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LIGHTING SYSTEM

PRECAUTION

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

SYSTEM PROCEDURE CHART

System Name	See procedure
Power Back Door System	INITIALIZATION

1. **PRECAUTION FOR HEADLIGHT BULB REPLACEMENT**
   a. If even a thin film of oil is left on the surface of the halogen light, the bulb may be damaged because the light will operate at a higher temperature.
   b. Handle any halogen light with great care. Dropping, hitting or damaging the bulb, in any way, may result in exploding and shattering because of the high internal pressure.
   c. Always prepare a new bulb for immediate replacement. While replacing the bulb, the lens may attract dust and moisture if removed from the vehicle for too long.
   d. Always use a bulb of the same wattage for replacement.
   e. Securely reinstall the socket after bulb replacement. The lens may become cloudy or the light cavity may fill with water through gaps around the socket if not installed correctly.
2. **EXPRESSIONS OF IGNITION SWITCH**
   a. The type of ignition switch used on this model differs according to the specifications of the vehicle. The expressions listed in the table below are used in this article.

SWITCH REFERENCE CHART

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

PARTS LOCATION

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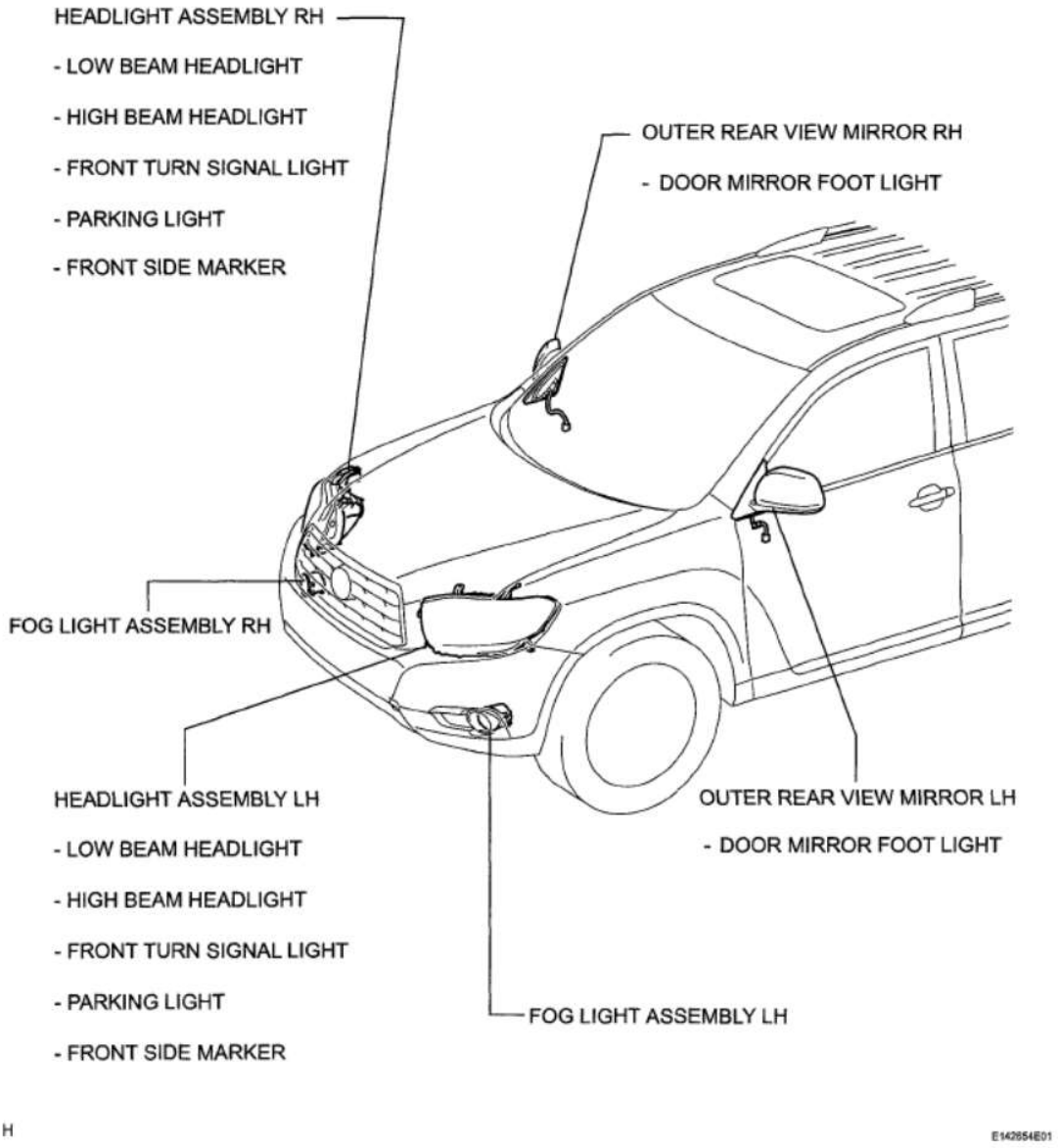


Fig. 1: Identifying Lighting System Parts Location (1 Of 7)
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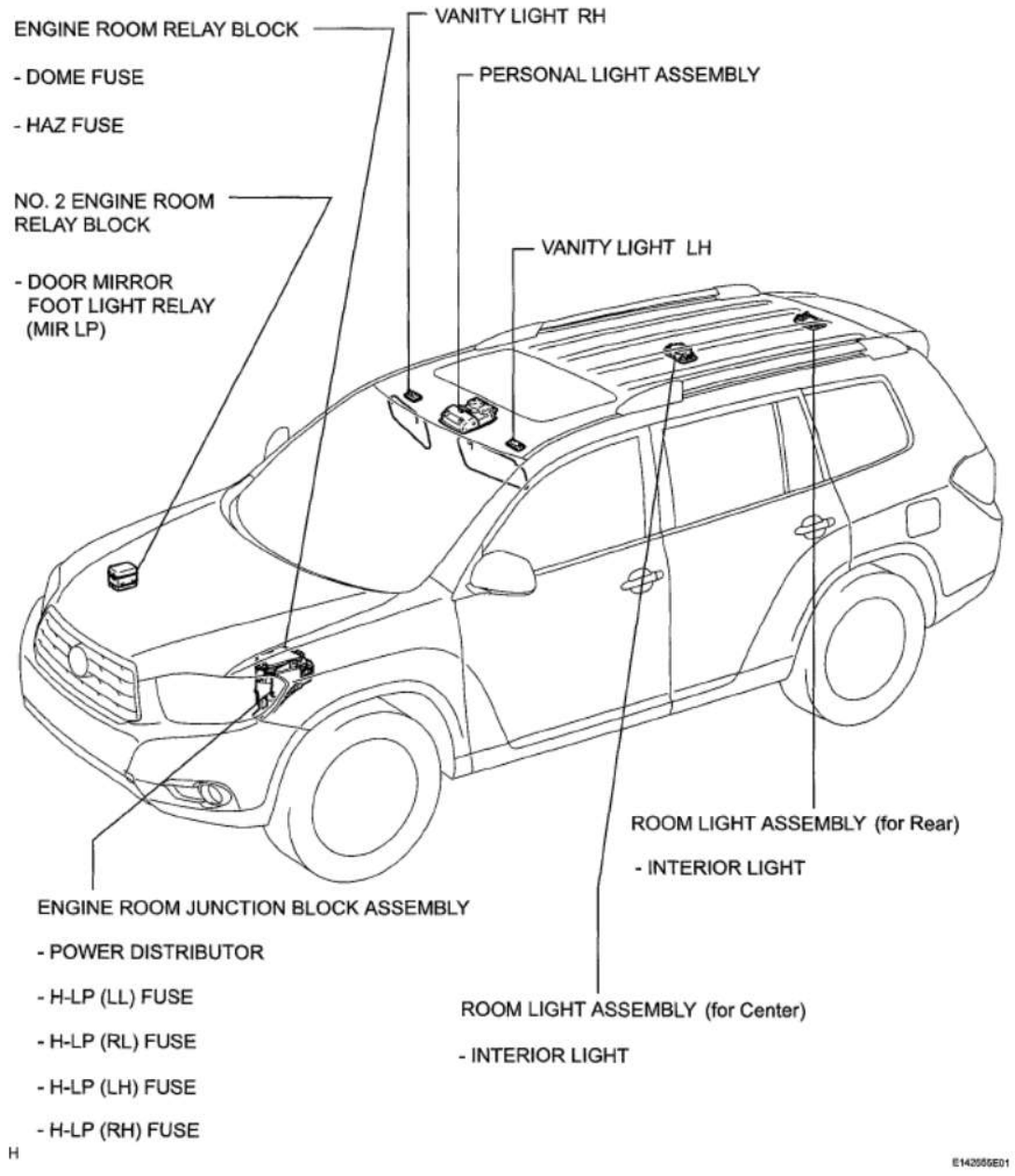


Fig. 2: Identifying Lighting System Parts Location (2 Of 7)
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Fig. 3: Identifying Lighting System Parts Location (3 Of 7)
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Fig. 4: Identifying Lighting System Parts Location (4 Of 7)
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Fig. 5: Identifying Lighting System Parts Location (5 Of 7)
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Fig. 6: Identifying Lighting System Parts Location (6 Of 7)
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Fig. 7: Identifying Lighting System Parts Location (7 Of 7)
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SYSTEM DIAGRAM

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Fig. 8: Lighting System Diagram (1 Of 4)
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Fig. 9: Lighting System Diagram (2 Of 4)
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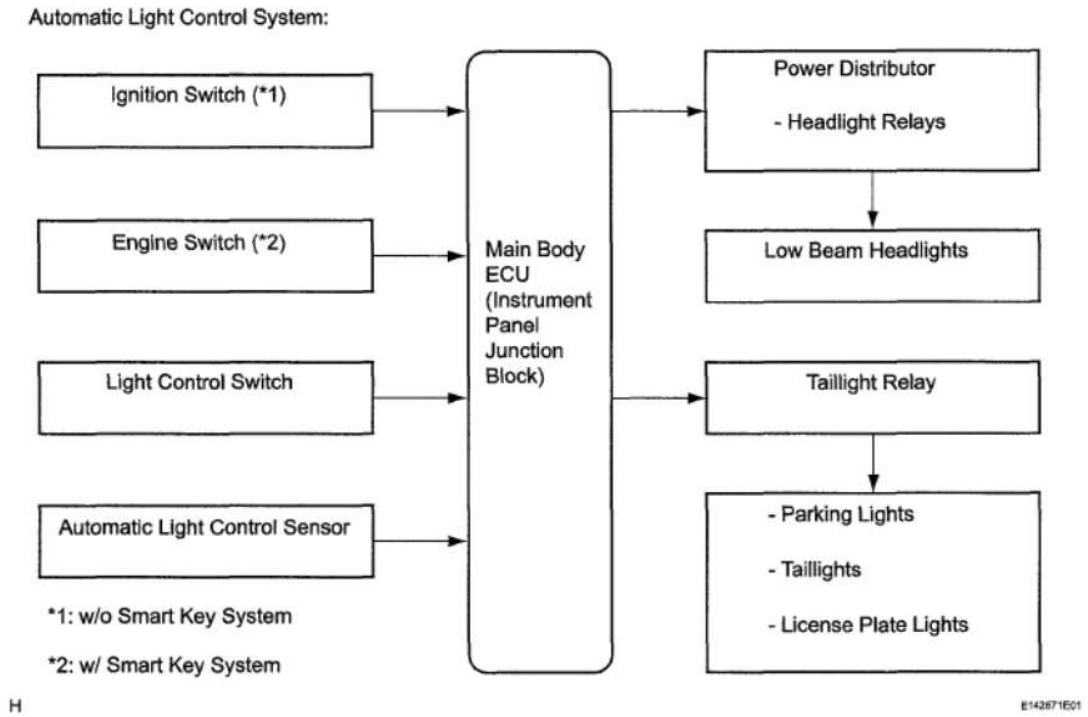


Fig. 10: Lighting System Diagram (3 Of 4)
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Fig. 11: Lighting System Diagram (4 Of 4)
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SYSTEM DESCRIPTION

1. **ILLUMINATED ENTRY SYSTEM**
    a. General
        1. The illuminated entry system has the following control functions:

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ENTRY SYSTEM FUNCTION CHART

Control	Outline	Lights that Operate
Actuation Area-linked(2)	When the key enters any actuation area around the doors, the lights that operate turn on.	• Door Mirror Foot Lights • Engine Switch Illumination • Personal Light • Interior Lights
Door Control Transmitter-linked	When any door is unlocked using the transmitter, the lights that operate turn on.	• Ignition Key Cylinder Light(1) • Engine Switch Illumination(2) • Personal Light • Interior Lights • Door Mirror Foot Lights
Door Open-linked	When any door is opened, the lights that operate turn on.	• Ignition Key Cylinder Light(1) • Engine Switch Illumination(2) • Personal Light • Interior Lights
Door Close-linked	When all doors and back window are closed, the lights that operate turn off.	
Door Lock-linked	When all doors are locked, the lights that operate turn off.	• Ignition Key Cylinder Light(1) • Engine Switch Illumination(2) • Personal Light • Interior Lights • Door Mirror Foot Lights
Ignition Switch-linked(1) Engine Switch-linked(2)	When the ignition switch(1)/engine switch(2) is changed from on (ACC or IG) to off, the lights that operate turn on.	• Ignition Key Cylinder Light(1) • Engine Switch Illumination(2) • Personal Light • Interior Lights
	When no changes occur in the condition of the doors	• Ignition Key Cylinder light(1)

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Battery Saving	for 20 minutes and a key is not in the ignition key cylinder, these lights turn off(1). When no changes occur in the condition of the doors for 20 minutes and a key is not in the actuation area, these lights turn off(2).	• Engine Switch Illumination(2) • Personal Light • Interior Lights • Door Mirror Foot Lights
(1) w/o Smart Key System (2) w/ Smart Key System		

2. **DAYTIME RUNNING LIGHT SYSTEM**
   a. The daytime running light system is designed to automatically illuminate the headlights (dimmed LO-beams), during the daytime to make the car more visible to other vehicles.
      - The main body ECU (instrument panel junction block) and power distributor control this system. The main body ECU (instrument panel junction block) transmits a turn ON signal to the power distributor, and the power distributor illuminates the LO-beams using a duty control.
      - This system is enabled when the conditions given below are met:
        - Ignition switch on (IG)
        - Engine speed signal input (engine running condition)
        - Parking brake switch OFF
        - Light control switch not in DRL OFF
        - Light control switch is in OFF, TAIL or AUTO position (and the headlights are not turned on via the automatic light control).
3. **AUTOMATIC LIGHT CONTROL SYSTEM**
   - When the light control switch is in the AUTO position, the light control sensor detects the ambient light level and automatically turns the headlights, taillights, parking lights, and license plate lights ON or OFF.
   - This system is controlled by the main body ECU (instrument panel junction block).
4. **LIGHT AUTO TURN-OFF SYSTEM**

The light automatic turn-off system is used to prevent forgetting to turn off the exterior lights (headlights, taillights, parking lights, license plate lights).

- This system is controlled by the main body ECU (instrument panel junction block).
- This system has the following functions.

LIGHT AUTO TURN-OFF SYSTEM REFERENCE CHART

Function	Outline
Driver Side Door-linked	The exterior lights automatically turn off when all of the following conditions have been met:

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Function	• The ignition switch is off or on (ACC). • The light control switch is in the TAIL position. • The driver side door is opened.
Delay Function	The exterior lights automatically turn off after 30 seconds when all of the following conditions have been met: • The ignition switch is off or on (ACC). • The light control switch is in the HEAD position. • All doors are closed after any of the doors are opened.
Door Control Transmitter-linked Function	The exterior lights turn off immediately when the delay function is active and the following condition has been met: • All doors are locked again using door control transmitter with all doors locked.

5. **POWER DISTRIBUTOR**

The power distributor uses non-contact type semiconductor relays to reduce the weight of the relay block. The headlight relay LH, headlight relay RH and high beam headlight relay are integrated in the power distributor. The power distributor has LO-beam headlight control function, Hl-beam headlight control function and daytime running light control function.

HOW TO PROCEED WITH TROUBLESHOOTING

Power Distributor (Engine Room Junction Block Assembly)

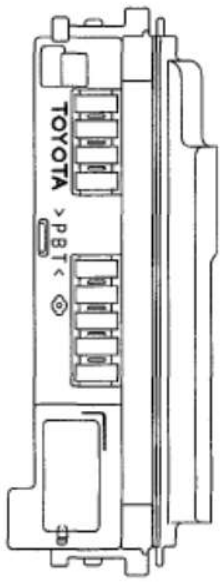


Fig. 12: Identifying Power Distributor (Engine Room Junction Block Assembly)

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HINT:

- Use the following procedures to troubleshoot the lighting system.
- *: Use the Techstream.

1. **VEHICLE BROUGHT TO WORKSHOP**
2. **CUSTOMER PROBLEM ANALYSIS CHECK AND SYMPTOM CHECK**
3. **INSPECT BATTERY VOLTAGE**

   Standard voltage: 11 to 14 V

   If the voltage is below 11 V, recharge or replace the battery before proceeding to the next step.

4. **INSPECT CAN COMMUNICATION SYSTEM***
   a. Use Techstream to check if the CAN communication system is functioning normally.

   Result

   RESULT CHART

Result	Proceed to
CAN Communication System DTC is not output	A
CAN Communication System DTC is output	B

   B: GO TO CAN COMMUNICATION SYSTEM

   A: Go to next step.

5. **CHECK FOR DTC***

   Result

   RESULT CHART

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

   B: GO TO STEP 8

   A: Go to next step.

6. **PROBLEM SYMPTOMS TABLE**

   Result

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RESULT CHART

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

B: GO TO STEP 8

A: Go to next step.

7. **OVERALL ANALYSIS AND TROUBLESHOOTING***
   a. Data List/Active Test (See **DATA LIST/ACTIVE TEST**)
   b. Terminals of ECU (See **TERMINALS OF ECU**)
8. **ADJUST, REPAIR OR REPLACE**
9. **CONFIRMATION TEST**

NEXT: END

CUSTOMIZE PARAMETERS

HINT:

The following items can be customized.

NOTE:

- **Before attempting to customize vehicle settings, confirm whether it is possible to make the change that the customer has requested.**
- **Be sure to record the current value before customizing.**
- **Before troubleshooting the lighting system, pay attention because there is a possibility that a function has been disabled by customizing. (Example: If "The wireless operation does not function", check that the wireless operation has not been disabled by customizing, then perform the troubleshooting.)**

Illuminated Entry:

ILLUMINATED ENTRY REFERENCE CHART

Display	Default	Contents	Setting
Lighting Time	15s	Changes the lighting time of the personal light, interior lights and ignition key cylinder light*1 /engine switch illumination*2 after closing all of the doors. (It will quickly fade out when the ignition switch is turned on (IG))	7.5 s/15 s/30 s
I/L when ACC OFF	ON	Lights up the personal light, interior lights and ignition key cylinder light*1 /engine switch illumination*2 when the ignition switch is turned from on (ACC or IG) to off.	ON/OFF

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I/L ON W/Door Key Unlock	ON	Lights up the personal light, interior lights and ignition key cylinder light*1 /engine switch illumination*2 when the doors are unlocked using the mechanical key.	ON/OFF
Mirr-Foot-Lgt Approached	ON	Lights up the door mirror foot lights when the key enters actuation area around the doors.	ON/OFF
Mirr-Foot-Lgt Unlocked	ON	Lights up the door mirror foot lights when the doors are unlocked using door control transmitter or mechanical key.	ON/OFF
Mirr-Foot-Lgt w/Master SW	ON	Lights up the door mirror foot lights when the doors are unlocked with the door control switch.	ON/OFF
Mirror Foot Light Time	15s	Changes the lighting time of the door mirror foot lights.	0s/7.5s/15s/30s
HINT: • *1: w/o Smart Key System • *2: w/ Smart Key System			

Light Control:

LIGHT CONTROL REFERENCE CHART

Display	Default	Contents	Setting
Disp Ex ON Sen	Normal	Changes the ambient brightness level required to dim the lights such as the indicator lights of the combination meter, A/ C indicator light, and clock.	Light2/Light1/Normal/Dark1/Dark2
Disp Ex OFF Sen	Normal	Changes the ambient brightness level required to cancel the dimming of the combination meter indicator lights, A/C indicator light, and clock.	Light2/Light1/Normal/Dark1/Dark2
Light Auto OFF Delay	30 s	Keeps the headlights on for a certain period of time after turning the ignition switch off and closing all the doors with the headlights on.	OFF/30 s/60 s/90 s
Sensitivity	Normal	Adjusts the sensitivity of the automatic light control function.	Light2/Light1/Normal/Dark1/Dark2
DRL Function	ON	ON/OFF of the DRL function.	ON/OFF

PROBLEM SYMPTOMS TABLE

HINT:

Use the table below to help determine the cause of a problem. The likely causes of the problem are indicated in descending order. Check each suspected area in order. Repair or replace faulty parts or perform adjustments as necessary.

Headlight:

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HEADLIGHT SYMPTOM CHART

Symptom	Suspected Area	Refer to
One side LO-beam headlight does not illuminate.	H-LP LL fuse or H-LP RL fuse	-
	Bulb	-
	Harness or connector	-
	Power distributor (Engine room junction block assembly)	-
Both left and right LO-beam headlights do not illuminate.	Light control switch circuit	**LIGHT CONTROL SWITCH CIRCUIT**
	Headlight relay circuit	**HEADLIGHT RELAY CIRCUIT**
	Main body ECU (Instrument panel junction block)	-
One side Hl-beam headlight does not illuminate.	H-LP LH fuse or H-LP RH fuse	-
	Bulb	-
	Harness or connector	-
	Power distributor (Engine room junction block assembly)	-
Both left and right Hl-beam headlights do not illuminate (Lo beam headlights are normal).	Light control switch circuit	**LIGHT CONTROL SWITCH CIRCUIT**
	Headlight (HI-BEAM) circuit	**HEADLIGHT (HI-BEAM) CIRCUIT**
	Main body ECU (Instrument panel junction block)	-
"High Flash" headlight does not illuminate (Passing function).	Light control switch circuit	**LIGHT CONTROL SWITCH CIRCUIT**
	Headlight (HI-BEAM) circuit	**HEADLIGHT (HI-BEAM) CIRCUIT**
	Main body ECU (Instrument panel junction block)	-

Taillight:

TAILLIGHT SYMPTOM CHART

Symptom	Suspected Area	Refer to
One front parking light does not illuminate.	Bulb	-
	Harness or connector	-
One rear taillight does not illuminate.	Bulb	-
	Harness or connector	-
One license plate light does not illuminate.	Bulb	-
	Harness or connector	-
One side marker light does not	Bulb	-

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illuminate.	Harness or connector	-
All of the lights do not illuminate.	TAIL fuse	-
	Light control switch circuit	**LIGHT CONTROL SWITCH CIRCUIT**
	Taillight relay circuit	**TAILLIGHT RELAY CIRCUIT**
	Main body ECU (Instrument panel junction block)	-

Daytime running light control:

DAYTIME RUNNING LIGHT CONTROL SYMPTOM CHART

Symptom	Suspected Area	Refer to
Daytime running light control does not operate.	Check CAN communication system	-
	Light control switch circuit	**LIGHT CONTROL SWITCH CIRCUIT**
	IG signal circuit	**IG SIGNAL CIRCUIT**
	Parking brake switch circuit	**PARKING BRAKE SWITCH CIRCUIT**
	Daytime running light relay circuit	**DAYTIME RUNNING LIGHT RELAY CIRCUIT**
	Main body ECU (Instrument panel junction block)	-

Stop light:

STOP LIGHT SYMPTOM CHART

Symptom	Suspected Area	Refer to
One stop light does not illuminate.	Bulb	-
	Harness or connector	-
High-mounted stop light does not illuminate.	High-mounted stop light assembly (for Rear Spoiler with Press Line)	**HIGH MOUNTED STOP LIGHT ASSEMBLY (FOR REAR SPOILER WITH PRESS LINE)**
	High-mounted stop light assembly (for Rear Spoiler without Press Line)	**INSPECTION**
	Harness or connector	-
All of the lights do not operate.	STOP fuse	-
	Stop light switch	**INSPECTION**
	Stop light control relay	**STOP LIGHT CONTROL RELAY**
	Harness or connector	-

Front fog light:

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FRONT FOG LIGHT SYMPTOM CHART

Symptom	Suspected Area	Refer to
One fog light does not illuminate.	Bulb	-
	Harness or connector	-
Both left and right fog lights do not illuminate (Taillights illuminate).	FR FOG fuse	-
	Light control switch circuit	**LIGHT CONTROL SWITCH CIRCUIT**
	Front fog light circuit	**FRONT FOG LIGHT CIRCUIT**
	Main body ECU (Instrument panel junction block)	-

Turn signal and hazard warning light:

TURN SIGNAL AND HAZARD WARNING LIGHT SYMPTOM CHART

Symptom	Suspected Area	Refer to
Hazard warning lights do not operate (Turn signal lights are normal).	HAZ fuse	-
	Hazard warning switch	**REMOVAL**
	Turn signal flasher assembly	**INSPECTION**
	Harness or connector	-
Turn signal lights do not operate (Hazard warning lights are normal).	GAUGE No. 1 fuse	-
	Headlight dimmer switch assembly (Turn signal switch)	**INSPECTION**
	Turn signal flasher assembly	**INSPECTION**
	Harness or connector	-
Hazard warning lights and turn signal lights do not operate.	Turn signal flasher assembly	**INSPECTION**
	Harness or connector	-
Turn signal lights do not operate in one direction.	Headlight dimmer switch assembly (Turn signal switch)	**INSPECTION**
	Turn signal flasher assembly	**INSPECTION**
	Harness or connector	-
Only one bulb does not operate.	Bulb	-
	Harness or connector	-

Back-up light:

BACK-UP LIGHT SYMPTOM CHART

Symptom	Suspected Area	Refer to
One side back-up light does not illuminate.	Bulb	-
	Harness or connector	-
	GAUGE No. 1 fuse	-
	Park/Neutral position switch (for U151E)	**INSPECTION**

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Both left and right back-up lights do not illuminate.	Park/Neutral position switch (for U151F)	**INSPECTION**
	Park/Neutral position switch (for U760E)	**ADJUSTMENT**
	Harness or connector	-

Illuminated entry system:

ILLUMINATED ENTRY SYSTEM SYMPTOM CHART

Symptom	Suspected Area	Refer to
Only personal light does not illuminate.	Personal light assembly	**INSPECTION**
	Harness or connector	-
Only front interior light does not illuminate.	Bulb	-
	Harness or connector	-
Only rear interior light does not illuminate.	Bulb	-
	Harness or connector	-
Only ignition key cylinder light does not illuminate, (w/o Smart Key System)	Ignition key cylinder light	**IGNITION KEY CYLINDER LIGHT**
	Harness or connector	-
Only engine switch illumination does not illuminate, (w/ Smart Key System)	Engine switch illumination circuit	**ENGINE SWITCH ILLUMINATION CIRCUIT**
	Main body ECU (Instrument panel junction block)	-
One side door mirror foot light does not come on.	Door mirror foot light	**REMOVAL**
	Harness or connector	-
Both left and right door mirror foot lights do not come on (Interior lights operate normally).	Door mirror foot light circuit	**DOOR MIRROR FOOT LIGHT CIRCUIT**
	Main body ECU (Instrument panel junction block)	-
Illuminated entry system does not operate normally.	DOME fuse	-
	Door courtesy switch circuit	**DOOR COURTESY SWITCH CIRCUIT**
	Door lock position switch circuit	**DOOR LOCK POSITION CIRCUIT**
	IG signal circuit	**IG SIGNAL CIRCUIT**
	ACC signal circuit	**ACC SIGNAL CIRCUIT**
	Interior light circuit	**INTERIOR LIGHT CIRCUIT**
	Engine switch illumination circuit	**ENGINE SWITCH ILLUMINATION CIRCUIT**
	Door mirror foot light	**DOOR MIRROR FOOT**

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	circuit	LIGHT CIRCUIT
	Main body ECU (Instrument panel junction block)	-

Vanity light:

VANITY LIGHT SYMPTOM CHART

Symptom	Suspected Area	Refer to
Vanity light does not illuminate.	Bulb	-
	Harness or connector	-

Glove box light:

GLOVE BOX LIGHT SYMPTOM CHART

Symptom	Suspected Area	Refer to
Glove box light does not illuminate.	Glove box light assembly	INSPECTION
	Harness or connector	-

Personal light:

PERSONAL LIGHT SYMPTOM CHART

Symptom	Suspected Area	Refer to
Front personal lights do not illuminate.	Personal light assembly	INSPECTION
	Harness or connector	-

Front door courtesy light

FRONT DOOR COURTESY LIGHT SYMPTOM CHART

Symptom	Suspected Area	Refer to
Front door courtesy light does not illuminate.	Front door courtesy light	DOOR COURTESY LIGHT
	Front door courtesy switch	INSPECTION
	Harness or connector	-

Automatic light control system:

AUTOMATIC LIGHT CONTROL SYSTEM SYMPTOM CHART

Symptom	Suspected Area	Refer to
Automatic light control system does not operate normally.	Check DTCs	DIAGNOSIS SYSTEM
	Light control switch circuit	LIGHT CONTROL SWITCH CIRCUIT
	IG signal circuit	IG SIGNAL CIRCUIT
	Main body ECU (Instrument	-

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	panel junction block)	

Light auto turn off system:

LIGHT AUTO TURN OFF SYSTEM SYMPTOM CHART

Symptom	Suspected Area	Refer to
Light auto turn off system does not operate normally.	Light control switch circuit	LIGHT CONTROL SWITCH CIRCUIT
	Door courtesy switch circuit	DOOR COURTESY SWITCH CIRCUIT
	IG signal circuit	IG SIGNAL CIRCUIT
	Main body ECU (Instrument panel junction block)	-

Battery saving control:

BATTERY SAVING CONTROL SYMPTOM CHART

Symptom	Suspected Area	Refer to
Battery saving function does not operate.	Door courtesy switch circuit	DOOR COURTESY SWITCH CIRCUIT
	Unlock warning switch circuit	KEY REMINDER BUZZER DOES NOT SOUND
	IG signal circuit	IG SIGNAL CIRCUIT
	Main body ECU (Instrument panel junction block)	-

TERMINALS OF ECU

1. **CHECK MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)**

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Fig. 13: Identifying Main Body ECU Connector Terminals (Instrument Panel Junction Block)
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a. Disconnect the 1 A, 1F and 1M junction block connectors.
b. Measure the voltage and resistance between the specified terminals of the wire harness side connectors and body ground.

Standard voltage

TERMINAL DESCRIPTION CHART

Symbols	Wiring Color	Terminal Description	Condition	Specified Condition
1A-1 - Body ground	B - Body ground	Battery power supply	Always	11 to 14 V

Standard resistance

TERMINAL DESCRIPTION CHART

Symbols	Wiring Color	Terminal Description	Condition	Specified Condition
1F-10 (GND1) - Body ground	W-B - Body ground	Ground	Always	Below 1 ohms
1M-9 (GND2) - Body ground	W-B - Body ground	Ground	Always	Below 1 ohms

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

c. Reconnect the 1A, 1F and 1M junction block connectors.

d. Measure the resistance and voltage between the specified terminals of the junction block connectors and body ground.

Standard resistance

TERMINAL DESCRIPTION CHART

Symbols	Wiring Color	Terminal Description	Condition	Specified Condition
D7-18 (CLTE)*1 - Body ground	BR - Body ground	Automatic light control ground	Always	Below 1 ohms

Standard voltage

TERMINAL DESCRIPTION CHART

Symbols	Wiring Color	Terminal Description	Condition	Specified Condition
1C-14 (PKB) - Body ground	LG - Body ground	Parking brake switch input	Parking brake switch ON	Below 1 V
			Parking brake switch OFF	11 to 14 V
1D-3 (HRLY) - Body ground	P - Body ground	Headlight relay drive output	Light control switch in HEAD	Below 1 V
			Light control switch not in HEAD	11 to 14 V
1D-9 (DIM) - Body ground	L - Body ground	High beam headlights drive output	Dimmer switch in HIGH or HIGH FLASH	Below 1 V
			Dimmer switch in LOW	11 to 14 V
1I-10 (ILE)*2 - Body ground	BR - Body ground	Ignition key cylinder light drive output	Ignition key cylinder light ON	Below 1 V
			Ignition key cylinder light OFF	11 to 14 V
1L-5 (LSR)*5 -	B - Body	Rear door lock position	Rear door LH and RH locked	11 to 14 V

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Body ground	ground	switch LH or RH input	Rear door LH or RH unlocked	Below 1 V
1N-2 (HU) - Body ground	LG - Body ground	Dimmer switch HIGH input	Dimmer switch in HIGH or HIGH FLASH	Below 1 V
			Dimmer switch in LOW	11 to 14 V
1O-7 (LCTY) - Body ground	B - Body ground	Rear door courtesy switch LH input	Rear door LH open	Below 1 V
			Rear door LH closed	11 to 14 V
1P-5 (LSR)*5 - Body ground	G - Body ground	Rear door lock position switch LH or RH input	Rear door LH and RH locked	11 to 14 V
			Rear door LH or RH unlocked	Below 1 V
1P-5 (LSWL)*4 - Body ground	G - Body ground	Rear door lock position switch LH input	Rear door LH locked	11 to 14 V
			Rear door LH unlocked	Below 1 V
1R-5 (ILE) - Body ground	SB - Body ground	Interior lights drive output	Interior lights ON	Below 1 V
			Interior lights OFF	11 to 14 V
D7-4 (MLRY)*8 - Body ground	R - Body ground	Door mirror foot light drive output	Door mirror foot light ON	Below 1 V
			Door mirror foot light OFF	11 to 14 V
D7-5 (LSWR)*4 - Body ground	B - Body ground	Rear door lock position switch RH input	Rear door RH locked	11 to 14 V
			Rear door RH unlocked	Below 1 V
D7-5 (RCTY)*7 - Body ground	GR - Body ground	Rear door courtesy switch RH input	Rear door RH open	Below 1 V
			Rear door RH closed	11 to 14 V
D7-7 (RCTY)*6 - Body ground	GR - Body ground	Rear door courtesy switch RH input	Rear door RH open	Below 1 V
			Rear door RH closed	11 to 14 V
D7-17 (HEAD) - Body ground	P - Body ground	Light control switch HEAD input	Light control switch in HEAD	Below 1 V
			Light control switch not in HEAD	11 to 14 V
D7-19 (CLTS)*1 - Body ground	G - Body ground	Automatic light control sensor signal input	Ignition switch off	Below 1 V
			Automatic light control system operates	Pulse generation (See waveform 1 1)
D7-20 (CLTB)*1 - Body ground	B - Body ground	Automatic light control sensor power supply output	Ignition switch off	Below 1 V
			Ignition switch on (IG) and light control switch in AUTO	11 to 14 V
D7-21 (PCTY) - Body ground	SB - Body ground	Front passenger side door courtesy switch input	Front passenger side door open	Below 1 V
			Front passenger side door closed	11 to 14 V
D7-25 (BCTY) - Body ground	L - Body ground	Back door courtesy switch input	Back door open	Below 1 V
			Back door closed	11 to 14 V
D7-27 (LSWP) - Body ground	SB - Body ground	Front passenger side door lock position switch input	Front passenger side door locked	11 to 14 V
			Front passenger side door	

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			unlocked	Below 1 V
D7-28 (FFOG) - Body ground	O - Body ground	Front fog light switch input	Front fog light switch ON	Below 1 V
			Front fog light switch OFF	11 to 14 V
D8-4 (FFGO) - Body ground	O - Body ground	Front fog light relay drive output	Light control switch in HEAD and front fog light switch ON	Below 1 V
			Front fog light switch OFF	11 to 14 V
D8-9 (LSWD) - Body ground	GR - Body ground	Driver side door lock position switch input	Driver side door locked	11 to 14 V
			Driver side door unlocked	Below 1 V
D8-13 (HF) - Body ground	R - Body ground	Dimmer switch HIGH FLASH signal input	Dimmer switch in HIGH FLASH position	Below 1 V
			Dimmer switch not in HIGH FLASH position	11 to 14 V
D8-21 (A) - Body ground	G - Body ground	Light control switch AUTO signal input	Light control switch in AUTO	Below 1 V
			Light control switch not in AUTO	11 to 14 V
D8-23 (TAIL) - Body ground	SB - Body ground	Light control switch TAIL signal input	Light control switch in TAIL or HEAD	Below 1 V
			Light control switch in neither TAIL nor HEAD	11 to 14 V
D8-24 (DCTY) - Body ground	G - Body ground	Driver side door courtesy switch input	Driver side door open	Below 1 V
			Driver side door closed	11 to 14 V
D8-25 (SWIL)*3 - Body ground	R - Body ground	Engine switch illumination drive output	Engine switch illumination ON	11 to 14 V
			Engine switch illumination OFF	Below 1 V

If the result is not as specified, the main body ECU (Instrument panel junction block) may have a malfunction.
HINT:

1. *1: w/ Automatic Light Control
2. *2: w/o Smart Key System
3. *3: w/ Smart Key System
4. *4: w/ Smart Key System, w/ Power Back Door, w/Glass Hatch Opener
5. *5: w/o Smart Key System, w/o Power Back Door, w/o Glass Hatch Opener
6. *6: w/ Power Back Door
7. *7: w/o Power Back Door
8. *8: w/ Door Mirror Foot Light

1. Waveform 1

WAVEFORM REFERENCE CHART

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Item	Contents
Tool setting	5 V/DIV., 5 ms./DIV.

HINT:

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

DIAGNOSIS SYSTEM

1. **DESCRIPTION**

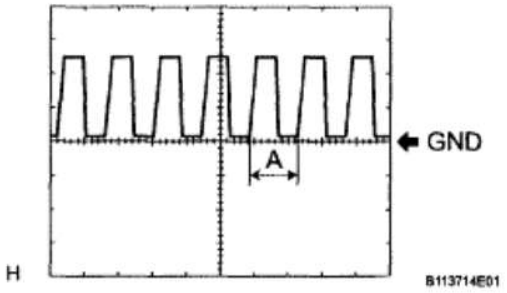


Fig. 14: Waveform Graph
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   a. Lighting system data and the Diagnostic Trouble Codes (DTCs) can be read from the Data Link Connector 3 (DLC3) of the vehicle. When the system seems to be malfunctioning, use Techstream to check for malfunctions and perform repairs.

2. **CHECK DLC3**
   a. Check the DLC3 (See **HOW TO TROUBLESHOOT ECU CONTROLLED SYSTEMS**).
3. **INSPECT BATTERY VOLTAGE**

   Standard voltage:

   11 to 14 V

   If the voltage is below 11 V, recharge or replace the battery before proceeding to the next step.

DTC CHECK/CLEAR

1. **CHECK DTC**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn Techstream on.
   d. Select the following menu items: Body Electrical/Trouble Codes.
   e. Read the DTCs.

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HINT:

Refer to the Techstream operator's manual for further details.

2. **CLEAR DTC**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn Techstream on.
   d. Select the following menu items: Body Electrical/Trouble Codes.
   e. Erase the DTCs.

   HINT:

   Refer to the Techstream operator's manual for further details.

FAIL-SAFE CHART

1. **Automatic Light Control Function**
   a. If the main body ECU detects a malfunction in the automatic light control sensor, the main body ECU effects fail-safe control to prohibit the automatic light control.
      - If a problem occurs in the automatic light control system when the light control switch is in the AUTO position and the headlights or taillights are on, the body ECU will keep the lights on until the light control switch is turned off or the conditions for activating the headlight auto turn off system are met.
      - If a problem occurs in the automatic light control system when the light control switch is in the AUTO position, and both headlights and taillights are off, the body ECU will interrupt the automatic light control system operation and keep both headlights and taillights off until the frequency output from the automatic light control sensor is determined to be normal.

DATA LIST/ACTIVE TEST

1. **READ DATA LIST**

   HINT:

   Using Techstream to read the Data List allows the values or states of switches, sensors, actuator and other items to be read without removing any parts. This non-intrusive inspection can be very useful because intermittent conditions or signals may be discovered before parts or wiring is disturbed. Reading the Data List information early in troubleshooting is one way to save diagnostic time.

   CAUTION: In the following table, the values listed under "Normal Condition" are reference values. Do not depend solely on these reference values when deciding whether a part is faulty or not.

   a. Connect Techstream to the DLC3.

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b. Turn the ignition switch on (IG).
c. Turn Techstream on.
d. Select the following menu items: Body Electrical/Main Body/Data List.
e. Read the Data List according to the display on Techstream.

Main Body:

TESTER DISPLAY NORMAL CONDITION CHART

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
Key Unlock Warning SW	Key unlock warning switch signal/ON or OFF	ON: Key in ignition key cylinder OFF: No key in ignition key cylinder	-
ACC SW	Ignition switch or engine switch ACC signal/ON or OFF	ON: Ignition switch on (ACC) OFF: Ignition switch off	-
IG SW	Ignition switch or engine switch IG signal/ON or OFF	ON: Ignition switch on (IG) OFF: Ignition switch off	-
Parking Brake SW	Parking brake switch signal/ON or OFF	ON: Parking brake switch ON OFF: Parking brake switch OFF	-
D Door Courtesy SW	Driver side door courtesy switch signal/ON or OFF	ON: Driver side door open OFF: Driver side door closed	-
P Door Courtesy SW	Front passenger side door courtesy switch signal/ON or OFF	ON: Front passenger side door open OFF: Front passenger side door closed	-
RR Door Courtesy SW	Rear door courtesy switch RH signal/ON or OFF	ON: Rear door RH open OFF: Rear door RH closed	-
RL Door Courtesy SW	Rear door courtesy switch LH signal/ON or OFF	ON: Rear door LH open OFF: Rear door LH closed	-
Back Door Courtesy SW	Back door courtesy switch signal/ON or OFF	ON: Back door open OFF: Back door closed	-
D-Door Lock Pos SW	Driver side door lock position switch signal/ON or OFF	ON: Driver side door unlocked OFF: Driver side door locked	-
P-Door Lock Pos SW	Front passenger side door lock position switch signal/ON or OFF	ON: Front passenger side door unlocked OFF: Front passenger side door locked	-
Glass Hatch Courtesy SW	Back window courtesy switch signal/ON or OFF	ON: Back window open OFF: Back window closed	-
Door Lock SW-Lock	Door control switch LOCK signal/ON or OFF	ON: Either driver side door control switch or passenger side door control switch in LOCK position OFF: Both driver side door control switch and passenger side door control switch not in LOCK position	-
		ON: Either driver side door control switch or passenger side door control switch in	

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Door Lock SW-Unlock	Door control switch UNLOCK signal/ON or OFF	UNLOCK position OFF: Both driver side door control switch and passenger side door control switch not in UNLOCK position	-
Door Key SW-Lock	Door key linked lock switch signal/ON or OFF	ON: Driver side door key cylinder is turned to lock position OFF: Driver side door key cylinder is not turned	-
RR-Door Lock Pos SW	Rear door lock position switch RH signal/ON or OFF*1	ON: Rear door RH unlocked OFF: Rear door RH locked	-
	Rear door lock position switch RH or LH signal/ON or OFF*2	ON: Rear door RH or LH unlocked OFF: Rear door RH and LH locked	-
RL-Door Lock Pos SW	Rear door lock position switch LH signal/ON or OFF*1	ON: Rear door LH unlocked OFF: Rear door LH locked	-
	Rear door lock position switch LH or RH signal/ON or OFF*2	ON: Rear door LH or RH unlocked OFF: Rear door LH and RH locked	-
Dimmer SW	Dimmer switch HIGH signal/ON or OFF	ON: Dimmer switch in HIGH or HIGH FLASH OFF: Dimmer switch in LOW	-
Passing Light SW	Dimmer switch HIGH FLASH signal/ON or OFF	ON: Dimmer switch in HIGH FLASH OFF: Dimmer switch not in HIGH FLASH	-
Front Fog Light SW	Front fog light switch signal/ON or OFF	ON: Front fog light switch ON OFF: Front fog light switch OFF	-
Auto Light SW	Light control switch AUTO signal/ON or OFF	ON: Light control switch in AUTO OFF: Light control switch not in AUTO	-
Head Light SW (Head)	Light control switch HEAD signal/ON or OFF	ON: Light control switch in HEAD OFF: Light control switch not in HEAD	-
Head Light SW (Tail)	Light control switch TAIL signal/ON or OFF	ON: Light control switch in TAIL or HEAD OFF: Light control switch not in TAIL and HEAD	-
Illumination Rate Info	Illumination rate information/0 ms. to 99.99 ms.	Condition value will be displayed	-

HINT:

- *1: w/ Smart Key System, w/ Power Back Door, w/ Glass Hatch Opener
- *2: w/o Smart Key System w/o Power Back Door w/o Glass Hatch Opener

2. **PERFORM ACTIVE TEST**

HINT:

Using Techstream to perform Active Tests allows relays, VSVs, actuators and other items to be operated

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without removing any parts. This non-intrusive functional inspection can be very useful because intermittent operation may be discovered before parts or wiring is disturbed. Performing Active Tests early in troubleshooting is one way to save diagnostic time. Data List information can be displayed while performing Active Tests.

a. Connect Techstream to the DLC3.
b. Turn the ignition switch on (IG).
c. Turn Techstream on.
d. Select the following menu items: Body Electrical/Main Body/Active Test.
e. Perform the Active Test according to the display on Techstream.

Main Body:

TESTER DISPLAY CONTROL RANGE CHART

Tester Display	Test Part	Control Range	Diagnostic Note
Illuminated Entry System	Personal light, interior lights and ignition key cylinder light*1 /engine switch illumination*2 (Interior light switch in DOOR position, and all doors closed)	ON/OFF	-
Side Mirror Foot Light	Door mirror foot light	ON/OFF	-
Indicator for Lighting*2	Engine switch illumination	ON/OFF	-
Taillight Relay	Taillight relay	ON/OFF	-
Headlight Relay	LO-beam headlight relay	ON/OFF	-
Head Light Hi	HI-beam headlight relay	ON/OFF	-
Front Fog Light Relay	Front fog light relay	ON/OFF	-
HINT: • *1: w/o Smart Key System • *2: w/ Smart Key System			

DIAGNOSTIC TROUBLE CODE CHART

Lighting System

DIAGNOSTIC TROUBLE CODE CHART - LIGHTING SYSTEM

DTC Code	Detection Item	Trouble Area	Refer to
B1244	Light Sensor Circuit Malfunction	1. Automatic light control sensor 2. Harness or connector 3. Main body ECU (Instrument panel junction	

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		block)	

DTC B1244 LIGHT SENSOR CIRCUIT MALFUNCTION

DESCRIPTION

The automatic light control sensor detects ambient light, converts it into an electrical signal, and outputs it to the main body ECU. The main body ECU turns on or off the headlights and taillights according to the signal.

DTC DETECTING CONDITION CHART

DTC No.	DTC Detecting Condition	Trouble Area
B1244	• Malfunction in automatic light control sensor • Open or short in automatic light control sensor circuit	• Automatic light control sensor • Harness or connector • Main body ECU (Instrument panel junction block)

WIRING DIAGRAM

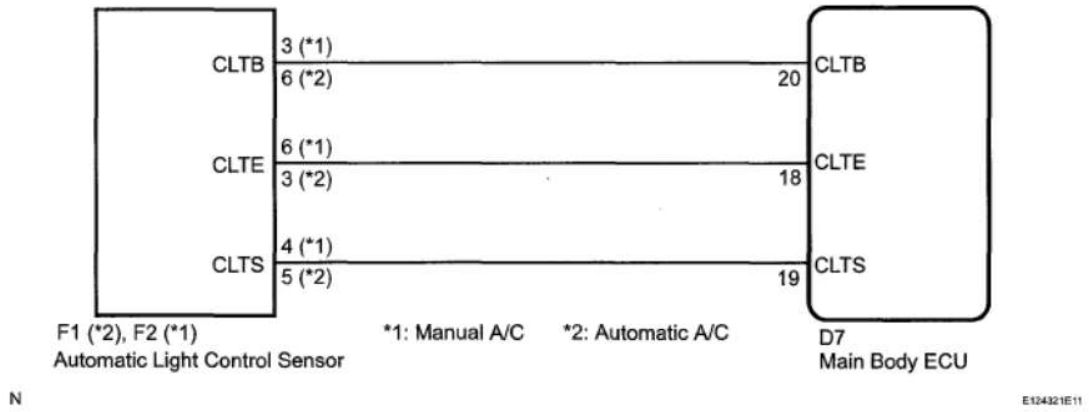


Fig. 15: Light Sensor - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **READ VALUE USING TECHSTREAM**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn Techstream on.
   d. Select the following menu items: Body Electrical/Main Body/Data List.
   e. Read the display on Techstream.

Main Body:

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TESTER DISPLAY NORMAL CONDITION CHART

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
Illumination Rate	Illumination rate information/0 ms to 99.99 ms	Value is output according to ambient light levels	-

OK: Normal condition listed above is displayed.

NG: Go to step 2

OK: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

2. **CHECK HARNESS AND CONNECTOR (MAIN BODY ECU - AUTOMATIC LIGHT CONTROL SENSOR)**
   a. for Manual A/C
      1. Disconnect the F2 automatic light control sensor connector.
      2. Disconnect the D7 main body ECU connector.
      3. Measure the resistance according to the value(s) in the table below.

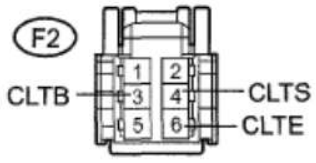
Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
D7-18 (CLTE) - F2-6 (CLTE)	Always	Below 1 ohms
D7-19 (CLTS) - F2-4 (CLTS)	Always	Below 1 ohms
D7-20 (CLTB) - F2-3 (CLTB)	Always	Below 1 ohms
D7-18 (CLTE) - Body ground	Always	10 kohms or higher
D7-19 (CLTS) - Body ground	Always	10 kohms or higher
D7-20 (CLTB) - Body ground	Always	10 kohms or higher

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Front view of wire harness connector:
(to Automatic Light Control Sensor)



Front view of wire harness connector:
(to Main Body ECU)

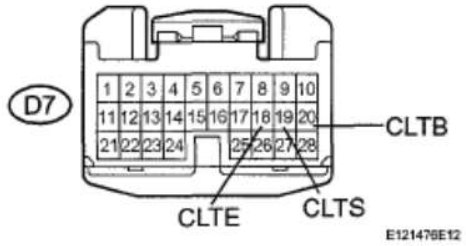


Fig. 16: Identifying Automatic Light Control Sensor And Main Body ECU Connector Terminals (For Manual A/C)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. for Automatic A/C
   1. Disconnect the F1 automatic light control sensor connector.
   2. Disconnect the D7 main body ECU connector.
   3. Measure the resistance according to the value(s) in the table below.

Standard resistance

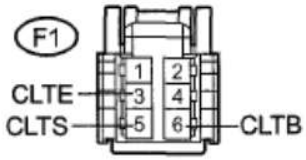
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
D7-18 (CLTE) - F1-3 (CLTE)	Always	Below 1 ohms
D7-19 (CLTS) - F1-5 (CLTS)	Always	Below 1 ohms
D7-20 (CLTB) - F1-6 (CLTB)	Always	Below 1 ohms
D7-18 (CLTE) - Body ground	Always	10 kohms or higher
D7-19 (CLTS) - Body ground	Always	10 kohms or higher
D7-20 (CLTB) - Body ground	Always	10 kohms or higher

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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Front view of wire harness connector:
(to Automatic Light Control Sensor)



Front view of wire harness connector:
(to Main Body ECU)

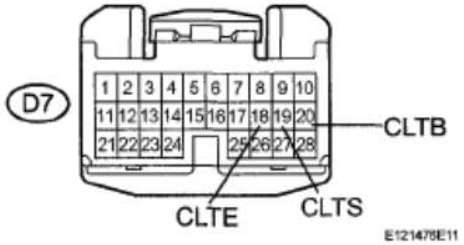


Fig. 17: Identifying Automatic Light Control Sensor And Main Body ECU Connector Terminals (For Automatic A/C)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step.

3. **INSPECT MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY)**
   a. Reconnect the main body ECU connector.
   b. Measure the voltage and resistance according to the value(s) in the table below.

Component with harness connected:
(Main Body ECU)

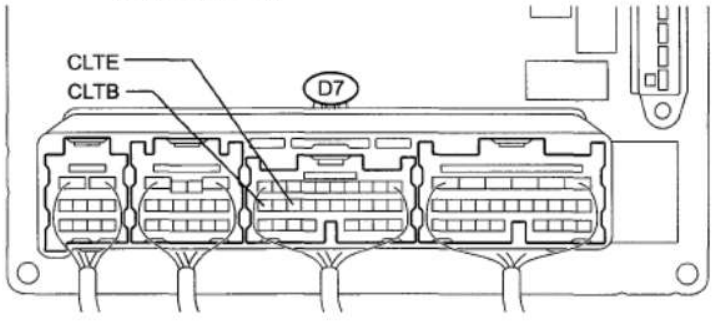


Fig. 18: Identifying Main Body ECU Connector Terminals (Instrument Panel Junction Block Assembly)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard voltage

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TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
D7-20 (CLTB) - D7-18 (CLTE)	Ignition switch off	Below 1 V
	Ignition switch on (IG)	11 to 14 V

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
D7-18 (CLTE) - Body ground	Always	Below 1 ohms

NG: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

OK: Go to next step.

4. **INSPECT AUTOMATIC LIGHT CONTROL SENSOR**
   a. for Manual A/C:
      1. Reconnect the automatic light control sensor connector.
      2. Connect an oscilloscope to the automatic light control sensor connector.

Component with harness connected:
(Automatic Light Control Sensor)

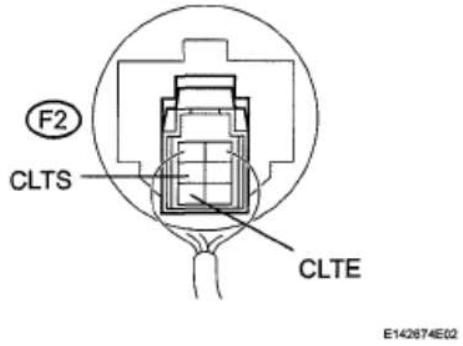


Fig. 19: Identifying Automatic Light Control Sensor Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

      3. Check the waveform.

OK

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Tool Setting	Condition	Specified Condition
F2-6 (CLTE) - F2-4	5 V/DIV., 5	Ignition switch on (IG), light	Correct waveform is

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(CLTS)	ms./ DIV.	control switch in AUTO	as shown

HINT:

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

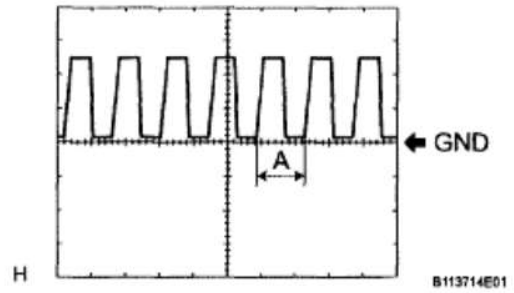


Fig. 20: Waveform Graph
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. for Automatic A/C:
   1. Reconnect the automatic light control sensor connector.
   2. Connect an oscilloscope to the automatic light control sensor connector.

Component with harness connected:
(Automatic Light Control Sensor)

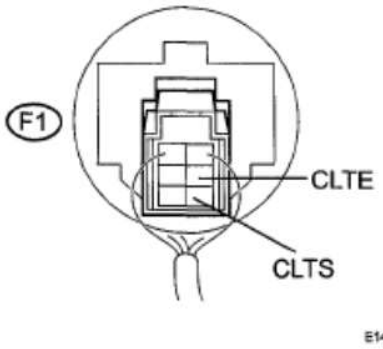


Fig. 21: Identifying Automatic Light Control Sensor Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   3. Check the waveform.

OK

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Tool Setting	Condition	Specified Condition

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F1-3 (CLTE) - F1-5 (CLTS)	5 V/DIV., 5 ms./ DIV.	Ignition switch on (IG), light control switch in AUTO	Correct waveform is as shown

HINT:

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

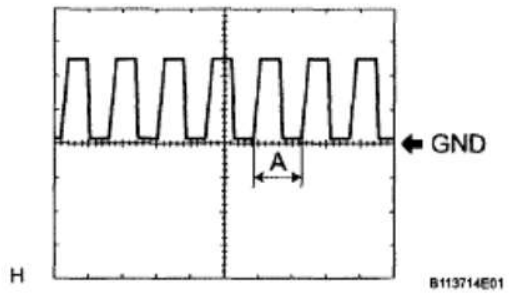


Fig. 22: Waveform Graph
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NG: REPLACE AUTOMATIC LIGHT CONTROL SENSOR

OK: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

IG SIGNAL CIRCUIT

DESCRIPTION

- The main body ECU receives IG signal to control the following systems:

- Automatic light control system
- Light auto turn-off system
- Daytime running light system
- Illuminated entry system

WIRING DIAGRAM

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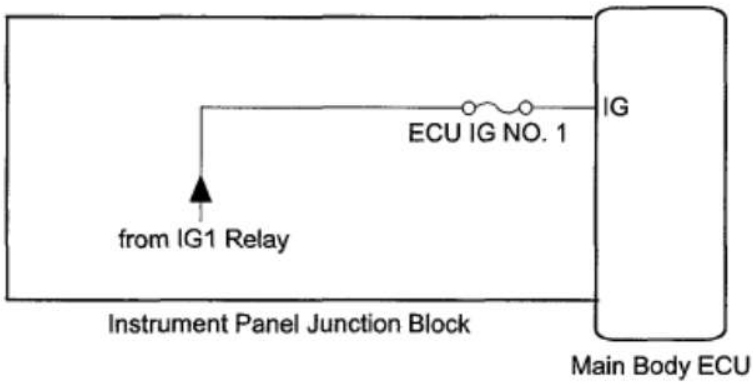


Fig. 23: IG Signal - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **READ VALUE USING TECHSTREAM**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn Techstream on.
   d. Select the following menu items: Body Electrical/Main Body/Data List.
   e. Read the display on Techstream.

   Main Body:

   TESTER DISPLAY NORMAL CONDITION CHART

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

   OK: Normal conditions listed above are displayed.

   NG: Go to step 2

   OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

2. **INSPECT FUSE (ECU-IG NO. 1)**
   a. Remove the ECU-IG No. 1 fuse from the instrument panel junction block.
   b. Measure the resistance according to the value(s) in the table below.

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Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
ECU-IG No. 1 fuse	Always	Below 1 ohms

NG: REPLACE FUSE

OK: Go to next step.

3. **CHECK HARNESS AND CONNECTOR (IG POWER SOURCE CIRCUIT)**
   a. Measure the voltage between the loading slot of the fuse and body ground.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Switch Condition	Specified Condition
ECU-IG No. 1 fuse terminal - Body ground	Ignition switch off	Below 1 V
	Ignition switch on (IG)	11 to 14 V

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

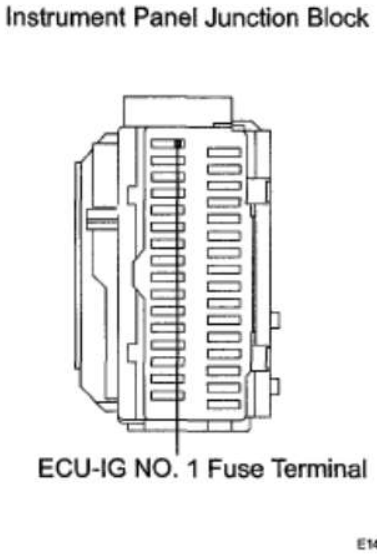


Fig. 24: Identifying ECU-IG No. 1 Fuse Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

ACC SIGNAL CIRCUIT

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DESCRIPTION

The main body ECU receives the ACC signal to control the illuminated entry system.

WIRING DIAGRAM

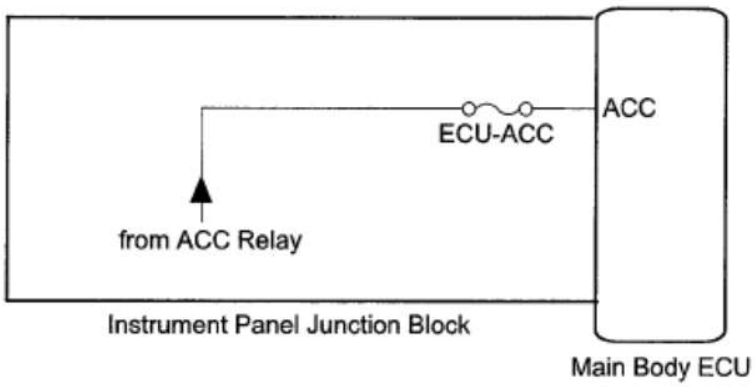


Fig. 25: ACC Signal - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **READ VALUE USING TECHSTREAM**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn Techstream on.
   d. Select the following menu items: Body Electrical/Main Body/Data List.
   e. Read the display on Techstream.

Main Body:

TESTER DISPLAY NORMAL CONDITION CHART

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

OK: Normal conditions listed above are displayed.

NG: Go to step 2

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OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

2. **INSPECT FUSE (ACC)**
   a. Remove the ECU-ACC fuse from the instrument panel junction block.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
ECU-ACC fuse	Always	Below 1 ohms

NG: REPLACE FUSE

OK: Go to next step.

3. **CHECK HARNESS AND CONNECTOR (ACC POWER SOURCE CIRCUIT)**
   a. Measure the voltage between the loading slot of the fuse and body ground.

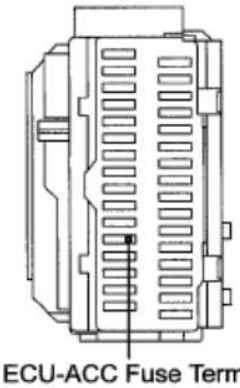
Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Switch Condition	Specified Condition
ECU-ACC fuse terminal - Body ground	Ignition switch off	Below 1 V
	Ignition switch on (ACC)	11 to 14 V

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

Instrument Panel Junction Block



E142579E01

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Fig. 26: Identifying ECU-ACC Fuse Terminal
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

HEADLIGHT RELAY CIRCUIT

DESCRIPTION

- The main body receives the light control switch HEAD signal to control the headlight relays. The headlight relays are installed in the power distributor (engine room junction block assembly).
- When the light control switch is in AUTO position, the main body ECU receives the ambient light level signal from the automatic light control sensor to control the headlight relays.

WIRING DIAGRAM

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Fig. 27: Headlight Relay - Wiring Diagram (1 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 28: Headlight Relay - Wiring Diagram (2 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **PERFORM ACTIVE TEST USING TECHSTREAM**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn Techstream on.
   d. Select the following menu items: Body Electrical/Main Body/Active Test.
   e. Check that the relays operate.

Main Body:

TESTER DISPLAY CONTROL RANGE CHART

Tester Display	Test Part	Control Range	Diagnostic Note
Headlight Relay	Headlight Relay	ON/OFF	-

OK: Headlight relays operate. (LO-beam headlights illuminate.)

NG: Go to step 2

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

2. **INSPECT ENGINE ROOM JUNCTION BLOCK ASSEMBLY**
   a. Remove the H-LP (LL) fuse and H-LP (RL) fuse from the engine room junction block assembly.
   b. Measure the voltage between the loading slot of each fuse and body ground.

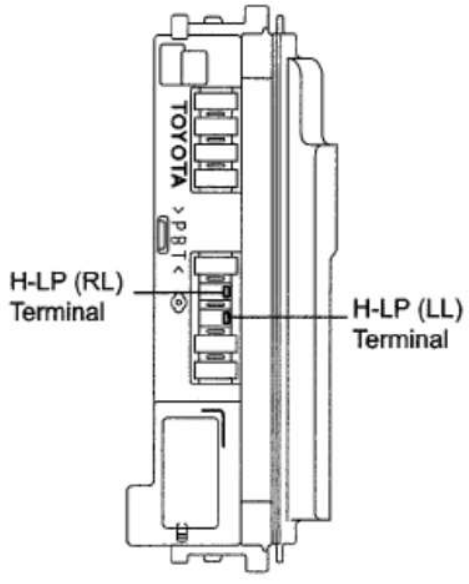
Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Switch Condition	Specified Condition
H-LP (LL) fuse terminal - Body ground	Light control switch OFF --> HEAD	Below 1 V --> 11 to 14 V
H-LP (RL) fuse terminal - Body ground	Light control switch OFF --> HEAD	Below 1 V --> 11 to 14 V

NG: Go to step 3

Engine Room Junction Block Assembly



H

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Fig. 29: Identifying H-LP (LL) And H-LP (RL) Terminal
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPAIR OR REPLACE HARNESS OR CONNECTOR (FUSE - BODY GROUND)

3. **INSPECT ENGINE ROOM JUNCTION BLOCK ASSEMBLY**
   a. Remove the engine room junction block assembly from the engine room relay block.
   b. Connect the positive (+) lead from the battery to terminal 2G-1
   c. Connect the negative (-) lead from the battery to terminal 2D-8 and 2D-9.
   d. Measure the voltage according to the value(s) in the table below.

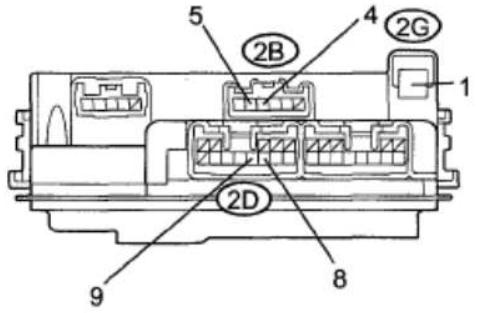
Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
2B-4 - Battery negative	Always	11 to 14 V
2B-5 - Battery negative	Always	11 to 14 V

NG: REPLACE ENGINE ROOM JUNCTION BLOCK ASSEMBLY

Component without harness connected:
(Engine Room Junction Block Assembly)



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Fig. 30: Identifying Engine Room Junction Block Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step.

4. **CHECK HARNESS AND CONNECTOR (BATTERY - ENGINE ROOM JUNCTION BLOCK ASSEMBLY)**
   a. Disconnect the 2G engine room junction block assembly connector.
   b. Measure the voltage according to the value(s) in the table below.

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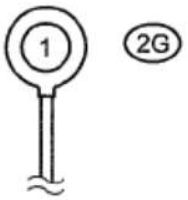
Standard voltage

TESTER CONNECTOR SPECIFIED CONDITION CHART

Tester Connector	Condition	Specified Condition
2G-1 - Body ground	Always	11 to 14 V

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

Front view of wire harness connector: (to Engine Room Junction Block Assembly)



H E151692E01

Fig. 31: Identifying 2G Engine Room Junction Block Assembly Connector Terminal
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step.

5. **CHECK HARNESS AND CONNECTOR (ENGINE ROOM JUNCTION BLOCK ASSEMBLY - MAIN BODY ECU)**
   a. Disconnect the 2D engine room junction block assembly connector.
   b. Disconnect the 1D instrument panel junction block connector.
   c. Measure the resistance according to the value(s) in the table below.

Standard resistance

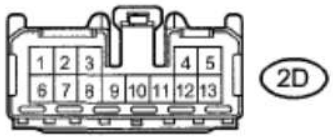
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
2D-9 - 1D-3	Always	Below 1 ohms
2D-9 - Body ground	Always	10 kohms or higher

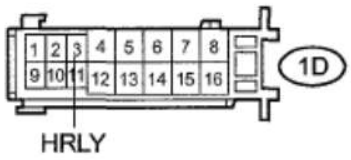
NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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Front view of wire harness connector: (to Engine Room Junction Block Assembly)



Front view of wire harness connector: (to Instrument Panel Junction Block)



H E15165/E01

Fig. 32: Identifying Engine Room Junction Block Assembly And Instrument Panel Junction Block Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step.

6. **CHECK HARNESS AND CONNECTOR (ENGINE ROOM JUNCTION BLOCK ASSEMBLY - BODY GROUND)**
   a. Disconnect the 2D engine room junction block assembly connector.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

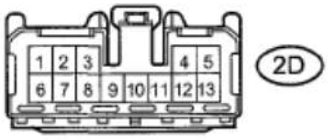
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
2D-8 - Body ground	Always	Below 1 ohms

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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Front view of wire harness connector: (to Engine Room Junction Block Assembly)



E151658E01

Fig. 33: Identifying Engine Room Junction Block Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

DAYTIME RUNNING LIGHT RELAY CIRCUIT

DESCRIPTION

This function is designed to automatically illuminate the headlights (dimmed low beams), during the daytime to make the car more visible to other vehicles.

The main body ECU and power distributor control this function. The main body ECU transmits a turn ON signal to the power distributor and the power distributor illuminates the LO-beams using a duty control. The daytime running lights come on when the conditions given below are met:

- Ignition switch on (IG).
- Engine speed signal input (engine running condition).
- Parking brake switch is OFF.
- Light control switch is not in DRL OFF.
- Light control switch is in OFF, TAIL or AUTO position (and the headlights are not turned on via the automatic light control).

WIRING DIAGRAM

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Fig. 34: Daytime Running Light Relay - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **CHECK HEADLIGHT**
   a. Check the operation of LO-beam headlights and Hl-beam headlights.

   OK: LO-beam headlights and Hl-beam headlights operate normally.

   NG: GO TO PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

   OK: Go to next step.

2. **INSPECT ENGINE ROOM JUNCTION BLOCK ASSEMBLY**
   a. Remove the engine room junction block assembly from the engine room relay block.
   b. Connect the positive (+) lead from the battery to terminal 2G-1.
   c. Connect the negative (-) lead from the battery to terminal 2D-8 and 2E-11.
   d. Measure the voltage according to the value(s) in the table below.

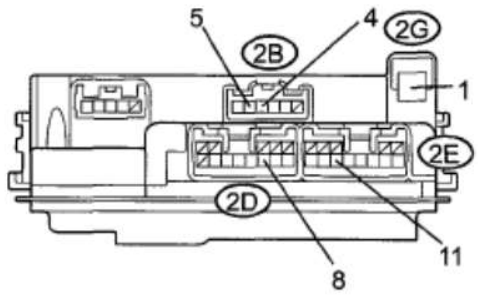
Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
2B-4 - Battery negative	Always	8.47 to 12.6 V
2B-5 - Battery negative	Always	8.47 to 12.6 V

NG: REPLACE ENGINE ROOM JUNCTION BLOCK ASSEMBLY

Component without harness connected:
(Engine Room Junction Block Assembly)



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Fig. 35: Identifying Engine Room Junction Block Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

HEADLIGHT (HI-BEAM) CIRCUIT

DESCRIPTION

The main body ECU receives a signal from the headlight dimmer switch assembly to control the HI-beam headlights.

WIRING DIAGRAM

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Fig. 36: Headlight (HI-BEAM) - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **CHECK HEADLIGHT**
   a. Check the operation of LO-beam headlights.

   OK: LO-beam headlights operate normally.

   NG: GO TO PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

OK: Go to next step.

2. **PERFORM ACTIVE TEST USING TECHSTREAM**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn Techstream on.
   d. Select the following menu items: Body Electrical/Main Body/Active Test.
   e. Check that the relay operates.

Main Body:

TESTER DISPLAY CONTROL RANGE CHART

Tester Display	Test Part	Control Range	Diagnostic Note
Head Light (HI)	HI-beam headlight relay	ON/OFF	-

OK: Relay operates. (HI-beam headlights illuminate.)

NG: Go to step 3

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

3. **INSPECT ENGINE ROOM JUNCTION BLOCK ASSEMBLY**
   a. Remove the H-LP (RH) fuse and H-LP (LH) fuse from the engine room junction block assembly.
   b. Measure the voltage between the loading slot of each fuse and body ground.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
H-LP (RH) terminal - Body ground	Light control switch in HEAD and dimmer switch in HIGH	11 to 14 V
H-LP (LH) terminal - Body ground	Light control switch in HEAD and dimmer switch in HIGH	11 to 14 V

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR (FUSE - BODY GROUND)

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Engine Room Junction Block Assembly

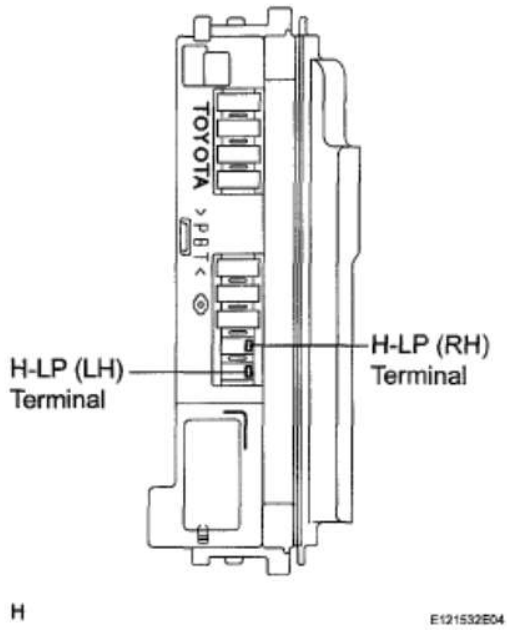


Fig. 37: Identifying H-LP (LH) And H-LP (RH) Terminal
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step.

4. **INSPECT ENGINE ROOM JUNCTION BLOCK ASSEMBLY**
   a. Remove the engine room junction block assembly from the engine room relay block.
   b. Connect the positive (+) lead from the battery to terminal 2G-1.
   c. Connect the negative (-) lead from the battery to terminal 2D-8, 2D-9 and 2E-11.
   d. Measure the voltage according to the value(s) in the table below.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
2B-2 - Battery negative	Always	11 to 14 V
2B-3 - Battery negative	Always	11 to 14 V

NG: REPLACE ENGINE ROOM JUNCTION BLOCK ASSEMBLY

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Component without harness connected:
(Engine Room Junction Block Assembly)

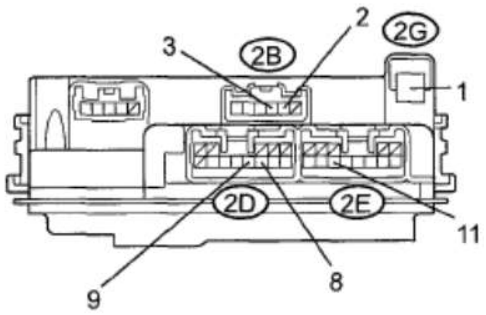


Fig. 38: Identifying Engine Room Junction Block Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step.

5. **CHECK HARNESS AND CONNECTOR (ENGINE ROOM JUNCTION BLOCK ASSEMBLY - MAIN BODY ECU)**
   a. Disconnect the 2D and 2E engine room junction block assembly connectors.
   b. Disconnect the 1D instrument panel junction block connector.
   c. Measure the resistance according to the value(s) in the table below.

Standard resistance

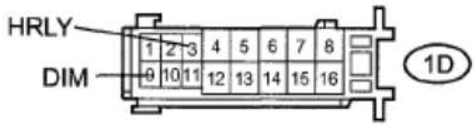
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
2E-11 - 1D-9	Always	Below 1 ohms
2D-9 - 1D-3	Always	Below 1 ohms
2E-11 - Body ground	Always	10 kohms or higher
2D-9 - Body ground	Always	10 kohms or higher

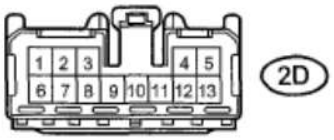
NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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Front view of wire harness connector:
(to Instrument Panel Junction Block)



Front view of wire harness connector: (to
Engine Room Junction Block Assembly)



Front view of wire harness connector: (to
Engine Room Junction Block Assembly)



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Fig. 39: Identifying Engine Room Junction Block Assembly And Instrument Panel Junction Block Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

FRONT FOG LIGHT CIRCUIT

DESCRIPTION

The main body ECU controls the front fog light relay when a signal is received from the headlight dimmer switch assembly.

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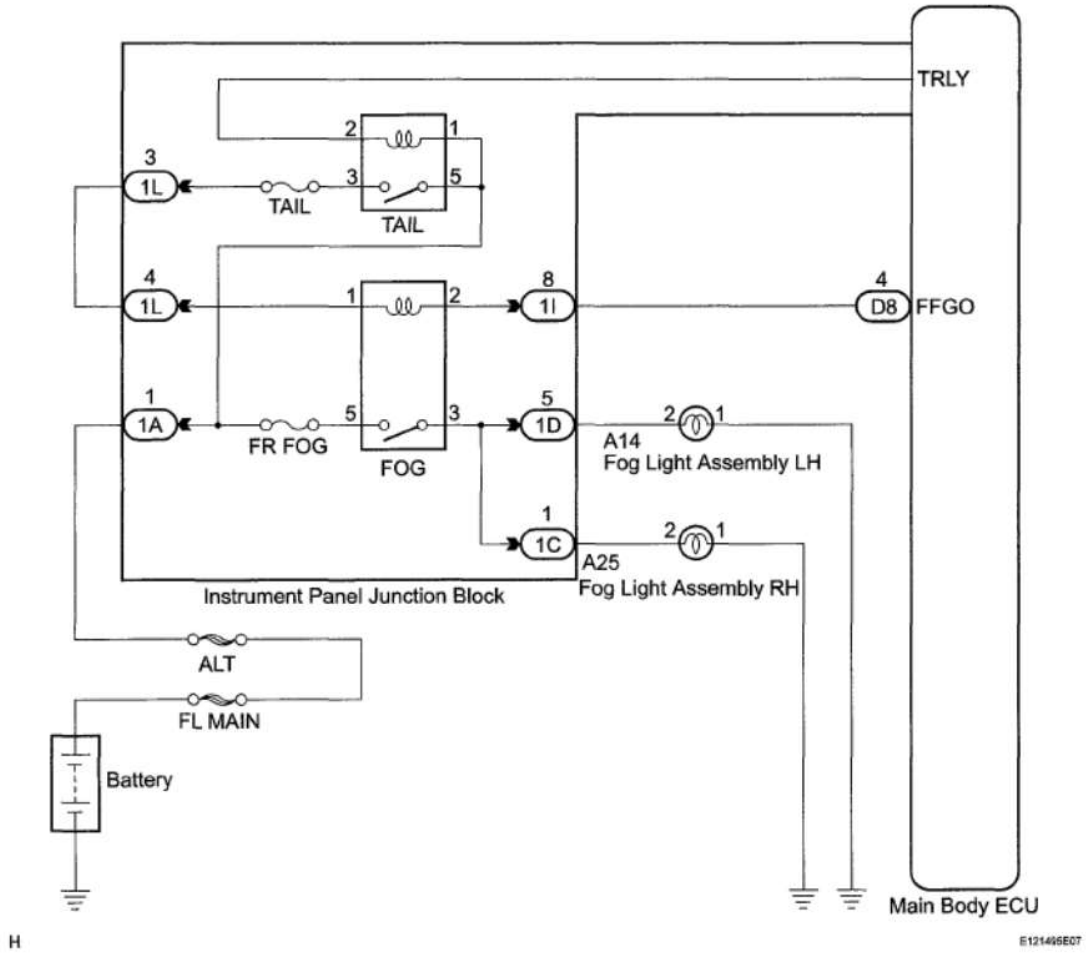


Fig. 40: Front Fog Light - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **PERFORM ACTIVE TEST USING TECHSTREAM**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn Techstream on.
   d. Select the following menu items: Body Electrical/Main Body/Active Test.
   e. Check that the relay operates.

Main Body:

TESTER DISPLAY CONTROL RANGE CHART

Tester Display	Test Part	Control Range	Diagnostic Note
Front Fog Light Relay	Front fog light relay	ON/OFF	-

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OK: Front fog light relay operates. (Front fog lights come on.)

NG: Go to step 2

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

2. **INSPECT FUSE (FR FOG)**
   a. Remove the FR FOG fuse from the instrument panel junction block.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
FR FOG fuse	Always	Below 1 ohms

NG: REPLACE FUSE

OK: Go to next step.

3. **INSPECT FOG LIGHT RELAY (FOG)**
   a. Remove the front fog light relay from the instrument panel junction block.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
3 - 5	Voltage is not applied between terminals 1 and 2	10 kohms. or higher
3 - 5	Apply the battery voltage between terminals 1 and 2	Below 1 ohms

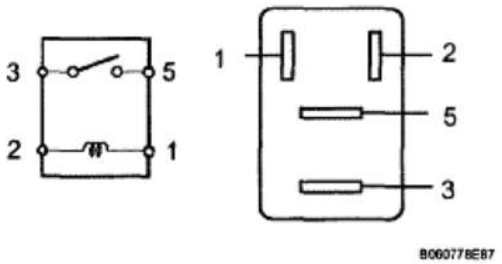


Fig. 41: Fog Light Relay Circuit
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NG: REPLACE FOG LIGHT RELAY

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OK: Go to next step.

4. **CHECK HARNESS AND CONNECTOR (BATTERY - FRONT FOG LIGHT RELAY)**
   a. Measure the voltage according to the value(s) in the table below.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Front fog light relay terminal 5 - Body ground	Always	11 to 14 V
Front fog light relay terminal 1 - Body ground	Light control switch OFF --> TAIL	Below 1 V --> 11 to 14 V

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

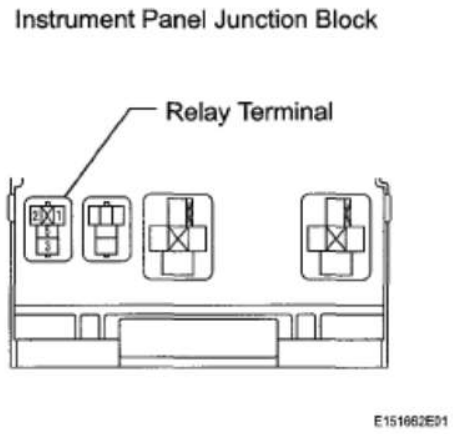


Fig. 42: Identifying Relay Terminal
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step.

5. **CHECK HARNESS AND CONNECTOR (FRONT FOG LIGHT RELAY - MAIN BODY ECU)**
   a. Disconnect the D8 main body ECU connector.

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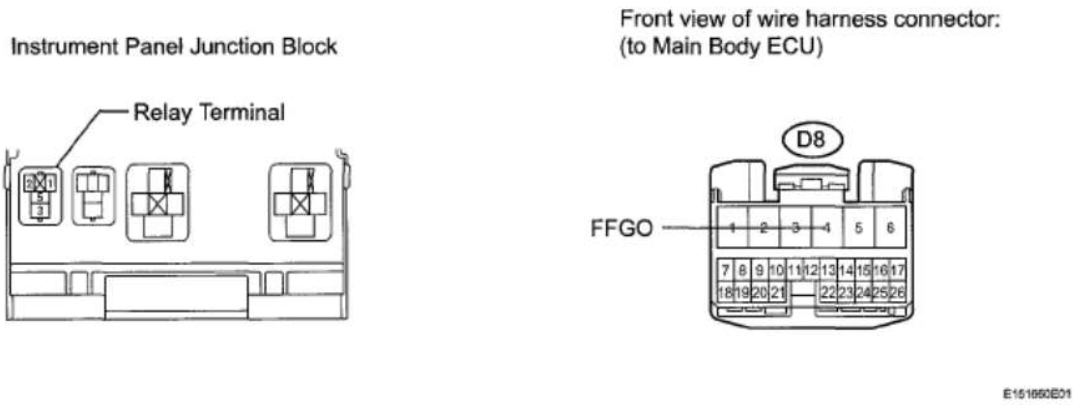


Fig. 43: Identifying Relay Terminal And Main Body ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Front fog light relay terminal 2 - D8-4 (FFGO)	Always	Below 1 ohms
D8-4 (FFGO) - Body ground	Always	10 kohms or higher

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

OK: Go to next step.

6. **INSPECT MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)**
   a. Reconnect the D8 main body ECU connector.

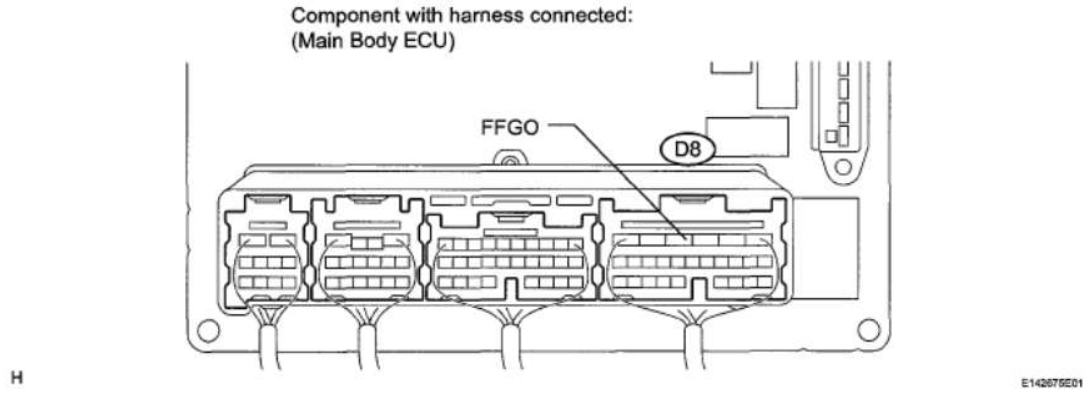


Fig. 44: Identifying Main Body ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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b. Install the front fog light relay to the instrument panel junction block.
c. Measure the voltage according to the value(s) in the table below.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Switch Condition	Specified Condition
D8-4 (FFGO) - Body ground	Light control switch in HEAD, front fog light switch OFF --> ON	11 to 14 V --> Below 1 V

NG: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

OK: REPAIR OR REPLACE HARNESS OR CONNECTOR (FRONT FOG LIGHT RELAY - BODY GROUND)

LIGHT CONTROL SWITCH CIRCUIT

DESCRIPTION

The main body ECU receives the following signals:

- Light control switch TAIL, HEAD, or AUTO signal
- Dimmer switch HIGH or HIGH FLASH (PASS) signal
- Front fog light switch signal

HINT:

When performing troubleshooting, inspect the switch that is related to the malfunction. For example, if both right and left low beam headlights do not illuminate, read the light control switch HEAD signal value only in the data list. If the value is normal, perform the headlight relay active test.

WIRING DIAGRAM

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Fig. 45: Light Control Switch - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **READ VALUE USING TECHSTREAM**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn Techstream on.
   d. Select the following menu items: Body Electrical/Main Body/Data List.

e. Read the display on Techstream.

Main Body:

TESTER DISPLAY NORMAL CONDITION CHART

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
Dimmer Hi SW	Dimmer switch HIGH signal/ON or OFF	ON: Dimmer switch in HIGH or HIGH FLASH OFF: Dimmer switch in LOW	-
Passing Light SW	Dimmer switch HIGH FLASH signal/ON or OFF	ON: Dimmer switch in HIGH FLASH OFF: Dimmer switch not in HIGH FLASH	-
Front Fog Light SW	Front fog light switch signal/ON or OFF	ON: Fog light switch ON OFF: Fog light switch OFF	-
Light Auto SW	Light control switch AUTO signal/ON or OFF	ON: Light control switch in AUTO OFF: Light control switch not in AUTO	-
Headlight SW	Light control switch HEAD signal/ON or OFF	ON: Light control switch in HEAD OFF: Light control switch not in HEAD	-
Taillight SW	Light control switch TAIL signal/ON or OFF	ON: Light control switch in TAIL or HEAD OFF: Light control switch in neither TAIL nor HEAD	-

OK: Normal conditions listed above are displayed.

NG: Go to step 2

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

2. **INSPECT HEADLIGHT DIMMER SWITCH ASSEMBLY**
   a. Inspect the headlight dimmer switch assembly (See **INSPECTION**).

OK: Headlight dimmer switch assembly is normal.

NG: REPLACE HEADLIGHT DIMMER SWITCH ASSEMBLY

OK: Go to next step.

3. **CHECK HARNESS AND CONNECTOR (INSTRUMENT PANEL JUNCTION BLOCK - SWITCH ASSEMBLY)**
   a. Disconnect the D13 headlight dimmer switch assembly connector.

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b. Disconnect the D7 and D8 main body ECU connectors.
c. Disconnect the 1N instrument panel junction block connector.
d. Measure the resistance according to the value(s) in the table below.

Standard resistance

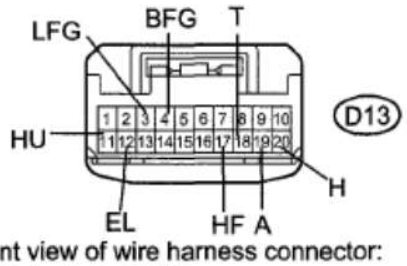
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
D13-4 (BFG) - D7-28 (FFOG)	Always	Below 1 ohms
D13-11 (HU) - 1N-2 (HU)	Always	Below 1 ohms
D13-17 (HF) - D8-13 (HF)	Always	Below 1 ohms
D13-18 (T) - D8-23 (TAIL)	Always	Below 1 ohms
D13-19 (A) - D8-21 (A)	Always	Below 1 ohms
D13-20 (H) - D7-17 (HEAD)	Always	Below 1 ohms
D13-3 (LFG) - Body ground	Always	10 kohms or higher
D13-4 (BFG) - Body ground	Always	10 kohms or higher
D13-11 (HU) - Body ground	Always	10 kohms or higher
D13-17 (HF) - Body ground	Always	10 kohms or higher
D13-18 (T) - Body ground	Always	10 kohms or higher
D13-19 (A) - Body ground	Always	10 kohms or higher
D13-20 (H) - Body ground	Always	10 kohms or higher
D13-12 (EL) - Body ground	Always	Below 1 ohms

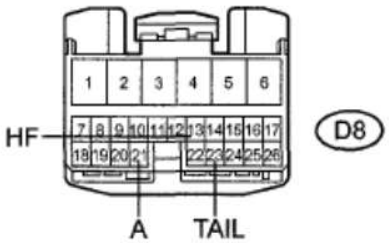
NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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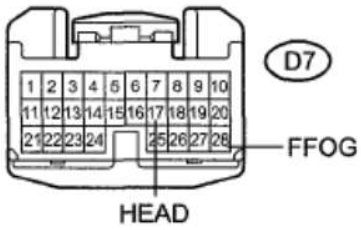
Front view of wire harness connector:
(to Headlight Dimmer Switch Assembly)



Front view of wire harness connector:
(to Main Body ECU)



Front view of wire harness connector:
(to Main Body ECU)



Front view of wire harness connector:
(to Instrument Panel Junction Block)



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Fig. 46: Identifying Headlight Dimmer Switch Assembly And Main Body ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

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DOOR COURTESY SWITCH CIRCUIT

DESCRIPTION

The main body ECU receives courtesy switch signals to control the illuminated entry system and light auto turn off system.

WIRING DIAGRAM

Fig. 47: Door Courtesy Switch - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **READ VALUE USING TECHSTREAM**

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a. Connect Techstream to the DLC3.
b. Turn the ignition switch on (IG).
c. Turn Techstream on.
d. Select the following menu items: Body Electrical/Main Body/Data List.
e. Read the display on Techstream.

Main Body:

TESTER DISPLAY NORMAL CONDITION CHART

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
D door Courtesy SW	Driver side door courtesy switch signal/ON or OFF	ON: Driver side door open OFF: Driver side door closed	-
P door Courtesy SW	Passenger side door courtesy switch signal/ON or OFF	ON: Passenger side door open OFF: Passenger side door closed	-
RR door Courtesy SW	Rear door RH courtesy switch signal 1 ON or OFF	ON: Rear door RH open OFF: Rear door RH closed	-
RL door Courtesy SW	Rear door courtesy switch LH signal/ON or OFF	ON: Rear door LH open OFF: Rear door LH closed	-
Back door Courtesy SW	Back door Courtesy switch signal/ON or OFF	ON: Back door open OFF: Back door closed	-
Glass Hatch Courtesy Switch	Back window Courtesy Switch signal/ON or OFF	ON: Back window open OFF: Back window closed	-

OK: Normal conditions listed above are displayed.

NG: Go to step 2

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

2. **INSPECT COURTESY SWITCH**
   a. Inspect the front door courtesy switches (See **INSPECTION**).
   b. Inspect the rear door courtesy switches (See **INSPECTION**).
   c. Inspect the back door courtesy switch (See **INSPECTION**).
   d. Inspect the back window courtesy switch (See **INSPECTION**).

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OK: Courtesy switches are normal.

NG: REPLACE COURTESY SWITCH

OK: Go to next step.

3. **CHECK HARNESS AND CONNECTOR (MAIN BODY ECU - DOOR COURTESY SWITCH)**
   a. Check the harness and connector between the main body ECU and front door courtesy switch LH.
      1. Disconnect the D8 main body ECU connector.
      2. Disconnect the O2 switch connector.
      3. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
D8-24 (DCTY) - O2-1	Always	Below 1 ohms
D8-24 (DCTY) - Body ground	Always	10 kohms or higher

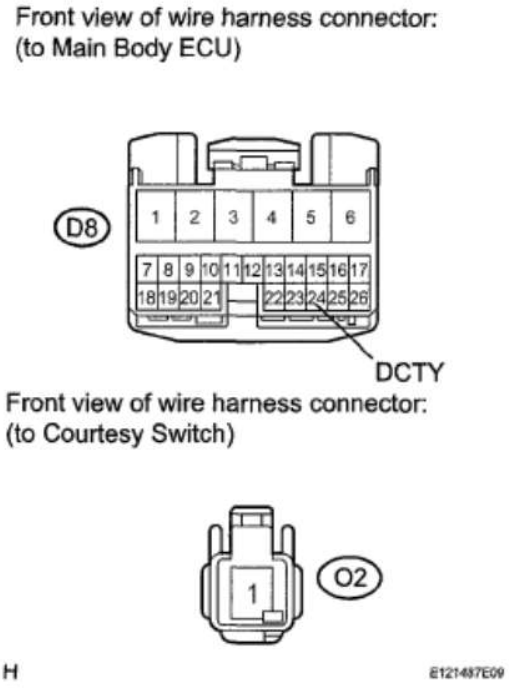


Fig. 48: Identifying DCTY Of Main Body ECU And Courtesy Switch Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Check the harness and connector between the main body ECU and front door courtesy switch RH.
      1. Disconnect the D7 main body ECU connector.
      2. Disconnect the N2 switch connector.

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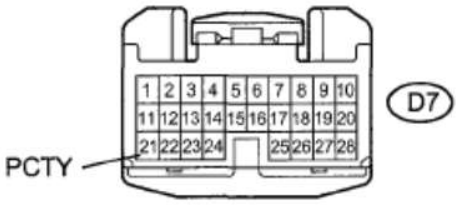
3. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
D7-21 (PCTY) - N2-1	Always	Below 1 ohms
D7-21 (PCTY) - Body ground	Always	10 kohms or higher

Front view of wire harness connector:
(to Main Body ECU)



Front view of wire harness connector:
(to Courtesy Switch)



Fig. 49: Identifying Main Body ECU And Courtesy Switch Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Check the harness and connector between the instrument panel junction block and rear door courtesy switch LH.
   1. Disconnect the 1O instrument panel junction block connector.
   2. Disconnect the O8 switch connector.
   3. Measure the resistance according to the value(s) in the table below.

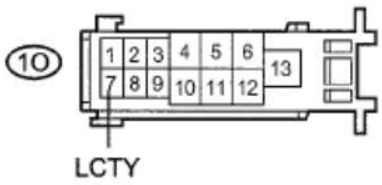
Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

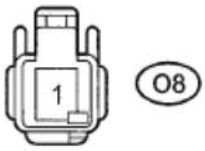
Tester Connection	Condition	Specified Condition
1O-7 (LCTY) - O8-1	Always	Below 1 ohms
1O-7 (LCTY) - Body ground	Always	10 kohms or higher

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Front view of wire harness connector:
(to Instrument Panel Junction Block)



Front view of wire harness connector:
(to Courtesy Switch)



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Fig. 50: Identifying Instrument Panel Junction Block And Courtesy Switch Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

d. Check the harness and connector between the main body ECU and rear door courtesy switch RH.
   1. Disconnect the D7 main body ECU connector.
   2. Disconnect the N7 switch connector.
   3. Measure the resistance according to the value(s) in the table below.

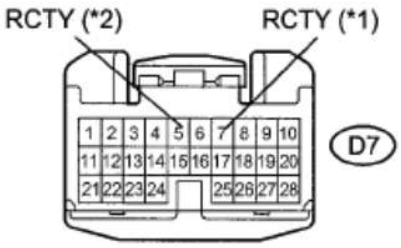
Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
D7-7 (RCTY)(1) - N7-1	Always	Below 1 ohms
D7-7 (RCTY)(1) - Body ground	Always	10 kohms or higher
D7-5 (RCTY)(2) - N7-1	Always	Below 1 ohms
D7-5 (RCTY)(2) - Body ground	Always	10 kohms or higher
(1) w/ Power Back Door (2) w/o Power Back Door		

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Front view of wire harness connector:
(to Main Body ECU)



Front view of wire harness connector:
(to Courtesy Switch)



Fig. 51: Identifying Main Body ECU And Courtesy Switch Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

e. Check the harness and connector between the main body ECU and back door lock assembly.
   1. Disconnect the D7 main body ECU connector.
   2. Disconnect the T4*1 or T3*2 back door lock assembly connector.
   3. Measure the resistance according to the value(s) in the table below.

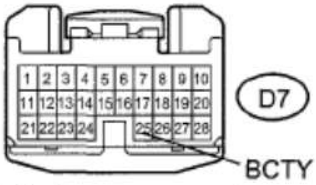
Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
D7-25 (BCTY) - T4-3(1)	Always	Below 1 ohms
D7-25 (BCTY) - T3-3(2)	Always	Below 1 ohms
D7-25 (BCTY) - Body ground	Always	10 kohms or higher
(1) w/ Power Back Door (2) w/o Power Back Door		

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Front view of wire harness connector:
(to Main Body ECU)



Front view of wire harness connector:
(to Back Door Lock Assembly)

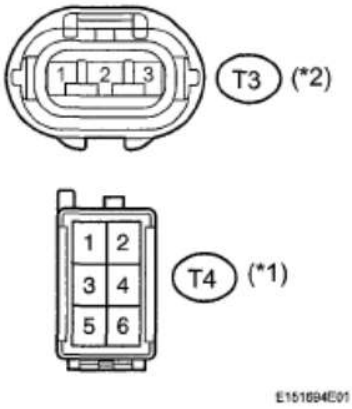


Fig. 52: Identifying BCTY Of Main Body ECU And Back Door Lock Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

f. Check the harness and connector between the main body ECU and back window lock assembly (w/ Glass Hatch Opener).
   1. Disconnect the D8 main body ECU connector.
   2. Disconnect the T5 back window lock assembly connector.
   3. Measure the resistance according to the value(s) in the table below.

Standard resistance

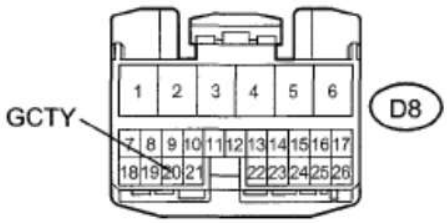
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
D8-20 (GCTY) - T5-2	Always	Below 1 ohms
D8-20 (GCTY) - Body ground	Always	10 kohms or higher

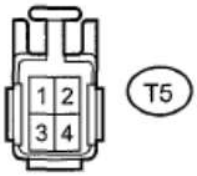
NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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Front view of wire harness connector:
(to Main Body ECU)



Front view of wire harness connector:
(to Back Window Lock Assembly)



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Fig. 53: Identifying GCTY OF Main Body ECU And Back Door Lock Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

DOOR LOCK POSITION CIRCUIT

DESCRIPTION

The main body ECU receives each door lock position switch signal to control the illuminated entry system.

WIRING DIAGRAM

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Fig. 54: Door Lock Position - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **READ VALUE USING TECHSTREAM**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn Techstream on.
   d. Select the following menu items: Body Electrical/Main Body/Active Test.

   Main Body:

   TESTER DISPLAY NORMAL CONDITION CHART

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
D-Door Lock Pos SW	Driver side door lock position switch signal/ON or OFF	ON: Driver side door unlocked OFF: Driver side door locked	-
P-Door Lock Pos SW	Front passenger side door lock position switch signal/ON or OFF	ON: Front passenger side door unlocked OFF: Front passenger side locked	-
RL-Door Lock Pos SW	Rear door lock position switch LH signal/ON or OFF*1	ON: Rear door LH unlocked OFF: Rear door LH locked	-
	Rear door lock position switch LH or RH signal/ON or OFF*2	ON: Rear door LH or RH unlocked OFF: Rear door LH and RH locked	-
RR-Door Lock Pos SW	Rear door lock position switch RH signal/ON or OFF*1	ON: Rear door RH unlocked OFF: Rear door RH locked	-
	Rear door lock position switch LH or RH signal/ON or OFF*2	ON: Rear door LH or RH unlocked OFF: Rear door LH and RH locked	-
HINT: • *1: w/ Smart Key System, w/ Power Back Door, w/ Glass Hatch Opener • *2: w/o Smart Key System w/o Power Back Door w/o Glass Hatch Opener			

OK: Normal conditions listed above are displayed.

HINT:

If the normal condition listed above are not displayed, perform the trouble shooting of the power door lock control system.

NG: GO TO POWER DOOR LOCK CONTROL SYSTEM

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

INTERIOR LIGHT CIRCUIT

DESCRIPTION

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The illuminated entry system controls the personal light, interior lights and ignition key cylinder light*1 .

HINT:

*1: w/o Smart Key System

WIRING DIAGRAM

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Fig. 55: Interior Light - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **PERFORM ACTIVE TEST USING TECHSTREAM**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn Techstream on.
   d. Select the following menu items: Body Electrical/Main Body/Active Test.
   e. Check the operation.

Main Body:

TESTER DISPLAY CONTROL RANGE CHART

Tester Display	Test Part	Control Range	Diagnostic Note
Illuminated Entry System	Personal light, interior lights and ignition key cylinder light (Light switch is in DOOR position and all doors are closed).	ON/OFF	-

OK: Each light fades in.

NG: Go to step 2

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

2. **INSPECT FUSE (DOME)**
   a. Remove the DOME fuse from the engine room relay block.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER DISPLAY SPECIFIED CONDITION CHART

Tester Display	Condition	Specified Condition
DOME fuse	Always	Below 1 ohms

NG: REPLACE FUSE

OK: Go to next step.

3. **CHECK HARNESS AND CONNECTOR (BATTERY - INSTRUMENT PANEL JUNCTION BLOCK)**
   a. Disconnect the 1I and 1R instrument panel junction block connectors.
   b. Measure the voltage according to the value(s) in the table below.

Standard voltage

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TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
1I-10 (ILE) - Body ground	Always	11 to 14 V
1R-5 (ILE) -Body ground	Always	11 to 14 V

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

Front view of wire harness connector:
(to Instrument Panel Junction Block)

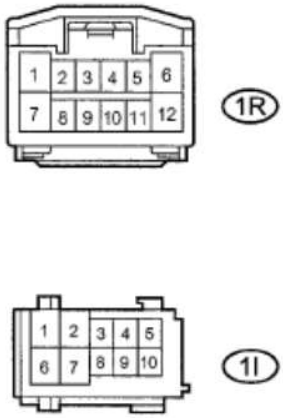


Fig. 56: Identifying Instrument Panel Junction Block Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

ENGINE SWITCH ILLUMINATION CIRCUIT

DESCRIPTION

The illuminated entry system controls the engine switch illumination.

WIRING DIAGRAM

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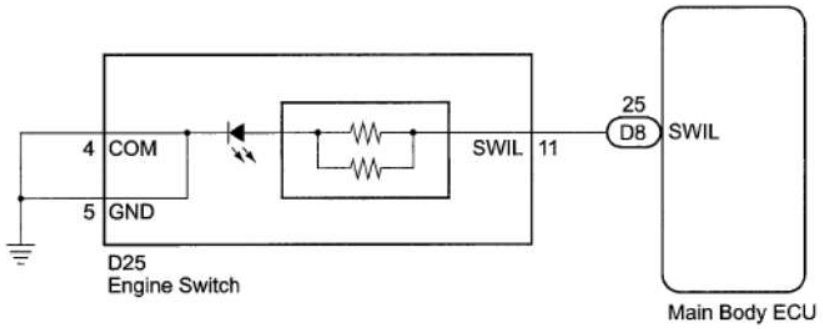


Fig. 57: Engine Switch Illumination - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **PERFORM ACTIVE TEST USING TECHSTREAM**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn Techstream on.
   d. Select the following menu items: Body Electrical/Main Body/Active Test.
   e. Check the operation.

   Main Body:

   TESTER DISPLAY CONTROL RANGE CHART

Tester Display	Test Part	Control Range	Diagnostic Note
Indicator for Lighting	Engine switch illumination	ON/OFF	-

   OK: Engine switch illumination comes on.

   NG: Go to step 2

   OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

2. **INSPECT ENGINE SWITCH**
   a. Remove the engine switch.

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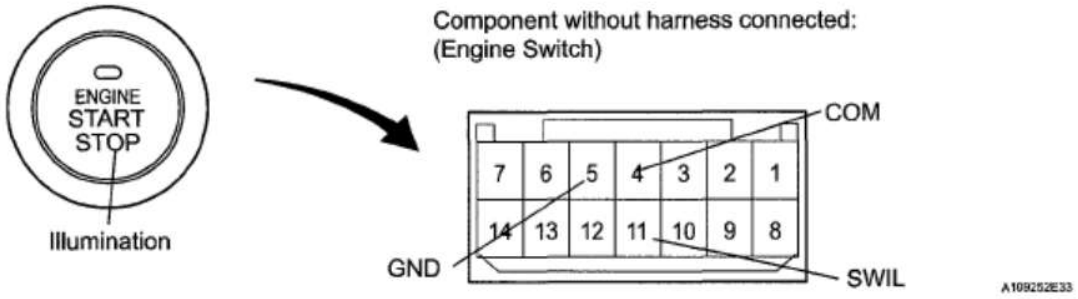


Fig. 58: Inspecting Engine Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Apply battery voltage to the engine switch.
c. Check that the illumination comes on.

OK

MEASUREMENT AND SPECIFIED CONDITION CHART

Measurement Condition	Specified Condition
Battery positive (+) --> Terminal 11 (SWIL) Battery negative (-) --> Terminal 5 (GND) or 4 (COM)	Engine switch illumination comes on

NG: REPLACE ENGINE SWITCH

OK: Go to next step.

3. **CHECK HARNESS AND CONNECTOR (ENGINE SWITCH - MAIN BODY ECU AND BODY GROUND)**
   a. Disconnect the D8 main body ECU connector.
   b. Disconnect the D25 engine switch connector.
   c. Measure the resistance according to the value(s) in the table below.

Standard resistance

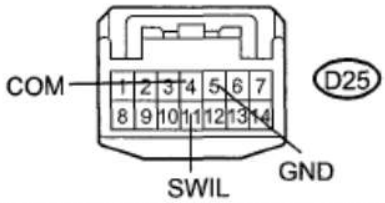
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
D25-11 (SWIL) - D8-25 (SWIL)	Always	Below 1 ohms
D25-4 (COM) or D25-5 (GND) - Body ground	Always	Below 1 ohms
D25-11 (SWIL) - Body ground	Always	10 kohms or higher

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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Front view of wire harness connector:
(to Engine Switch)



Front view of wire harness connector:
(to Main Body ECU)

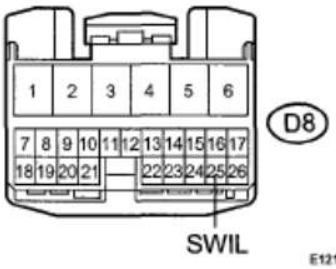


Fig. 59: Identifying Engine Switch And Main Body ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

DOOR MIRROR FOOT LIGHT CIRCUIT

DESCRIPTION

The illuminated entry system controls the door mirror foot lights.

WIRING DIAGRAM

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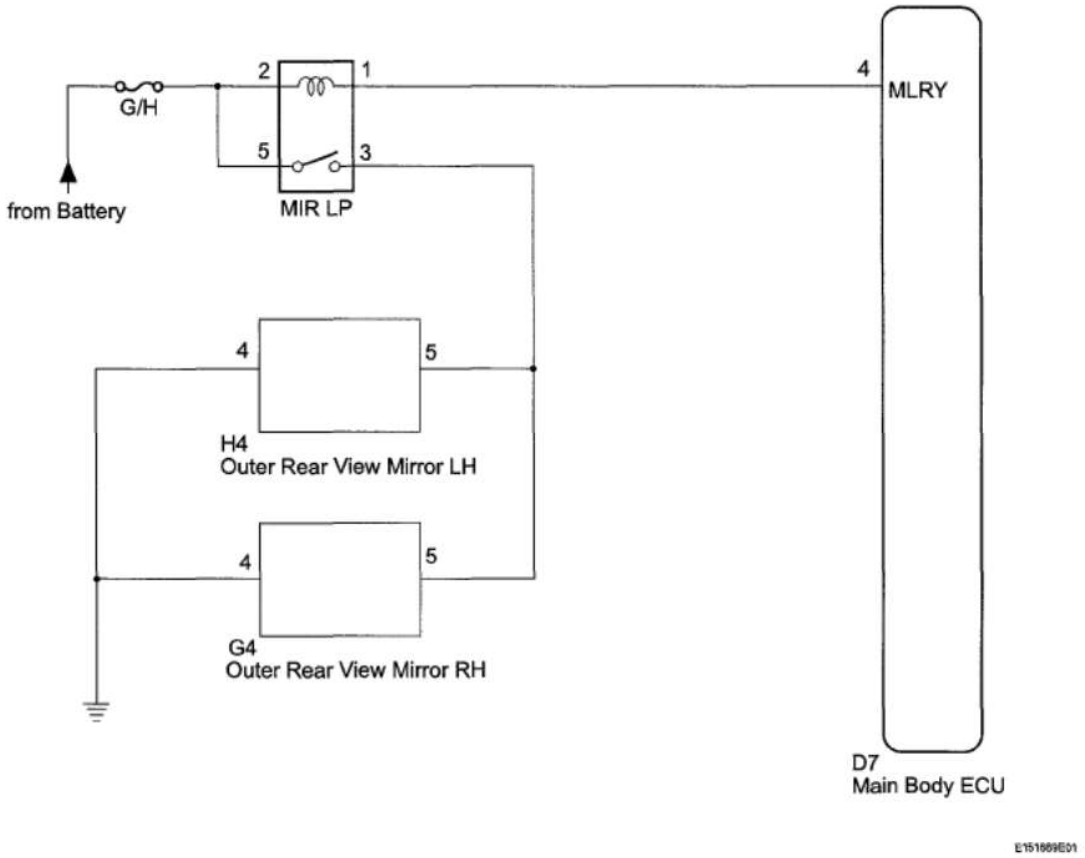


Fig. 60: Door Mirror Foot Light - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **PERFORM ACTIVE TEST USING TECHSTREAM**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn Techstream on.
   d. Select the following menu items: Body Electrical/Main Body/Active Test.
   e. Check the operation.

Main Body

MAIN BODY REFERENCE CHART

Item	Test Details	Diagnostic Note
Side Mirror Foot Light	Door mirror foot lights ON/OFF	-

OK: Door mirror foot lights come on.

NG: Go to step 2

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OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

2. **INSPECT MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)**
   a. Disconnect the D7 main body ECU connector.
   b. Using a service wire, connect D7-4 of the wire harness side and body ground.

   OK: Door mirror foot lights come on.

NG: Go to step 3

Front view of wire harness connector:
(to Main Body ECU)

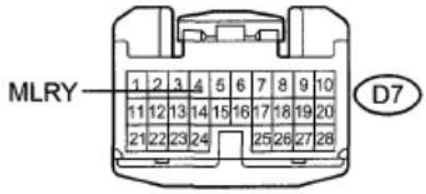


Fig. 61: Identifying Main Body ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

3. **INSPECT FUSE (G/H)**
   a. Remove the G/H fuse from the engine room relay block.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
G/H fuse	Always	Below 1 ohms

NG: REPLACE FUSE

OK: Go to next step.

4. **INSPECT DOOR MIRROR FOOT LIGHT RELAY (MIR LP)**

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a. Remove the door mirror foot light relay from the No. 2 engine room relay block.
b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
3 - 5	Voltage is not applied between terminals 1 and 2	10 kohms or higher
3 - 5	Apply the battery voltage between terminals 1 and 2	Below 1 ohms

NG: REPLACE DOOR MIRROR FOOT LIGHT RELAY

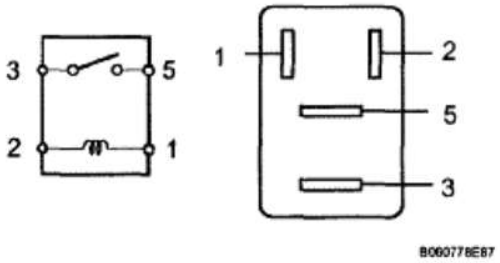


Fig. 62: Fog Light Relay Circuit
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step.

5. **CHECK HARNESS AND CONNECTOR (BATTERY - DOOR MIRROR FOOT LIGHT RELAY)**
   a. Measure the voltage according to the value(s) in the table below.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Door mirror foot light relay terminal 5 - Body ground	Always	11 to 14 V
Door mirror foot light relay terminal 2 - Body ground	Always	11 to 14 V

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

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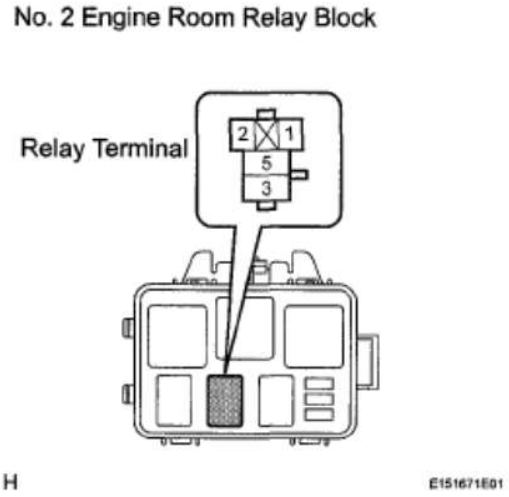


Fig. 63: Identifying Relay Terminal Of No. 2 Engine Room Relay Block
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step.

6. **CHECK HARNESS AND CONNECTOR (DOOR MIRROR FOOT LIGHT RELAY - MAIN BODY ECU)**
   a. Disconnect the D7 main body ECU connector.

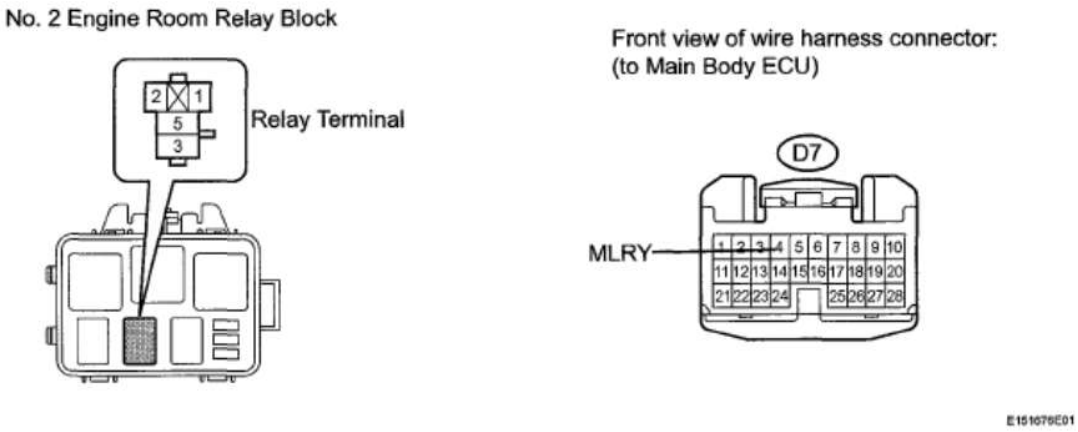


Fig. 64: Identifying Relay Terminal Of No. 2 Engine Room Relay Block And Main Body ECU Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition

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Door mirror foot light relay terminal 1 - D7-4 (MLRY)	Always	Below 1 ohms
D7-4 (MLRY) - Body ground	Always	10 kohms or higher

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR (DOOR MIRROR FOOT LIGHT RELAY - MAIN BODY ECU)

OK: REPAIR OR REPLACE HARNESS OR CONNECTOR (DOOR MIRROR FOOT LIGHT RELAY - BODY GROUND)

PARKING BRAKE SWITCH CIRCUIT

DESCRIPTION

The main body ECU receives a parking brake switch signal to control the daytime running light system.

WIRING DIAGRAM

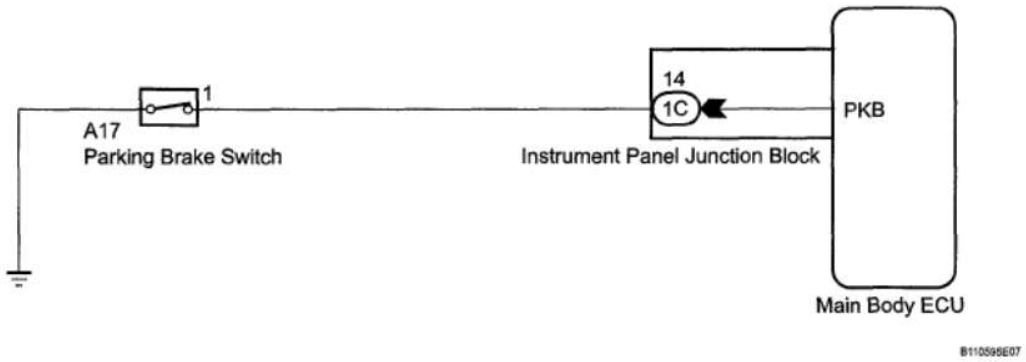


Fig. 65: Parking Brake Switch - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **READ VALUE USING TECHSTREAM**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn Techstream on.
   d. Select the following menu items: Body Electrical/Main Body/Data List.
   e. Read the display on Techstream.

Main Body:

TESTER DISPLAY NORMAL CONDITION CHART

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note

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Parking Brake SW	Parking brake SW signal/ON or OFF	ON: Parking brake switch is ON OFF: Parking brake switch is OFF	-

OK: Normal conditions listed above are displayed.

NG: Go to step 2

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

2. **INSPECT PARKING BRAKE SWITCH ASSEMBLY**
   a. Remove the parking brake switch assembly.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
1 - Switch body	Shaft is pushed in (OFF)	10 kohms or higher
1 - Switch body	Shaft is not pushed in (ON)	Below 1 ohms

NG: REPLACE PARKING BRAKE SWITCH ASSEMBLY

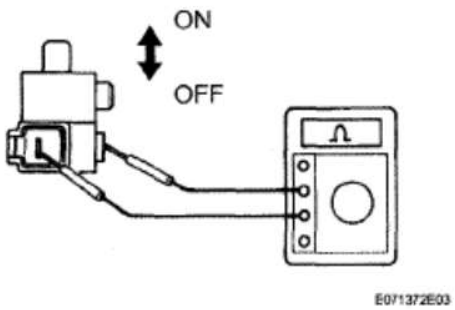


Fig. 66: Inspecting Parking Brake Switch Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: Go to next step.

3. **CHECK HARNESS AND CONNECTOR (SWITCH - INSTRUMENT PANEL JUNCTION BLOCK)**
   a. Disconnect the 1C instrument panel junction block assembly connector.
   b. Disconnect the A17 switch connector.
   c. Measure the resistance according to the value(s) in the table below.

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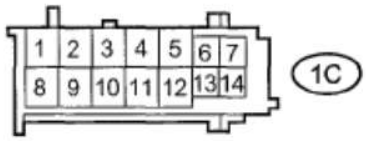
Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
1C-14 - A17-1	Always	Below 1 ohms
1C-14 - Body ground	Always	10 kohms or higher

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

Front view of wire harness connector:
(to Instrument Panel Junction Block)



Front view of wire harness connector:
(to Parking Brake Switch)



H E121503E03

Fig. 67: Identifying Instrument Panel Junction Block And Parking Brake Switch Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

TAILLIGHT RELAY CIRCUIT

DESCRIPTION

- The main body ECU receives the light control switch TAIL signal to control the taillight relay.
- When the light control switch is in the AUTO position, the main body ECU receives the ambient light level signal from the automatic light control sensor to control the taillight relay.

WIRING DIAGRAM

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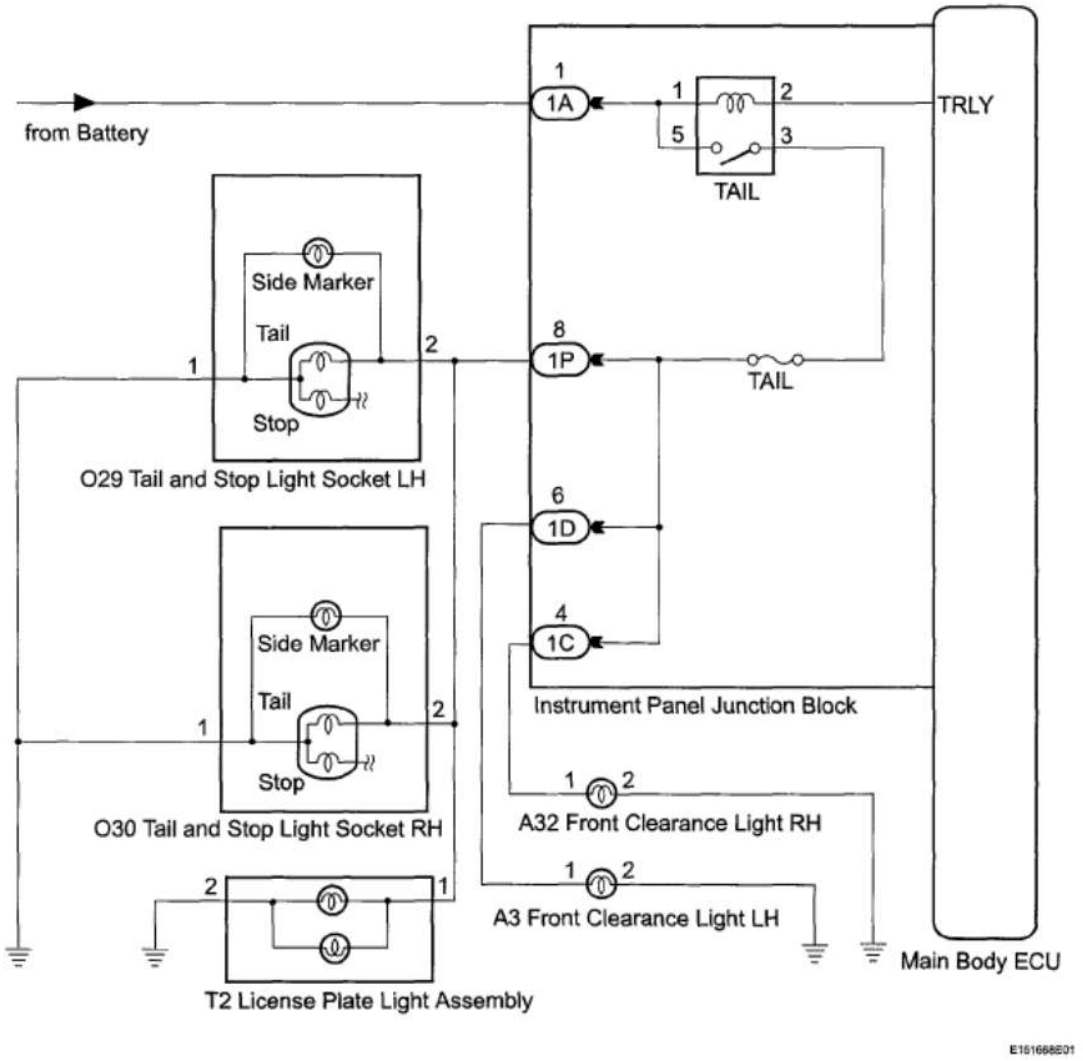


Fig. 68: Taillight Relay - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION PROCEDURE

1. **PERFORM ACTIVE TEST USING TECHSTREAM**
   a. Connect Techstream to the DLC3.
   b. Turn the ignition switch on (IG).
   c. Turn Techstream on.
   d. Select the following menu items: Body Electrical/Main Body/Active Test.
   e. Check that the relay operates.

Main Body:

TESTER DISPLAY CONTROL RANGE CHART

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Tester Display	Test Part	Control Range	Diagnostic Note
Taillight Relay	Taillight relay	ON/OFF	-

OK: Taillight relay operates. (Taillights illuminate.)

NG: Go to step 2

OK: PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See **PROBLEM SYMPTOMS TABLE**)

2. **INSPECT FUSE (TAIL)**
   a. Remove the TAIL fuse from the instrument panel junction block.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
TAIL fuse	Always	Below 1 ohms

NG: REPLACE FUSE

OK: Go to next step.

3. **INSPECT TAILLIGHT RELAY (TAIL)**
   a. Remove the taillight relay from the instrument panel junction block.
   b. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
3 - 5	Voltage is not applied between terminals 1 and 2	10 kohms or higher
	Apply the battery voltage between terminals 1 and 2	Below 1 ohms
3 - 4	Voltage is not applied between terminals 1 and 2	Below 1 ohms
	Apply the battery voltage between terminals 1 and 2	10 kohms or higher

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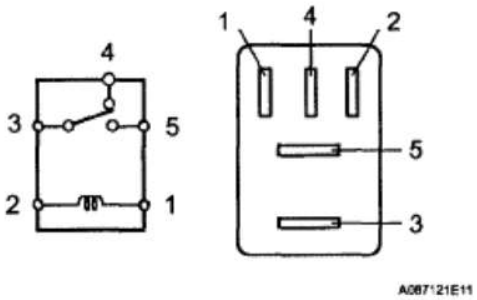


Fig. 69: Taillight Relay Circuit
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NG: REPLACE TAILLIGHT RELAY

OK: Go to next step.

4. **INSPECT MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)**
   a. Measure the voltage between the loading slot of the TAIL fuse and body ground.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
TAIL fuse terminal - Body ground	Light control switch OFF --> TAIL	Below 1 V --> 11 to 14 V

NG: Go to step 5

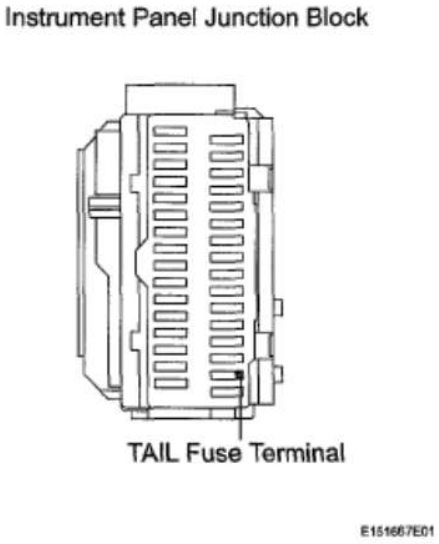


Fig. 70: Identifying TAIL Fuse Terminal
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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OK: REPAIR OR REPLACE HARNESS OR CONNECTOR (FUSE - BODY GROUND)

5. **CHECK HARNESS AND CONNECTOR (BATTERY - INSTRUMENT PANEL JUNCTION BLOCK)**
   a. Disconnect the 1A instrument panel junction block connector.
   b. Measure the voltage according to the value(s) in the table below.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

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

NG: REPAIR OR REPLACE HARNESS OR CONNECTOR

Front view of wire harness connector:
(to Instrument Panel Junction Block)

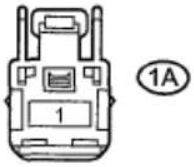


Fig. 71: Identifying Instrument Panel Junction Block Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: REPLACE MAIN BODY ECU (INSTRUMENT PANEL JUNCTION BLOCK)

HEADLIGHT ASSEMBLY

COMPONENTS

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Fig. 72: Identifying Headlight Assembly Components (1 Of 2)
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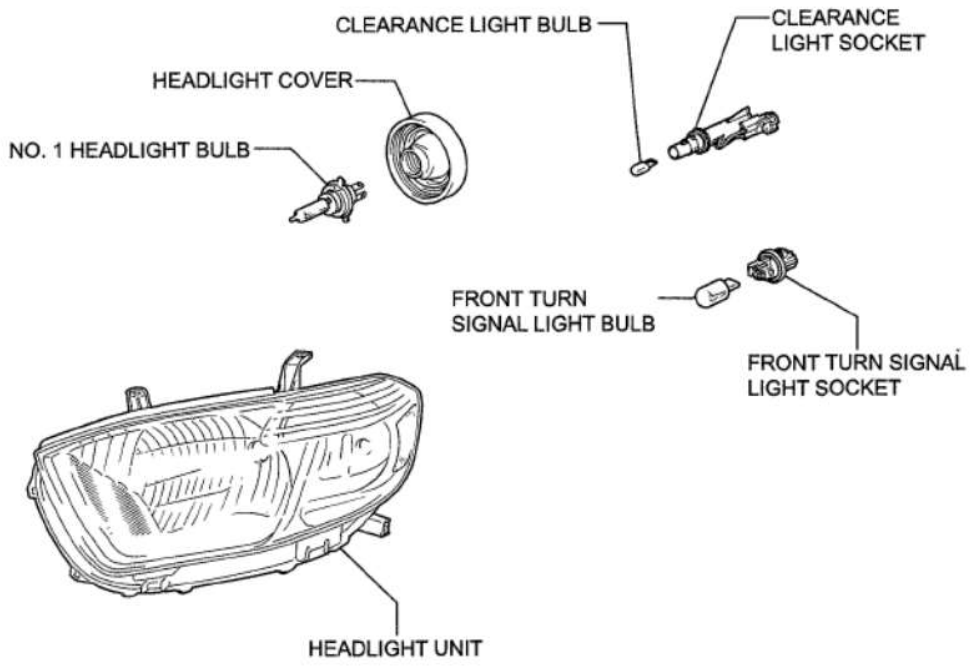


Fig. 73: Identifying Headlight Assembly Components (2 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE COOL AIR INTAKE DUCT SEAL** (See **REMOVAL**)
2. **REMOVE RADIATOR GRILLE** (See **REMOVAL**)
3. **REMOVE FRONT BUMPER ASSEMBLY (w/o Fog Light)** (See **REMOVAL**)
4. **REMOVE FRONT BUMPER ASSEMBLY (w/ Fog Light)** (See **DISASSEMBLY**)
5. **REMOVE REAR FENDER SPLASH SHIELD SUB-ASSEMBLY**
   a. Disengage the 3 clips and 3 guides, and remove the rear fender splash shield sub-assembly.

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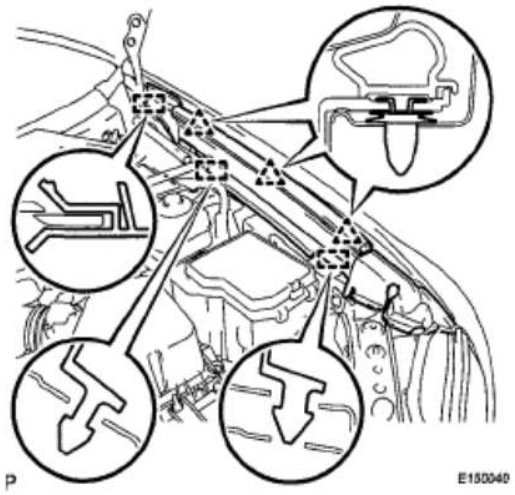


Fig. 74: Identifying Rear Fender Splash Shield Sub-Assembly Clips And Guides
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. **REMOVE HEADLIGHT ASSEMBLY**
   a. Remove the bolt and 2 screws.
   b. Disengage the claw and disconnect the headlight assembly.



Fig. 75: Removing Headlight Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   c. Disengage the clamp.
   d. Disconnect the connectors and remove the headlight assembly.

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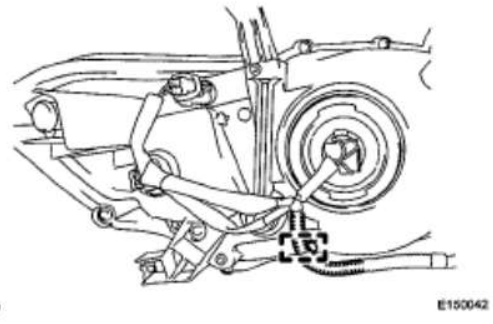


Fig. 76: Identifying Headlight Assembly Clamp And Connectors
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

DISASSEMBLY

1. **REMOVE HEADLIGHT COVER**
   a. Remove the headlight cover.

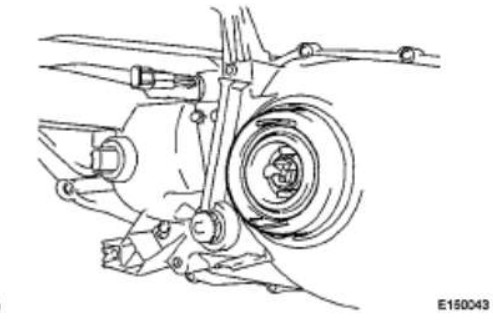
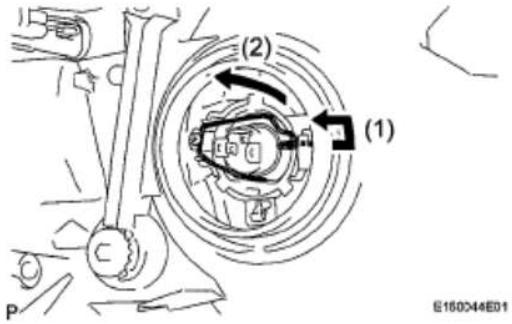


Fig. 77: Identifying Headlight Cover
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **REMOVE NO. 1 HEADLIGHT BULB**
   a. Release the set spring and remove the No. 1 headlight bulb as shown in the illustration.

NOTE: Do not touch the bulb glass.



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Fig. 78: Removing No. 1 Headlight Bulb
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. **REMOVE FRONT TURN SIGNAL LIGHT BULB**
   a. Turn the front turn signal light bulb and the front turn signal light socket in the direction indicated by the arrow and remove them as a unit.
   b. Remove the front turn signal light bulb from the front turn signal light socket.

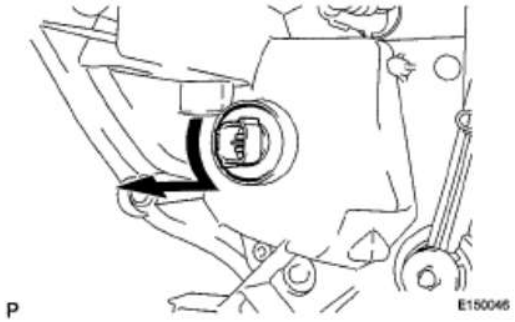


Fig. 79: Removing Front Turn Signal Light Bulb
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **REMOVE CLEARANCE LIGHT BULB**
   a. Turn the clearance light bulb and the clearance light socket in the direction indicated by the arrow and remove them as a unit.
   b. Remove the clearance light bulb from the clearance light socket.

ADJUSTMENT

HINT:

It is possible that if a bulb is incorrectly installed, it may affect the headlight aim. Bulb installation should be checked prior to performing the adjustment procedure.

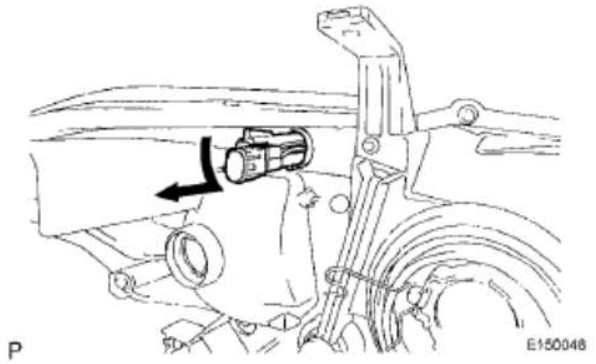


Fig. 80: Removing Clearance Light Bulb
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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1. **VEHICLE PREPARATION FOR HEADLIGHT AIMING ADJUSTMENT**
   a. Prepare the vehicle:
      - Ensure that there is no damage or deformation to the body around the headlights.
      - Fill the fuel tank.
      - Make sure that the oil is filled to the specified level.
      - Make sure that the engine coolant is filled to the specified level.
      - Inflate the tires to the appropriate pressure.
      - Unload the trunk and vehicle, ensuring that the spare tire, tools, and jack are in their original positions.
      - Sit a person of average weight (68 kg, 150 lb) in the driver's seat.
      - Vehicles with height adjustable suspension should set the vehicle height to the lowest setting prior to adjusting the headlight aim.
2. **PREPARATION FOR HEADLIGHT AIMING (Using a headlight aim test machine)**
   a. Adjust the headlight aim in accordance with the headlight aim test machine instructions.
3. **PREPARATION FOR HEADLIGHT AIMING (Using a Screen)**
   a. Prepare the vehicle:
      - Place the vehicle in a location that is dark enough to clearly observe the cutoff line. The cutoff line is a distinct line, below which light from the headlights can be observed and above which it cannot.
      - Place the vehicle at a 90° angle to the wall.
      - Create a 7.62 m (25 ft.) distance between the vehicle (headlight bulb center) and the wall.
      - Make sure that the vehicle is on a level surface.
      - Bounce the vehicle up and down several times to settle the suspension.

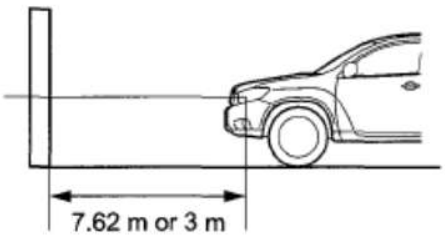


Fig. 81: Identifying Distance Between Vehicle (Headlight Bulb Center) And Wall
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NOTE: A distance of 7.62 m (25 ft.) between the vehicle (headlight bulb center) and the wall is necessary for proper aim adjustment. If sufficient space is not available, secure a distance of exactly 3 m (9.84 ft.) to allow for checking and adjustment of headlight aim. (The size of the target zone will change with the distance, so follow the instructions in the illustration.)

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b. Prepare a piece of thick white paper (approximately 2 m (6.6 ft.) (height) x 4 m (13.1 ft.) (width)) to use as a screen.
c. Draw a vertical line down the center of the screen (V line).
d. Set the screen as shown in the illustration.

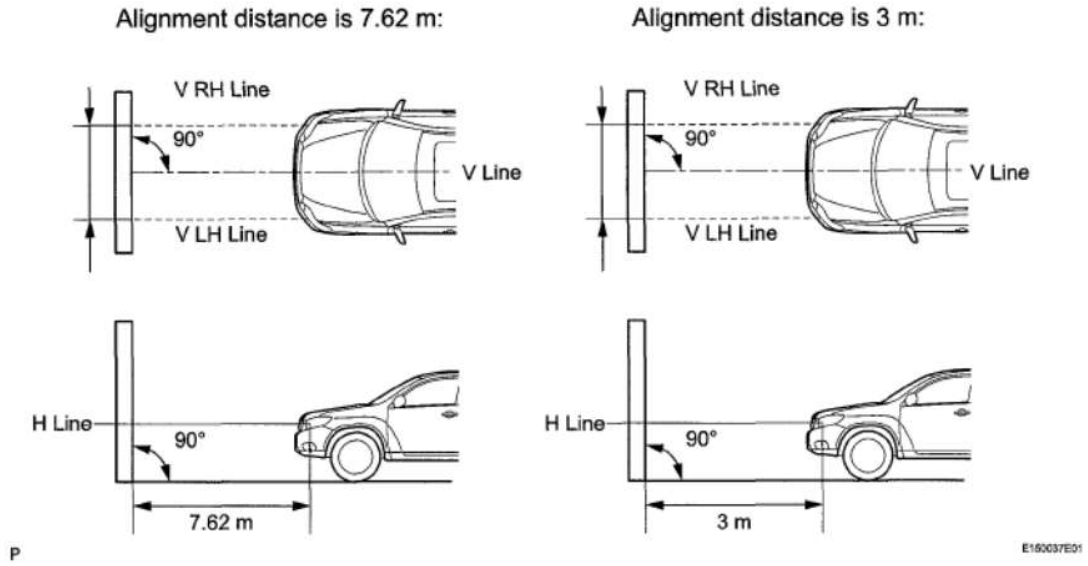


Fig. 82: Identifying Headlight Aiming Adjustment Screen
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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, 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 or the manufacturer's name marked on the headlight as the center mark.

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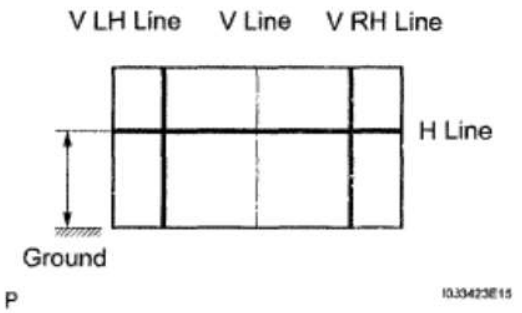


Fig. 83: Identifying Base Lines Screen
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

1. H Line (Headlight height):

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

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

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

   b. Start the engine.

   c. Turn on the headlight and check if the cutoff line matches the preferred cutoff line in the following illustration.

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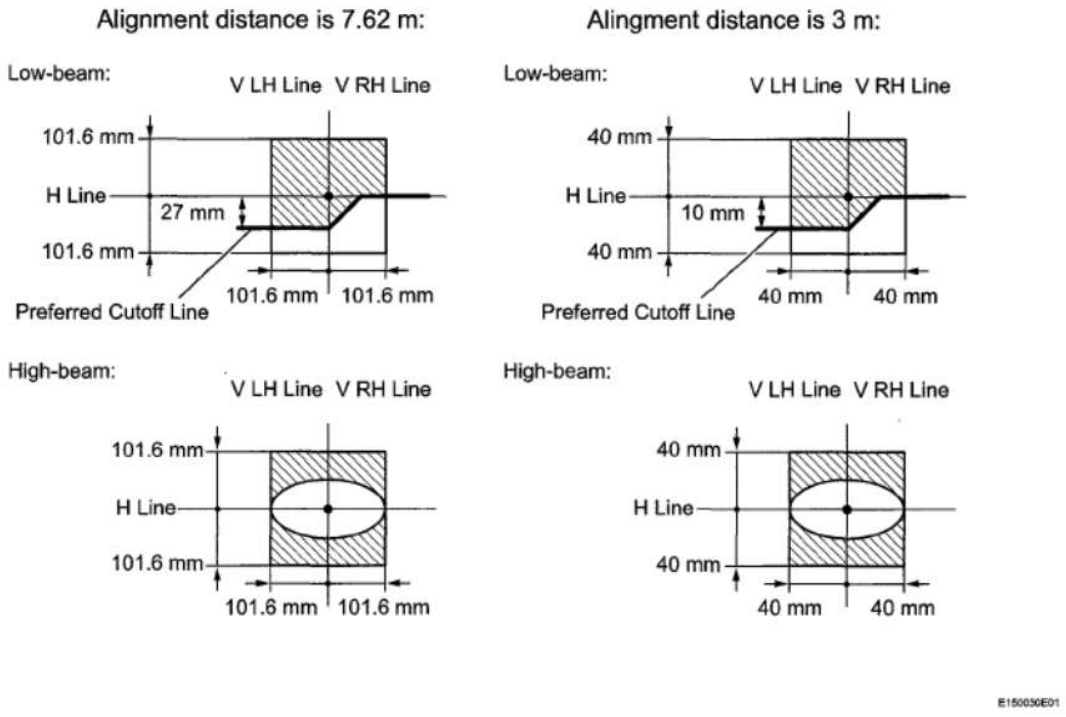


Fig. 84: Identifying Headlight Alignment Distance
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

HINT:

- Since the low-beam light and the high-beam light are a unit, if the aim on the low-beam is correct, the high-beam should also be correct. However, check both beams to confirm.
- If the alignment distance is 7.62 m (25 ft.):

  The low-beam cutoff line should be within 101.6 mm (4 in.) above or below the H line as well as 101.6 mm (4 in.) left or right of the V line (SAE J599).

- If the alignment distance is 3 m (9.84 ft.):

  The low-beam cutoff line should be within 40 mm (1.57 in.) above or below the H line as well as 40 mm (1.57 in.) left or right of the V line (SAE J599).

- If the alignment distance is 7.62 m (25 ft.):

  The high-beam center of intensity should be within 101.6 mm (4 in.) above or below the H line as well as 101.6 mm (4 in.) left or right of the V line (SAE J599).

- If the alignment distance is 3 m (9.84 ft.):

  The high-beam center of intensity should be within 40 mm (1.57 in.) above or below the H line as well as 40 mm (1.57 in.) left or right of the V line (SAE J599).

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- If the alignment distance is 7.62 m (25 ft.):

  The low-beam cutoff line should be 27 mm (1.06 in.) below the H line (preferred cutoff line target).

- If the alignment distance is 3 m (9.84 ft.):

  The low-beam cutoff line should be 10 mm (0.39 in.) below the H line (preferred cutoff line target).

5. **ADJUST HEADLIGHT AIMING**
   a. Adjust the aim vertically:
      a. Adjust the aim of each headlight to the specified range by turning each aiming screw with a screwdriver.

NOTE: 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.

HINT:

- The low-beam light and the high-beam light are a unit. Adjusting the aim on the low-beam to the correct position should also result in the high-beam adjustment being correct.
- If it is not possible to correctly adjust the headlight aim, check the bulbs, headlight unit, and headlight unit reflector installation.
- The headlight aim moves up when turning the aiming screw clockwise, and moves down when turning the aiming screw counterclockwise.

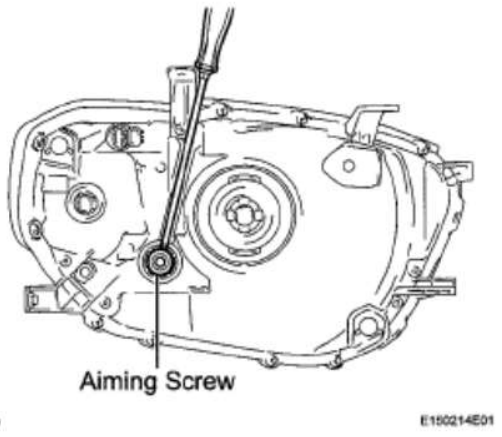


Fig. 85: Identifying Aiming Screw
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REASSEMBLY

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1. **INSTALL CLEARANCE LIGHT BULB**
   a. Install the clearance light bulb to the clearance light socket.
   b. Turn the clearance light bulb and clearance light socket in the direction indicated by the arrow and install them as a unit.
2. **INSTALL FRONT TURN SIGNAL LIGHT BULB**
   a. Install the front turn signal light bulb to the front turn signal light socket.

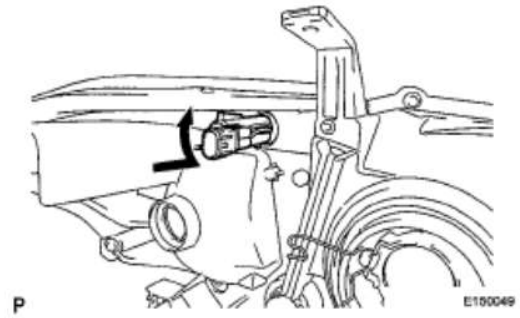


Fig. 86: Installing Clearance Light Bulb
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Turn the front turn signal light bulb and front turn signal light socket in the direction indicated by the arrow and install them as a unit.



Fig. 87: Installing Front Turn Signal Light Bulb
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. **INSTALL NO. 1 HEADLIGHT BULB**
   a. Lock the set spring to install the No. 1 headlight bulb as shown in the illustration.

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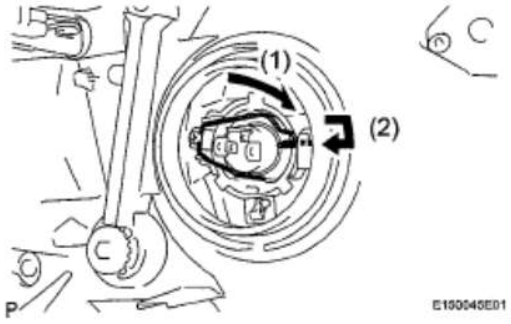


Fig. 88: Installing No. 1 Headlight Bulb
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **INSTALL HEADLIGHT COVER**
   a. Install the headlight cover.

INSTALLATION

1. **INSTALL HEADLIGHT ASSEMBLY**
   a. Connect the connectors.

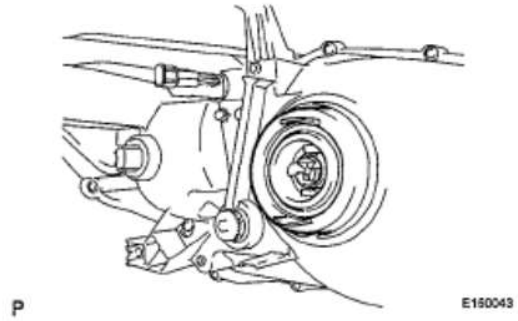
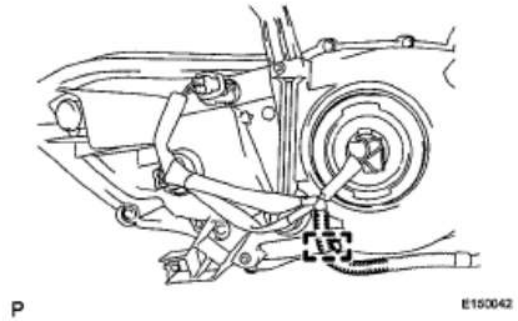


Fig. 89: Identifying Headlight Cover
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Engage the clamp.



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Fig. 90: Identifying Headlight Assembly Clamp And Connectors
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

c. Engage the claw and install the headlight assembly with the bolt and 2 screws.

Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)



Fig. 91: Installing Headlight Assembly With Bolt And Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **INSTALL REAR FENDER SPLASH SHIELD SUB-ASSEMBLY**
   a. Engage the 3 clips and 3 guides, and install the rear fender splash shield sub-assembly.
3. **INSTALL FRONT BUMPER ASSEMBLY (w/o Fog Light)** (See **INSTALLATION**)
4. **INSTALL FRONT BUMPER ASSEMBLY (w/ Fog Light)** (See **INSTALLATION**)
5. **INSTALL RADIATOR GRILLE** (See **INSTALLATION**)
6. **INSTALL COOL AIR INTAKE DUCT SEAL** (See **INSTALLATION**)
7. **VEHICLE PREPARATION FOR HEADLIGHT AIMING ADJUSTMENT** (See **ADJUSTMENT**)

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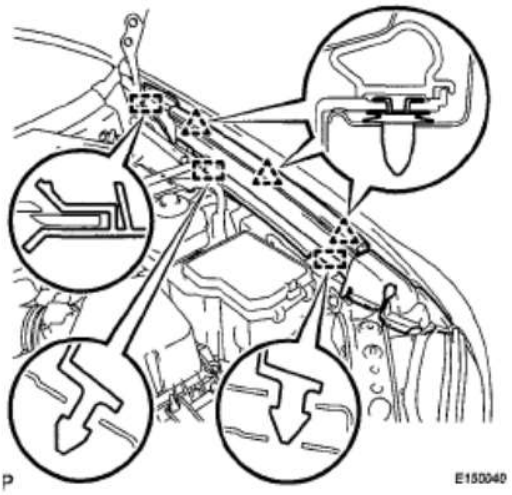


Fig. 92: Identifying Rear Fender Splash Shield Sub-Assembly Clips And Guides
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

8. **PREPARATION FOR HEADLIGHT AIMING (Using a headlight aim test machine)** (See **REASSEMBLY**)
9. **PREPARATION FOR HEADLIGHT AIMING (Using a Screen)** (See **REASSEMBLY**)
10. **INSPECT HEADLIGHT AIMING** (See **REASSEMBLY**)
11. **ADJUST HEADLIGHT AIMING** (See **REASSEMBLY**)
12. **VEHICLE PREPARATION FOR FOG LIGHT AIMING ADJUSTMENT (w/ Fog Light)** (See **REMOVAL**)
13. **PREPARATION FOR FOG LIGHT AIMING (w/ Fog Light)** (See **REASSEMBLY**)
14. **INSPECT FOG LIGHT AIMING (w/ Fog Light)** (See **REASSEMBLY**)
15. **ADJUST FOG LIGHT AIMING (w/ Fog Light)** (See **REASSEMBLY**)

FOG LIGHT ASSEMBLY

COMPONENTS

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Fig. 93: Identifying Fog Light Assembly Components
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REMOVAL

1. **REMOVE COOL AIR INTAKE DUCT SEAL** (See **REMOVAL**)
2. **REMOVE RADIATOR GRILLE** (See **REMOVAL**)
3. **REMOVE FRONT BUMPER ASSEMBLY** (See **DISASSEMBLY**)
4. **REMOVE FOG LIGHT ASSEMBLY**
   a. Remove the 2 screws.
   b. Disengage the guide and remove the fog light assembly.

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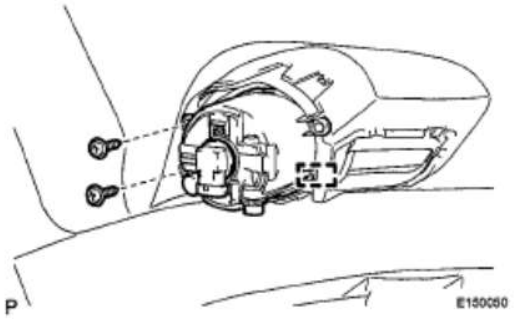


Fig. 94: Identifying Fog Light Assembly With Screws And Guide
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

DISASSEMBLY

1. **REMOVE FOG LIGHT BULB**
   a. Remove the fog light bulb as shown in the illustration.

NOTE: Do not touch the bulb glass.

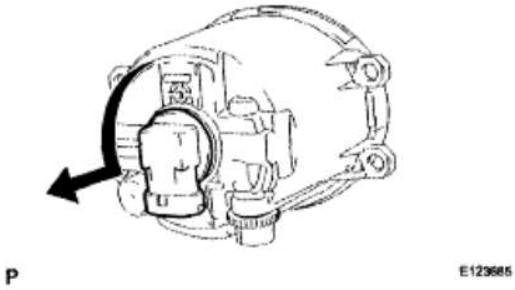


Fig. 95: Removing Fog Light Bulb
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ADJUSTMENT

HINT:

It is possible that if a bulb is incorrectly installed, it may affect the fog light aim. Bulb installation should be checked prior to performing the adjustment procedure.

1. **VEHICLE PREPARATION FOR FOG LIGHT AIMING ADJUSTMENT**
   a. Prepare the vehicle:
      - Ensure that there is no damage or deformation to the body around the fog lights.
      - Fill the fuel tank.
      - Make sure that the oil is filled to the specified level.
      - Make sure that the engine coolant is filled to the specified level.

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- Inflate the tires to the appropriate pressure.
- Unload the trunk and vehicle, ensuring that the spare tire, tools, and jack are in their original positions.
- Sit a person of average weight (68 kg, 150 lb) in the driver's seat.
- Vehicles with height adjustable suspension should set the vehicle height to the lowest setting prior to adjusting the fog light aim.

2. **PREPARATION FOR FOG LIGHT AIMING**

a. Prepare the vehicle:

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

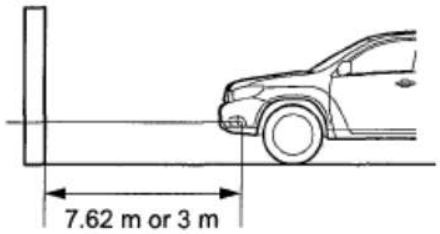


Fig. 96: Identifying Distance Between Vehicle (Fog Light Bulb Center) And Wall
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NOTE: A distance of 7.62 m (25 ft.) between the vehicle (fog light bulb center) and the wall is necessary for proper aim adjustment. If sufficient space is not available, secure a distance of exactly 3 m (9.84 ft.) for checking and adjustment of fog light aim. (The size of the target zone will change with the distance, so follow the instructions in the illustration.)

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

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

d. Set the screen as shown in the illustration.

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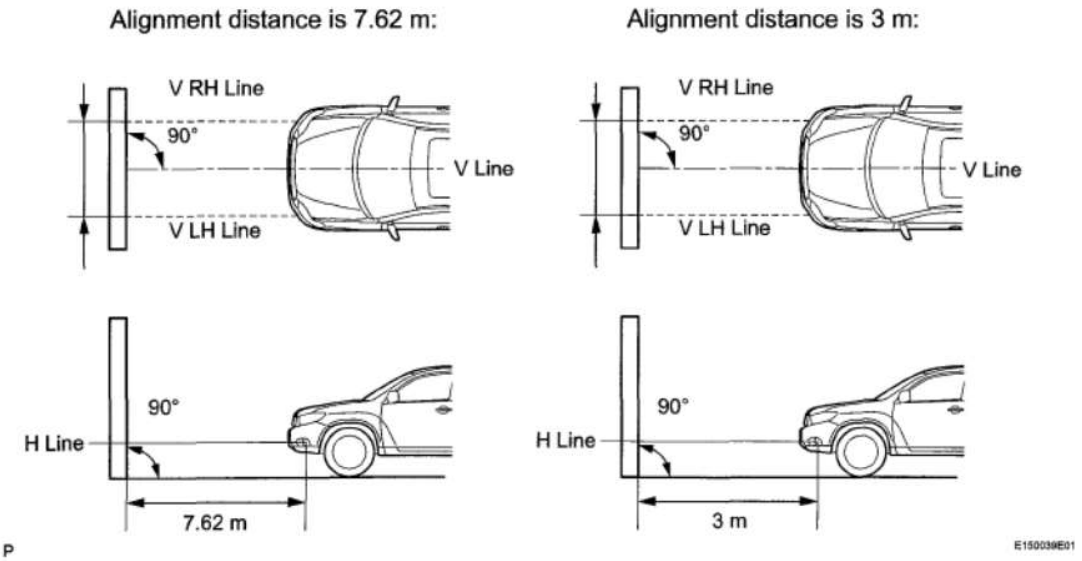


Fig. 97: Identifying Fog Light Aiming Adjustment Screen
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

HINT:

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

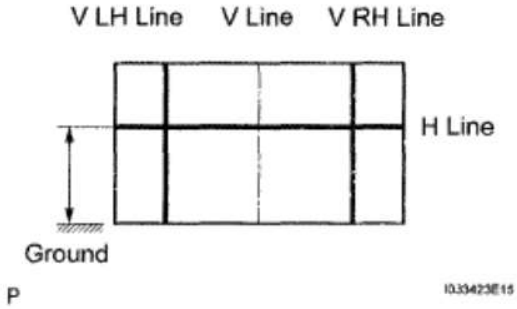
e. Draw base lines (H, V LH, and V RH lines) on the screen as shown in the illustration.

HINT:

Mark the fog light bulb center marks on the screen. If the center mark cannot be observed on the fog light, use the center of the fog light bulb or the manufacturer's name marked on the fog light as the center mark.

1. H Line (Fog light height):

   Draw a horizontal line across the screen so that it passes through the center marks. The H line should be at the same height as the fog light bulb center marks of the fog lights.



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Fig. 98: Identifying Base Lines Screen
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

3. **INSPECT FOG LIGHT AIMING**
   a. Cover the fog light or disconnect the connector of the fog light on the opposite side to prevent light from the fog light that is not being inspected from affecting the fog light aiming inspection.

NOTE: **Do not keep the fog light covered for more than 3 minutes. The fog light lens is made of synthetic resin, which may melt or be damaged due to excessive heat.**

   b. Start the engine.
   c. Turn on the fog light and check if the cutoff line falls within the specified area in the following illustration.

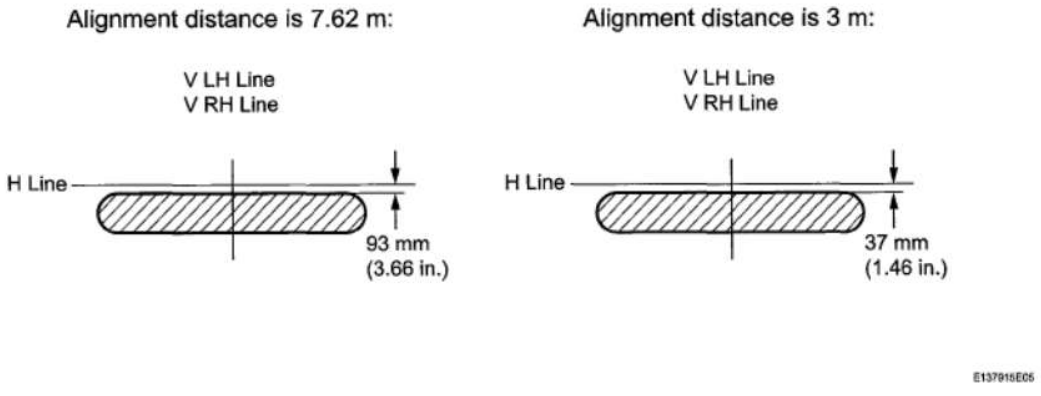


Fig. 99: Identifying Fog Light Aiming Alignment Distance
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **ADJUST FOG LIGHT AIMING**
   a. Adjust the aim vertically:

   Adjust the aim of each fog light to the specified range by turning each aiming screw with a screwdriver.

NOTE: **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.**

HINT:

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If it is not possible to correctly adjust fog light aim, check bulb, fog light unit, and fog light unit reflector installation.

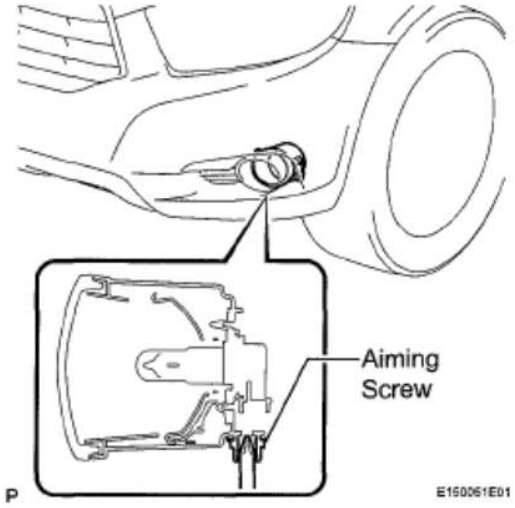


Fig. 100: Identifying Aiming Screw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REASSEMBLY

1. **INSTALL FOG LIGHT BULB**
   a. Install the fog light bulb as shown in the illustration.

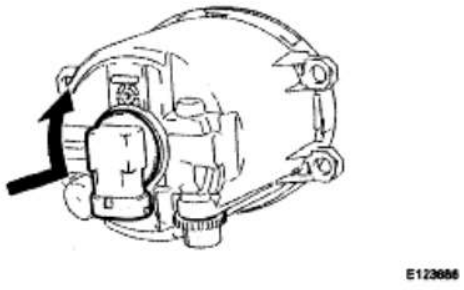


Fig. 101: Installing Fog Light Bulb
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL FOG LIGHT ASSEMBLY**
   a. Engage the guide.
   b. Install the fog light assembly with the 2 screws.
2. **INSTALL FRONT BUMPER ASSEMBLY** (See **INSTALLATION**)
3. **INSTALL RADIATOR GRILLE** (See **INSTALLATION**)

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4. **INSTALL COOL AIR INTAKE DUCT SEAL** (See **INSTALLATION**)

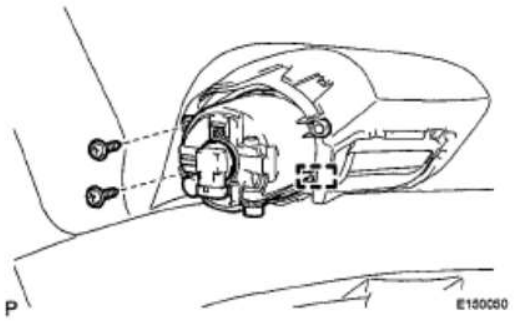


Fig. 102: Identifying Fog Light Assembly With Screws And Guide
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. **VEHICLE PREPARATION FOR FOG LIGHT AIMING ADJUSTMENT** (See **REMOVAL**)
6. **PREPARATION FOR FOG LIGHT AIMING** (See **REASSEMBLY**)
7. **INSPECT FOG LIGHT AIMING** (See **REASSEMBLY**)
8. **ADJUST FOG LIGHT AIMING** (See **REASSEMBLY**)

REAR COMBINATION LIGHT ASSEMBLY

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Fig. 103: Identifying Rear Combination Light Assembly Components (1 Of 10)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 104: Identifying Rear Combination Light Assembly Components (2 Of 10)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 105: Identifying Rear Combination Light Assembly Components (3 Of 10)
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w/ Rear No. 2 Seat:

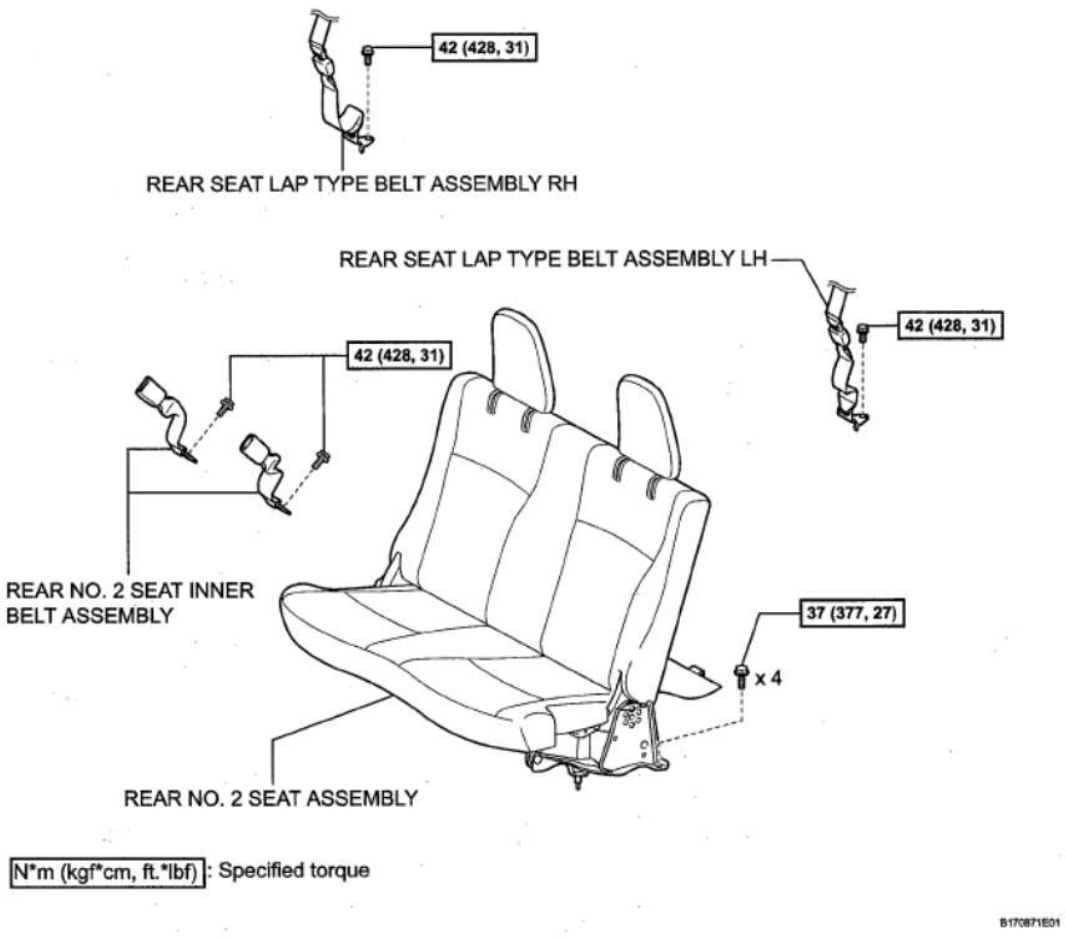


Fig. 106: Identifying Rear Combination Light Assembly Components (4 Of 10)
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Fig. 107: Identifying Rear Combination Light Assembly Components (5 Of 10)
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Fig. 108: Identifying Rear Combination Light Assembly Components (6 Of 10)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

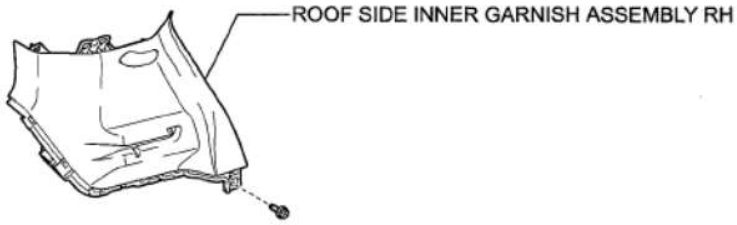
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Fig. 109: Identifying Rear Combination Light Assembly Components (7 Of 10)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

for RH Side:

w/o Rear No. 2 Seat:



w/ Rear No. 2 Seat:



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Fig. 110: Identifying Rear Combination Light Assembly Components (8 Of 10)
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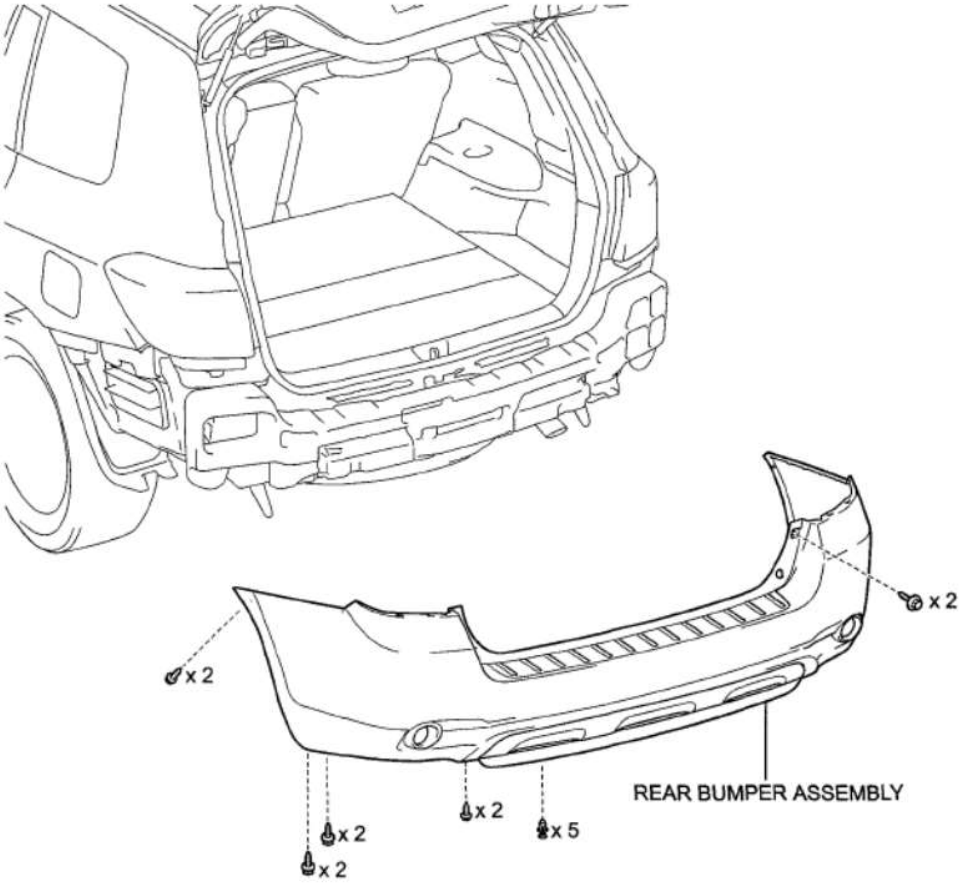


Fig. 111: Identifying Rear Combination Light Assembly Components (9 Of 10)
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Fig. 112: Identifying Rear Combination Light Assembly Components (10 Of 10)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

ON-VEHICLE INSPECTION

1. **INSPECT REAR COMBINATION LIGHT ASSEMBLY**
   a. Disconnect the connectors from the rear combination light assembly.
   b. Measure the voltage according to the value(s) in the table below.

Standard voltage:

LH Side

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
O29-1 - O29-2	Light control switch OFF	Below 1 V
	Light control switch in TAIL	11 to 14 V
O29-1 - O29-3	Brake pedal released	Below 1 V
	Brake pedal depressed	11 to 14 V
O27-1 - O27-2	Turn signal switch OFF	Below 1 V
	Ignition switch on (IG) and Turn signal switch in LH	11 to 14 V (60 to 120 times per minute)
O13-1 - O13-2	Shift lever not in R	Below 1 V
	Shift lever in R	11 to 14 V

RH Side

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
O30-1 - O30-2	Light control switch OFF	Below 1 V
	Light control switch in TAIL	11 to 14 V
O30-1 - O30-3	Brake pedal released	Below 1 V
	Brake pedal depressed	11 to 14 V
O28-1 - O28-2	Turn signal switch OFF	Below 1 V
	Ignition switch on (IG) and Turn signal switch in LH	11 to 14 V (60 to 120 times per minute)
O14-1 - O14-2	Shift lever not in R	Below 1 V
	Shift lever in R	11 to 14 V

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Front view of wire harness connector:
(to Rear Combination Light Assembly)

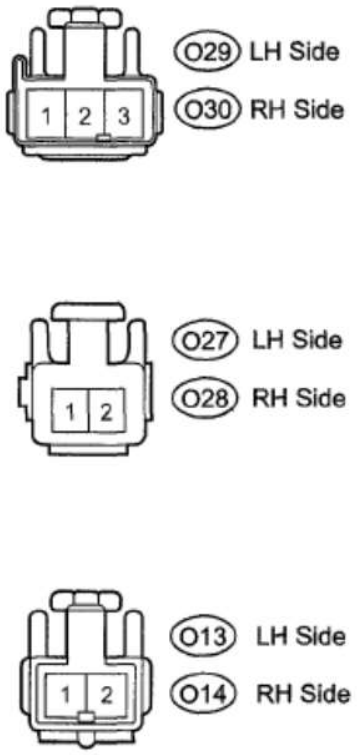


Fig. 113: Identifying Rear Combination Light Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

REMOVAL

1. **REMOVE REAR DOOR SCUFF PLATE LH** (See **REMOVAL**)
2. **REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP LH** (See **REMOVAL**)
3. **REMOVE REAR DOOR SCUFF PLATE RH** (See **REMOVAL**)
4. **REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP RH** (See **REMOVAL**)
5. **REMOVE DECK BOARD ASSEMBLY** (See **REMOVAL**)
6. **REMOVE NO. 3 DECK BOARD SUB-ASSEMBLY** (See **REMOVAL**)
7. **REMOVE NO. 2 DECK BOARD SUB-ASSEMBLY** (See **REMOVAL**)
8. **REMOVE TONNEAU COVER ASSEMBLY (w/ Tonneau Cover)** (See **REMOVAL**)

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9. **REMOVE REAR NO. 1 FLOOR BOARD (w/o Rear No. 2 Seat)** (See **REMOVAL**)
10. **REMOVE REAR SEAT SIDE COVER LH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
11. **REMOVE DECK SIDE TRIM BOX LH** (See **REMOVAL**)
12. **REMOVE REAR SEAT SIDE COVER RH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
13. **REMOVE JACK CARRIER SUPPORT**
14. **REMOVE JACK CARRIER CUSHION** (See **REMOVAL**)
15. **REMOVE JACK ASSEMBLY** (See **REMOVAL**)
16. **REMOVE JACK CARRIER ASSEMBLY** (See **REMOVAL**)
17. **REMOVE DECK SIDE TRIM BOX RH** (See **REMOVAL**)
18. **REMOVE DECK FLOOR BOARD ASSEMBLY (w/o Rear No. 2 Seat)** (See **REMOVAL**)
19. **REMOVE REAR MAT** (See **REMOVAL**)
20. **REMOVE DECK FLOOR BOARD ASSEMBLY (w/ Rear No. 2 Seat)** (See **REMOVAL**)
21. **REMOVE REAR DECK FLOOR BOX (w/o Rear No. 2 Seat)** (See **REMOVAL**)
22. **REMOVE REAR NO. 2 SEAT INNER BELT ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
23. **DISCONNECT REAR SEAT LAP TYPE BELT ASSEMBLY LH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
24. **DISCONNECT REAR SEAT LAP TYPE BELT ASSEMBLY RH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
25. **REMOVE REAR NO. 2 SEAT ASSEMBLY (w/ Rear No. 2 Seat)** (See **DISASSEMBLY**)
26. **REMOVE REAR FLOOR FINISH PLATE** (See **REMOVAL**)
27. **REMOVE DECK SIDE TRIM COVER LH** (See **REMOVAL**)
28. **REMOVE DECK SIDE TRIM LH** (See **REMOVAL**)
29. **REMOVE SIDE TRIM COVER LH (w/o Rear Seat Entertainment System)** (See **REMOVAL**)
30. **REMOVE POWER OUTLET SOCKET BEZEL (w/ Rear Seat Entertainment System)** (See **REMOVAL**)
31. **REMOVE REAR COMBINATION LIGHT SERVICE COVER LH** (See **REMOVAL**)
32. **REMOVE REAR POWER POINT SOCKET ASSEMBLY** (See **REAR POWER OUTLET SOCKET**)
33. **REMOVE REAR POWER OUTLET SOCKET COVER** (See **INSTALLATION**)
34. **REMOVE REAR DECK TRIM COVER (w/o Remote Folding Function)** (See **REMOVAL**)
35. **REMOVE RECLINING REMOTE CONTROL LEVER BEZEL LH (w/ Remote Folding Function)** (See **REMOVAL**)
36. **REMOVE ROPE HOOK ASSEMBLY (for LH Side)** (See **REMOVAL**)
37. **REMOVE NO. 2 DECK SIDE TRIM HOOK** (See **REMOVAL**)
38. **REMOVE FRONT DECK SIDE TRIM COVER LH** (See **REMOVAL**)
39. **DISCONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY LH** (See **REMOVAL**)
40. **REMOVE DECK TRIM SIDE PANEL ASSEMBLY LH** (See **REMOVAL**)
41. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY LH (w/o Power Back Door)** (See

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REMOVAL)

42. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY LH (w/ Power Back Door)** (See REMOVAL)
43. **REMOVE REAR SEAT SIDE GARNISH CAP (w/o Rear Air Conditioning System)** (See REMOVAL)
44. **REMOVE REAR SEAT SIDE GARNISH CAP (w/ Rear Air Conditioning System)** (See REMOVAL)
45. **REMOVE DECK SIDE TRIM COVER RH** (See REMOVAL)
46. **REMOVE DECK SIDE TRIM RH** (See REMOVAL)
47. **REMOVE SIDE TRIM COVER RH (w/o Rear Automatic Air Conditioning System)** (See REMOVAL)
48. **REMOVE REAR ROOM TEMPERATURE SENSOR (w/ Rear Automatic Air Conditioning System)** (See ROOM TEMPERATURE SENSOR (FOR REAR))
49. **REMOVE REAR COMBINATION LIGHT SERVICE COVER RH** (See REMOVAL)
50. **REMOVE ROPE HOOK ASSEMBLY (for RH Side)** (See REMOVAL)
51. **REMOVE NO. 1 LUGGAGE COMPARTMENT TRIM HOOK** (See REMOVAL)
52. **REMOVE FRONT DECK SIDE TRIM COVER RH** (See REMOVAL)
53. **DISCONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY RH** (See REMOVAL)
54. **REMOVE DECK TRIM SIDE PANEL ASSEMBLY RH** (See REMOVAL)
55. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH (w/o Rear No. 2 Seat)** (See REMOVAL)
56. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH (w/ Rear No. 2 Seat)** (See REMOVAL)
57. **REMOVE REAR BUMPER ASSEMBLY** (See REMOVAL)
58. **REMOVE REAR COMBINATION LIGHT ASSEMBLY**
    a. Disconnect the connectors.
    b. Remove the 2 nuts.

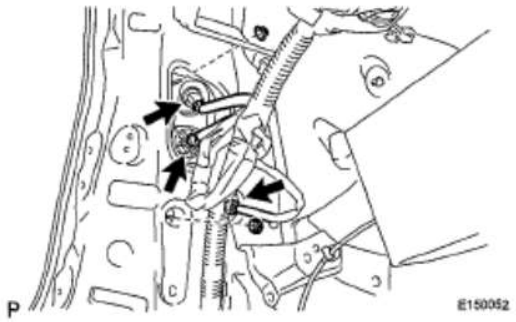


Fig. 114: Locating Rear Combination Light Assembly Nuts And Connectors
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

    c. Remove the screw.

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d. Disengage the 2 clips, 2 pins and guide and remove the rear combination light assembly.

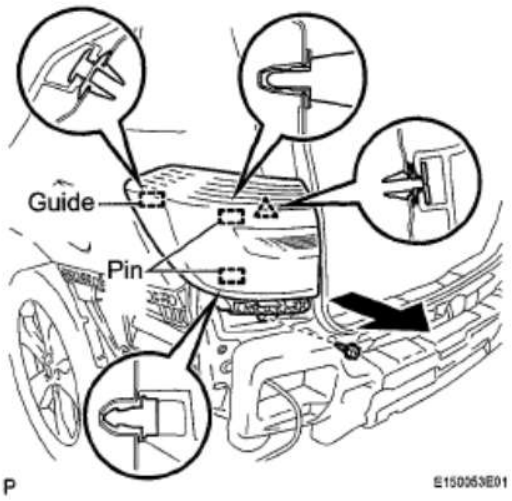


Fig. 115: Removing Rear Combination Light Assembly Clips And Pins
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

DISASSEMBLY

1. **REMOVE REAR COMBINATION LIGHT BODY GASKET**
   a. Remove the rear combination light body gasket.

NOTE:

- **Be sure to remove all traces of the old gasket from the body.**
- **Do not reuse the removed gasket. Be sure to install a new rear combination light body gasket to prevent water ingress.**

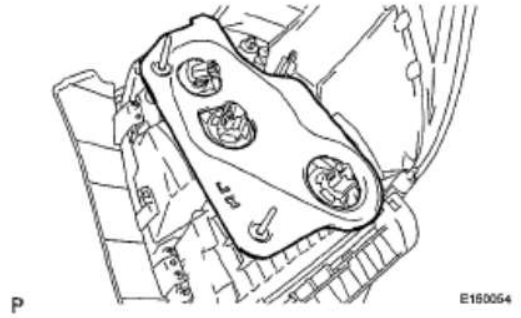


Fig. 116: Identifying Rear Combination Light Body Gasket
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **REMOVE BACK UP LIGHT BULB**
   a. Turn the back up light bulb and the back up light socket in the direction indicated by the arrow and remove them as a unit.

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b. Remove the back up light bulb from the back up light socket.

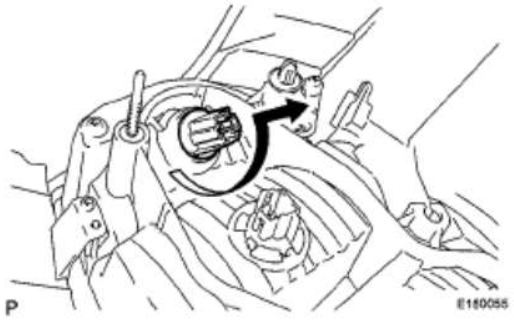


Fig. 117: Removing Back Up Light Bulb
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. **REMOVE REAR TURN SIGNAL LIGHT BULB**
   a. Turn the rear turn signal light bulb and the rear turn signal light socket in the direction indicated by the arrow and remove them as a unit.
   b. Remove the rear turn signal light bulb from the rear turn signal light socket.

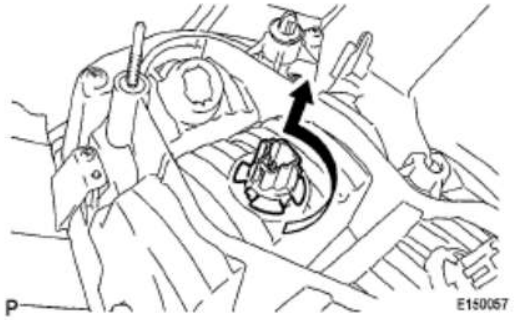


Fig. 118: Removing Rear Turn Signal Light Bulb
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **REMOVE TAIL AND STOP LIGHT BULB**
   a. Turn the tail and stop light bulb and the tail and stop light socket in the direction indicated by the arrow and remove them as a unit.
   b. Remove the tail and stop light bulb from the tail and stop light socket.

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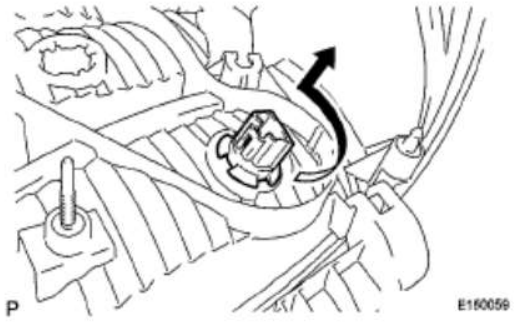


Fig. 119: Removing Tail And Stop Light Bulb
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. **REMOVE REAR BUMPER SIDE SUPPORT**
   a. Disengage the 2 claws and remove the rear bumper side support.

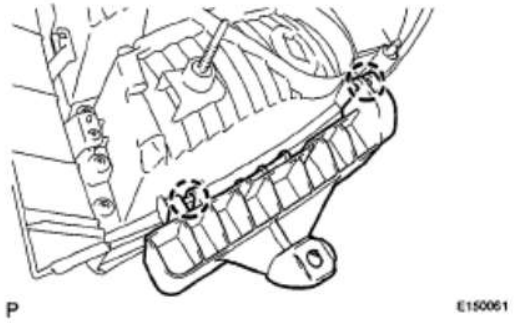
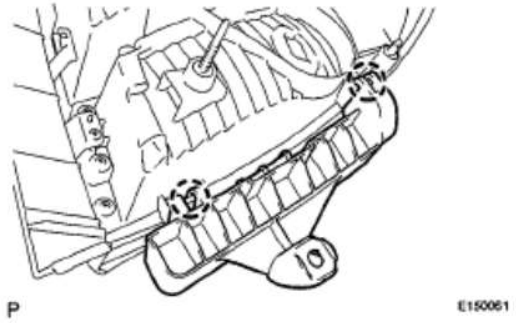


Fig. 120: Identifying Rear Bumper Side Support With Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REASSEMBLY

1. **INSTALL REAR BUMPER SIDE SUPPORT**
   a. Engage the 2 claws and install the rear bumper side support.
2. **INSTALL TAIL AND STOP LIGHT BULB**
   a. Install the tail and stop light bulb to the tail and stop light socket.



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Fig. 121: Identifying Rear Bumper Side Support With Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Turn the tail and stop light bulb and the tail and stop light socket in the direction indicated by the arrow and install them as a unit.

3. **INSTALL REAR TURN SIGNAL LIGHT BULB**
   a. Install the rear turn signal light bulb to the rear turn signal light socket.

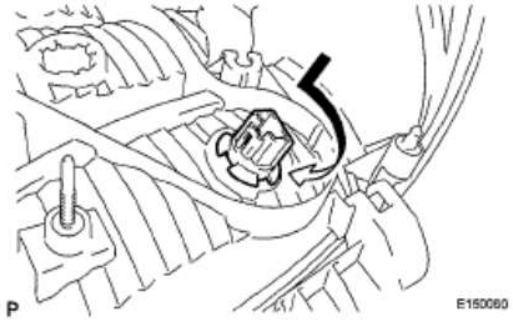


Fig. 122: Installing Tail And Stop Light Bulb
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Turn the rear turn signal light bulb and the rear turn signal light socket in the direction indicated by the arrow and install them as a unit.

4. **INSTALL BACK UP LIGHT BULB**
   a. Install the back up light bulb to the back up light socket.

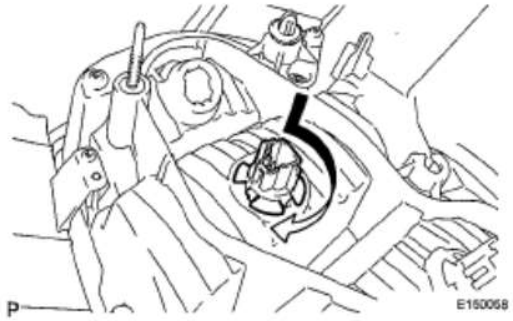


Fig. 123: Installing Rear Turn Signal Light Bulb
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Turn the back up light bulb and the back up light socket in the direction indicated by the arrow and install them as a unit.

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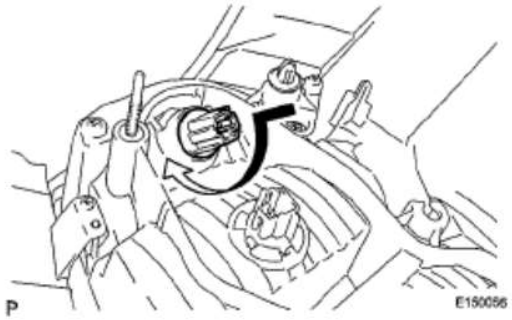


Fig. 124: Installing Back Up Light Bulb
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. **INSTALL REAR COMBINATION LIGHT BODY GASKET**
   a. Install a new rear combination light body gasket.

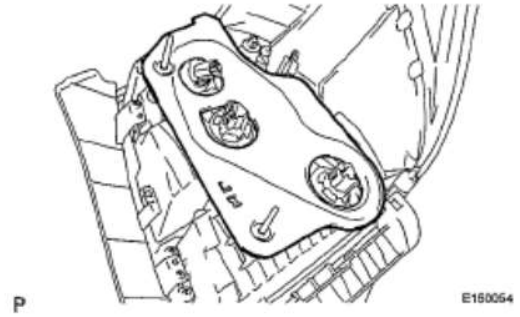


Fig. 125: Identifying Rear Combination Light Body Gasket
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL REAR COMBINATION LIGHT ASSEMBLY**
   a. Engage the 2 clips, 2 pins and guide and install the rear combination light assembly with the screw.

      Torque: 3.0 N*m (31 kgf*cm, 27 in.*lbf)

   b. Install the 2 nuts.

      Torque: 6.5 N*m (66 kgf*cm, 58 in.*lbf)

   c. Connect the connectors.

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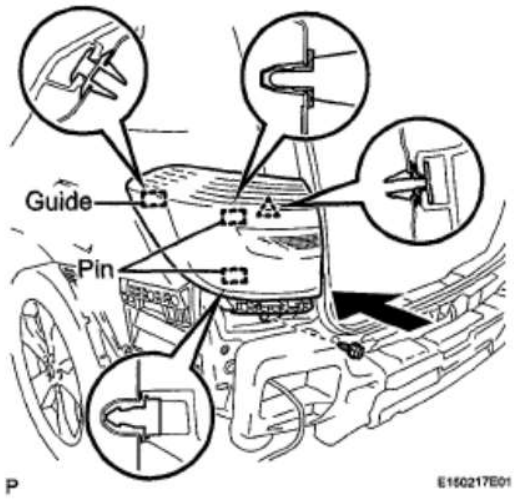


Fig. 126: Installing Rear Combination Light Assembly With Screw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **INSTALL REAR BUMPER ASSEMBLY** (See **INSTALLATION**)
3. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY LH (w/o Power Back Door)** (See **INSTALLATION**)
4. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY LH (w/ Power Back Door)** (See **INSTALLATION**)

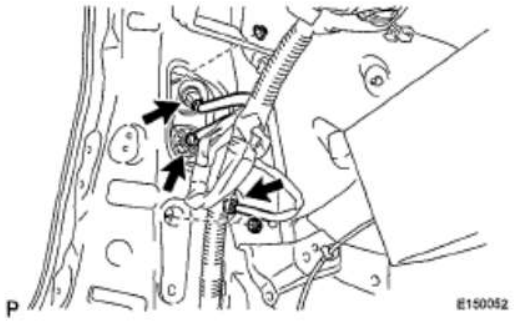


Fig. 127: Locating Rear Combination Light Assembly Nuts And Connectors
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. **INSTALL DECK TRIM SIDE PANEL ASSEMBLY LH** (See **INSTALLATION**)
6. **CONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY LH** (See **INSTALLATION**)
7. **INSTALL FRONT DECK SIDE TRIM COVER LH** (See **INSTALLATION**)
8. **INSTALL NO. 2 DECK SIDE TRIM HOOK** (See **INSTALLATION**)
9. **INSTALL ROPE HOOK ASSEMBLY (for LH Side)** (See **INSTALLATION**)
10. **INSTALL REAR DECK TRIM COVER (w/o Remote Folding Function)** (See **INSTALLATION**)
11. **INSTALL RECLINING REMOTE CONTROL LEVER BEZEL LH (w/ Remote Folding Function)** (See **INSTALLATION**)

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12. **INSTALL REAR POWER OUTLET SOCKET COVER** (See **INSTALLATION**)
13. **INSTALL REAR POWER POINT SOCKET ASSEMBLY** (See **INSTALLATION**)
14. **INSTALL REAR COMBINATION LIGHT SERVICE COVER LH** (See **INSTALLATION**)
15. **INSTALL SIDE TRIM COVER LH (w/o Rear Seat Entertainment System)** (See **INSTALLATION**)
16. **INSTALL POWER OUTLET SOCKET BEZEL (w/ Rear Seat Entertainment System)** (See **INSTALLATION**)
17. **INSTALL DECK SIDE TRIM LH** (See **INSTALLATION**)
18. **INSTALL DECK SIDE TRIM COVER LH** (See **INSTALLATION**)
19. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH (w/o Rear No. 2 Seat)** (See **INSTALLATION**)
20. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
21. **INSTALL DECK TRIM SIDE PANEL ASSEMBLY RH** (See **INSTALLATION**)
22. **CONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY RH** (See **INSTALLATION**)
23. **INSTALL FRONT DECK SIDE TRIM COVER RH** (See **INSTALLATION**)
24. **INSTALL NO. 1 LUGGAGE COMPARTMENT TRIM HOOK** (See **INSTALLATION**)
25. **INSTALL ROPE HOOK ASSEMBLY (for RH Side)** (See **INSTALLATION**)
26. **INSTALL REAR COMBINATION LIGHT SERVICE COVER RH** (See **INSTALLATION**)
27. **INSTALL REAR ROOM TEMPERATURE SENSOR (w/ Rear Automatic Air Conditioning System)** (See **INSPECTION**)
28. **INSTALL SIDE TRIM COVER RH (w/o Rear Automatic Air Conditioning System)** (See **INSTALLATION**)
29. **INSTALL DECK SIDE TRIM RH** (See **INSTALLATION**)
30. **INSTALL DECK SIDE TRIM COVER RH** (See **INSTALLATION**)
31. **INSTALL REAR SEAT SIDE GARNISH CAP (w/o Rear Air Conditioning System)** (See **INSTALLATION**)
32. **INSTALL REAR SEAT SIDE GARNISH CAP (w/ Rear Air Conditioning System)** (See **INSTALLATION**)
33. **INSTALL REAR FLOOR FINISH PLATE** (See **INSTALLATION**)
34. **INSTALL REAR NO. 2 SEAT ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
35. **INSTALL REAR SEAT LAP TYPE BELT ASSEMBLY LH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
36. **INSTALL REAR SEAT LAP TYPE BELT ASSEMBLY RH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
37. **INSTALL REAR NO. 2 SEAT INNER BELT ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
38. **INSTALL REAR DECK FLOOR BOX (w/o Rear No. 2 Seat)** (See **INSTALLATION**)
39. **INSTALL DECK FLOOR BOARD ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
40. **INSTALL REAR MAT** (See **INSTALLATION**)

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41. **INSTALL DECK FLOOR BOARD ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
42. **INSTALL DECK SIDE TRIM BOX LH** (See **INSTALLATION**)
43. **INSTALL REAR SEAT SIDE COVER LH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
44. **INSTALL DECK SIDE TRIM BOX RH** (See **INSTALLATION**)
45. **INSTALL JACK CARRIER ASSEMBLY** (See **INSTALLATION**)
46. **INSTALL JACK ASSEMBLY** (See **INSTALLATION**)
47. **INSTALL JACK CARRIER CUSHION** (See **INSTALLATION**)
48. **INSTALL JACK CARRIER SUPPORT**
49. **INSTALL REAR SEAT SIDE COVER RH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
50. **INSTALL REAR NO. 1 FLOOR BOARD (w/o Rear No. 2 Seat)** (See **INSTALLATION**)
51. **INSTALL TONNEAU COVER ASSEMBLY (w/ Tonneau Cover)** (See **INSTALLATION**)
52. **INSTALL NO. 2 DECK BOARD SUB-ASSEMBLY** (See **INSTALLATION**)
53. **INSTALL NO. 3 DECK BOARD SUB-ASSEMBLY** (See **INSTALLATION**)
54. **INSTALL DECK BOARD ASSEMBLY** (See **INSTALLATION**)
55. **INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP LH** (See **INSTALLATION**)
56. **INSTALL REAR DOOR SCUFF PLATE LH** (See **INSTALLATION**)
57. **INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP RH** (See **INSTALLATION**)
58. **INSTALL REAR DOOR SCUFF PLATE RH** (See **INSTALLATION**)

LICENSE PLATE LIGHT ASSEMBLY

COMPONENTS

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Fig. 128: Identifying License Plate Light Assembly Components (1 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 129: Identifying License Plate Light Assembly Components (2 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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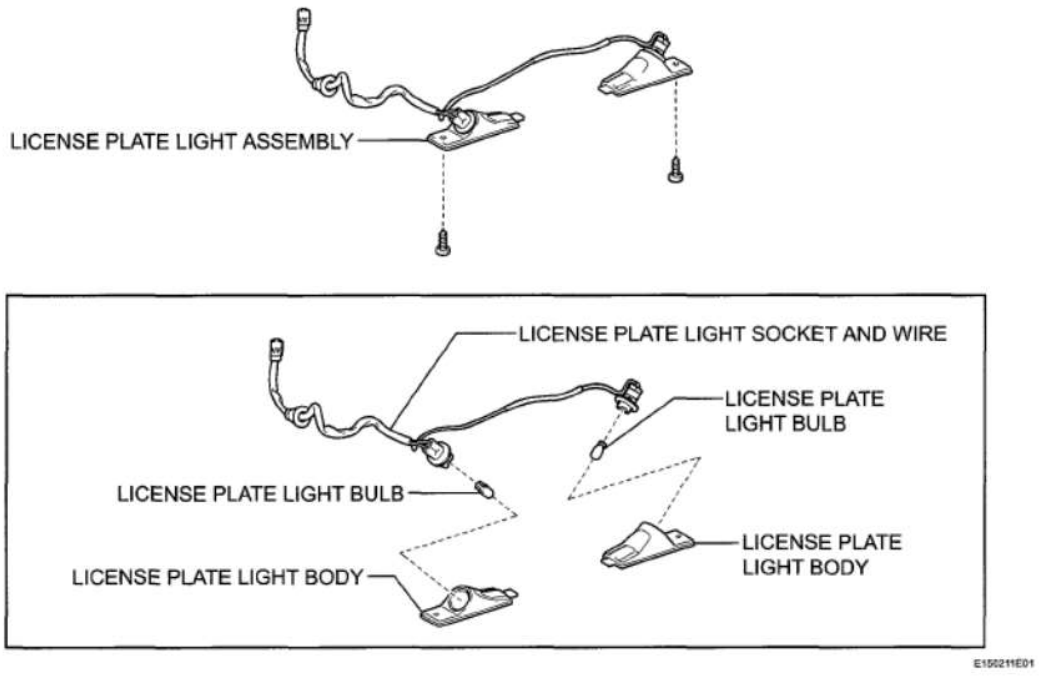


Fig. 130: Identifying License Plate Light Assembly Components (3 Of 3)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **DISASSEMBLY**)
2. **REMOVE BACK DOOR TRIM COVER LH (w/o Power Back Door)** (See **DISASSEMBLY**)
3. **REMOVE BACK DOOR SERVICE HOLE COVER LH (w/ Power Back Door)** (See **DISASSEMBLY**)
4. **DISCONNECT POWER BACK DOOR ROD (w/ Power Back Door)** (See **DISASSEMBLY**)
5. **REMOVE BACK DOOR TRIM COVER LH (w/ Power Back Door)** (See **DISASSEMBLY**)
6. **REMOVE BACK DOOR TRIM COVER RH** (See **DISASSEMBLY**)
7. **REMOVE BACK DOOR LOCK COVER (for Glass Hatch Type)** (See **DISASSEMBLY**)
8. **REMOVE ASSIST STRAP HOLE COVER** (See **DISASSEMBLY**)
9. **REMOVE ASSIST STRAP ASSEMBLY** (See **DISASSEMBLY**)
10. **REMOVE BACK DOOR TRIM PANEL ASSEMBLY** (See **DISASSEMBLY**)
11. **REMOVE BACK DOOR OUTSIDE GARNISH ASSEMBLY** (See **REMOVAL**)
12. **REMOVE LICENSE PLATE LIGHT ASSEMBLY**
    a. Disengage the clamp.

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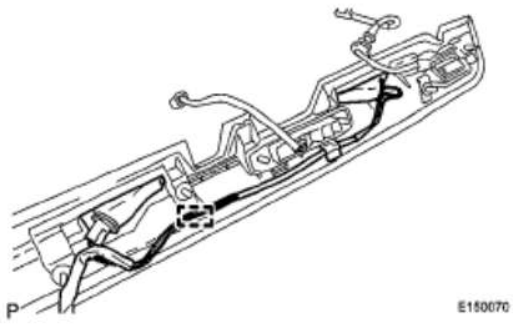


Fig. 131: Identifying License Plate Light Assembly Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Remove the 2 screws.
c. Disengage the 2 guides as shown in the illustration.
d. Remove the license plate light assembly.

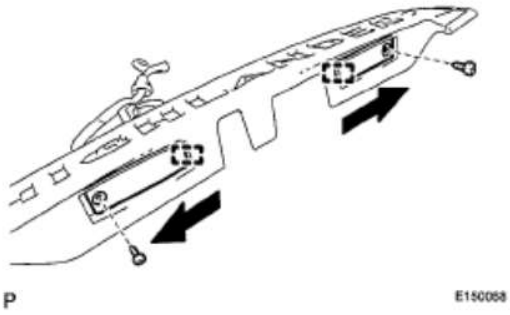
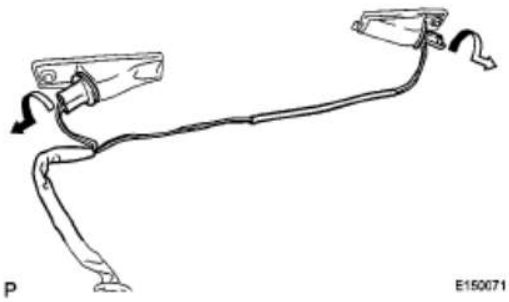


Fig. 132: Disengaging Guides
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

DISASSEMBLY

1. **REMOVE LICENSE PLATE LIGHT BULB**
   a. Turn the 2 license plate light bulbs and the license plate light socket and wire in the directions indicated by the arrows and remove them as a unit.
   b. Remove the 2 license plate light bulbs from the license plate light socket and wire.



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Fig. 133: Removing License Plate Light Bulb
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION

1. **INSPECT LICENSE PLATE LIGHT ASSEMBLY**
   a. Disconnect the T2 connector from the license plate light.
   b. Measure the voltage according to the value(s) in the table below.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
T2-1 - T2-2	Light control switch in TAIL	11 to 14 V
T2-1 - T2-2	Light control switch OFF	Below 1 V

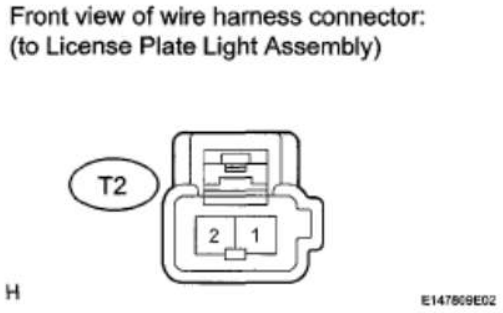


Fig. 134: Identifying License Plate Light Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

If the result is not as specified, repair or replace the wire harness or connector.

REASSEMBLY

1. **INSTALL LICENSE PLATE LIGHT BULB**
   a. Install the 2 license plate light bulbs to the license plate light socket and wire.
   b. Turn the 2 license plate light bulbs and the license plate light socket and wire in the directions indicated by the arrows and install them as a unit.

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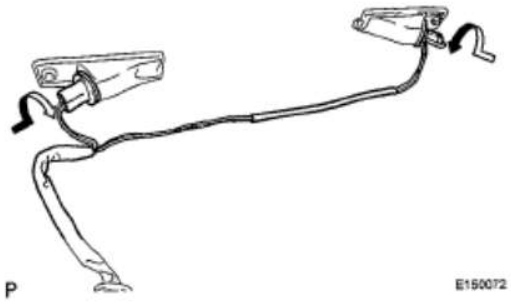


Fig. 135: Installing License Plate Light Bulb
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL LICENSE PLATE LIGHT ASSEMBLY**
   a. Engage the 2 guides as shown in the illustration.
   b. Install the license plate light assembly with the 2 screws.

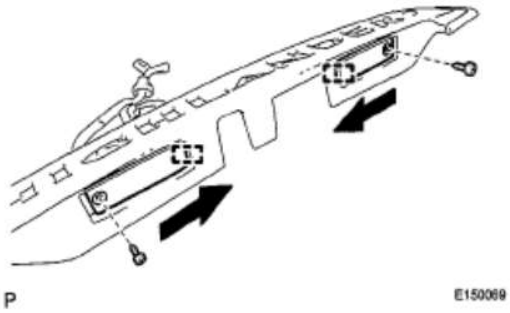


Fig. 136: Engaging Guides
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   c. Engage the clamp.
2. **INSTALL BACK DOOR OUTSIDE GARNISH ASSEMBLY** (See **INSTALLATION**)
3. **INSTALL BACK DOOR TRIM PANEL ASSEMBLY** (See **REASSEMBLY**)
4. **INSTALL ASSIST STRAP ASSEMBLY** (See **REASSEMBLY**)
5. **INSTALL ASSIST STRAP HOLE COVER** (See **REASSEMBLY**)

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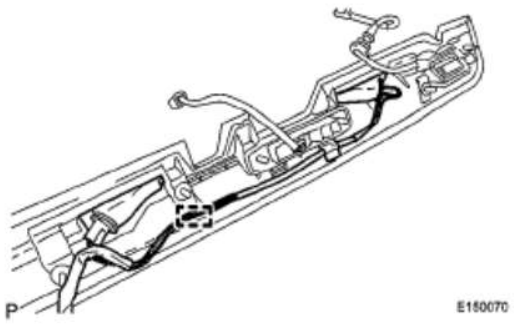


Fig. 137: Identifying License Plate Light Assembly Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. **INSTALL BACK DOOR LOCK COVER (for Glass Hatch Type)** (See **REASSEMBLY**)
7. **INSTALL BACK DOOR TRIM COVER LH (w/o Power Back Door)** (See **REASSEMBLY**)
8. **INSTALL BACK DOOR TRIM COVER LH (w/ Power Back Door)** (See **REASSEMBLY**)
9. **CONNECT POWER BACK DOOR ROD (w/ Power Back Door)** (See **REASSEMBLY**)
10. **INSTALL BACK DOOR SERVICE HOLE COVER LH** (See **REASSEMBLY**)
11. **INSTALL BACK DOOR TRIM COVER RH** (See **REASSEMBLY**)
12. **INSTALL BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **REASSEMBLY**)

HIGH MOUNTED STOP LIGHT ASSEMBLY (FOR REAR SPOILER WITH PRESS LINE)

COMPONENTS

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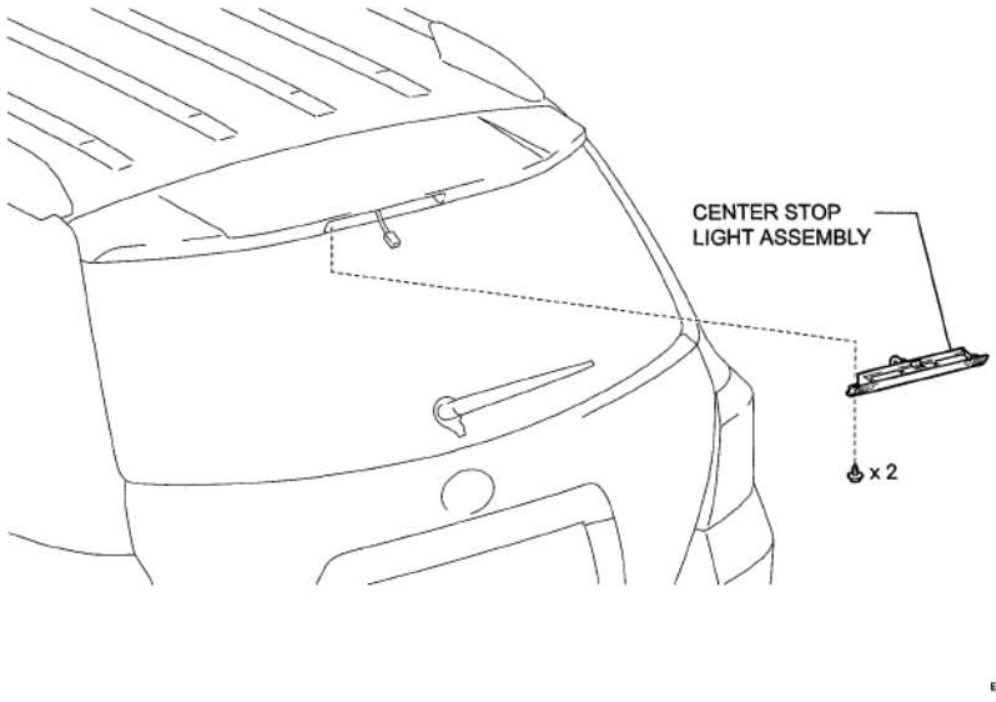


Fig. 138: Identifying High Mounted Stop Light Assembly (For Rear Spoiler With Press Line) Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE CENTER STOP LIGHT ASSEMBLY**
   a. Remove the 2 screws.
   b. Disconnect the center stop light assembly from the rear spoiler sub-assembly.
   c. Disconnect the connector and remove the center stop light assembly.

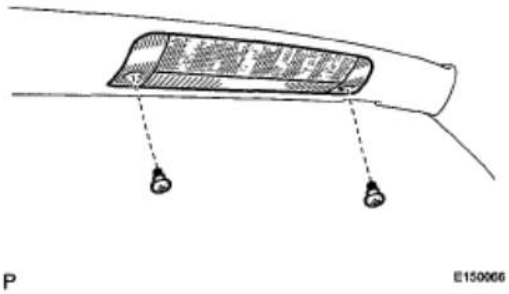


Fig. 139: Identifying Center Stop Light Assembly Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION

1. **INSPECT HIGH MOUNTED STOP LIGHT ASSEMBLY**

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a. Connect the (+) lead from the battery to terminal 2 and the (-) lead to terminal 1.
b. Check that the high mounted stop light comes on.

OK: The light comes on.

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

Component without harness connected:
(High Mounted Stop Light Assembly)

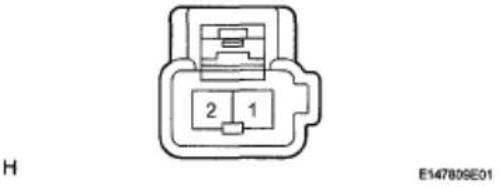


Fig. 140: Identifying High Mounted Stop Light Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL CENTER STOP LIGHT ASSEMBLY**
   a. Connect the connector.
   b. Connect the center stop light assembly to the rear spoiler sub-assembly.
   c. Install the center stop light assembly with the 2 screws.

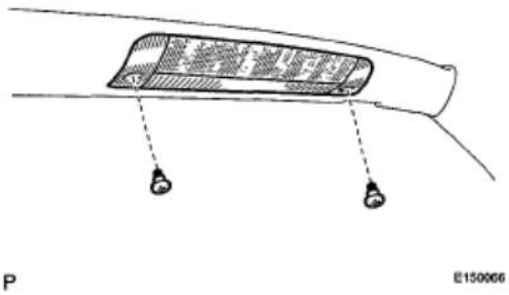


Fig. 141: Identifying Center Stop Light Assembly Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

HIGH MOUNTED STOP LIGHT ASSEMBLY (FOR REAR SPOILER WITHOUT PRESS LINE)

COMPONENTS

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Fig. 142: Identifying High Mounted Stop Light Assembly (For Rear Spoiler Without Press Line) Components (1 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 143: Identifying High Mounted Stop Light Assembly (For Rear Spoiler Without Press Line) Components (2 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 144: Identifying High Mounted Stop Light Assembly (For Rear Spoiler Without Press Line) Components (3 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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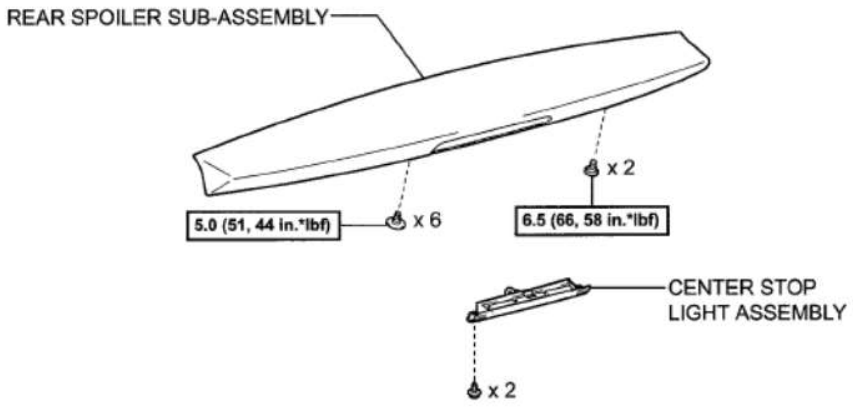


Fig. 145: Identifying High Mounted Stop Light Assembly (For Rear Spoiler Without Press Line) Components (4 Of 4)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **PRECAUTION**

NOTE:

- **Be sure to use the centering jig when removing and installing the rear wiper motor assembly (for Glass Hatch Type). Failure to do so will result in a change of the location of the axis of the rear wiper motor assembly (for Glass Hatch Type), causing the wiping angle to change.**
- **After installing the rear wiper motor assembly (for Glass Hatch Type), do not open the glass hatch before installing the rear wiper link pivot.**
- **If the rear wiper motor assembly is removed without using the centering jig, the rear wiper motor assembly must be replaced with a new one.**

2. **REMOVE BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **DISASSEMBLY**)
3. **REMOVE BACK DOOR TRIM COVER LH (w/o Power Back Door)** (See **DISASSEMBLY**)
4. **REMOVE BACK DOOR SERVICE HOLE COVER LH (w/ Power Back Door)** (See **DISASSEMBLY**)
5. **DISCONNECT POWER BACK DOOR ROD (w/ Power Back Door)** (See **DISASSEMBLY**)
6. **REMOVE BACK DOOR TRIM COVER LH (w/ Power Back Door)** (See **DISASSEMBLY**)
7. **REMOVE BACK DOOR TRIM COVER RH** (See **DISASSEMBLY**)
8. **REMOVE BACK DOOR LOCK COVER (for Glass Hatch Type)** (See **DISASSEMBLY**)
9. **REMOVE ASSIST STRAP HOLE COVER** (See **DISASSEMBLY**)
10. **REMOVE ASSIST STRAP ASSEMBLY** (See **DISASSEMBLY**)

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11. **REMOVE BACK DOOR TRIM PANEL ASSEMBLY** (See **DISASSEMBLY**)
12. **REMOVE REAR WIPER SHAFT COVER (for Glass Hatch Type)** (See **REMOVAL**)
13. **REMOVE REAR WIPER ARM HEAD CAP** (See **REMOVAL**)
14. **REMOVE REAR WIPER ARM AND BLADE ASSEMBLY** (See **REMOVAL**)
15. **REMOVE REAR WIPER LINK CAP (for Glass Hatch Type)** (See **REMOVAL**)
16. **REMOVE REAR WIPER MOTOR GROMMET (for Fixed Glass Type)** (See **REMOVAL**)
17. **REMOVE REAR WIPER LINK PIVOT (for Glass Hatch Type)** (See **REMOVAL**)
18. **REMOVE REAR WIPER MOTOR ASSEMBLY (for Fixed Glass Type)** (See **REMOVAL**)
19. **REMOVE REAR WIPER MOTOR ASSEMBLY (for Glass Hatch Type)** (See **REMOVAL**)
20. **REMOVE BACK DOOR GLASS GUIDE BRACKET SUB-ASSEMBLY (for Fixed Glass Type)** (See **DISASSEMBLY**)
21. **REMOVE REAR SPOILER SUB-ASSEMBLY** (See **REMOVAL**)
22. **REMOVE CENTER STOP LIGHT ASSEMBLY**
    a. Remove the 2 screws.
    b. Disconnect the center stop light assembly from the rear spoiler sub-assembly.
    c. Disconnect the connector and remove the center stop light assembly.

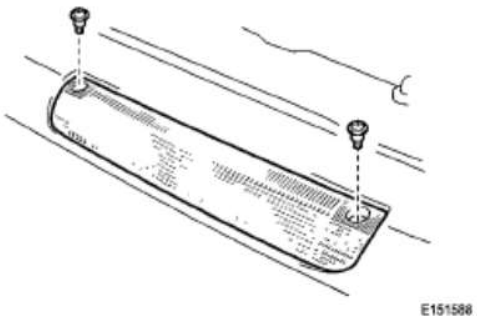


Fig. 146: Identifying Center Stop Light Assembly Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION

1. **INSPECT HIGH MOUNTED STOP LIGHT ASSEMBLY**
    a. Connect the (+) lead from the battery to terminal 2 and the (-) lead to terminal 1.
    b. Check that the high mounted stop light comes on.

    OK: The light comes on.

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

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Component without harness connected:
(High Mounted Stop Light Assembly)

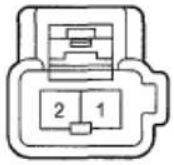


Fig. 147: Identifying High Mounted Stop Light Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **PRECAUTION**

NOTE:

- **Be sure to use the centering jig when removing and installing the rear wiper motor assembly (for Glass Hatch Type). Failure to do so will result in a change of the location of the axis of the rear wiper motor assembly (for Glass Hatch Type), causing the wiping angle to change.**
- **After installing the rear wiper motor assembly (for Glass Hatch Type), do not open the glass hatch before installing the rear wiper link pivot.**
- **If the rear wiper motor assembly is removed without using the centering jig, the rear wiper motor assembly must be replaced with a new one.**

2. **INSTALL CENTER STOP LIGHT ASSEMBLY**
   a. Connect the connector.
   b. Connect the center stop light assembly to the rear spoiler sub-assembly.
   c. Install the center stop light assembly with the 2 screws.
3. **INSTALL REAR SPOILER SUB-ASSEMBLY** (See **INSTALLATION**)
4. **INSTALL BACK DOOR GLASS GUIDE BRACKET SUB-ASSEMBLY (for Fixed Glass Type)** (See **REASSEMBLY**)
5. **INSTALL REAR WIPER MOTOR ASSEMBLY (for Fixed Glass Type)** (See **INSTALLATION**)

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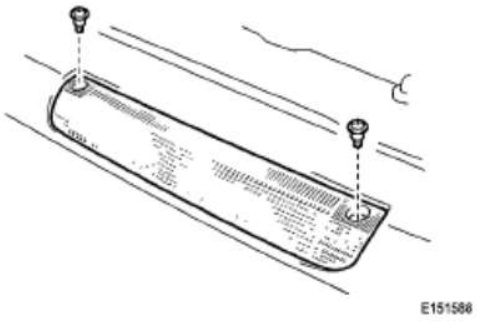


Fig. 148: Identifying Center Stop Light Assembly Screws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. **INSTALL REAR WIPER MOTOR ASSEMBLY (for Glass Hatch Type)** (See **INSTALLATION**)
7. **INSTALL REAR WIPER LINK PIVOT (for Glass Hatch Type)** (See **INSTALLATION**)
8. **INSTALL REAR WIPER MOTOR GROMMET (for Fixed Glass Type)** (See **INSTALLATION**)
9. **INSTALL REAR WIPER LINK CAP (for Glass Hatch Type)** (See **INSTALLATION**)
10. **INSTALL REAR WIPER ARM AND BLADE ASSEMBLY** (See **INSTALLATION**)
11. **INSTALL REAR WIPER ARM HEAD CAP** (See **INSTALLATION**)
12. **INSTALL REAR WIPER SHAFT COVER (for Glass Hatch Type)** (See **INSTALLATION**)
13. **INSTALL BACK DOOR TRIM PANEL ASSEMBLY** (See **REASSEMBLY**)
14. **INSTALL ASSIST STRAP ASSEMBLY** (See **REASSEMBLY**)
15. **INSTALL ASSIST STRAP HOLE COVER** (See **REASSEMBLY**)
16. **INSTALL BACK DOOR LOCK COVER (for Glass Hatch Type)** (See **REASSEMBLY**)
17. **INSTALL BACK DOOR TRIM COVER RH** (See **REASSEMBLY**)
18. **INSTALL BACK DOOR TRIM COVER LH (w/o Power Back Door)** (See **REASSEMBLY**)
19. **INSTALL BACK DOOR TRIM COVER LH (w/ Power Back Door)** (See **REASSEMBLY**)
20. **CONNECT POWER BACK DOOR ROD (w/ Power Back Door)** (See **REASSEMBLY**)
21. **INSTALL BACK DOOR SERVICE HOLE COVER LH (w/ Power Back Door)** (See **REASSEMBLY**)
22. **INSTALL BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **REASSEMBLY**)

PERSONAL LIGHT ASSEMBLY

COMPONENTS

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Fig. 149: Identifying Personal Light Assembly Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE ROOF CONSOLE BOX ASSEMBLY** (See **REMOVAL**)

INSPECTION

1. **INSPECT PERSONAL LIGHT ASSEMBLY (ROOF CONSOLE BOX ASSEMBLY)**

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Fig. 150: Inspecting Personal Light Assembly (Roof Console Box Assembly)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Connect the (+) lead from the battery to terminal 10 and the (-) lead to terminal 2.
b. Check that the personal lights come on.

OK

CONDITION SPECIFIED CONDITION CHART

Condition	Specified Condition
Front personal light switch LH ON	Front personal light LH comes ON
Front personal light switch LH OFF	Front personal light LH does not come ON
Front personal light switch RH ON	Front personal light RH comes ON
Front personal light switch RH OFF	Front personal light RH does not come ON
Light switch ON	Front personal lights come on

If the result is not as specified, replace the roof console box assembly.

c. Connect the (+) lead from the battery to terminal 10 and the (-) lead to terminal 7.
d. Check that the personal lights come on.

OK

CONDITION SPECIFIED CONDITION CHART

Condition	Specified Condition
Light switch in DOOR	Personal lights come on
Light switch OFF	Personal lights do not come on

If the result is not as specified, replace the roof console box assembly.

INSTALLATION

1. **INSTALL ROOF CONSOLE BOX ASSEMBLY** (See **INSTALLATION**)

ROOM LIGHT ASSEMBLY (FOR CENTER)

COMPONENTS

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Fig. 151: Identifying Room Light Assembly (For Center) Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE NO. 1 ROOM LIGHT ASSEMBLY (for Standard)** (See **REMOVAL**)
2. **REMOVE NO. 1 ROOM LIGHT ASSEMBLY (for Independent Type)** (See **REMOVAL**)

INSPECTION

1. **INSPECT NO. 1 ROOM LIGHT ASSEMBLY (for Standard)**
   a. Measure the resistance according to the value(s) in the table below.

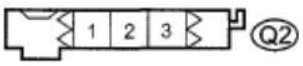
Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Q2-2 - Body ground	Always	Below 1 ohms

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Front view of wire harness connector:
(to No. 1 Room Light Assembly)



E151683E03

Fig. 152: Identifying No. 1 Room Light Assembly Connector Terminals (For Standard)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

If the result is not as specified, repair or replace harness or connector.

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

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Q2-1 - Body ground	Always	11 to 14 V

If the result is not as specified, repair or replace the harness or connector.

3. **INSPECT NO. 1 ROOM LIGHT ASSEMBLY (for Independent Type)**
   a. Measure the resistance according to the value(s) in the table below.

Standard resistance:

LH Side

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Q4-3 - Body ground	Always	Below 1 ohms

RH Side

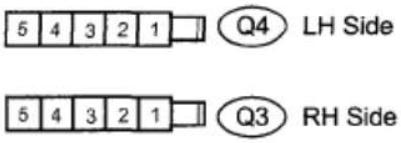
TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Q3-3 - Body ground	Always	Below 1 ohms

If the result is not as specified, repair or replace harness or connector.

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Front view of wire harness connector:
(to No. 1 Room Light Assembly)



E151690E01

Fig. 153: Identifying No. 1 Room Light Assembly Connector Terminals (For Independent Type)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard voltage:

LH Side

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Q4-2 - Body ground	Always	11 to 14 V

RH Side

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Q3-2 - Body ground	Always	11 to 14 V

If the result is not as specified, repair or replace the harness or connector.

INSTALLATION

1. **REMOVE NO. 1 ROOM LIGHT ASSEMBLY (for Standard)** (See **INSTALLATION**)
2. **REMOVE NO. 1 ROOM LIGHT ASSEMBLY (for Independent Type)** (See **INSTALLATION**)

ROOM LIGHT ASSEMBLY (FOR REAR)

COMPONENTS

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Fig. 154: Identifying Room Light Assembly (For Rear) Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE NO. 2 ROOM LIGHT ASSEMBLY** (See **REMOVAL**)

INSPECTION

1. **INSPECT NO. 2 ROOM LIGHT ASSEMBLY**
   a. Measure the resistance according to the value(s) in the table below.

   Standard resistance

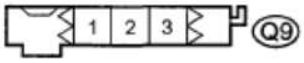
   TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Q9-2 - Body ground	Always	Below 1 ohms

   If the result is not as specified, repair or replace harness or connector.

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Front view of wire harness connector:
(to No. 2 Room Light Assembly)



E151683E01

Fig. 155: Identifying No. 2 Room Light Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Q9-1 - Body ground	Always	11 to 14 V

If the result is not as specified, repair or replace the harness or connector.

INSTALLATION

1. **INSTALL NO. 2 ROOM LIGHT ASSEMBLY** (See **INSTALLATION**)

DOOR COURTESY LIGHT

COMPONENTS

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Fig. 156: Identifying Door Courtesy Light Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE COURTESY LIGHT ASSEMBLY** (See **DISASSEMBLY**)

INSPECTION

1. **INSPECT COURTESY LIGHT ASSEMBLY**
   a. Connect the (+) lead from the battery to terminal 1 and the (-) lead to terminal 2.
   b. Check that the courtesy light comes on.

      OK: The light comes on.

      If the result is not as specified, replace the bulb or courtesy light assembly.

INSTALLATION

1. **INSTALL COURTESY LIGHT ASSEMBLY** (See **REASSEMBLY**)

Component without harness connected:
(Courtesy Light Assembly)



E151684E01

Fig. 157: Identifying Courtesy Light Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

IGNITION KEY CYLINDER LIGHT

COMPONENTS

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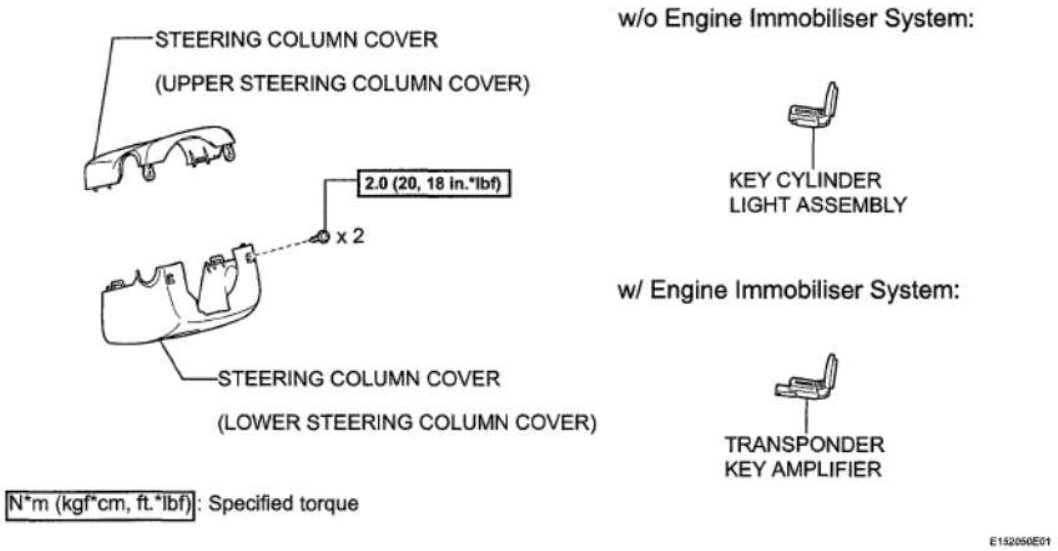


Fig. 158: Identifying Ignition Key Cylinder Light Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE STEERING COLUMN COVER** (See **WIPER SWITCH**)
2. **REMOVE KEY CYLINDER LIGHT ASSEMBLY (w/o Engine Immobiliser System)** (See **DISASSEMBLY**)
3. **REMOVE TRANSPONDER KEY AMPLIFIER (w/ Engine Immobiliser System)** (See **DISASSEMBLY**)

INSPECTION

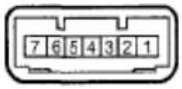
1. **INSPECT TRANSPONDER KEY AMPLIFIER (w/ Engine Immobiliser System)**
   a. Connect the (+) lead from battery to the terminal 2 and the (-) lead to terminal 6.
   b. Check that the ignition key cylinder light comes on.

   OK: The ignition key cylinder light comes on

   If the result is not as specified, replace the transponder key amplifier.

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Component without harness connected:
(Transponder Key Amplifier)



E074066E09

Fig. 159: Identifying Transponder Key Amplifier Connector Terminals (W/ Engine Immobiliser System)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **INSPECT KEY CYLINDER LIGHT ASSEMBLY (w/o Engine Immobiliser System)**
   a. Connect the (+) lead from battery to the terminal 1 and the (-) lead to terminal 2.
   b. Check that the ignition key cylinder light comes on.

   OK: The ignition key cylinder light comes on

   If the result is not as specified, replace key cylinder light assembly.

Component without harness connected:
(Key Cylinder Light Assembly)



E151696E02

Fig. 160: Identifying Transponder Key Amplifier Connector Terminals (W/O Engine Immobiliser System)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL KEY CYLINDER LIGHT ASSEMBLY (w/o Engine Immobiliser System)** (See **REASSEMBLY**)
2. **INSTALL TRANSPONDER KEY AMPLIFIER (w/ Engine Immobiliser System)** (See **INSTALLATION**)
3. **INSTALL STEERING COLUMN COVER** (See **INSTALLATION**)

GLOVE BOX LIGHT

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COMPONENTS

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Fig. 161: Identifying Glove Box Light Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE FRONT DOOR SCUFF PLATE RH**

   HINT:

   Use the same procedure for the RH side and the LH side (See **REMOVAL**).

2. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY RH**

   HINT:

Use the same procedure for the RH side and the LH side (See **REMOVAL**).

3. **REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY** (See **REMOVAL**)
4. **REMOVE LOWER INSTRUMENT PANEL SUB-ASSEMBLY** (See **REMOVAL**)
5. **REMOVE NO. 2 INTERIOR ILLUMINATION LIGHT ASSEMBLY**
   a. Disengage the 2 claws and remove the No. 2 interior illumination light assembly.

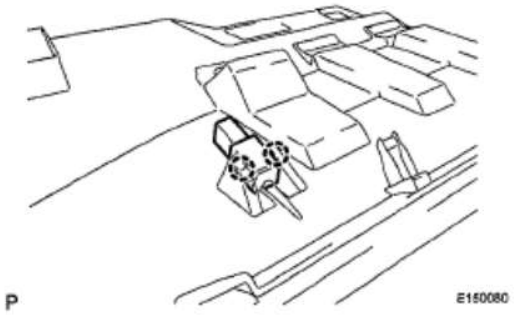


Fig. 162: Identifying No. 2 Interior Illumination Light Assembly With Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION

1. **INSPECT GLOVE BOX LIGHT ASSEMBLY**
   a. Connect the (+) lead from the battery to terminal 1 and the (-) lead to terminal 2.
   b. Check that the light comes on when the glove box light switch is on (not pushed).

   OK: Glove box light comes on.

   If the result is not as specified, replace the glove box light assembly.

Component without harness connected:
(Glove Box Light Assembly)



Y I044128E06

Fig. 163: Identifying Glove Box Light Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL NO. 2 INTERIOR ILLUMINATION LIGHT ASSEMBLY**

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a. Engage the 2 claws and install the No. 2 interior illumination light assembly.

2. **INSTALL LOWER INSTRUMENT PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
3. **INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY** (See **INSTALLATION**)

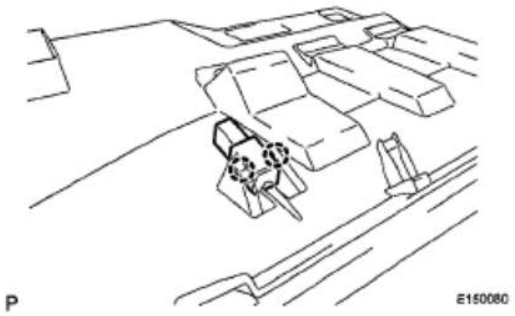


Fig. 164: Identifying No. 2 Interior Illumination Light Assembly With Claws
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY RH**

HINT:

Use the same procedure for the RH side and the LH side (See **INSTALLATION**).

5. **INSTALL FRONT DOOR SCUFF PLATE RH**

HINT:

Use the same procedure for the RH side and the LH side (See **INSTALLATION**).

VANITY LIGHT

COMPONENTS

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Fig. 165: Identifying Vanity Light Components (1 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 166: Identifying Vanity Light Components (2 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 167: Identifying Vanity Light Components (3 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 168: Identifying Vanity Light Components (4 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 169: Identifying Vanity Light Components (5 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 170: Identifying Vanity Light Components (6 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 171: Identifying Vanity Light Components (7 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 172: Identifying Vanity Light Components (8 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 173: Identifying Vanity Light Components (9 Of 14)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 174: Identifying Vanity Light Components (10 Of 14)
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Fig. 175: Identifying Vanity Light Components (11 Of 14)
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Fig. 176: Identifying Vanity Light Components (12 Of 14)
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Fig. 177: Identifying Vanity Light Components (13 Of 14)
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Fig. 178: Identifying Vanity Light Components (14 Of 14)
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REMOVAL

1. **REMOVE REAR CENTER SEAT ASSEMBLY**
2. **REMOVE REAR SEAT HEADREST ASSEMBLY (for LH Side)**
3. **REMOVE REAR SEAT TRACK BRACKET COVER LH** (See **REMOVAL**)
4. **REMOVE REAR OUTER TRACK BRACKET COVER LH** (See **REMOVAL**)
5. **REMOVE REAR INNER TRACK BRACKET COVER LH** (See **REMOVAL**)
6. **REMOVE REAR SEAT LEG SIDE COVER LH** (See **REMOVAL**)
7. **DISCONNECT REAR NO. 1 SEAT LOCK CABLE ASSEMBLY LH (w/ Remote Folding Function)** (See **REMOVAL**)
8. **REMOVE REAR NO. 1 SEAT ASSEMBLY LH** (See **DISASSEMBLY**)
9. **REMOVE REAR SEAT HEADREST ASSEMBLY (for RH Side)**
10. **REMOVE REAR SEAT TRACK BRACKET COVER RH** (See **REMOVAL**)
11. **REMOVE REAR INNER TRACK BRACKET COVER RH** (See **REMOVAL**)
12. **REMOVE REAR OUTER TRACK BRACKET COVER RH** (See **REMOVAL**)
13. **REMOVE REAR SEAT LEG SIDE COVER RH** (See **REMOVAL**)
14. **DISCONNECT REAR NO. 1 SEAT LOCK CABLE ASSEMBLY RH (w/ Remote Folding Function)** (See **REMOVAL**)
15. **REMOVE REAR NO. 1 SEAT ASSEMBLY RH** (See **DISASSEMBLY**)
16. **REMOVE FRONT DOOR SCUFF PLATE LH** (See **REMOVAL**)
17. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH** (See **REMOVAL**)
18. **REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP LH** (See **REMOVAL**)
19. **REMOVE FRONT PILLAR GARNISH LH** (See **REMOVAL**)
20. **REMOVE REAR DOOR SCUFF PLATE LH** (See **REMOVAL**)

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21. **REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP LH** (See **REMOVAL**)
22. **REMOVE LOWER CENTER PILLAR GARNISH LH** (See **REMOVAL**)
23. **DISCONNECT FRONT SEAT OUTER BELT ASSEMBLY LH** (See **REMOVAL**)
24. **REMOVE CENTER PILLAR GARNISH LH** (See **REMOVAL**)
25. **REMOVE FRONT DOOR SCUFF PLATE RH** (See **REMOVAL**)
26. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY RH** (See **REMOVAL**)
27. **REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP RH** (See **REMOVAL**)
28. **REMOVE FRONT PILLAR GARNISH RH** (See **REMOVAL**)
29. **REMOVE REAR DOOR SCUFF PLATE RH** (See **REMOVAL**)
30. **REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP RH** (See **REMOVAL**)
31. **REMOVE LOWER CENTER PILLAR GARNISH RH** (See **REMOVAL**)
32. **DISCONNECT FRONT SEAT OUTER BELT ASSEMBLY RH** (See **REMOVAL**)
33. **REMOVE CENTER PILLAR GARNISH RH** (See **REMOVAL**)
34. **REMOVE DECK BOARD ASSEMBLY** (See **REMOVAL**)
35. **REMOVE NO. 3 DECK BOARD SUB-ASSEMBLY** (See **REMOVAL**)
36. **REMOVE NO. 2 DECK BOARD SUB-ASSEMBLY** (See **REMOVAL**)
37. **REMOVE TONNEAU COVER ASSEMBLY (w/ Tonneau Cover)** (See **REMOVAL**)
38. **REMOVE REAR NO. 1 FLOOR BOARD (w/o Rear No. 2 Seat)** (See **REMOVAL**)
39. **REMOVE REAR SEAT SIDE COVER LH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
40. **REMOVE DECK SIDE TRIM BOX LH** (See **REMOVAL**)
41. **REMOVE REAR SEAT SIDE COVER RH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
42. **REMOVE JACK CARRIER SUPPORT**
43. **REMOVE JACK CARRIER CUSHION** (See **REMOVAL**)
44. **REMOVE JACK ASSEMBLY** (See **REMOVAL**)
45. **REMOVE JACK CARRIER ASSEMBLY** (See **REMOVAL**)
46. **REMOVE DECK SIDE TRIM BOX RH** (See **REMOVAL**)
47. **REMOVE DECK FLOOR BOARD ASSEMBLY (w/o Rear No. 2 Seat)** (See **REMOVAL**)
48. **REMOVE REAR MAT** (See **REMOVAL**)
49. **REMOVE DECK FLOOR BOARD ASSEMBLY (w/ Rear No. 2 Seat)** (See **REMOVAL**)
50. **REMOVE REAR DECK FLOOR BOX (w/o Rear No. 2 Seat)** (See **REMOVAL**)
51. **REMOVE REAR NO. 2 SEAT INNER BELT ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
52. **DISCONNECT REAR SEAT LAP TYPE BELT ASSEMBLY LH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
53. **DISCONNECT REAR SEAT LAP TYPE BELT ASSEMBLY RH (w/ Rear No. 2 Seat)** (See **REMOVAL**)
54. **REMOVE REAR NO. 2 SEAT ASSEMBLY (w/ Rear No. 2 Seat)** (See **DISASSEMBLY**)
55. **REMOVE REAR FLOOR FINISH PLATE** (See **REMOVAL**)

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56. **REMOVE DECK SIDE TRIM COVER LH** (See **REMOVAL**)
57. **REMOVE DECK SIDE TRIM LH** (See **REMOVAL**)
58. **REMOVE SIDE TRIM COVER LH (w/o Rear Seat Entertainment System)** (See **REMOVAL**)
59. **REMOVE POWER OUTLET SOCKET BEZEL (w/ Rear Seat Entertainment System)** (See **REMOVAL**)
60. **REMOVE REAR COMBINATION LIGHT SERVICE COVER LH** (See **REMOVAL**)
61. **REMOVE REAR POWER POINT SOCKET ASSEMBLY** (See **REAR POWER OUTLET SOCKET**)
62. **REMOVE REAR POWER OUTLET SOCKET COVER** (See **INSTALLATION**)
63. **REMOVE REAR DECK TRIM COVER (w/o Remote Folding Function)** (See **REMOVAL**)
64. **REMOVE RECLINING REMOTE CONTROL LEVER BEZEL LH (w/ Remote Folding Function)** (See **REMOVAL**)
65. **REMOVE ROPE HOOK ASSEMBLY (for LH Side)** (See **REMOVAL**)
66. **REMOVE NO. 2 DECK SIDE TRIM HOOK** (See **REMOVAL**)
67. **REMOVE FRONT DECK SIDE TRIM COVER LH** (See **REMOVAL**)
68. **DISCONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY LH** (See **REMOVAL**)
69. **REMOVE DECK TRIM SIDE PANEL ASSEMBLY LH** (See **REMOVAL**)
70. **REMOVE QUARTER PILLAR GARNISH LH** (See **REMOVAL**)
71. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY LH (w/o Power Back Door)** (See **REMOVAL**)
72. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY LH (w/ Power Back Door)** (See **REMOVAL**)
73. **REMOVE REAR SEAT SIDE GARNISH CAP (w/o Rear Air Conditioning System)** (See **REMOVAL**)
74. **REMOVE REAR SEAT SIDE GARNISH CAP (w/ Rear Air Conditioning System)** (See **REMOVAL**)
75. **REMOVE DECK SIDE TRIM COVER RH** (See **REMOVAL**)
76. **REMOVE DECK SIDE TRIM RH** (See **REMOVAL**)
77. **REMOVE SIDE TRIM COVER RH (w/o Rear Automatic Air Conditioning System)** (See **REMOVAL**)
78. **REMOVE REAR ROOM TEMPERATURE SENSOR (w/ Rear Automatic Air Conditioning System)** (See **ROOM TEMPERATURE SENSOR (FOR REAR)**)
79. **REMOVE REAR COMBINATION LIGHT SERVICE COVER RH** (See **REMOVAL**)
80. **REMOVE ROPE HOOK ASSEMBLY (for RH Side)** (See **REMOVAL**)
81. **REMOVE NO. 1 LUGGAGE COMPARTMENT TRIM HOOK** (See **REMOVAL**)
82. **REMOVE FRONT DECK SIDE TRIM COVER RH** (See **REMOVAL**)
83. **DISCONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY RH** (See **REMOVAL**)
84. **REMOVE DECK TRIM SIDE PANEL ASSEMBLY RH** (See **REMOVAL**)
85. **REMOVE QUARTER PILLAR GARNISH RH** (See **REMOVAL**)
86. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH (w/o Rear No. 2 Seat)** (See

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REMOVAL)

87. **REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH (w/ Rear No. 2 Seat)** (See REMOVAL)
88. **REMOVE ROOF CONSOLE BOX ASSEMBLY** (See REMOVAL)
89. **REMOVE VISOR BRACKET COVER (for LH Side)** (See REMOVAL)
90. **REMOVE VISOR ASSEMBLY LH** (See REMOVAL)
91. **REMOVE VISOR BRACKET COVER (for RH Side)** (See REMOVAL)
92. **REMOVE VISOR ASSEMBLY RH** (See REMOVAL)
93. **REMOVE INNER REAR VIEW MIRROR STAY HOLDER COVER (w/ EC Mirror)** (See REMOVAL)
94. **REMOVE NO. 1 ROOM LIGHT ASSEMBLY (for Standard)** (See REMOVAL)
95. **REMOVE NO. 1 ROOM LIGHT ASSEMBLY (for Independent Type)** (See REMOVAL)
96. **REMOVE NO. 2 ROOM LIGHT ASSEMBLY** (See REMOVAL)
97. **REMOVE TELEVISION BASE (w/ Rear Seat Entertainment System)** (See TELEVISION DISPLAY)
98. **REMOVE TELEVISION DISPLAY ASSEMBLY (w/ Rear Seat Entertainment System)** (See TELEVISION DISPLAY)
99. **REMOVE FRONT ASSIST GRIP SUB-ASSEMBLY (w/o Sliding Roof)** (See REMOVAL)
100. **REMOVE REAR ASSIST GRIP SUB-ASSEMBLY (w/o Sliding Roof)** (See REMOVAL)
101. **REMOVE ASSIST GRIP ASSEMBLY (w/ Sliding Roof)** (See REMOVAL)
102. **REMOVE ROOF HEADLINING TRIM CUP STOPPER** (See REMOVAL)
103. **REMOVE SUN ROOF OPENING TRIM MOULDING (w/ Sliding Roof)**
104. **REMOVE VISOR HOLDER** (See REMOVAL)
105. **REMOVE ROOF HEADLINING ASSEMBLY (w/o Sliding Roof)** (See REMOVAL)
106. **REMOVE ROOF HEADLINING ASSEMBLY (w/Sliding Roof)** (See REMOVAL)
107. **REMOVE VANITY LIGHT ASSEMBLY** (See REMOVAL)

INSPECTION

1. **INSPECT VANITY LIGHT ASSEMBLY**
   a. Measure the voltage according to the value(s) in the table below.

Standard voltage:

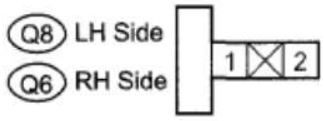
LH Side

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Q8-1 - Q8-2	Visor raise	Below 1 V
	Visor lower and mirror cover open	11 to 14 V
	Visor lower and mirror cover close	Below 1 V

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Front view of wire harness connector:
(to Vanity Light)



H E133263E07

Fig. 179: Identifying Vanity Light Connector Terminals
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RH Side

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
Q6-1 - Q6-2	Visor raise	Below 1 V
	Visor lower and mirror cover open	11 to 14 V
	Visor lower and mirror cover close	Below 1 V

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

If the result is as specified, but the vanity light does not come on, replace the bulb.

INSTALLATION

1. **INSTALL VANITY LIGHT ASSEMBLY** (See **INSTALLATION**)
2. **INSTALL ROOF HEADLINING ASSEMBLY (w/o Sliding Roof)** (See **INSTALLATION**)
3. **INSTALL ROOF HEADLINING ASSEMBLY (w/ Sliding Roof)** (See **INSTALLATION**)
4. **INSTALL VISOR HOLDER** (See **INSTALLATION**)
5. **INSTALL SUN ROOF OPENING TRIM MOULDING (w/ Sliding Roof)** (See **INSTALLATION**)
6. **INSTALL ROOF HEADLINING TRIM CLIP STOPPER** (See **INSTALLATION**)
7. **INSTALL ASSIST GRIP ASSEMBLY (w/ Sliding Roof)** (See **INSTALLATION**)
8. **INSTALL REAR ASSIST GRIP SUB-ASSEMBLY (w/ Sliding Roof)** (See **INSTALLATION**)
9. **INSTALL FRONT ASSIST GRIP SUB-ASSEMBLY (w/o Sliding Roof)** (See **INSTALLATION**)
10. **INSTALL TELEVISION DISPLAY ASSEMBLY (w/ Rear Seat Entertainment System)** (See **INSTALLATION**)
11. **INSTALL TELEVISION BASE (w/ Rear Seat Entertainment System)** (See **INSTALLATION**)
12. **INSTALL NO. 2 ROOM LIGHT ASSEMBLY** (See **INSTALLATION**)
13. **INSTALL NO. 1 ROOM LIGHT ASSEMBLY (for Standard)** (See **INSTALLATION**)
14. **INSTALL NO. 1 ROOM LIGHT ASSEMBLY (for Independent Type)** (See **INSTALLATION**)
15. **INSTALL INNER REAR VIEW MIRROR STAY HOLDER COVER (w/ EC Mirror)** (See

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INSTALLATION)

16. **INSTALL VISOR ASSEMBLY LH** (See INSTALLATION)
17. **INSTALL VISOR BRACKET COVER (for LH Side)** (See INSTALLATION)
18. **INSTALL VISOR ASSEMBLY RH** (See INSTALLATION)
19. **INSTALL VISOR BRACKET COVER (for RH Side)** (See INSTALLATION)
20. **INSTALL ROOF CONSOLE BOX ASSEMBLY** (See INSTALLATION)
21. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY LH (w/o Power Back Door)** (See INSTALLATION)
22. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY LH (w/ Power Back Door)** (See INSTALLATION)
23. **INSTALL QUARTER PILLAR GARNISH LH** (See INSTALLATION)
24. **INSTALL DECK TRIM SIDE PANEL ASSEMBLY LH** (See INSTALLATION)
25. **CONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY LH** (See INSTALLATION)
26. **INSTALL FRONT DECK SIDE TRIM COVER LH** (See INSTALLATION)
27. **INSTALL NO. 2 DECK SIDE TRIM HOOK** (See INSTALLATION)
28. **INSTALL ROPE HOOK ASSEMBLY (for LH Side)** (See INSTALLATION)
29. **INSTALL REAR DECK TRIM COVER (w/o Remote Folding Function)** (See INSTALLATION)
30. **INSTALL RECLINING REMOTE CONTROL LEVER BEZEL LH (w/ Remote Folding Function)** (See INSTALLATION)
31. **INSTALL REAR POWER OUTLET SOCKET COVER** (See INSTALLATION)
32. **INSTALL REAR POWER POINT SOCKET ASSEMBLY** (See INSTALLATION)
33. **INSTALL REAR COMBINATION LIGHT SERVICE COVER LH** (See INSTALLATION)
34. **INSTALL SIDE TRIM COVER LH (w/o Rear Seat Entertainment System)** (See INSTALLATION)
35. **INSTALL POWER OUTLET SOCKET BEZEL (w/ Rear Seat Entertainment System)** (See INSTALLATION)
36. **INSTALL DECK SIDE TRIM LH** (See INSTALLATION)
37. **INSTALL DECK SIDE TRIM COVER LH** (See INSTALLATION)
38. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH (w/o Rear No. 2 Seat)** (See INSTALLATION)
39. **INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH (w/ Rear No. 2 Seat)** (See INSTALLATION)
40. **INSTALL QUARTER PILLAR GARNISH RH** (See INSTALLATION)
41. **INSTALL DECK TRIM SIDE PANEL ASSEMBLY RH** (See INSTALLATION)
42. **CONNECT REAR NO. 1 SEAT OUTER BELT ASSEMBLY RH** (See INSTALLATION)
43. **INSTALL FRONT DECK SIDE TRIM COVER RH** (See INSTALLATION)
44. **INSTALL NO. 1 LUGGAGE COMPARTMENT TRIM HOOK** (See INSTALLATION)
45. **INSTALL ROPE HOOK ASSEMBLY (for RH Side)** (See INSTALLATION)
46. **INSTALL REAR COMBINATION LIGHT SERVICE COVER RH** (See INSTALLATION)

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47. **INSTALL REAR ROOM TEMPERATURE SENSOR (w/ Rear Automatic Air Conditioning System)** (See **INSPECTION**)
48. **INSTALL SIDE TRIM COVER RH (w/o Rear Automatic Air Conditioning System)** (See **INSTALLATION**)
49. **INSTALL DECK SIDE TRIM RH** (See **INSTALLATION**)
50. **INSTALL DECK SIDE TRIM COVER RH** (See **INSTALLATION**)
51. **INSTALL REAR SEAT SIDE GARNISH CAP (w/o Rear Air Conditioning System)** (See **INSTALLATION**)
52. **INSTALL REAR SEAT SIDE GARNISH CAP (w/ Rear Air Conditioning System)** (See **INSTALLATION**)
53. **INSTALL REAR FLOOR FINISH PLATE** (See **INSTALLATION**)
54. **INSTALL REAR NO. 2 SEAT ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
55. **CONNECT REAR SEAT LAP TYPE BELT ASSEMBLY LH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
56. **CONNECT REAR SEAT LAP TYPE BELT ASSEMBLY RH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
57. **INSTALL REAR NO. 2 SEAT INNER BELT ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
58. **INSTALL REAR DECK FLOOR BOX (w/o Rear No. 2 Seat)** (See **INSTALLATION**)
59. **INSTALL DECK FLOOR BOARD ASSEMBLY (w/o Rear No. 2 Seat)** (See **INSTALLATION**)
60. **INSTALL REAR MAT** (See **INSTALLATION**)
61. **INSTALL DECK FLOOR BOARD ASSEMBLY (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
62. **INSTALL DECK SIDE TRIM BOX LH** (See **INSTALLATION**)
63. **INSTALL REAR SEAT SIDE COVER LH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
64. **INSTALL DECK SIDE TRIM BOX RH** (See **INSTALLATION**)
65. **INSTALL JACK CARRIER ASSEMBLY** (See **INSTALLATION**)
66. **INSTALL JACK ASSEMBLY** (See **INSTALLATION**)
67. **INSTALL JACK CARRIER CUSHION** (See **INSTALLATION**)
68. **INSTALL JACK CARRIER SUPPORT**
69. **INSTALL REAR SEAT SIDE COVER RH (w/ Rear No. 2 Seat)** (See **INSTALLATION**)
70. **INSTALL REAR NO. 1 FLOOR BOARD (w/o Rear No. 2 Seat)** (See **INSTALLATION**)
71. **INSTALL TONNEAU COVER ASSEMBLY (w/ Tonneau Cover)**
72. **INSTALL NO. 2 DECK BOARD SUB-ASSEMBLY** (See **INSTALLATION**)
73. **INSTALL NO. 3 DECK BOARD SUB-ASSEMBLY** (See **INSTALLATION**)
74. **INSTALL DECK BOARD ASSEMBLY** (See **INSTALLATION**)
75. **INSTALL CENTER PILLAR GARNISH LH** (See **INSTALLATION**)
76. **CONNECT FRONT SEAT OUTER BELT ASSEMBLY LH** (See **INSTALLATION**)
77. **INSTALL LOWER CENTER PILLAR GARNISH LH** (See **INSTALLATION**)
78. **INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP LH** (See **INSTALLATION**)

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79. **INSTALL REAR DOOR SCUFF PLATE LH** (See **INSTALLATION**)
80. **INSTALL FRONT PILLAR GARNISH LH** (See **INSTALLATION**)
81. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP LH** (See **INSTALLATION**)
82. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH** (See **INSTALLATION**)
83. **INSTALL FRONT DOOR SCUFF PLATE LH** (See **INSTALLATION**)
84. **INSTALL CENTER PILLAR GARNISH RH** (See **INSTALLATION**)
85. **CONNECT FRONT SEAT OUTER BELT ASSEMBLY RH** (See **INSTALLATION**)
86. **INSTALL LOWER CENTER PILLAR GARNISH RH** (See **INSTALLATION**)
87. **INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP RH** (See **INSTALLATION**)
88. **INSTALL REAR DOOR SCUFF PLATE RH** (See **INSTALLATION**)
89. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP RH** (See **INSTALLATION**)
90. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY RH** (See **INSTALLATION**)
91. **INSTALL FRONT PILLAR GARNISH RH** (See **INSTALLATION**)
92. **INSTALL FRONT DOOR SCUFF PLATE RH** (See **INSTALLATION**)
93. **INSTALL REAR NO. 1 SEAT ASSEMBLY LH** (See **INSTALLATION**)
94. **CONNECT REAR NO. 1 SEAT LOCK CABLE ASSEMBLY LH (w/ Remote Folding Function)** (See **INSTALLATION**)
95. **INSPECT REAR SEAT SLIDE ADJUSTER LOCK (for LH Side)** (See **INSTALLATION**)
96. **INSTALL REAR SEAT LEG SIDE COVER LH** (See **INSTALLATION**)
97. **INSTALL REAR INNER TRACK BRACKET COVER LH** (See **INSTALLATION**)
98. **INSTALL REAR OUTER TRACK BRACKET COVER LH** (See **INSTALLATION**)
99. **INSTALL REAR SEAT TRACK BRACKET COVER LH** (See **INSTALLATION**)
100. **INSTALL REAR SEAT HEADREST ASSEMBLY (for LH Side)**
101. **INSTALL REAR CENTER SEAT ASSEMBLY**
102. **INSTALL REAR NO. 1 SEAT ASSEMBLY RH** (See **INSTALLATION**)
103. **CONNECT REAR NO. 1 SEAT LOCK CABLE ASSEMBLY RH (w/ Remote Folding Function)** (See **INSTALLATION**)
104. **INSPECT REAR SEAT SLIDE ADJUSTER LOCK (for RH Side)** (See **INSTALLATION**)
105. **INSTALL REAR SEAT LEG SIDE COVER RH** (See **INSTALLATION**)
106. **INSTALL REAR INNER TRACK BRACKET COVER RH** (See **INSTALLATION**)
107. **INSTALL REAR OUTER TRACK BRACKET COVER RH** (See **INSTALLATION**)
108. **INSTALL REAR SEAT TRACK BRACKET COVER RH** (See **INSTALLATION**)
109. **INSTALL REAR SEAT HEADREST ASSEMBLY (for RH Side)**

DOOR MIRROR FOOT LIGHT

COMPONENTS

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Fig. 180: Identifying Door Mirror Foot Light Components
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REMOVAL

1. **REMOVE FRONT DOOR LOWER FRAME BRACKET GARNISH** (See **DISASSEMBLY**)
2. **REMOVE FRONT DOOR INSIDE HANDLE BEZEL PLUG** (See **DISASSEMBLY**)
3. **REMOVE FRONT ARMREST UPPER BASE PANEL** (See **DISASSEMBLY**)
4. **REMOVE ASSIST GRIP COVER** (See **DISASSEMBLY**)
5. **REMOVE COURTESY LIGHT ASSEMBLY** (See **DISASSEMBLY**)

6. **REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY** (See **DISASSEMBLY**)
7. **REMOVE OUTER REAR VIEW MIRROR ASSEMBLY WITH COVER** (See **REMOVAL**)
8. **REMOVE OUTER MIRROR GLASS (w/o Heater)** (See **OUTER REAR VIEW MIRROR GLASS**)
9. **REMOVE OUTER MIRROR GLASS (w/ Heater)** (See **REMOVAL**)
10. **REMOVE OUTER MIRROR COVER** (See **OUTER MIRROR COVER**)

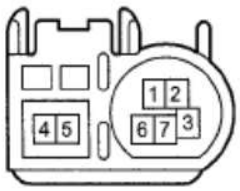
INSPECTION

1. **INSPECT OUTER REAR VIEW MIRROR**
   a. Connect the (+) lead from the battery to terminal 5 and the (-) lead to terminal 4.
   b. Check that the door mirror foot light comes on.

   OK: The light comes on.

   If the result is not as specified, replace the outer rear view mirror.

Component without harness connected:
(Outer Rear View Mirror)



H E151674E01

Fig. 181: Identifying Outer Rear View Mirror Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION

1. **INSTALL OUTER MIRROR COVER** (See **INSTALLATION**)
2. **INSTALL OUTER MIRROR GLASS (w/o Heater)** (See **INSTALLATION**)
3. **INSTALL OUTER MIRROR GLASS (w/ Heater)** (See **INSTALLATION**)
4. **INSTALL OUTER REAR VIEW MIRROR ASSEMBLY WITH COVER** (See **INSTALLATION**)
5. **INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY** (See **REASSEMBLY**)
6. **INSTALL COURTESY LIGHT ASSEMBLY** (See **REASSEMBLY**)
7. **INSTALL ASSIST GRIP COVER** (See **REASSEMBLY**)

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8. **INSTALL FRONT ARMREST UPPER BASE PANEL** (See **REASSEMBLY**)
9. **INSTALL FRONT DOOR INSIDE HANDLE BEZEL PLUG** (See **REASSEMBLY**)
10. **INSTALL FRONT DOOR LOWER FRAME BRACKET GARNISH** (See **REASSEMBLY**)

HEADLIGHT DIMMER SWITCH

COMPONENTS

Fig. 182: Identifying Headlight Dimmer Switch Components

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Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **POSITION FRONT WHEELS STRAIGHT AHEAD**
2. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**

CAUTION: Wait for 90 seconds after disconnecting the cable to prevent airbag deployment (See AIRBAG SYSTEM).

NOTE: When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).

3. **REMOVE LOWER NO. 3 STEERING WHEEL COVER** (See **REMOVAL**)
4. **REMOVE LOWER NO. 2 STEERING WHEEL COVER** (See **REMOVAL**)
5. **REMOVE STEERING PAD** (See **REMOVAL**)
6. **REMOVE STEERING WHEEL ASSEMBLY** (See **INSTALLATION**)
7. **REMOVE STEERING COLUMN COVER** (See **REMOVAL**)
8. **REMOVE SPIRAL CABLE WITH STEERING ANGLE SENSOR** (See **REMOVAL**)
9. **REMOVE WINDSHIELD WIPER SWITCH ASSEMBLY** (See **REMOVAL**)
10. **REMOVE HEADLIGHT DIMMER SWITCH ASSEMBLY**
    a. Disconnect the connector.
    b. Disengage the clamp as shown in the illustration.

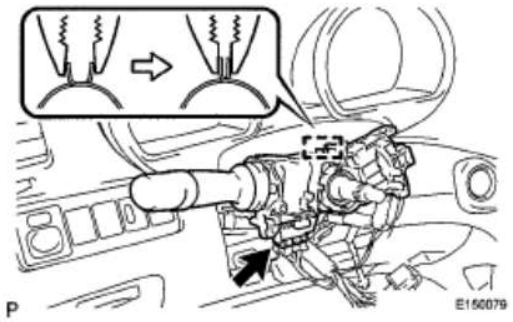


Fig. 183: Locating Headlight Dimmer Switch Assembly With Connector And Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

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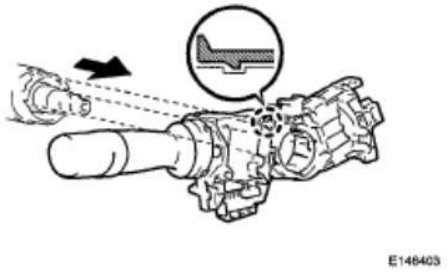


Fig. 184: Removing Headlight Dimmer Switch Assembly With Claw
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION

1. **INSPECT HEADLIGHT DIMMER SWITCH ASSEMBLY**
   a. Measure the resistance according to the value(s) in the table below.

Standard resistance:

Light control switch

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Switch Condition	Specified Condition
12 (EL) - 20 (H) - 18 (T) - 19 (A)	OFF	10 kohms or higher
12 (EL) - 18 (T)	TAIL	Below 1 ohms
12 (EL) - 20 (H) - 18 (T)	HEAD	Below 1 ohms
12 (EL) - 19 (A)	AUTO	Below 1 ohms

Component without harness connected:
(Headlight Dimmer Switch Assembly)

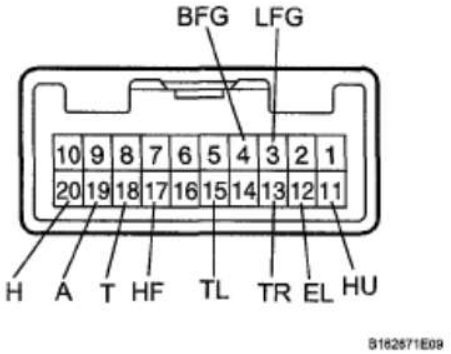


Fig. 185: Identifying Headlight Dimmer Switch Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Dimmer switch

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Switch Condition	Specified Condition
17 (HF) - 12 (EL)	HIGH FLASH	Below 1 ohms
11 (HU) - 12 (EL)	HIGH	Below 1 ohms

Turn signal switch

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Switch Condition	Specified Condition
13 (TR) - 12 (EL) - 15 (TL)	OFF	10 kohms or higher
13 (TR) - 12 (EL)	RH	Below 1 ohms
15 (TL) - 12 (EL)	LH	Below 1 ohms

Fog light switch

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Switch Condition	Specified Condition
3 (LFG) - 4 (BFG)	OFF	10 kohms or higher
3 (LFG) - 4 (BFG)	FRONT	Below 1 ohms

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

INSTALLATION

1. **INSTALL HEADLIGHT DIMMER SWITCH ASSEMBLY**
   a. Engage the claw while loosening the clamp as shown in the illustration.

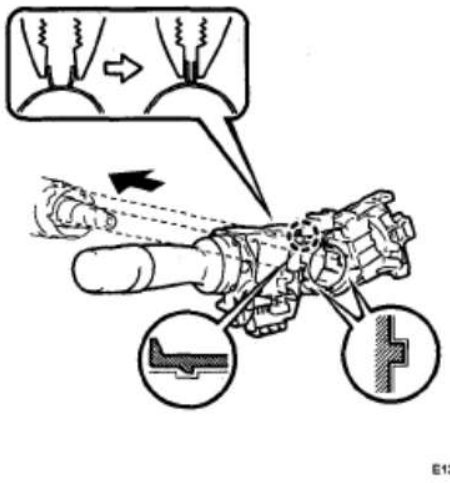


Fig. 186: Installing Headlight Dimmer Switch Assembly

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Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Engage the clamp and install the headlight dimmer switch assembly as shown in the illustration.
c. Connect the connector.

2. **INSTALL WINDSHIELD WIPER SWITCH ASSEMBLY** (See **INSTALLATION**)
3. **INSTALL SPIRAL CABLE WITH STEERING ANGLE SENSOR** (See **INSTALLATION**)
4. **INSTALL STEERING COLUMN COVER** (See **INSTALLATION**)

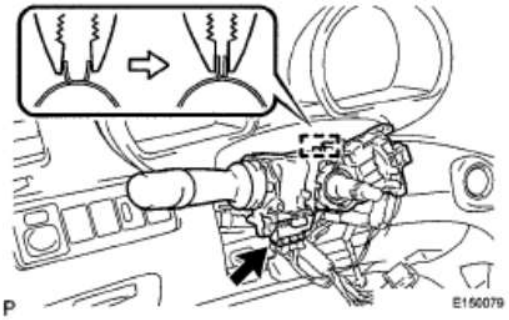


Fig. 187: Locating Headlight Dimmer Switch Assembly With Connector And Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. **POSITION FRONT WHEELS STRAIGHT AHEAD**
6. **ADJUST SPIRAL CABLE SUB-ASSEMBLY** (See **INSTALLATION**)
7. **INSTALL STEERING WHEEL ASSEMBLY** (See **INSTALLATION**)
8. **INSPECT STEERING WHEEL CENTER POINT**
9. **INSTALL STEERING PAD** (See **INSTALLATION**)
10. **INSTALL LOWER NO. 2 STEERING WHEEL COVER** (See **INSTALLATION**)
11. **INSTALL LOWER NO. 3 STEERING WHEEL COVER** (See **INSTALLATION**)
12. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

NOTE: When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).

13. **INSPECT STEERING PAD** (See **INSTALLATION**)
14. **INSPECT SRS WARNING LIGHT**
    a. Inspect the SRS warning light (See **DIAGNOSIS SYSTEM**).

HAZARD WARNING SWITCH

COMPONENTS

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Fig. 188: Identifying Hazard Warning Switch Components (1 Of 2)
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Fig. 189: Identifying Hazard Warning Switch Components (2 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

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1. **REMOVE CENTER INSTRUMENT PANEL REGISTER ASSEMBLY** (See **REMOVAL**)
2. **REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/o Smart Key System)** (See **REMOVAL**)
3. **REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/ Smart Key System)** (See **REMOVAL**)
4. **REMOVE HEATER CONTROL AND ACCESSORY ASSEMBLY (for Manual Air Conditioning System)** (See **AIR CONDITIONING PANEL (FOR MANUAL AIR CONDITIONING SYSTEM)**)
5. **REMOVE AIR CONDITIONING CONTROL ASSEMBLY (for Automatic Air Conditioning System)** (See **REMOVAL**)
6. **REMOVE RADIO RECEIVER ASSEMBLY WITH BRACKET (w/o Navigation System)** (See **REMOVAL**)
7. **REMOVE NAVIGATION RECEIVER ASSEMBLY WITH BRACKET (w/ Navigation System)** (See **REMOVAL**)
8. **REMOVE INTEGRATION CONTROL AND PANEL ASSEMBLY (w/o Navigation System)** (See **REMOVAL**)
9. **REMOVE CLOCK ASSEMBLY (w/ Navigation System)**
10. **REMOVE NO. 1 RADIO BRACKET (w/ Navigation System)** (See **REMOVAL**)
11. **REMOVE NO. 2 RADIO BRACKET (w/ Navigation System)** (See **INSTALLATION**)
12. **REMOVE NAVIGATION RECEIVER ASSEMBLY (w/ Navigation System)**

INSPECTION

1. **INSPECT INTEGRATION CONTROL AND PANEL ASSEMBLY (w/o Navigation System)**
   a. Measure the resistance according to the value(s) in the table below.

      Standard resistance

      TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Switch Condition	Specified Condition
4 - 5	ON	Below 1 ohms
	OFF	10 kohms or higher

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

   b. Connect the (+) lead from the battery to terminal 6 and the (-) lead to terminal 7.
   c. Check that the illumination of the switch comes on.

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Component without harness connected:
(Integration Control and Panel Assembly)



H E151673E01

Fig. 190: Identifying Integration Control And Panel Assembly Connector Terminals (W/O Navigation System)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: The illumination comes on.

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

2. **INSPECT NAVIGATION RECEIVER ASSEMBLY (w/ Navigation System)**
   a. Measure the resistance according to the value(s) in the table below.

   Standard resistance

   TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Switch Condition	Specified Condition
4 - 5	ON	Below 1 ohms
	OFF	10 kohms or higher

   If the result is not as specified, replace the navigation receiver assembly.

   b. Connect the (+) lead from the battery to terminal 6 and the (-) lead to terminal 7.
   c. Check that the illumination of the switch comes on.

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Component without harness connected:
(Navigation Receiver Assembly)



H E151673E02

Fig. 191: Identifying Integration Control And Panel Assembly Connector Terminals (W/ Navigation System)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

OK: The illumination comes on.

If the result is not as specified, replace the navigation receiver assembly.

INSTALLATION

1. **INSTALL NAVIGATION RECEIVER ASSEMBLY (w/ Navigation System)**
2. **INSTALL NO. 2 RADIO BRACKET (w/ Navigation System)** (See **INSTALLATION**)
3. **INSTALL NO. 1 RADIO BRACKET (w/ Navigation System)** (See **INSTALLATION**)
4. **INSTALL CLOCK ASSEMBLY (w/ Navigation System)**
5. **INSTALL INTEGRATION CONTROL AND PANEL ASSEMBLY (w/o Navigation System)** (See **INSPECTION**)
6. **INSTALL NAVIGATION RECEIVER ASSEMBLY WITH BRACKET (w/ Navigation System)** (See **INSTALLATION**)
7. **INSTALL RADIO RECEIVER ASSEMBLY WITH BRACKET (w/o Navigation System)** (See **INSTALLATION**)
8. **INSTALL HEATER CONTROL AND ACCESSORY ASSEMBLY (for Manual Air Conditioning System)** (See **AIR CONDITIONING PANEL (FOR MANUAL AIR CONDITIONING SYSTEM)**)
9. **INSTALL AIR CONDITIONING CONTROL ASSEMBLY (for Automatic Air Conditioning System)** (See **REMOVAL**)
10. **INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/o Smart Key System)** (See **INSTALLATION**)
11. **INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/ Smart Key System)** (See **INSTALLATION**)
12. **INSTALL CENTER INSTRUMENT PANEL REGISTER ASSEMBLY** (See **INSTALLATION**)

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STOP LIGHT SWITCH

COMPONENTS

Fig. 192: Identifying Stop Light Switch Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE FRONT DOOR SCUFF PLATE LH** (See **REMOVAL**)
2. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH** (See **REMOVAL**)
3. **REMOVE LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Manual Air Conditioning System)** (See **REMOVAL**)
4. **REMOVE LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Automatic Air Conditioning System)** (See **REMOVAL**)
5. **REMOVE STOP LIGHT SWITCH ASSEMBLY**
   a. Disconnect the connector.

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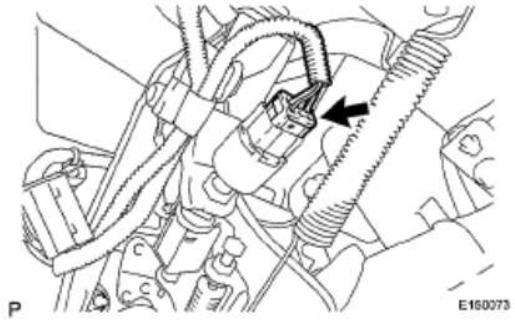


Fig. 193: Locating Stop Light Switch Assembly Connector
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Loosen the stop light switch lock nut and remove the stop light switch assembly.

INSPECTION

1. **INSPECT STOP LIGHT SWITCH ASSEMBLY**
   a. Measure the resistance according to the value(s) in the table below.

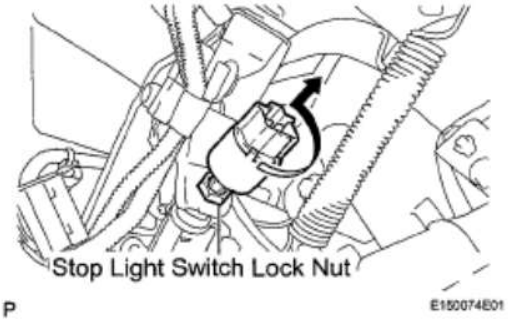


Fig. 194: Removing Stop Light Switch Assembly With Lock Nut
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

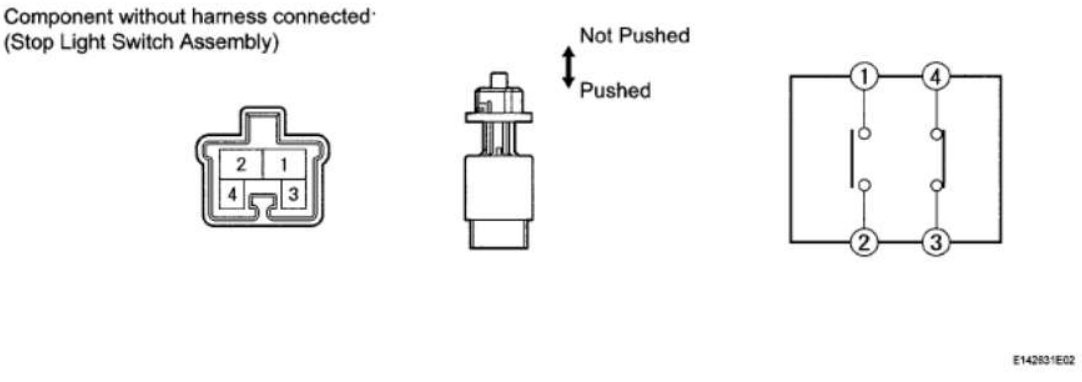


Fig. 195: Inspecting Stop Light Switch Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Switch Condition	Specified Condition
1 - 2	Pushed	10 kohms or higher
	Not pushed	Below 1 ohms
3 - 4	Pushed	Below 1 ohms
	Not pushed	10 kohms or higher

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

INSTALLATION

1. **INSTALL STOP LIGHT SWITCH ASSEMBLY**
   a. Temporarily install the stop light switch assembly with the stop light switch lock nut.

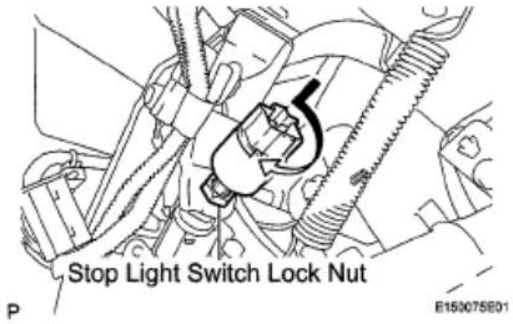


Fig. 196: Installing Stop Light Switch Assembly With Lock Nut
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   b. Turn the stop light switch assembly so that the clearance between the nut end and stop light switch cushion is between 0.5 to 2.4 mm (0.020 to 0.095 in.).
   c. Tighten the stop light switch lock nut.

Torque: 17 N*m (173 kgf*cm, 12 ft.*lbf)

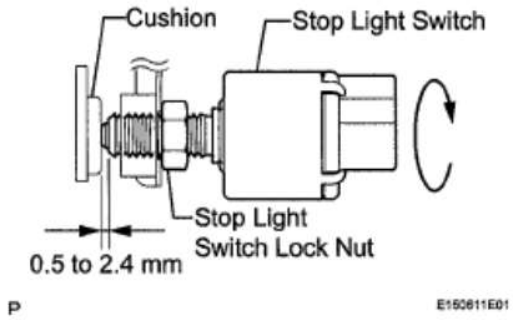


Fig. 197: Identifying Clearance Between Nut End And Stop Light Switch Cushion

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Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

d. Connect the connector.

2. **INSTALL LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Manual Air Conditioning System)** (See **INSTALLATION**)
3. **INSTALL LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Automatic Air Conditioning System)** (See **INSTALLATION**)
4. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH** (See **INSTALLATION**)

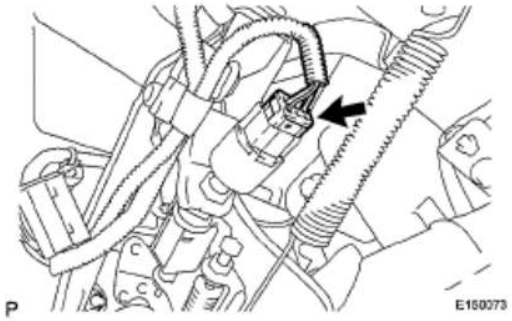


Fig. 198: Locating Stop Light Switch Assembly Connector
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. **INSTALL FRONT DOOR SCUFF PLATE LH** (See **INSTALLATION**)

FRONT DOOR COURTESY SWITCH

COMPONENTS

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Fig. 199: Identifying Front Door Courtesy Switch Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE FRONT DOOR COURTESY SWITCH ASSEMBLY**
   a. Using a "TORX" socket wrench (T30), remove the "TORX" bolt.
   b. Disconnect the connector and remove the front door courtesy switch assembly.

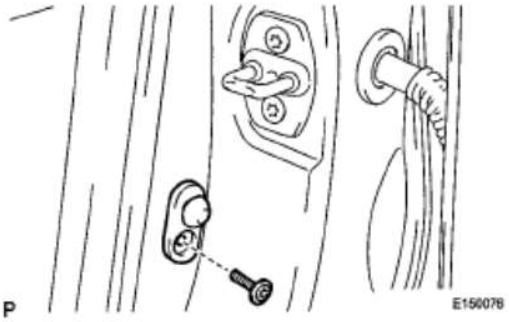


Fig. 200: Identifying Front Door Courtesy Switch Assembly With "TORX" Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION

1. **INSPECT FRONT DOOR COURTESY SWITCH**
   a. Measure the resistance according to the value(s) in the table below.

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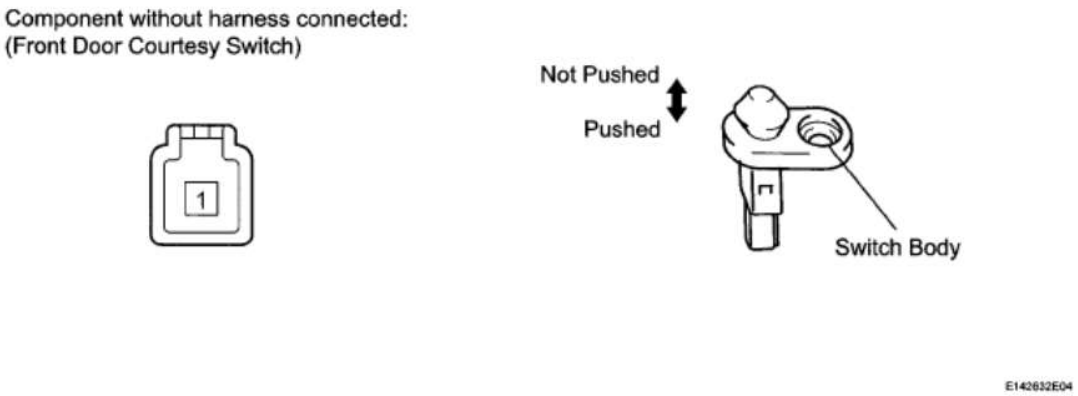


Fig. 201: Inspecting Front Door Courtesy Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Switch Condition	Specified Condition
1 - Switch body	Not pushed (ON)	Below 1 ohms
	Pushed (OFF)	10 kohms or higher

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

INSTALLATION

1. **INSTALL FRONT DOOR COURTESY SWITCH ASSEMBLY**
   a. Connect the connector.
   b. Using a "TORX" socket wrench (T30), install the front door courtesy switch assembly with the "TORX" bolt.

      Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

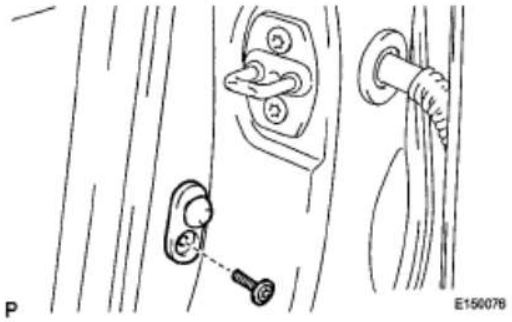


Fig. 202: Identifying Front Door Courtesy Switch Assembly With "TORX" Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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REAR DOOR COURTESY SWITCH

COMPONENTS

Fig. 203: Identifying Rear Door Courtesy Switch Components
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE REAR DOOR COURTESY SWITCH ASSEMBLY**
   a. Using a "TORX" socket wrench (T30), remove the "TORX" bolt.
   b. Disconnect the connector and remove the rear door courtesy switch assembly.

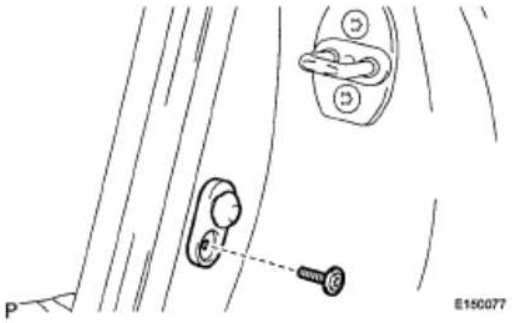


Fig. 204: Identifying Rear Door Courtesy Switch Assembly "TORX" Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION

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1. **INSPECT REAR DOOR COURTESY SWITCH**
   a. Measure the resistance according to the value(s) in the table below.

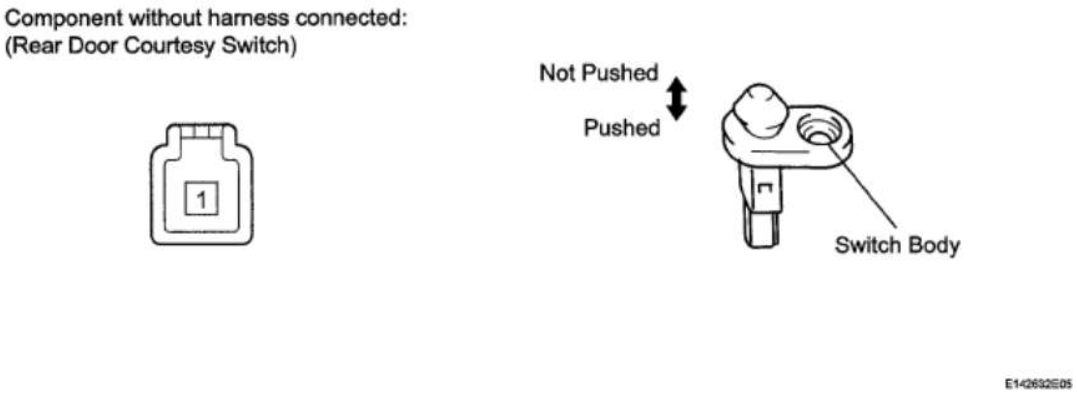


Fig. 205: Inspecting Rear Door Courtesy Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

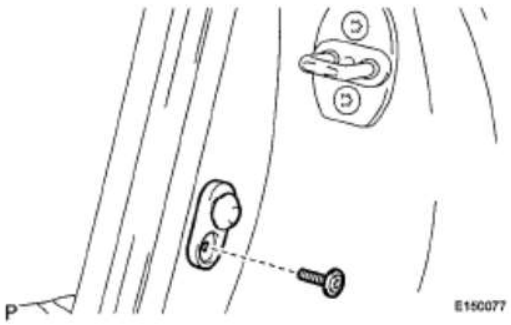
Tester Connection	Switch Condition	Specified Condition
1 - Switch body	Not pushed (ON)	Below 1 ohms
	Pushed (OFF)	10 kohms or higher

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

INSTALLATION

1. **INSTALL REAR DOOR COURTESY SWITCH ASSEMBLY**
   a. Connect the connector.
   b. Using a "TORX" socket wrench (T30), install the rear door courtesy switch assembly with the "TORX" bolt.

   Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)



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Fig. 206: Identifying Rear Door Courtesy Switch Assembly "TORX" Bolt
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

BACK DOOR COURTESY SWITCH

COMPONENTS

Fig. 207: Identifying Back Door Courtesy Switch Components (1 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 208: Identifying Back Door Courtesy Switch Components (2 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **REMOVE BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **DISASSEMBLY**)
2. **REMOVE BACK DOOR TRIM COVER LH (w/o Power Back Door)** (See **DISASSEMBLY**)
3. **REMOVE BACK DOOR SERVICE HOLE COVER LH (w/ Power Back Door)** (See **DISASSEMBLY**)

4. **DISCONNECT POWER BACK DOOR ROD (w/ Power Back Door)** (See **DISASSEMBLY**)
5. **REMOVE BACK DOOR TRIM COVER LH (w/ Power Back Door)** (See **DISASSEMBLY**)
6. **REMOVE BACK DOOR TRIM COVER RH** (See **DISASSEMBLY**)
7. **REMOVE BACK DOOR LOCK COVER (for Glass Hatch Type)** (See **DISASSEMBLY**)
8. **REMOVE ASSIST STRAP HOLE COVER** (See **DISASSEMBLY**)
9. **REMOVE ASSIST STRAP ASSEMBLY** (See **DISASSEMBLY**)
10. **REMOVE BACK DOOR TRIM PANEL ASSEMBLY** (See **DISASSEMBLY**)
11. **REMOVE BACK DOOR LOCK ASSEMBLY (w/o Power Back Door)** (See **DISASSEMBLY**)
12. **REMOVE BACK DOOR LOCK ASSEMBLY (w/ Power Back Door)** (See **DISASSEMBLY**)

INSPECTION

1. **INSPECT BACK DOOR LOCK ASSEMBLY (w/o Power Back Door)**
   a. Check the operation of the back door courtesy switch.
      1. Measure the resistance according to the value(s) in the table below.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Switch Condition	Specified Condition
1 - 3	Lock	10 kohms or higher
	Unlock	Below 1 ohms

If the result is not specified, replace the back door lock assembly.

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Component without harness connected:
(Back Door Lock Assembly)

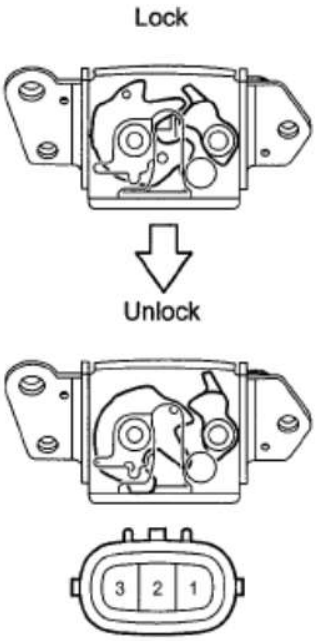


Fig. 209: Identifying Back Door Lock Assembly Connector Terminals (W/O Power Back Door)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. **INSPECT BACK DOOR LOCK ASSEMBLY (w/ Power Back Door)**
   a. Check the operation of the back door courtesy switch.

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Fig. 210: Identifying Back Door Lock Assembly Connector Terminals (W/ Power Back Door)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Door Lock Latch Position	Specified Condition
3 - 4	Open-latch	Below 1 ohms
	Half-latch	Below 1 ohms
	Full-latch	10 kohms or higher

	Over-latch	10 kohms or higher

If the result is not specified, replace the back door lock assembly.

INSTALLATION

1. **INSTALL BACK DOOR LOCK ASSEMBLY (w/o Power Back Door)** (See **REASSEMBLY**)
2. **INSTALL BACK DOOR LOCK ASSEMBLY (w/ Power Back Door)** (See **REASSEMBLY**)
3. **INSTALL BACK DOOR TRIM PANEL ASSEMBLY** (See **REASSEMBLY**)
4. **INSTALL ASSIST STRAP ASSEMBLY** (See **REASSEMBLY**)
5. **INSTALL ASSIST STRAP HOLE COVER** (See **REASSEMBLY**)
6. **INSTALL BACK DOOR LOCK COVER (for Glass Hatch Type)** (See **REASSEMBLY**)
7. **INSTALL BACK DOOR TRIM COVER LH (w/o Power Back Door)** (See **REASSEMBLY**)
8. **INSTALL BACK DOOR TRIM COVER LH (w/ Power Back Door)** (See **REASSEMBLY**)
9. **CONNECT POWER BACK DOOR ROD (w/ Power Back Door)** (See **REASSEMBLY**)
10. **INSTALL BACK DOOR SERVICE HOLE COVER LH (w/ Power Back Door)** (See **REASSEMBLY**)
11. **INSTALL BACK DOOR TRIM COVER RH** (See **REASSEMBLY**)
12. **INSTALL BACK WINDOW UPPER TRIM PANEL ASSEMBLY** (See **REASSEMBLY**)

AUTOMATIC LIGHT CONTROL SENSOR

COMPONENTS

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Fig. 211: Identifying Automatic Light Control Sensor Components (1 Of 8)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 212: Identifying Automatic Light Control Sensor Components (2 Of 8)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 213: Identifying Automatic Light Control Sensor Components (3 Of 8)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 214: Identifying Automatic Light Control Sensor Components (4 Of 8)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 215: Identifying Automatic Light Control Sensor Components (5 Of 8)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 216: Identifying Automatic Light Control Sensor Components (6 Of 8)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 217: Identifying Automatic Light Control Sensor Components (7 Of 8)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 218: Identifying Automatic Light Control Sensor Components (8 Of 8)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **PRECAUTION**

   (See **INSTRUMENT PANEL SAFETY PAD**)

2. **POSITION FRONT WHEELS STRAIGHT AHEAD**
3. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**

CAUTION: Wait for 90 seconds after disconnecting the cable to prevent airbag deployment (See AIRBAG SYSTEM).

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NOTE: When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).

4. **REMOVE LOWER NO. 3 STEERING WHEEL COVER** (See **REMOVAL**)
5. **REMOVE LOWER NO. 2 STEERING WHEEL COVER** (See **REMOVAL**)
6. **REMOVE STEERING PAD** (See **REMOVAL**)
7. **REMOVE STEERING WHEEL ASSEMBLY** (See **DISASSEMBLY**)
8. **REMOVE STEERING COLUMN COVER** (See **REMOVAL**)
9. **REMOVE TURN SIGNAL SWITCH ASSEMBLY WITH SPIRAL CABLE SUB-ASSEMBLY** (See **REMOVAL**)
10. **REMOVE INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY** (See **REMOVAL**)
11. **REMOVE COMBINATION METER ASSEMBLY** (See **REMOVAL**)
12. **REMOVE CENTER INSTRUMENT PANEL REGISTER ASSEMBLY** (See **REMOVAL**)
13. **REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/o Smart Key System)** (See **REMOVAL**)
14. **REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/ Smart Key System)** (See **REMOVAL**)
15. **REMOVE HEATER CONTROL AND ACCESSORY ASSEMBLY (for Manual Air Conditioning System)** (See **AIR CONDITIONING PANEL (FOR MANUAL AIR CONDITIONING SYSTEM)**)
16. **REMOVE AIR CONDITIONING CONTROL ASSEMBLY (for Automatic Air Conditioning System)** (See **REMOVAL**)
17. **REMOVE RADIO RECEIVER ASSEMBLY WITH BRACKET (w/o Navigation System)** (See **REMOVAL**)
18. **REMOVE NAVIGATION RECEIVER ASSEMBLY WITH BRACKET (w/ Navigation System)** (See **REMOVAL**)
19. **REMOVE FRONT DOOR SCUFF PLATE LH** (See **REMOVAL**)
20. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH** (See **REMOVAL**)
21. **REMOVE LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Manual Air Conditioning System)** (See **REMOVAL**)
22. **REMOVE LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Automatic Air Conditioning System)** (See **REMOVAL**)
23. **REMOVE FRONT DOOR SCUFF PLATE RH** (See **REMOVAL**)
24. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY RH** (See **REMOVAL**)
25. **REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY** (See **REMOVAL**)
26. **REMOVE LOWER INSTRUMENT PANEL SUB-ASSEMBLY** (See **REMOVAL**)
27. **REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY** (See **REMOVAL**)
28. **REMOVE NO. 2 CONSOLE BOX DUCT (w/o Rear Air Conditioning System)** (See **REMOVAL**)
29. **REMOVE LOWER REAR CONSOLE BOX** (See **REMOVAL**)
30. **REMOVE CONSOLE BOX ASSEMBLY (w/o Rear Air Conditioning System)** (See **REMOVAL**)
31. **REMOVE CONSOLE BOX ASSEMBLY (w/ Rear Air Conditioning System)** (See

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DISASSEMBLY)

32. **REMOVE FRONT NO. 1 CONSOLE BOX INSERT** (See **REMOVAL**)
33. **REMOVE FRONT NO. 2 CONSOLE BOX INSERT** (See **REMOVAL**)
34. **REMOVE ENGINE SWITCH (w/Smart Key System)** (See **INSPECTION**)
35. **DISCONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP LH** (See **REMOVAL**)
36. **REMOVE FRONT PILLAR GARNISH LH** (See **REMOVAL**)
37. **DISCONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP RH** (See **REMOVAL**)
38. **REMOVE FRONT PILLAR GARNISH RH** (See **REMOVAL**)
39. **REMOVE NO. 1 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **REMOVAL**)
40. **REMOVE FRONT NO. 2 SPEAKER ASSEMBLY (for LH Side)** (See **REMOVAL**)
41. **REMOVE NO. 2 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **REMOVAL**)
42. **REMOVE FRONT NO. 2 SPEAKER ASSEMBLY (for RH Side)** (See **REMOVAL**)
43. **DISCONNECT INSTRUMENT PANEL WIRE ASSEMBLY** (See **REMOVAL**)
44. **REMOVE INSTRUMENT PANEL SAFETY PAD ASSEMBLY (for Pole Antenna Type)** (See **REMOVAL**)
45. **REMOVE INSTRUMENT PANEL SAFETY PAD ASSEMBLY (for Glass Antenna Type)** (See **REMOVAL**)
46. **REMOVE NO. 1 HEATER TO REGISTER DUCT** (See **DISASSEMBLY**)
47. **REMOVE NO. 4 HEATER TO REGISTER DUCT** (See **DISASSEMBLY**)
48. **REMOVE SIDE NO. 1 DEFROSTER NOZZLE DUCT** (See **DISASSEMBLY**)
49. **REMOVE SIDE NO. 2 DEFROSTER NOZZLE DUCT** (See **DISASSEMBLY**)
50. **REMOVE DEFROSTER NOZZLE ASSEMBLY** (See **DISASSEMBLY**)
51. **REMOVE AUTOMATIC LIGHT CONTROL SENSOR**
    a. Disconnect the connector.
    b. Disengage the 2 claws and remove the automatic light control sensor.

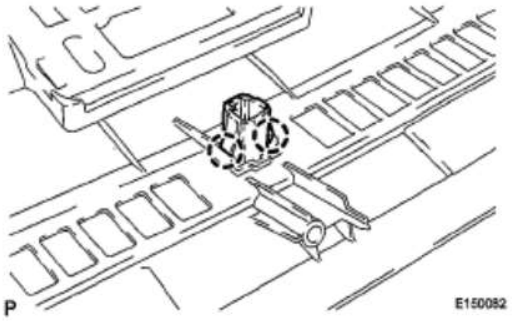


Fig. 219: Identifying Automatic Light Control Sensor With Claws And Connector
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSPECTION

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1. **INSPECT AUTOMATIC LIGHT CONTROL SENSOR (for Manual Air Conditioning System)**
   a. Disconnect the F2 automatic light control sensor connector.
   b. Measure the voltage and resistance according to the value(s) in the table below.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
F2-3 (CLTB) - F2-6 (CLTE)	Ignition switch off	Below 1 V
	Ignition switch on (IG)	10 to 14 V

Front view of wire harness connector:
(to Automatic Light Control Sensor)

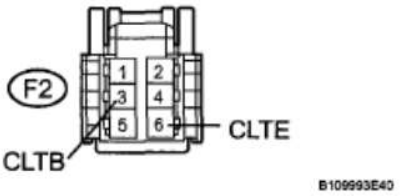


Fig. 220: Identifying Automatic Light Control Sensor Connector Terminals (CLTB And CLTE)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Specified Condition
F2-6 (CLTE) - Body ground	Below 1 ohms

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

   c. Reconnect the automatic light control sensor connector.
   d. Connect an oscilloscope to the automatic light control sensor connector.

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Component with harness connected:
(Automatic Light Control Sensor)

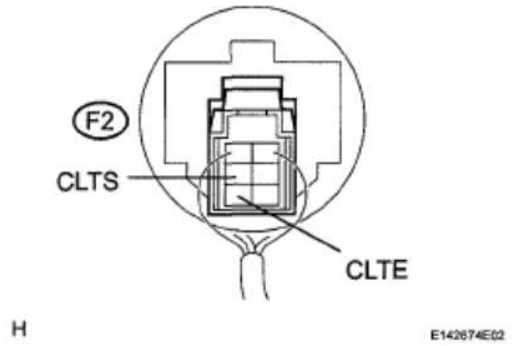


Fig. 221: Identifying Automatic Light Control Sensor Connector Terminals (CLTS And CLTE)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

e. Check the waveform.

OK

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Tool Setting	Condition	Specified Condition
F2-6 (CLTE) - F2-4 (CLTS)	5 V/DIV., 5 ms./ DIV	Ignition switch on (IG), light control switch in AUTO	Correct waveform is as shown

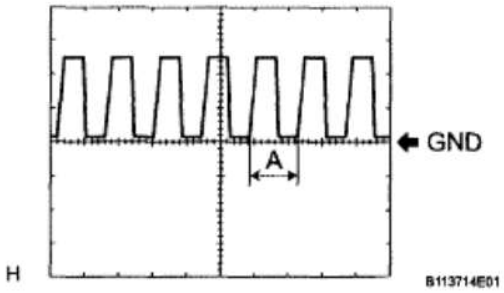


Fig. 222: Waveform Graph
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

HINT:

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

If the result is not as specified, replace the automatic light control sensor.

2. **INSPECT AUTOMATIC LIGHT CONTROL SENSOR (for Automatic Air Conditioning System)**

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a. Disconnect the F1 automatic light control sensor connector.
b. Measure the voltage and resistance according to the value(s) in the table below.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
F1-6 (CLTB) - F1-3 (CLTE)	Ignition switch off	Below 1 V
	Ignition switch on (IG)	10 to 14 V

Front view of wire harness connector:
(to Automatic Light Control Sensor)

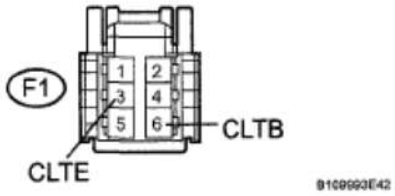


Fig. 223: Identifying Automatic Light Control Sensor Connector Terminals (CLTB And CLTE)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Specified Condition
F1-3 (CLTE) - Body ground	Below 1 ohms

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

c. Reconnect the automatic light control sensor connector.
d. Connect an oscilloscope to the automatic light control sensor connector.

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Component with harness connected:
(Automatic Light Control Sensor)

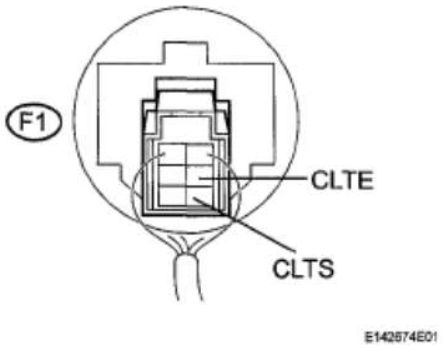


Fig. 224: Identifying Automatic Light Control Sensor Connector Terminals (CLTS And CLTE)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

e. Check the waveform.

OK

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Tool Setting	Condition	Specified Condition
F1-3 (CLTE) - F1-5 (CLTS)	5 V/DIV., 5 ms./ DIV	Ignition switch on (IG), light control switch in AUTO	Correct waveform is as shown

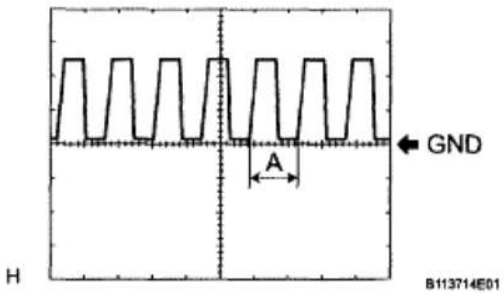


Fig. 225: Waveform Graph
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

HINT:

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

If the result is not as specified, replace the automatic light control sensor.

INSTALLATION

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1. **INSTALL AUTOMATIC LIGHT CONTROL SENSOR**
   a. Engage the 2 claws and install the automatic light control sensor.
   b. Connect the connector.
2. **INSTALL DEFROSTER NOZZLE ASSEMBLY** (See **REASSEMBLY**)
3. **INSTALL SIDE NO. 2 DEFROSTER NOZZLE DUCT** (See **REASSEMBLY**)

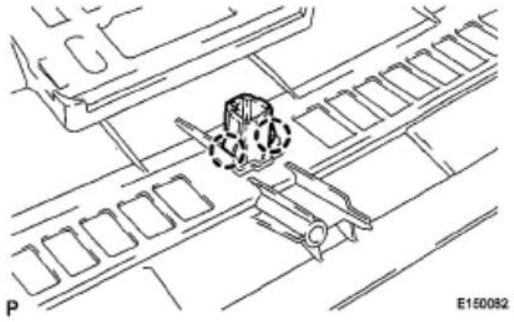


Fig. 226: Identifying Automatic Light Control Sensor With Claws And Connector
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. **INSTALL SIDE NO. 1 DEFROSTER NOZZLE DUCT** (See **REASSEMBLY**)
5. **INSTALL NO. 4 HEATER TO REGISTER DUCT** (See **INSTALLATION**)
6. **INSTALL NO. 1 HEATER TO REGISTER DUCT** (See **INSTALLATION**)
7. **INSTALL INSTRUMENT PANEL SAFETY PAD ASSEMBLY (for Pole Antenna Type)** (See **INSTALLATION**)
8. **INSTALL INSTRUMENT PANEL SAFETY PAD ASSEMBLY (for Glass Antenna Type)** (See **INSTALLATION**)
9. **CONNECT INSTRUMENT PANEL WIRE ASSEMBLY** (See **INSTALLATION**)
10. **INSTALL FRONT NO. 2 SPEAKER ASSEMBLY (for LH Side)** (See **REMOVAL**)
11. **INSTALL NO. 1 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
12. **INSTALL FRONT NO. 2 SPEAKER ASSEMBLY (for RH Side)** (See **INSTALLATION**)
13. **INSTALL NO. 2 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
14. **INSTALL FRONT PILLAR GARNISH RH** (See **INSTALLATION**)
15. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP RH** (See **INSTALLATION**)
16. **INSTALL FRONT PILLAR GARNISH LH** (See **INSTALLATION**)
17. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP LH** (See **INSTALLATION**)
18. **INSTALL ENGINE SWITCH (w/ Smart Key System)** (See **INSTALLATION**)
19. **INSTALL FRONT NO. 2 CONSOLE BOX INSERT** (See **INSTALLATION**)
20. **INSTALL FRONT NO. 1 CONSOLE BOX INSERT** (See **INSTALLATION**)
21. **INSTALL CONSOLE BOX ASSEMBLY (w/o Rear Air Conditioning System)** (See **INSTALLATION**)

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22. **INSTALL CONSOLE BOX ASSEMBLY (w/Rear Air Conditioning System)** (See **INSTALLATION**)
23. **INSTALL LOWER REAR CONSOLE BOX** (See **INSTALLATION**)
24. **INSTALL NO. 2 CONSOLE BOX DUCT (w/o Rear Air Conditioning System)** (See **INSTALLATION**)
25. **INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
26. **INSTALL LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Manual Air Conditioning System)** (See **INSTALLATION**)
27. **INSTALL LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Automatic Air Conditioning System)** (See **INSTALLATION**)
28. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH** (See **INSTALLATION**)
29. **INSTALL FRONT DOOR SCUFF PLATE LH** (See **INSTALLATION**)
30. **INSTALL LOWER INSTRUMENT PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
31. **INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY** (See **INSTALLATION**)
32. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY RH** (See **INSTALLATION**)
33. **INSTALL FRONT DOOR SCUFF PLATE RH** (See **INSTALLATION**)
34. **INSTALL RADIO RECEIVER ASSEMBLY WITH BRACKET (w/o Navigation System)** (See **INSTALLATION**)
35. **INSTALL NAVIGATION RECEIVER ASSEMBLY WITH BRACKET (w/ Navigation System)** (See **INSTALLATION**)
36. **INSTALL HEATER CONTROL AND ACCESSORY ASSEMBLY (for Manual Air Conditioning System)** (See **AIR CONDITIONING PANEL (FOR MANUAL AIR CONDITIONING SYSTEM)**)
37. **INSTALL AIR CONDITIONING CONTROL ASSEMBLY (for Automatic Air Conditioning System)** (See **REMOVAL**)
38. **INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/o Smart Key System)** (See **INSTALLATION**)
39. **INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/ Smart Key System)** (See **INSTALLATION**)
40. **INSTALL CENTER INSTRUMENT PANEL REGISTER ASSEMBLY** (See **INSTALLATION**)
41. **INSTALL COMBINATION METER ASSEMBLY** (See **INSTALLATION**)
42. **INSTALL INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY** (See **INSTALLATION**)
43. **POSITION FRONT WHEELS STRAIGHT AHEAD**
44. **INSTALL TURN SIGNAL SWITCH ASSEMBLY WITH SPIRAL CABLE SUB-ASSEMBLY** (See **INSTALLATION**)
45. **INSTALL STEERING COLUMN COVER** (See **INSTALLATION**)
46. **ADJUST SPIRAL CABLE SUB-ASSEMBLY** (See **INSTALLATION**)
47. **INSTALL STEERING WHEEL ASSEMBLY** (See **INSTALLATION**)
48. **INSPECT STEERING WHEEL CENTER POINT**
49. **INSTALL STEERING PAD** (See **INSTALLATION**)

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50. **INSTALL LOWER NO. 2 STEERING WHEEL COVER** (See **INSTALLATION**)
51. **INSTALL LOWER NO. 3 STEERING WHEEL COVER** (See **INSTALLATION**)
52. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

NOTE: **When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).**

53. **INSPECT STEERING PAD** (See **INSTALLATION**)
54. **INSPECT SRS WARNING LIGHT**
    a. Inspect the SRS warning light (See **DIAGNOSIS SYSTEM**).

TURN SIGNAL FLASHER ASSEMBLY

COMPONENTS

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Fig. 227: Identifying Turn Signal Flasher Assembly Components (1 Of 8)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 228: Identifying Turn Signal Flasher Assembly Components (2 Of 8)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 229: Identifying Turn Signal Flasher Assembly Components (3 Of 8)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 230: Identifying Turn Signal Flasher Assembly Components (4 Of 8)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 231: Identifying Turn Signal Flasher Assembly Components (5 Of 8)
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Fig. 232: Identifying Turn Signal Flasher Assembly Components (6 Of 8)
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Fig. 233: Identifying Turn Signal Flasher Assembly Components (7 Of 8)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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Fig. 234: Identifying Turn Signal Flasher Assembly Components (8 Of 8)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. **PRECAUTION**

   (See **INSTRUMENT PANEL SAFETY PAD**)

2. **POSITION FRONT WHEELS STRAIGHT AHEAD**
3. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**

CAUTION: Wait for 90 seconds after disconnecting the cable to prevent airbag deployment (See AIRBAG SYSTEM).

NOTE: When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).

4. **REMOVE LOWER NO. 3 STEERING WHEEL COVER** (See **REMOVAL**)
5. **REMOVE LOWER NO. 2 STEERING WHEEL COVER** (See **REMOVAL**)
6. **REMOVE STEERING PAD** (See **REMOVAL**)
7. **REMOVE STEERING WHEEL ASSEMBLY** (See **DISASSEMBLY**)
8. **REMOVE STEERING COLUMN COVER** (See **REMOVAL**)

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9. **REMOVE TURN SIGNAL SWITCH ASSEMBLY WITH SPIRAL CABLE SUB-ASSEMBLY** (See **REMOVAL**)
10. **REMOVE INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY** (See **REMOVAL**)
11. **REMOVE COMBINATION METER ASSEMBLY** (See **REMOVAL**)
12. **REMOVE CENTER INSTRUMENT PANEL REGISTER ASSEMBLY** (See **REMOVAL**)
13. **REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/o Smart Key System)** (See **REMOVAL**)
14. **REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/ Smart Key System)** (See **REMOVAL**)
15. **REMOVE HEATER CONTROL AND ACCESSORY ASSEMBLY (for Manual Air Conditioning System)** (See **AIR CONDITIONING PANEL (FOR MANUAL AIR CONDITIONING SYSTEM)**)
16. **REMOVE AIR CONDITIONING CONTROL ASSEMBLY (for Automatic Air Conditioning System)** (See **REMOVAL**)
17. **REMOVE RADIO RECEIVER ASSEMBLY WITH BRACKET (w/o Navigation System)** (See **REMOVAL**)
18. **REMOVE NAVIGATION RECEIVER ASSEMBLY WITH BRACKET (w/ Navigation System)** (See **REMOVAL**)
19. **REMOVE FRONT DOOR SCUFF PLATE LH** (See **REMOVAL**)
20. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH** (See **REMOVAL**)
21. **REMOVE LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Manual Air Conditioning System)** (See **REMOVAL**)
22. **REMOVE LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Automatic Air Conditioning System)** (See **REMOVAL**)
23. **REMOVE FRONT DOOR SCUFF PLATE RH** (See **REMOVAL**)
24. **REMOVE COWL SIDE TRIM SUB-ASSEMBLY RH** (See **REMOVAL**)
25. **REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY** (See **REMOVAL**)
26. **REMOVE LOWER INSTRUMENT PANEL SUB-ASSEMBLY** (See **REMOVAL**)
27. **REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY** (See **REMOVAL**)
28. **REMOVE NO. 2 CONSOLE BOX DUCT (w/o Rear Air Conditioning System)** (See **REMOVAL**)
29. **REMOVE LOWER REAR CONSOLE BOX** (See **REMOVAL**)
30. **REMOVE CONSOLE BOX ASSEMBLY (w/o Rear Air Conditioning System)** (See **REMOVAL**)
31. **REMOVE CONSOLE BOX ASSEMBLY (w/ Rear Air Conditioning System)** (See **DISASSEMBLY**)
32. **REMOVE FRONT NO. 1 CONSOLE BOX INSERT** (See **REMOVAL**)
33. **REMOVE FRONT NO. 2 CONSOLE BOX INSERT** (See **REMOVAL**)
34. **REMOVE ENGINE SWITCH (w/ Smart Key System)** (See **INSPECTION**)
35. **DISCONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP LH** (See **REMOVAL**)
36. **REMOVE FRONT PILLAR GARNISH LH** (See **REMOVAL**)
37. **DISCONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP RH** (See **REMOVAL**)
38. **REMOVE FRONT PILLAR GARNISH RH** (See **REMOVAL**)

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39. **REMOVE NO. 1 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **REMOVAL**)
40. **REMOVE FRONT NO. 2 SPEAKER ASSEMBLY (for LH Side)** (See **REMOVAL**)
41. **REMOVE NO. 2 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **REMOVAL**)
42. **REMOVE FRONT NO. 2 SPEAKER ASSEMBLY (for RH Side)** (See **REMOVAL**)
43. **DISCONNECT INSTRUMENT PANEL WIRE ASSEMBLY** (See **REMOVAL**)
44. **REMOVE INSTRUMENT PANEL SAFETY PAD ASSEMBLY (for Pole Antenna Type)** (See **REMOVAL**)
45. **REMOVE INSTRUMENT PANEL SAFETY PAD ASSEMBLY (for Glass Antenna Type)** (See **REMOVAL**)
46. **DISCONNECT INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY**
    a. Remove the 3 nuts and disconnect the instrument panel junction block assembly.
47. **REMOVE POWER STEERING ECU ASSEMBLY** (See **INSTALLATION**)

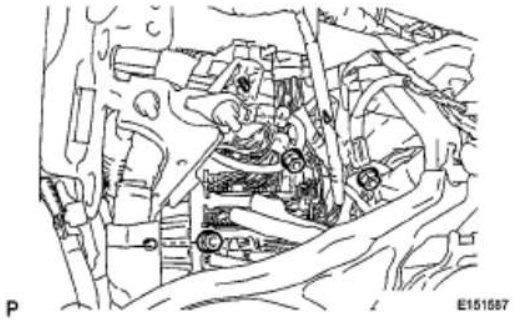


Fig. 235: Identifying Instrument Panel Junction Block Assembly With Nuts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

48. **REMOVE TURN SIGNAL FLASHER ASSEMBLY**
    a. Disengage the claw and disconnect the turn signal flasher assembly.
    b. Disconnect the connector and remove the turn signal flasher assembly.



Fig. 236: Identifying Turn Signal Flasher Assembly With Claw And Connector
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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INSPECTION

1. **INSPECT TURN SIGNAL FLASHER ASSEMBLY**
   a. Disconnect the D12 turn signal flasher assembly connector.
   b. Measure the voltage according to the value(s) in the table below.

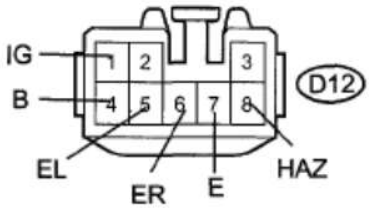
Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
D12-1 (IG) - Body ground	Ignition switch off	Below 1 V
	Ignition switch on (IG)	11 to 14 V
D12-4 (B) - Body ground	Always	11 to 14 V

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

Front view of wire harness connector:
(to Turn Signal Flasher Assembly)



E142629E06

Fig. 237: Identifying Turn Signal Flasher Assembly Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
D12-5 (EL) - Body ground	Turn signal switch OFF	11 kohms or higher
	Turn signal switch in LH position	Below 1 ohms
D12-6 (ER) - Body ground	Turn signal switch OFF	11 kohms or higher
	Turn signal switch in RH position	Below 1 ohms
D12-7 (E) - Body ground	Always	Below 1 ohms

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D12-8 (HAZ) - Body ground	Hazard warning switch OFF	11 kohms or higher
	Hazard warning switch ON	Below 1 ohms

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

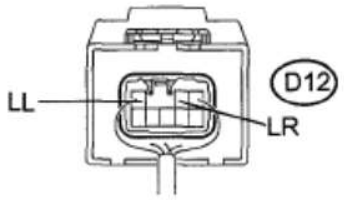
d. Reconnect the D12 turn signal flasher assembly connector.
e. Measure the voltage according to the value(s) in the table below.

Standard voltage

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
D12-2 (LR) - Body ground	Hazard warning switch OFF	Below 1 V
	Hazard warning switch ON	11 to 14 V (60 to 120 times per minute)
	Turn signal switch OFF	Below 1 V
	Ignition switch on (IG) and turn signal switch in RH position	11 to 14 V (60 to 120 times per minute)
D12-3 (LL) - Body ground	Hazard warning switch OFF	Below 1 V
	Hazard warning switch ON	11 to 14 V (60 to 120 times per minute)
	Turn signal switch OFF	Below 1 V
	Ignition switch on (IG) and turn signal switch in LH position	11 to 14 V (60 to 120 times per minute)

Component with harness connected:
(Turn Signal Flasher Assembly)



H E142616E06

Fig. 238: Identifying Turn Signal Flasher Assembly Connector Terminals (LL And LR)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

If the result is not as specified, replace the turn signal flasher assembly.

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INSTALLATION

1. **INSTALL TURN SIGNAL FLASHER ASSEMBLY**
   a. Connect the connector.
   b. Engage the claw and install the turn signal flasher assembly.
2. **INSTALL POWER STEERING ECU ASSEMBLY** (See **INSTALLATION**)



Fig. 239: Identifying Turn Signal Flasher Assembly With Claw And Connector
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. **CONNECT INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY**
   a. Connect the instrument panel junction block assembly with the 3 nuts.

   Torque: 8.4 N*m (86 kgf*cm, 74 in.*lbf)

4. **INSTALL INSTRUMENT PANEL SAFETY PAD ASSEMBLY (for Pole Antenna Type)** (See **INSTALLATION**)
5. **INSTALL INSTRUMENT PANEL SAFETY PAD ASSEMBLY (for Glass Antenna Type)** (See **INSTALLATION**)

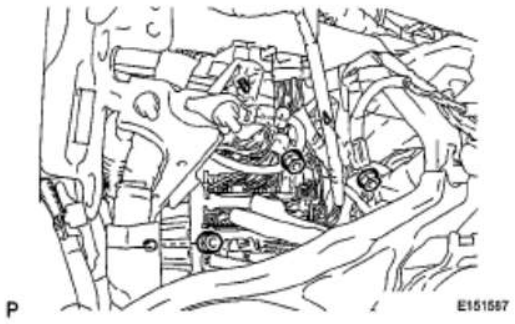


Fig. 240: Identifying Instrument Panel Junction Block Assembly With Nuts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. **CONNECT INSTRUMENT PANEL WIRE ASSEMBLY** (See **INSTALLATION**)
7. **INSTALL FRONT NO. 2 SPEAKER ASSEMBLY (for LH Side)** (See **REMOVAL**)

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8. **INSTALL NO. 1 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
9. **INSTALL FRONT NO. 2 SPEAKER ASSEMBLY (for RH Side)** (See **INSTALLATION**)
10. **INSTALL NO. 2 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
11. **INSTALL FRONT PILLAR GARNISH RH** (See **INSTALLATION**)
12. **CONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP RH** (See **INSTALLATION**)
13. **INSTALL FRONT PILLAR GARNISH LH** (See **INSTALLATION**)
14. **CONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP LH** (See **INSTALLATION**)
15. **INSTALL ENGINE SWITCH (w/ Smart Key System)** (See **INSTALLATION**)
16. **INSTALL FRONT NO. 2 CONSOLE BOX INSERT** (See **INSTALLATION**)
17. **INSTALL FRONT NO. 1 CONSOLE BOX INSERT** (See **INSTALLATION**)
18. **INSTALL CONSOLE BOX ASSEMBLY (w/ Rear Air Conditioning System)** (See **INSTALLATION**)
19. **INSTALL CONSOLE BOX ASSEMBLY (w/o Rear Air Conditioning System)** (See **INSTALLATION**)
20. **INSTALL LOWER REAR CONSOLE BOX** (See **INSTALLATION**)
21. **INSTALL NO. 2 CONSOLE BOX DUCT (w/o Rear Air Conditioning System)** (See **INSTALLATION**)
22. **INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
23. **INSTALL LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Manual Air Conditioning System)** (See **INSTALLATION**)
24. **INSTALL LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY (for Automatic Air Conditioning System)** (See **INSTALLATION**)
25. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH** (See **INSTALLATION**)
26. **INSTALL FRONT DOOR SCUFF PLATE LH** (See **INSTALLATION**)
27. **INSTALL LOWER INSTRUMENT PANEL SUB-ASSEMBLY** (See **INSTALLATION**)
28. **INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY** (See **INSTALLATION**)
29. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY RH** (See **INSTALLATION**)
30. **INSTALL FRONT DOOR SCUFF PLATE RH** (See **INSTALLATION**)
31. **INSTALL RADIO RECEIVER ASSEMBLY WITH BRACKET (w/o Navigation System)** (See **INSTALLATION**)
32. **INSTALL NAVIGATION RECEIVER ASSEMBLY WITH BRACKET (w/ Navigation System)** (See **INSTALLATION**)
33. **INSTALL HEATER CONTROL AND ACCESSORY ASSEMBLY (for Manual Air Conditioning System)** (See **AIR CONDITIONING PANEL (FOR MANUAL AIR CONDITIONING SYSTEM)**)
34. **INSTALL AIR CONDITIONING CONTROL ASSEMBLY (for Automatic Air Conditioning System)** (See **REMOVAL**)
35. **INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/o Smart Key**

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System) (See **INSTALLATION**)

36. **INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (w/ Smart Key System)** (See **INSTALLATION**)
37. **INSTALL CENTER INSTRUMENT PANEL REGISTER ASSEMBLY** (See **INSTALLATION**)
38. **INSTALL COMBINATION METER ASSEMBLY** (See **INSTALLATION**)
39. **INSTALL INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY** (See **INSTALLATION**)
40. **POSITION FRONT WHEELS STRAIGHT AHEAD**
41. **INSTALL TURN SIGNAL SWITCH ASSEMBLY WITH SPIRAL CABLE SUB-ASSEMBLY** (See **INSTALLATION**)
42. **INSTALL STEERING COLUMN COVER** (See **INSTALLATION**)
43. **ADJUST SPIRAL CABLE SUB-ASSEMBLY** (See **INSTALLATION**)
44. **INSTALL STEERING WHEEL ASSEMBLY** (See **INSTALLATION**)
45. **INSPECT STEERING WHEEL CENTER POINT**
46. **INSTALL STEERING PAD** (See **INSTALLATION**)
47. **INSTALL LOWER NO. 2 STEERING WHEEL COVER** (See **INSTALLATION**)
48. **INSTALL LOWER NO. 3 STEERING WHEEL COVER** (See **INSTALLATION**)
49. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

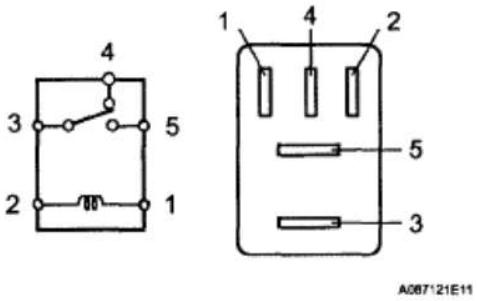
NOTE: **When disconnecting the cable, some systems need to be initialized after the cable is reconnected (See INITIALIZATION).**

50. **INSPECT STEERING PAD** (See **INSTALLATION**)
51. **INSPECT SRS WARNING LIGHT**
    a. Inspect the SRS warning light (See **DIAGNOSIS SYSTEM**).

TAILLIGHT RELAY

ON-VEHICLE INSPECTION

1. **INSPECT TAILLIGHT RELAY**
   a. Remove the taillight relay from the instrument panel junction block.
   b. Measure the resistance according to the value(s) in the table below.



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Fig. 241: Taillight Relay Circuit
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Specified Condition
3 - 5	10 kohms or higher
	Below 1 ohms (When battery voltage is applied to terminals 1 and 2)
3 - 4	Below 1 ohms
	10 kohms or higher (When battery voltage is applied to terminals 1 and 2)

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

FOG LIGHT RELAY

ON-VEHICLE INSPECTION

1. **INSPECT FRONT FOG LIGHT RELAY**
   a. Remove the front fog light relay from the center relay block.
   b. Measure the resistance according to the value(s) in the table below.

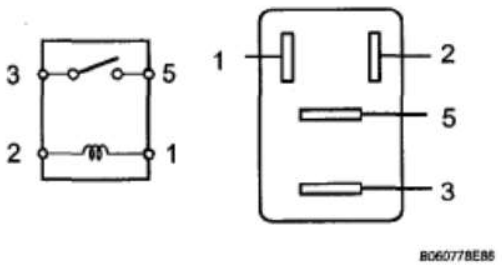


Fig. 242: Front Fog Light Relay Circuit
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
3 - 5	Voltage is not applied between terminals 1 and 2	10 kohms. or higher
3 - 5	Apply battery voltage between terminals 1 and 2	Below 1 ohms

If the result is not as specified, replace the front fog light relay.

DOOR MIRROR FOOT LIGHT RELAY

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ON-VEHICLE INSPECTION

1. **INSPECT DOOR MIRROR FOOT LIGHT RELAY**
   a. Remove the door mirror foot light relay from the No. 2 engine room relay block.
   b. Measure the resistance according to the value(s) in the table below.

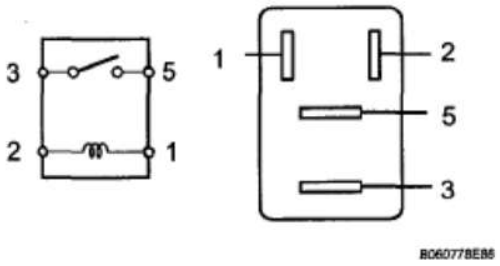


Fig. 243: Door Mirror Foot Light Relay Circuit
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard resistance

TESTER CONNECTION SPECIFIED CONDITION CHART

Tester Connection	Condition	Specified Condition
3 - 5	Voltage is not applied between terminals 1 and 2	10 kohms or higher
3 - 5	Apply battery voltage between terminals 1 and 2	Below 1 ohms

If the result is not as specified, replace the door mirror foot light relay.

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