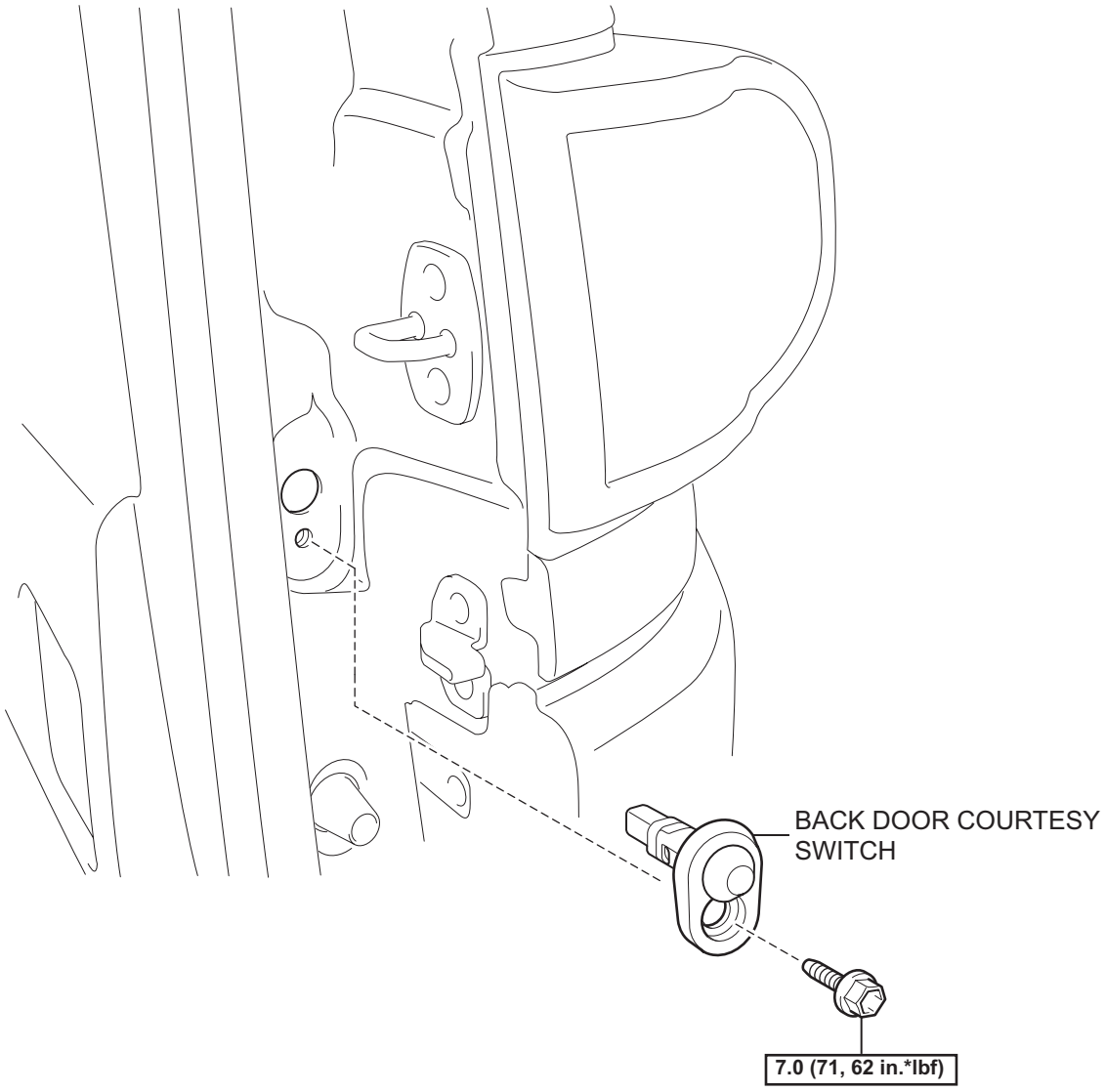
6. INSTALL ACCESS PANEL REAR WEATHERSTRIP (See page ED-42)

7. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)

BACK DOOR COURTESY SWITCH

COMPONENTS



N*m (kgf*cm, ft*lbf) : Specified torque

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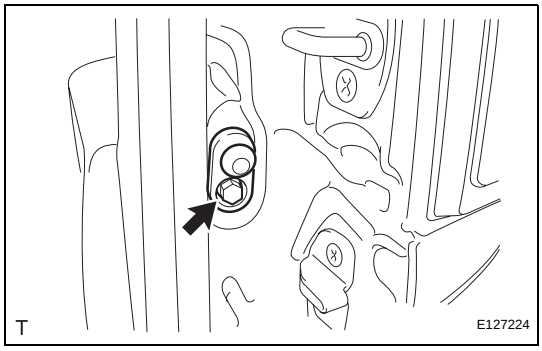
REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE BACK DOOR COURTESY SWITCH

(a) Remove the bolt and back door courtesy switch.

(b) Disconnect the connector.



INSPECTION

1. INSPECT BACK DOOR COURTESY SWITCH

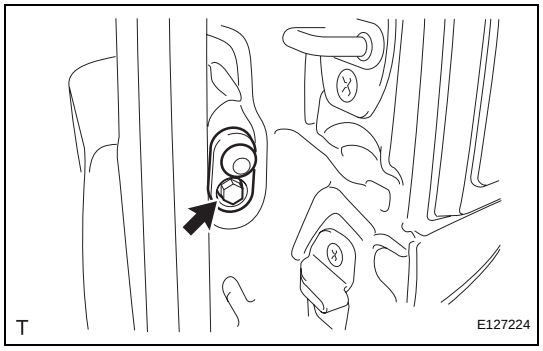
(a) Check the resistance.

(1) Using an ohmmeter, measure the resistance and check the results in accordance with the value(s) in the table below.

Standard Resistance

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

If the result is not as specified, replace the back door courtesy switch.



INSTALLATION

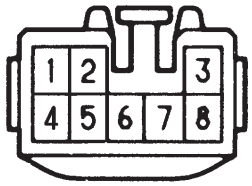
1. INSTALL BACK DOOR COURTESY SWITCH

(a) Connect the connector.

(b) Install the back door courtesy switch with the bolt.
Torque: 7.0 N*m (71 kgf*cm, 62 in.*lbf)

2. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)

Connector Front Side:



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TURN SIGNAL FLASHER ASSEMBLY

ON-VEHICLE INSPECTION

1. INSPECT TURN SIGNAL FLASHER CIRCUIT

(a) Check the power source circuit and ground circuit.

(1) Disconnect the turn signal flasher connector.

(2) Measure the voltage and check the results in accordance with the value(s) in the table below.

Standard Voltage

Tester Connection	Condition	Specified Condition
1 - Body ground	Ignition switch off	0 V
1 - Body ground	Ignition switch ON	11 to 14 V
4 - Body ground	Always	11 to 14 V

If the result is not as specified, there may be a malfunction on the wire harness side.

(3) Measure the resistance and check the result in accordance with the value(s) in the table below.

Standard Resistance

Tester Connection	Condition	Specified Condition
7 - Body ground	Always	Below 1 Ω

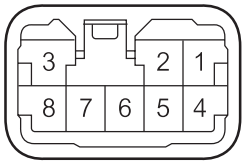
If the result is not as specified, there may be a malfunction on the wire harness side.

(b) Check the output operation signal.

(1) Reconnect the turn signal flasher connector.

(2) Measure the voltage and check the results in accordance with the value(s) in the table below.

Connector Back Side:



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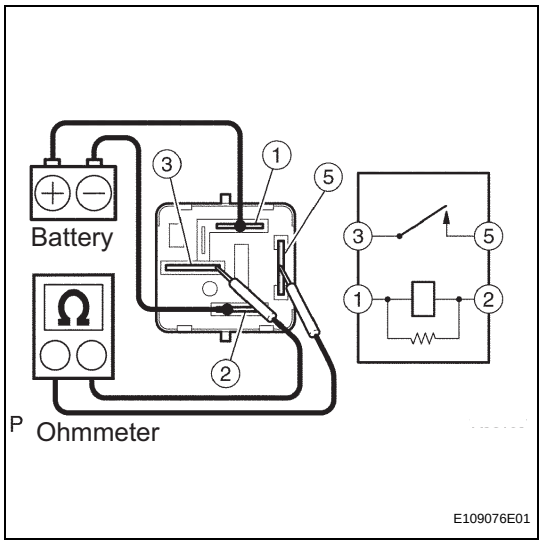
Standard Voltage

Tester Connection	Condition	Specified Condition
2 - Body ground	Hazard warning switch OFF	Below 1 V
2 - Body ground	Hazard warning switch ON	11 to 14 V (60 to 120 times per minute)
2 - Body ground	Ignition switch ON and turn signal switch (right turn) OFF	Below 1 V
2 - Body ground	Ignition switch ON and turn signal switch (right turn) ON	11 to 14 V (60 to 120 times per minute)
3 - Body ground	Hazard warning switch OFF	Below 1 V
3 - Body ground	Hazard warning switch ON	11 to 14 V (60 to 120 times per minute)
3 - Body ground	Ignition switch ON and turn signal switch (left turn) OFF	Below 1 V
3 - Body ground	Ignition switch ON and turn signal switch (left turn) ON	11 to 14 V (60 to 120 times per minute)
5 - Body ground	Ignition switch ON and turn signal switch (left turn) OFF	11 to 14 V

Tester Connection	Condition	Specified Condition
5 - Body ground	Ignition switch ON and turn signal switch (left turn) ON	Below 1 V
6 - Body ground	Ignition switch ON and turn signal switch (right turn) OFF	11 to 14 V
6 - Body ground	Ignition switch ON and turn signal switch (right turn) ON	Below 1 V
8 - Body ground	Hazard warning switch OFF	11 to 14 V
8 - Body ground	Hazard warning switch ON	Below 1 V



HEADLIGHT RELAY

ON-VEHICLE INSPECTION

1. INSPECT HEADLIGHT RELAY

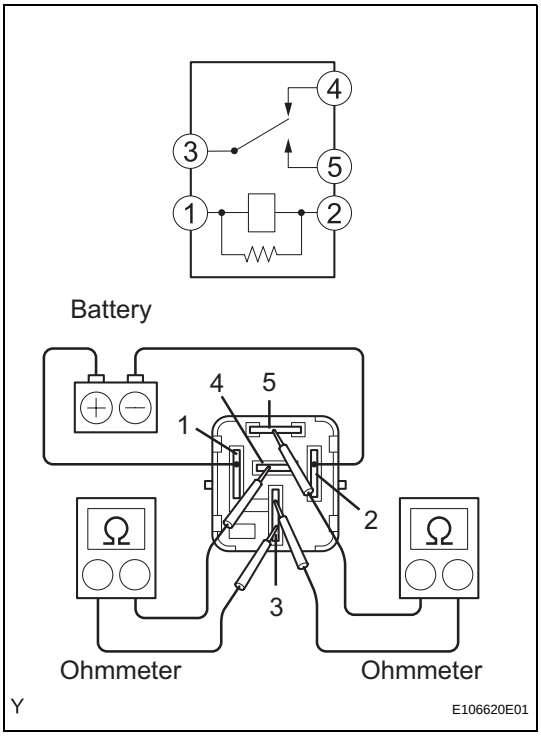
(a) Check the resistance.

(b) Using an ohmmeter, measure the resistance between the terminals.

Standard Resistance

Tester Connection	Specified Condition
3 - 5	10 kΩ or higher
3 - 5	Below 1 Ω (Battery voltage applied to terminals 1 and 2)

If the result is not as specified, replace the headlight relay.



HEADLIGHT DIMMER RELAY

ON-VEHICLE INSPECTION

1. INSPECT HEADLIGHT DIMMER RELAY

(a) Check the resistance.

(1) Using an ohmmeter, measure the resistance between the terminals.

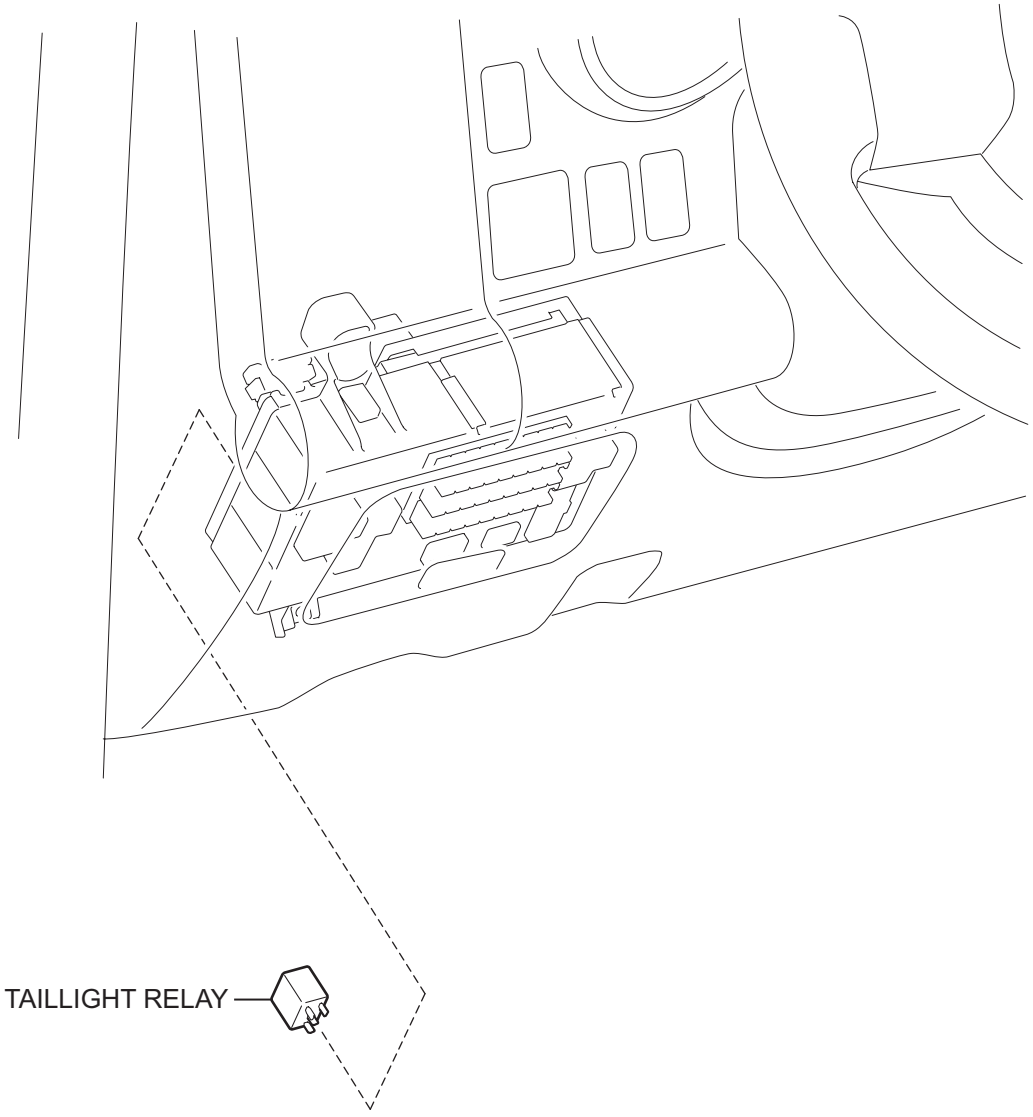
Standard Resistance

Tester Connection	Specified Condition
3 - 4	Below 1 Ω
3 - 4	10 kΩ or higher (Battery voltage applied to terminals 1 and 2)
3 - 5	10 kΩ or higher
3 - 5	Below 1 Ω (Battery voltage applied to terminals 1 and 2)

If the result is not as specified, replace the headlight dimmer relay.

TAILLIGHT RELAY

COMPONENTS



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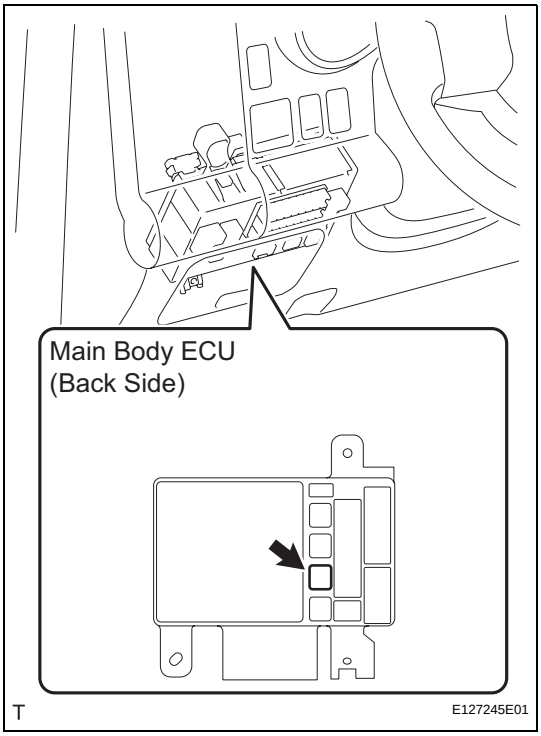
REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE TAILLIGHT RELAY

(a) Remove the taillight relay from the main body ECU.



INSPECTION

1. INSPECT TAILLIGHT RELAY

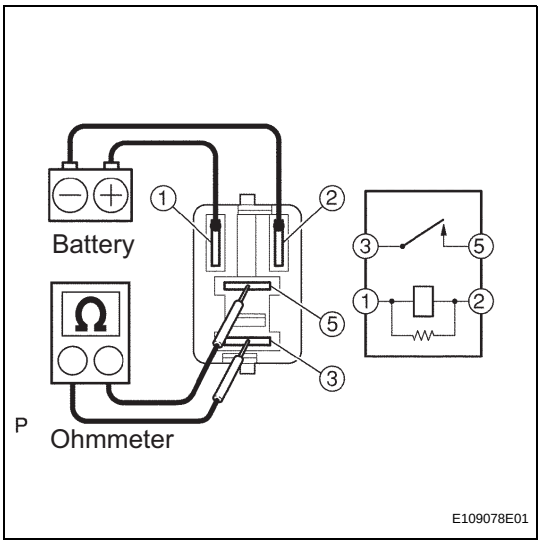
(a) Check the resistance.

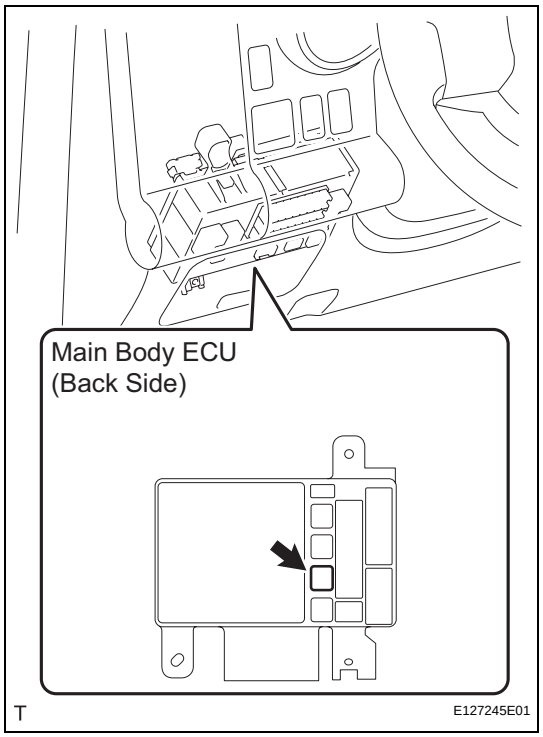
(1) Using an ohmmeter, measure the resistance between the terminals.

Standard Resistance

Tester Connection	Specified Condition
3 - 5	10 kΩ or higher
3 - 5	Below 1 Ω (Battery voltage applied to terminals 1 and 2)

If result is not as specified, replace the taillight relay.





INSTALLATION

1. **INSTALL TAILLIGHT RELAY**
   (a) Install the taillight relay onto the main body ECU.
2. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**
   Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)