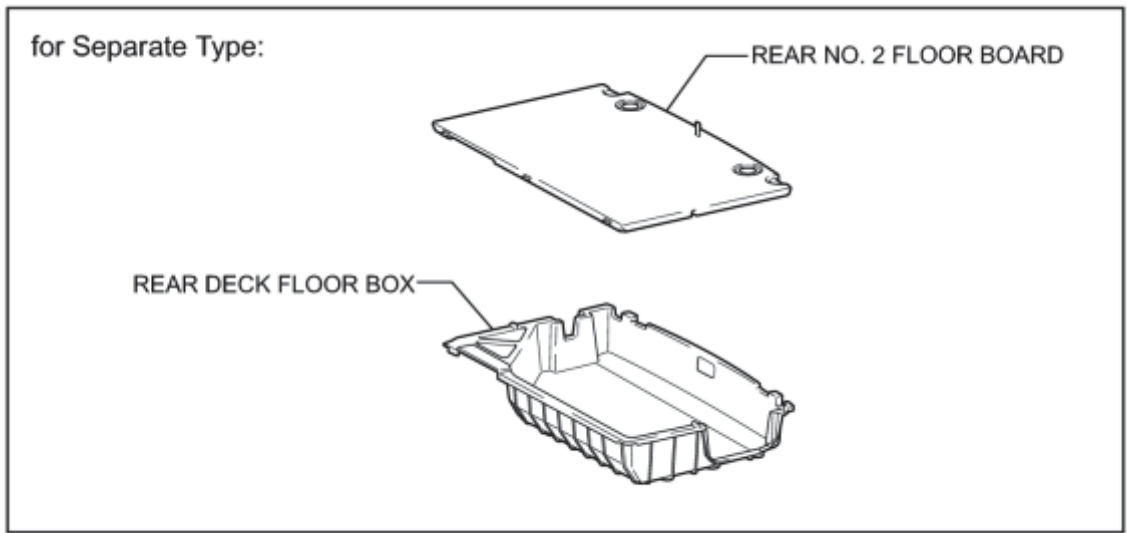
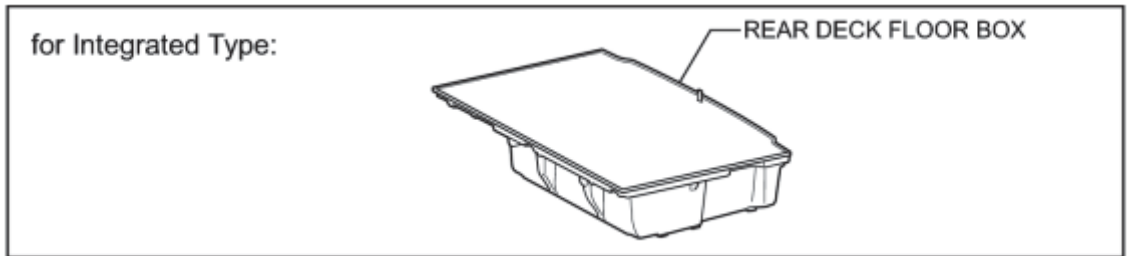


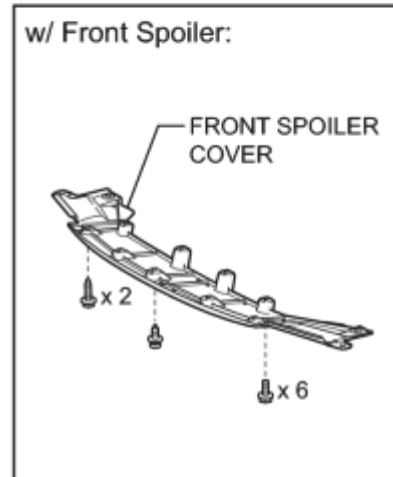
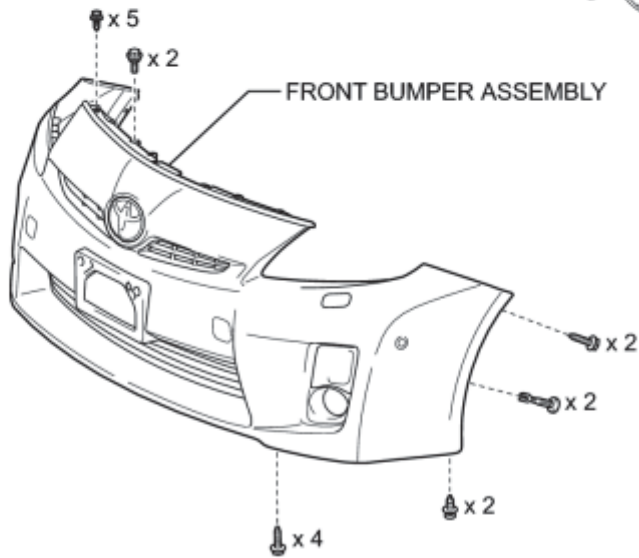
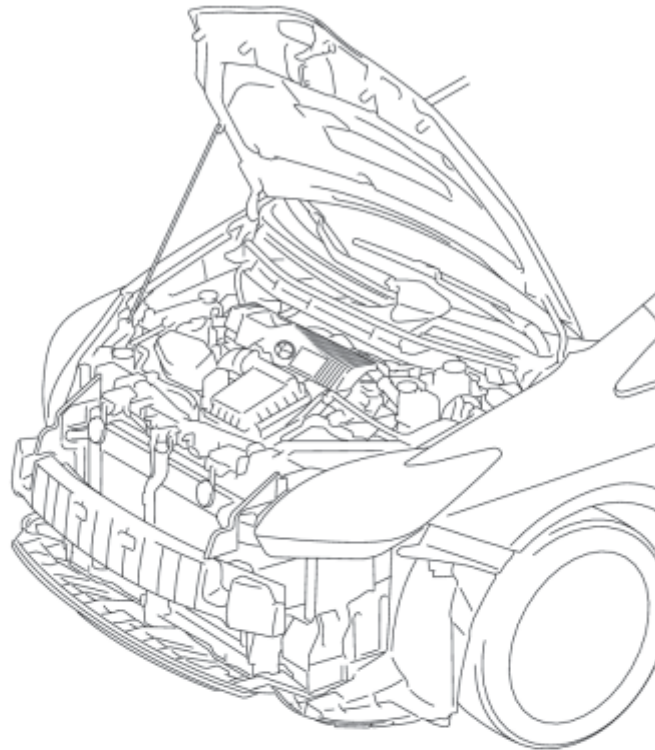
COMPONENTS

ILLUSTRATION



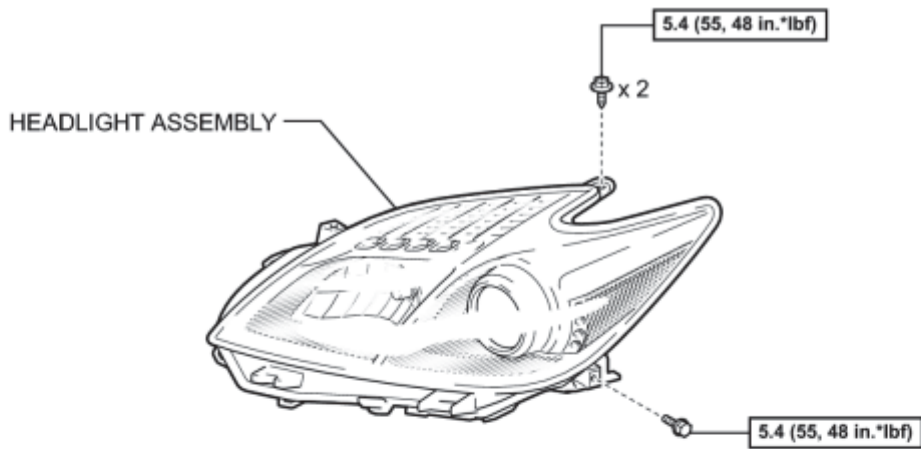
P

ILLUSTRATION

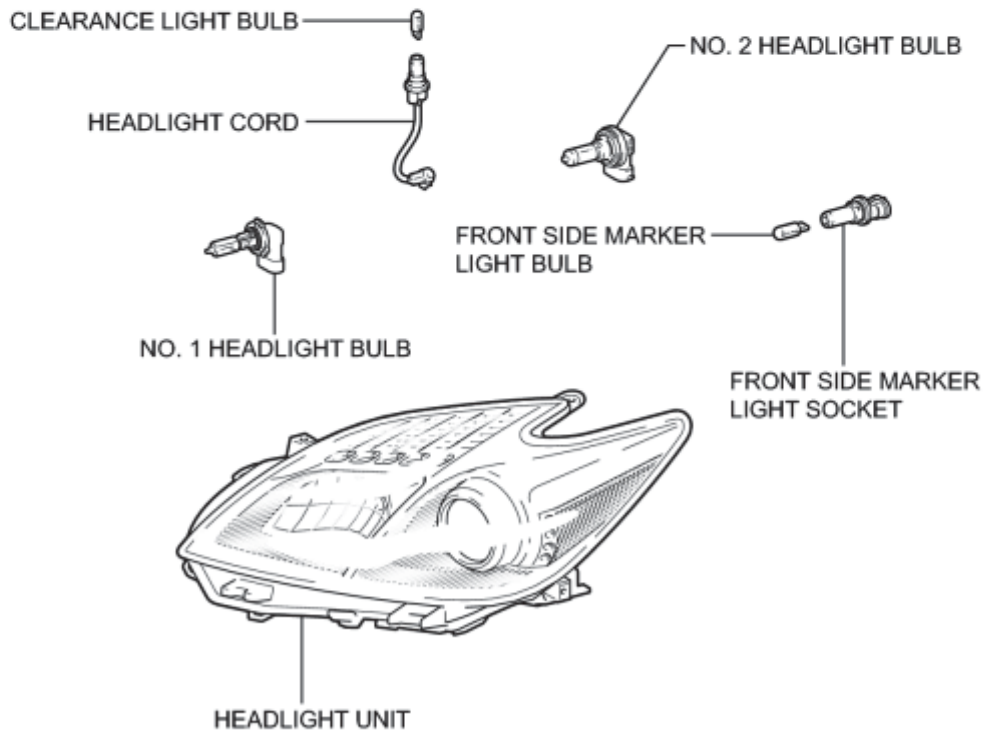


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ILLUSTRATION



for Halogen Headlight:

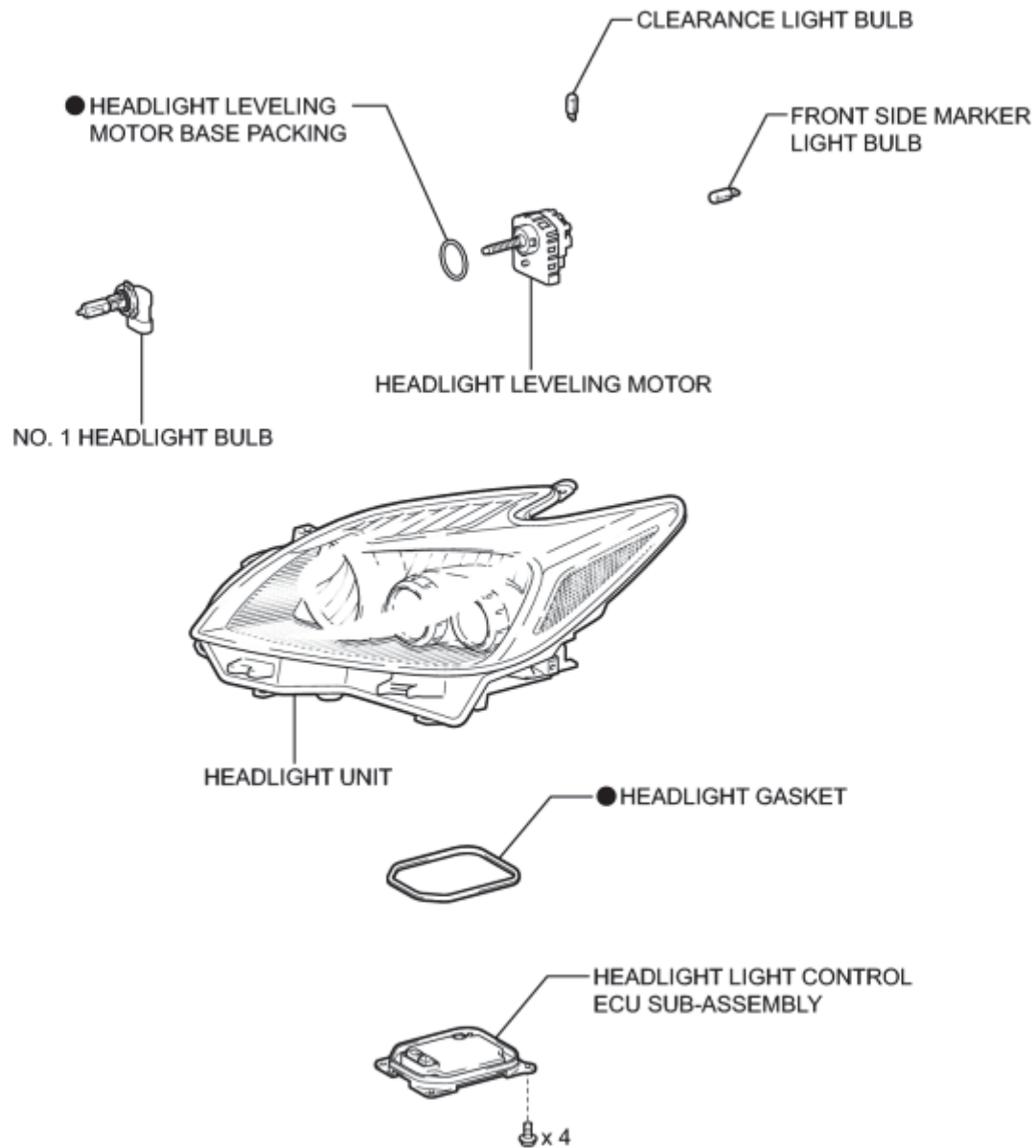


N*m (kgf*cm, ft.*lbf): Specified torque

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ILLUSTRATION

for LED Headlight:

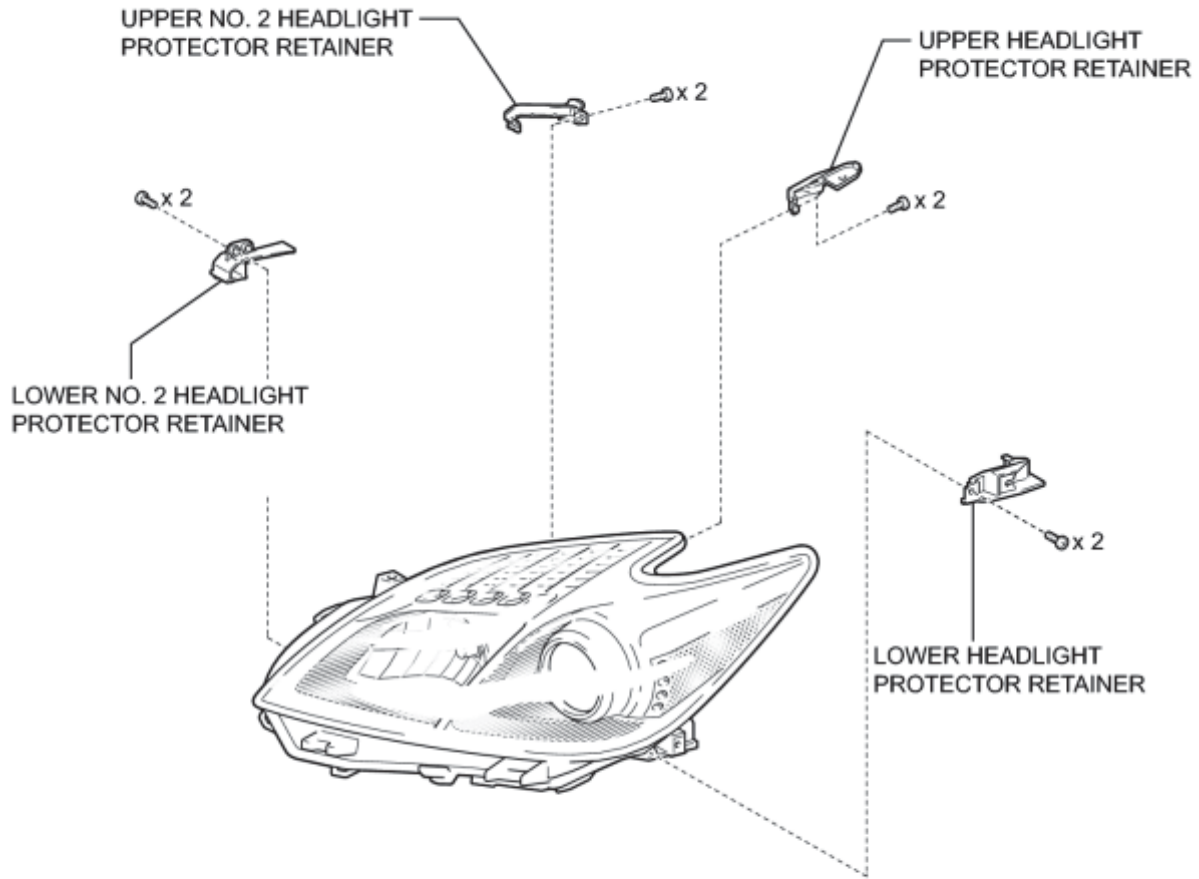


● Non-reusable part

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ILLUSTRATION

Bracket for Repair:



P

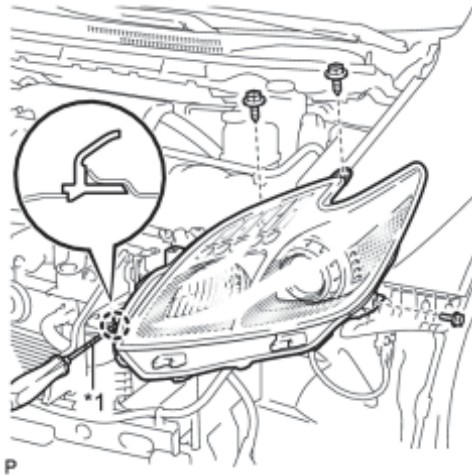
REMOVAL

1. REMOVE REAR NO. 2 FLOOR BOARD (for Separate Type) INFO
2. REMOVE REAR DECK FLOOR BOX INFO
3. REMOVE REAR NO. 3 FLOOR BOARD INFO
4. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

5. REMOVE RADIATOR SUPPORT OPENING COVER INFO
6. REMOVE FRONT BUMPER ASSEMBLY INFO
7. REMOVE HEADLIGHT ASSEMBLY



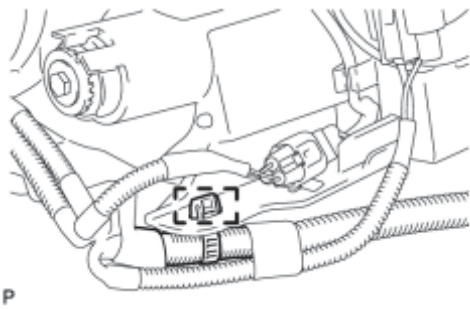
(a) Remove the bolt and 2 screws.

(b) Using a screwdriver wrapped with protective tape, disengage the claw.

Text in Illustration

| | |
|----|-----------------|
| *1 | Protective Tape |
|----|-----------------|

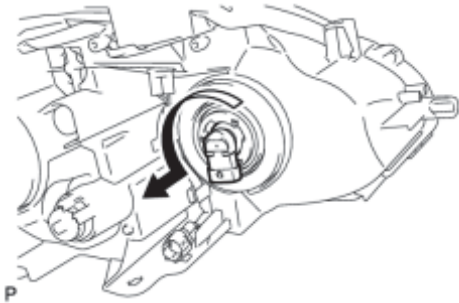
(c) Disengage the clamp.



(d) Disconnect each connector and remove the headlight assembly.

DISASSEMBLY

1. REMOVE NO. 1 HEADLIGHT BULB

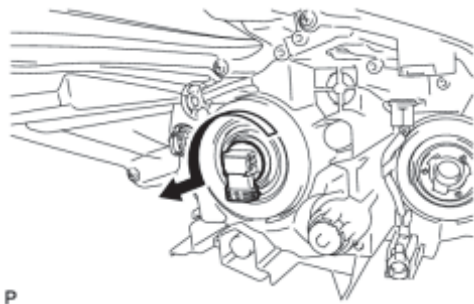


(a) Turn the No. 1 headlight bulb in the direction indicated by the arrow shown in the illustration, and remove it.

NOTICE:

Do not touch the bulb glass.

2. REMOVE NO. 2 HEADLIGHT BULB (for Halogen Headlight)

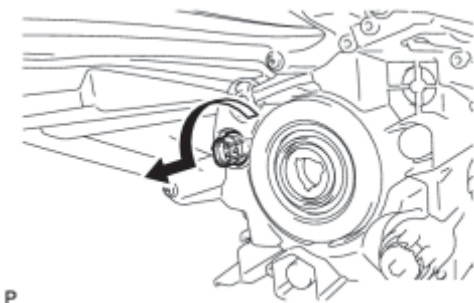


(a) Turn the No. 2 headlight bulb in the direction indicated by the arrow shown in the illustration, and remove it.

NOTICE:

Do not touch the bulb glass.

3. REMOVE FRONT SIDE MARKER LIGHT BULB (for Halogen Headlight)

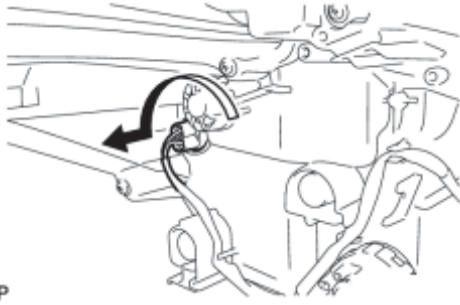


(a) Turn the front side marker light bulb and front side marker light socket in the direction indicated by the arrow shown in the illustration, and remove them as a unit.

(b) Remove the front side marker light bulb from the front side marker light socket.

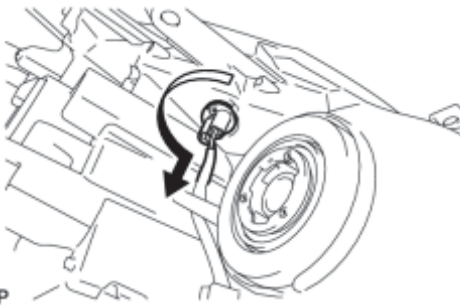
4. REMOVE FRONT SIDE MARKER LIGHT BULB (for LED Headlight)

(a) Turn the front side marker light bulb and headlight cord in the direction indicated by the arrow shown in the illustration, and disconnect them as a unit.



(b) Remove the front side marker light bulb from the front side marker light socket.

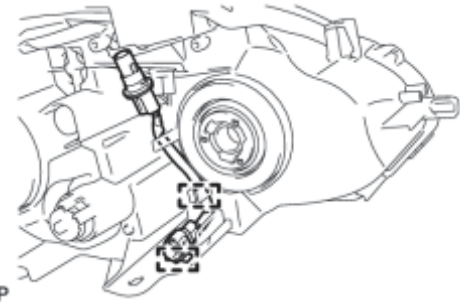
5. REMOVE CLEARANCE LIGHT BULB



(a) Turn the clearance light bulb and headlight cord in the direction indicated by the arrow shown in the illustration, and disconnect them as a unit.

(b) Remove the clearance light bulb from the clearance light socket.

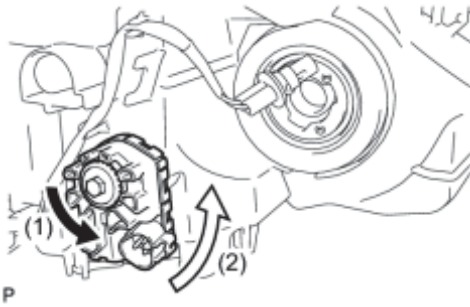
6. REMOVE HEADLIGHT CORD (for Halogen Headlight)



(a) Disengage the 2 clamps and remove the headlight cord.

7. REMOVE HEADLIGHT LEVELING MOTOR (for LED Headlight)

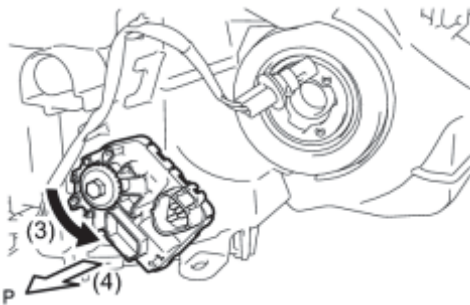
(a) Turn the aiming screw of the headlight leveling motor in the direction indicated by the arrow (1) shown in the illustration.



(b) Turn the headlight leveling motor in the direction indicated by the arrow (2) shown in the illustration to release it.

HINT:

When removing the headlight leveling motor of the headlight assembly RH, turn the headlight leveling motor in the opposite direction indicated by the arrow (2) shown in the illustration.



(c) Turn the aiming screw of the headlight leveling motor in the direction indicated by the arrow (3) shown in the illustration to disengage the shaft.

(d) Pull out the headlight leveling motor in the direction indicated by the arrow (4) shown in the illustration to remove it.

8. REMOVE HEADLIGHT LEVELING MOTOR BASE PACKING (for LED Headlight)

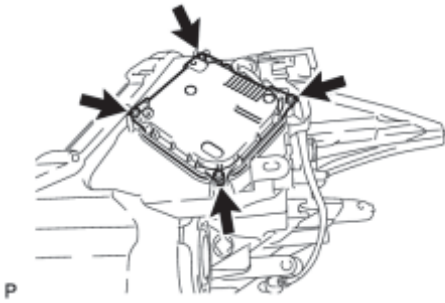
(a) Remove the headlight leveling motor base packing.

NOTICE:

After the headlight leveling motor base packing is removed, be sure to replace it with a new one. Failure to do this may cause water ingress.

9. REMOVE HEADLIGHT LIGHT CONTROL ECU SUB-ASSEMBLY (for LED Headlight)

(a) Remove the 4 screws and disconnect the headlight light control ECU sub-assembly.



(b) Disconnect the 2 connectors and remove the headlight light control ECU sub-assembly.

10. REMOVE HEADLIGHT GASKET (for LED Headlight)

(a) Remove the headlight gasket.

NOTICE:

After the headlight gasket is removed, be sure to replace it with a new one. Failure to do this may cause water ingress.

ADJUSTMENT

HINT:

It is possible that a bulb is incorrectly installed, affecting headlight aim. Bulb installation should be considered prior to performing the adjustment procedure.

1. PREPARE VEHICLE FOR HEADLIGHT AIM ADJUSTMENT

(a) Prepare the vehicle:

- Ensure there is no damage or deformation to the body around the headlights.
- Fill the fuel tank.
- Make sure that the oil is filled to the specified level.
- Make sure that the coolant is filled to the specified level.
- Inflate the tires to the appropriate pressure.
- 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.

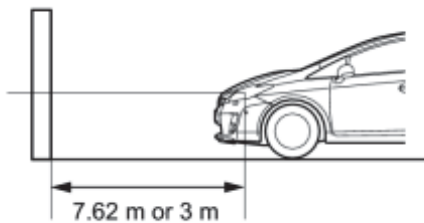
2. PREPARE FOR HEADLIGHT AIMING (Using a headlight aim test machine)

(a) Adjust the headlight aim in accordance with the headlight aim test machine instructions.

3. PREPARE 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.
- Position the front wheels straight ahead.
- Bounce the vehicle up and down to settle the suspension.



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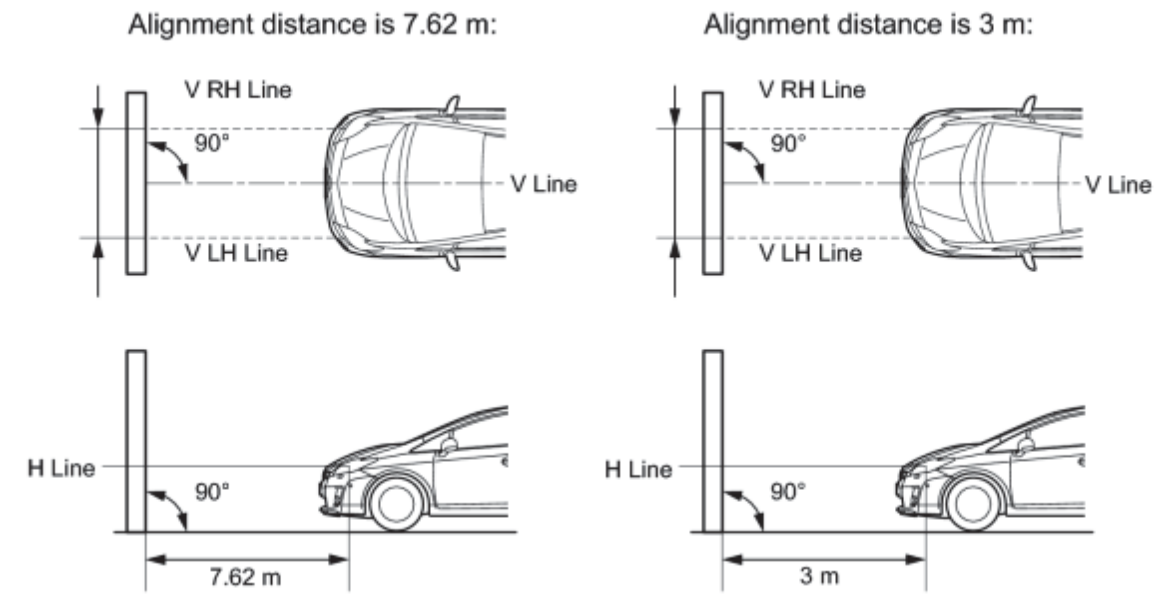
NOTICE:

A distance of 7.62 m (25 ft.) between the vehicle (headlight bulb center) and the wall is necessary for proper aim adjustment. If 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.)

(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.



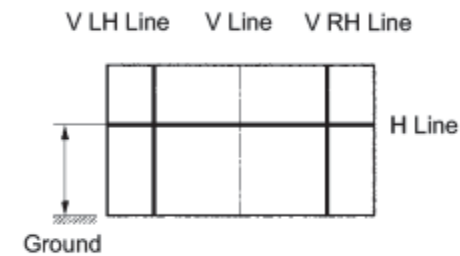
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HINT:

- 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.

- 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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(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.

NOTICE:

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.

HINT:

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

(b) Start the engine.

(c) Turn on the headlights and check the aiming of each beam.

HINT:

Preferred position for the low beam: Matches preferred cutoff line shown in the illustration

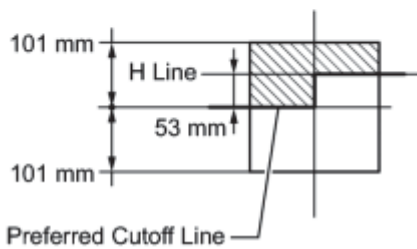
Preferred position for the high beam: Matches center of intensity shown in the illustration

Alignment distance is 7.62 m:

Alignment distance is 3 m:

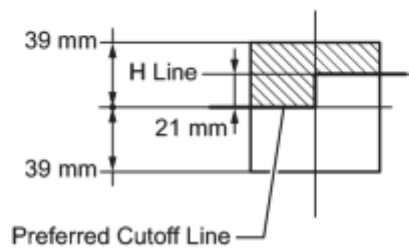
Low beam:

V LH Line
V RH Line



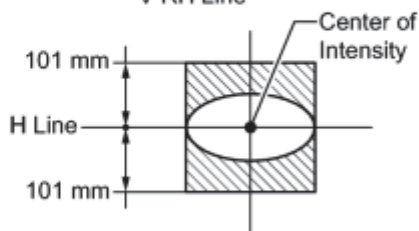
Low beam:

V LH Line
V RH Line



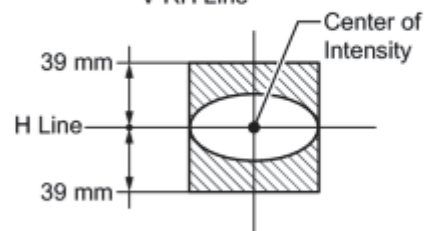
High beam:

V LH Line
V RH Line



High beam:

V LH Line
V RH Line



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 just to make sure.
- If the alignment distance is 7.62 m (25 ft.):

The left half of the low beam cutoff line should be within 101 mm (3.97 in.) above or below a line drawn 53 mm (2.09 in.) below the H line (SAEJ599).

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

The left half of the low beam cutoff line should be within 39 mm (1.56 in.) above or below a line drawn 21 mm (0.825 in.) below the H line (SAEJ599).

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

The high beam center of intensity should be within 101 mm (3.97 in.) above or below the H line (SAE J599).

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

The high beam center of intensity should be within 39 mm (1.56 in.) above or below the H line (SAE J599).

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

The left half of the low beam cutoff line should be 53 mm (2.09 in.) below the H line (preferred cutoff line target).

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

The left half of the low beam cutoff line should be 21 mm (0.825 in.) below the H line (preferred cutoff line target).

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

The high beam center of intensity should be on the H line (preferred center of intensity).

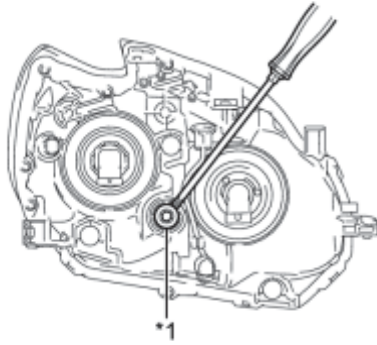
- If the alignment distance is 3 m (9.84 ft.):

The high beam center of intensity should be on the H line (preferred center of intensity).

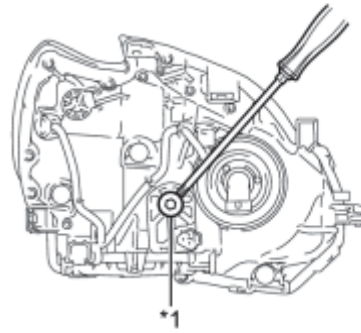
5. ADJUST HEADLIGHT AIMING

(a) Adjust the aim vertically:

for Halogen Headlight:



for LED Headlight:



P

Text in Illustration

| | | | |
|----|--------------|---|---|
| *1 | Aiming Screw | - | - |
|----|--------------|---|---|

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

NOTICE:

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

HINT:

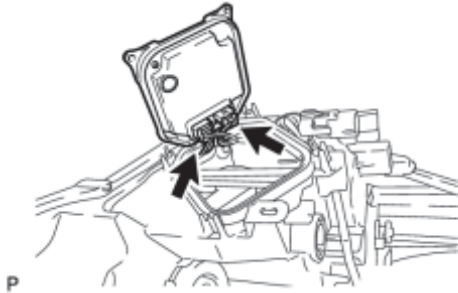
- Since the low beam light and the high beam light are a unit, if the aim on the low beam is correct, the high beam should also be correct. However, check both beams just to make sure.
- If it is not possible to correctly adjust headlight aim, check bulb, headlight unit and headlight unit reflector installation.
- The headlight aim moves down when turning the aiming screw clockwise, and moves up when turning the aiming screw counterclockwise.
- Confirm the direction of rotation of the aiming screw by observing it while it is being adjusted. Due to the position of the screwdriver, the direction of rotation of the adjusting screw can be different than the direction of rotation of the screwdriver being used to adjust it.

REASSEMBLY

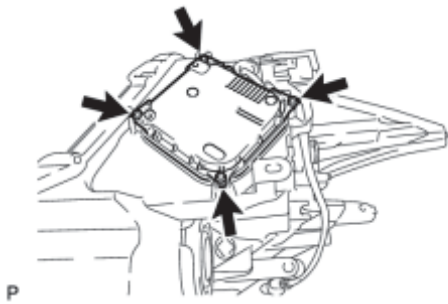
1. INSTALL HEADLIGHT GASKET (for LED Headlight)

(a) Install a new headlight gasket.

2. INSTALL HEADLIGHT LIGHT CONTROL ECU SUB-ASSEMBLY (for LED Headlight)



(a) Connect the 2 connectors.

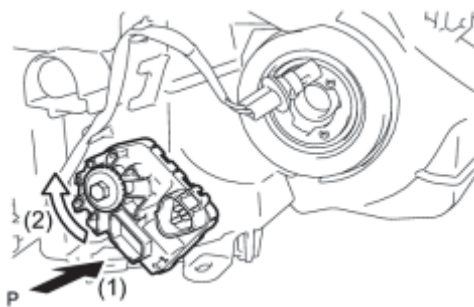


(b) Install the headlight light control ECU sub-assembly with the 4 screws.

3. INSTALL HEADLIGHT LEVELING MOTOR BASE PACKING (for LED Headlight)

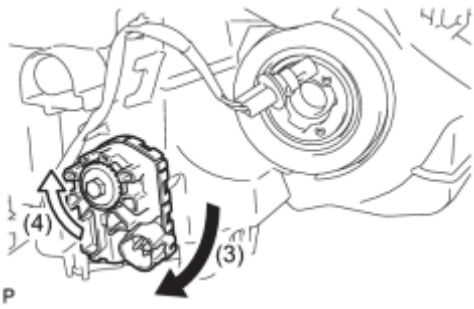
(a) Install a new headlight leveling motor base packing.

4. INSTALL HEADLIGHT LEVELING MOTOR (for LED Headlight)



(a) Insert the headlight leveling motor in the direction indicated by the arrow (1) shown in the illustration.

(b) Turn the aiming screw of the headlight leveling motor in the direction indicated by the arrow (2) shown in the illustration to engage the shaft.



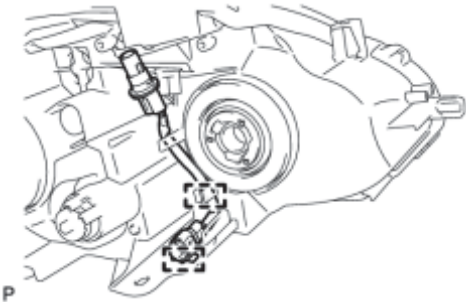
(c) Turn the headlight leveling motor in the direction indicated by the arrow (3) shown in the illustration.

HINT:

When installing the headlight leveling motor of the headlight assembly RH, turn the headlight leveling motor in the opposite direction indicated by the arrow (3) shown in the illustration.

(d) Turn the aiming screw of the headlight leveling motor in the direction indicated by the arrow (4) shown in the illustration to install it.

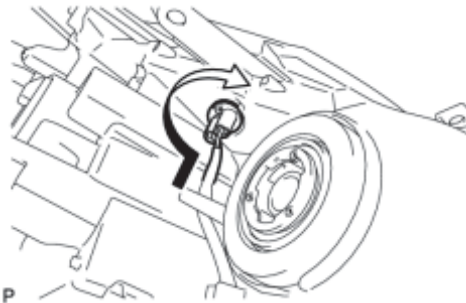
5. INSTALL HEADLIGHT CORD (for Halogen Headlight)



(a) Engage the 2 clamps and install the headlight cord.

6. INSTALL CLEARANCE LIGHT BULB

(a) Install the clearance light bulb to the headlight cord.

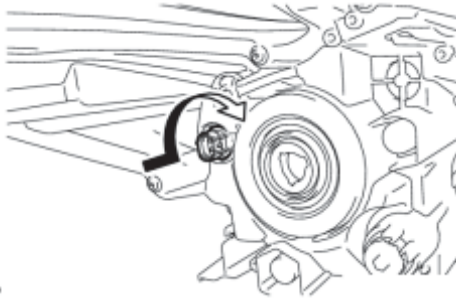


(b) Turn the clearance light bulb and headlight cord in the direction indicated by the arrow shown in the illustration and install them as a unit.

7. INSTALL FRONT SIDE MARKER LIGHT BULB (for Halogen Headlight)

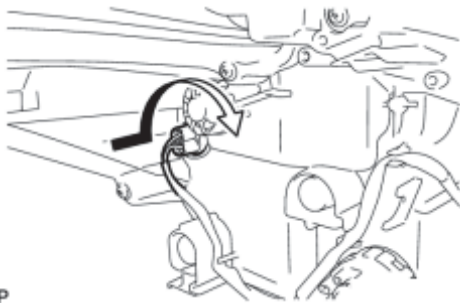
(a) Install the front side marker light bulb to the front side marker light socket.

(b) Turn the front side marker light bulb and front side marker light socket in the direction indicated by the arrow shown in the illustration and install them as a unit.



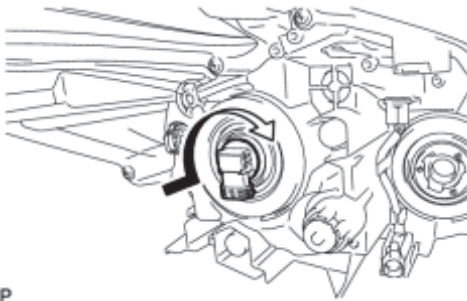
8. INSTALL FRONT SIDE MARKER LIGHT BULB (for LED Headlight)

(a) Install the front side marker light bulb to the headlight cord.



(b) Turn the front side marker light bulb and headlight cord in the direction indicated by the arrow shown in the illustration and install them as a unit.

9. INSTALL NO. 2 HEADLIGHT BULB (for Halogen Headlight)



(a) Turn the No. 2 headlight bulb in the direction indicated by the arrow shown in the illustration to install it.

NOTICE:

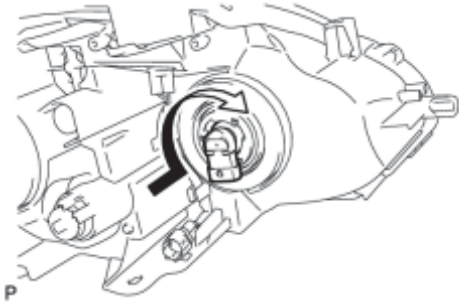
Do not touch the bulb glass.

10. INSTALL NO. 1 HEADLIGHT BULB

(a) Turn the No. 1 headlight bulb in the direction indicated by the arrow shown in the illustration to install it.

NOTICE:

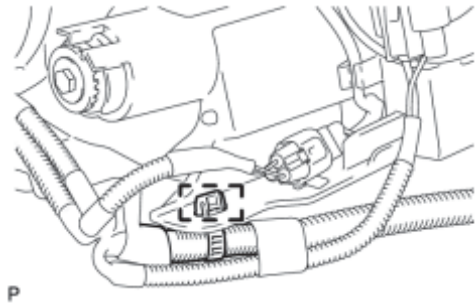
Do not touch the bulb glass.



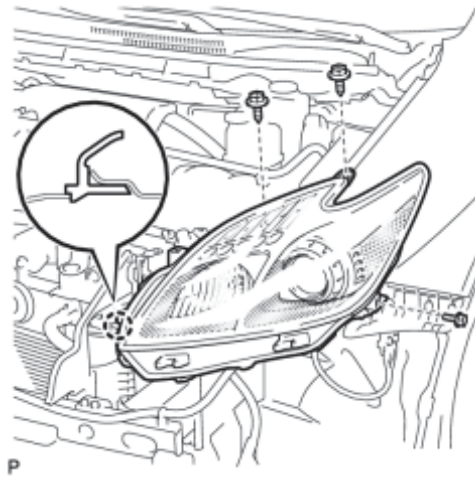
INSTALLATION

1. INSTALL HEADLIGHT ASSEMBLY

(a) Connect each connector.



(b) Engage the clamp.



(c) Engage the claw.

(d) Install the headlight assembly with the bolt and 2 screws.

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

2. INSTALL FRONT BUMPER ASSEMBLY_ [INFO](#)

3. INSTALL RADIATOR SUPPORT OPENING COVER_ [INFO](#)

4. ADD WASHER FLUID (w/ Headlight Cleaner System)_ [INFO](#)

5. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected [INFO](#).

6. INSTALL REAR NO. 3 FLOOR BOARD_ [INFO](#)

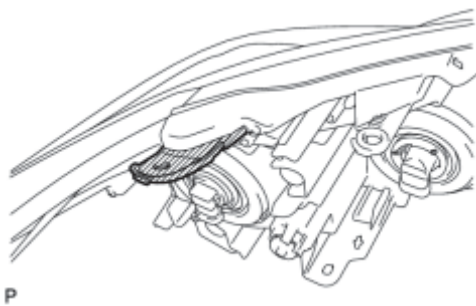
7. INSTALL REAR DECK FLOOR BOX_ INFO
8. INSTALL REAR NO. 2 FLOOR BOARD (for Separate Type)_ INFO
9. PREPARE VEHICLE FOR HEADLIGHT AIM ADJUSTMENT_ INFO
10. PREPARE FOR HEADLIGHT AIMING (Using a headlight aim test machine)_ INFO
11. PREPARE FOR HEADLIGHT AIMING (Using a screen)_ INFO
12. INSPECT HEADLIGHT AIMING_ INFO
13. ADJUST HEADLIGHT AIMING_ INFO
14. PREPARE VEHICLE FOR FOG LIGHT AIM ADJUSTMENT (w/ Fog Light)_ INFO
15. PREPARE FOR FOG LIGHT AIMING (w/ Fog Light)_ INFO
16. INSPECT FOG LIGHT AIMING (w/ Fog Light)_ INFO
17. ADJUST FOG LIGHT AIMING (w/ Fog Light)_ INFO

REPAIR

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.
- If the installation area of the headlight assembly is damaged, use the supply retainer for low-cost repair.
- Ensure that the headlight assembly is not damaged.

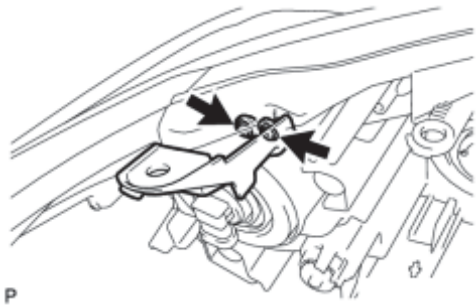
1. INSTALL UPPER HEADLIGHT PROTECTOR RETAINER



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

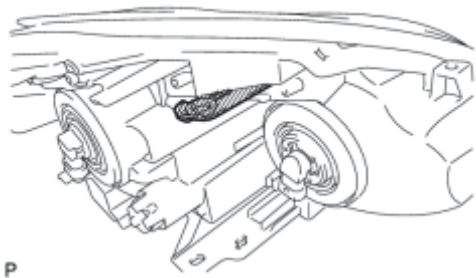
NOTICE:

After cutting off the part, place the upper headlight protector retainer against the bosses and gradually file away the old bracket if it interferes with the installation of the supply retainer.



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

2. INSTALL UPPER NO. 2 HEADLIGHT PROTECTOR RETAINER

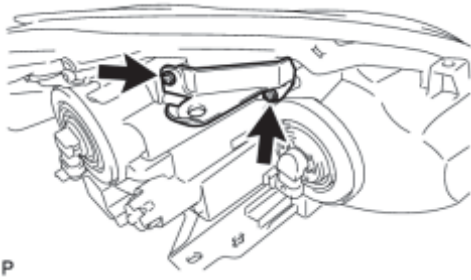


(a) Cut off the part shaded in the illustration and sand smooth with sandpaper.

NOTICE:

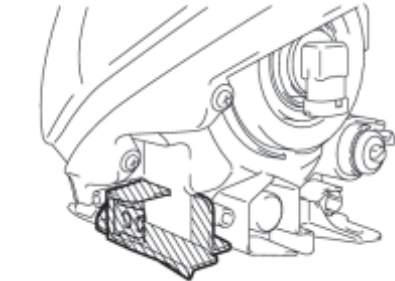
After cutting off the part, place the upper headlight protector retainer against the bosses and gradually file away the old bracket if it interferes with the installation of the supply retainer.

(b) Install the upper No. 2 headlight protector retainer with the 2 screws.



P

3. INSTALL LOWER HEADLIGHT PROTECTOR RETAINER

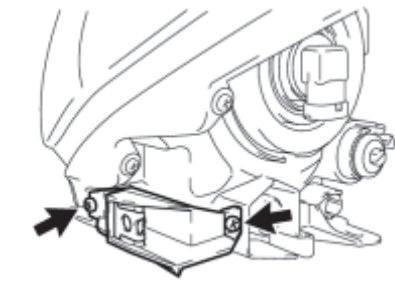


P

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

NOTICE:

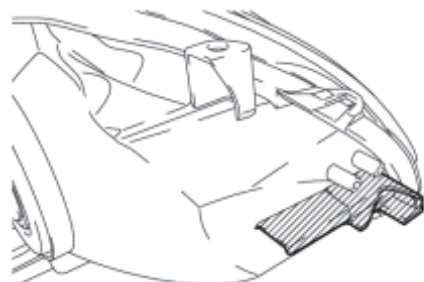
After cutting off the part, place the lower headlight protector retainer against the bosses and gradually file away the old bracket if it interferes with the installation of the supply retainer.



P

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

4. INSTALL LOWER NO. 2 HEADLIGHT PROTECTOR RETAINER



P

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

NOTICE:

After cutting off the part, place the lower headlight protector retainer against the bosses and gradually file away the old bracket if it interferes with the installation of the supply retainer.

(b) Install the lower No. 2 headlight protector retainer with the 2 screws.

