

# Headlight Assembly

LIGHTING SYSTEM

## 14. Headlight Assembly

### A: REMOVAL

#### 1. WHEN REMOVING RH SIDE

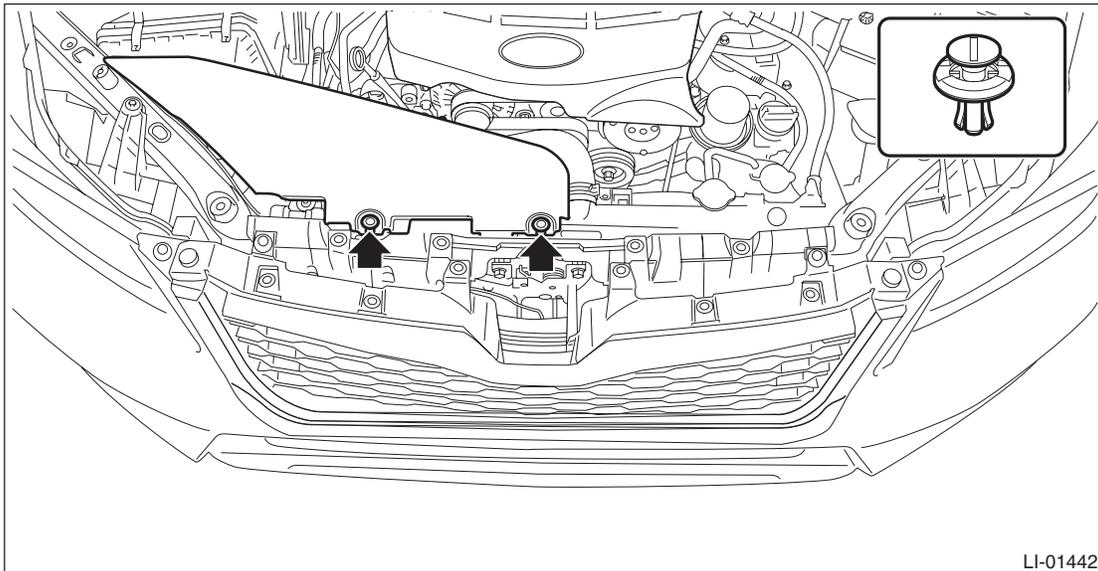
##### WARNING:

Because the headlight system uses high voltage, be careful not to perform work with wet hands. There is a possibility of electrical shock.

##### CAUTION:

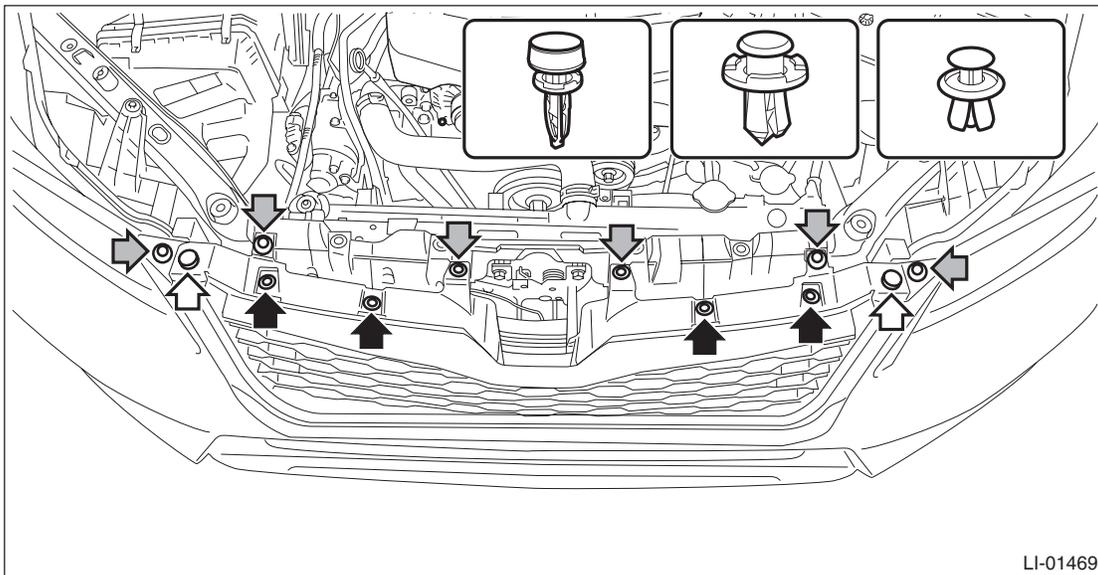
The HID type uses very high voltages for the lighting circuit. Make sure that the power supply is turned OFF before working.

- 1) Disconnect the ground cable from battery.
- 2) Remove the clips and remove the air intake duct (rear).



- 3) Detach the flange section on the right side of the bumper face - front.

- (1) Remove each bumper clip.

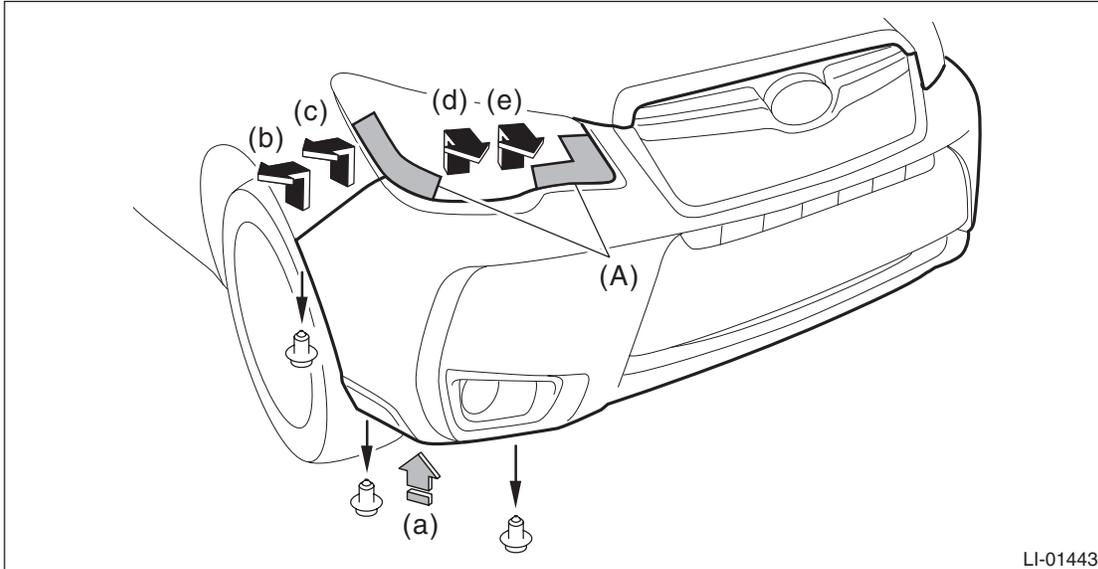


# Headlight Assembly

- (2) Apply protective tape (A) to the light assembly - head.
- (3) Release the clips, and while pushing up the lower side (a) of the bumper face - front, remove from (b) to (e).

**CAUTION:**

**Do not pull forcibly. It may damage the flange sections of the bumper face - front.**

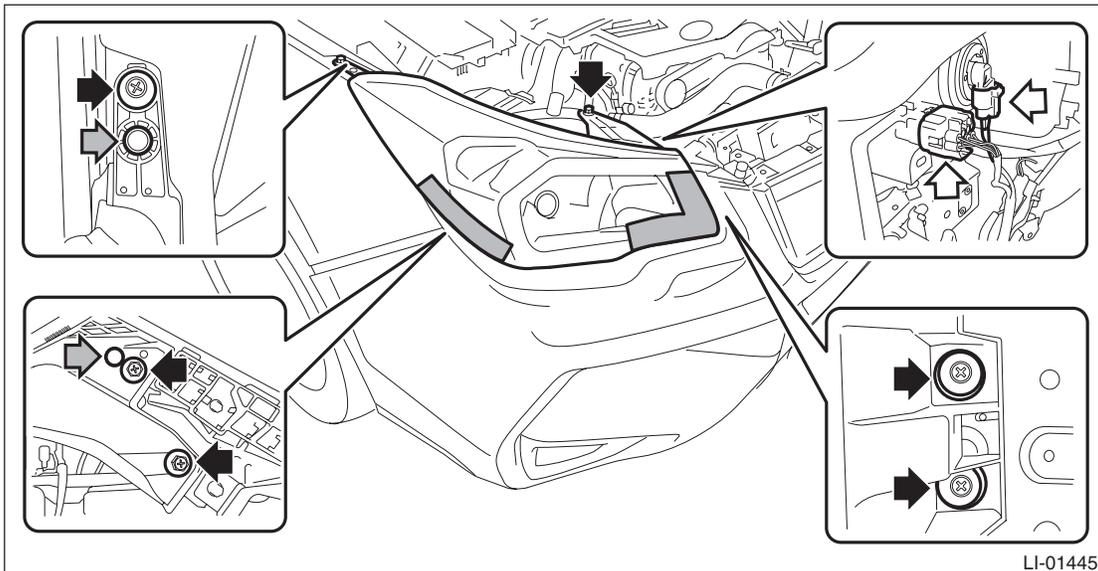


- 4) Remove the light assembly - head.

**CAUTION:**

**Be careful not to damage the light assembly - head, fender COMPL - front, and bumper face - front.**

- (1) Disconnect connectors.
- (2) Remove the bolts and clips, and remove the light assembly - head.



# Headlight Assembly

## LIGHTING SYSTEM

### 2. WHEN REMOVING LH SIDE

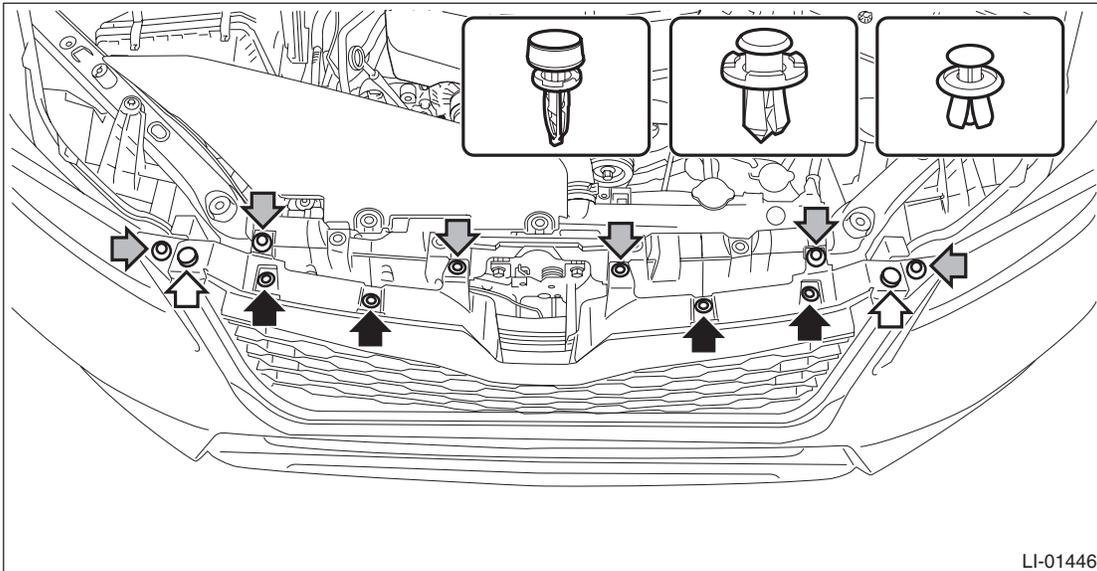
#### WARNING:

Because the headlight system uses high voltage, be careful not to perform work with wet hands. There is a possibility of electrical shock.

#### CAUTION:

The HID type uses very high voltages for the lighting circuit. Make sure that the power supply is turned OFF before working.

- 1) Disconnect the ground cable from battery.
- 2) Detach the flange section on the bumper face - front left side.
  - (1) Remove each bumper clip.

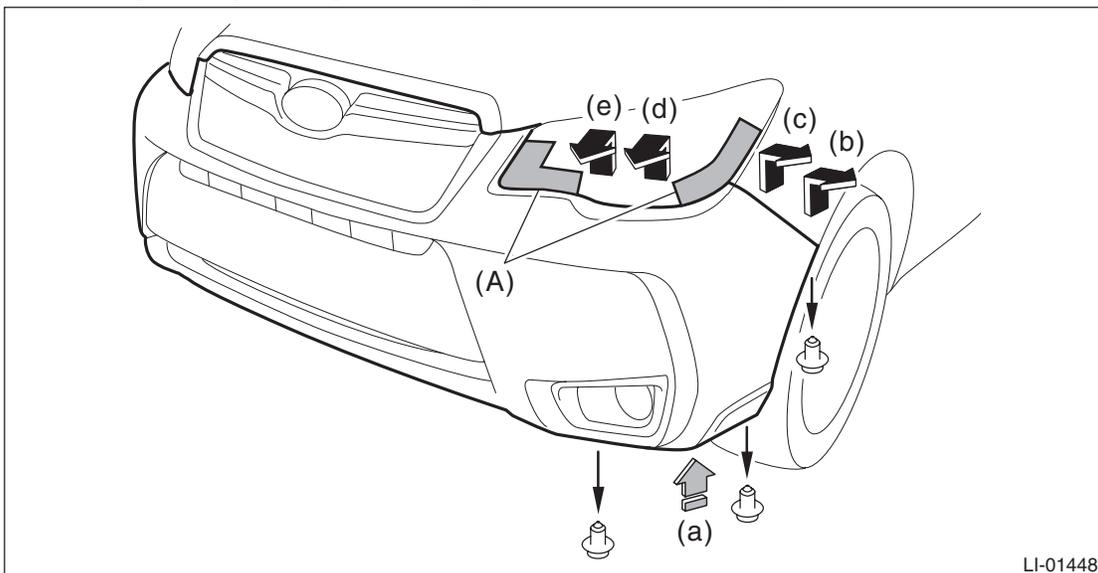


- (2) Apply protective tape (A) to the light assembly - head.

- (3) Release the clips, and while pushing up the lower side (a) of the bumper face - front, remove in the order from (b) to (e).

#### CAUTION:

Do not pull forcibly. It may damage the flange sections of the bumper face - front.



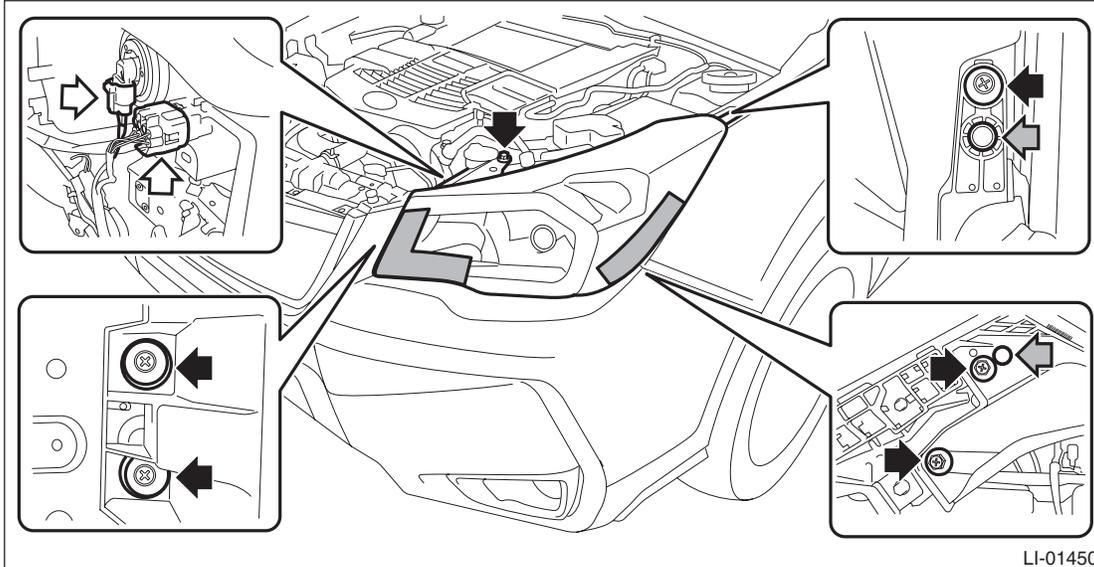
# Headlight Assembly

3) Remove the light assembly - head.

**CAUTION:**

**Be careful not to damage the light assembly - head, fender COMPL - front, and bumper face - front.**

- (1) Disconnect connectors.
- (2) Remove the bolts and clips, and remove the light assembly - head.



### 3. WHEN REMOVING BOTH SIDE

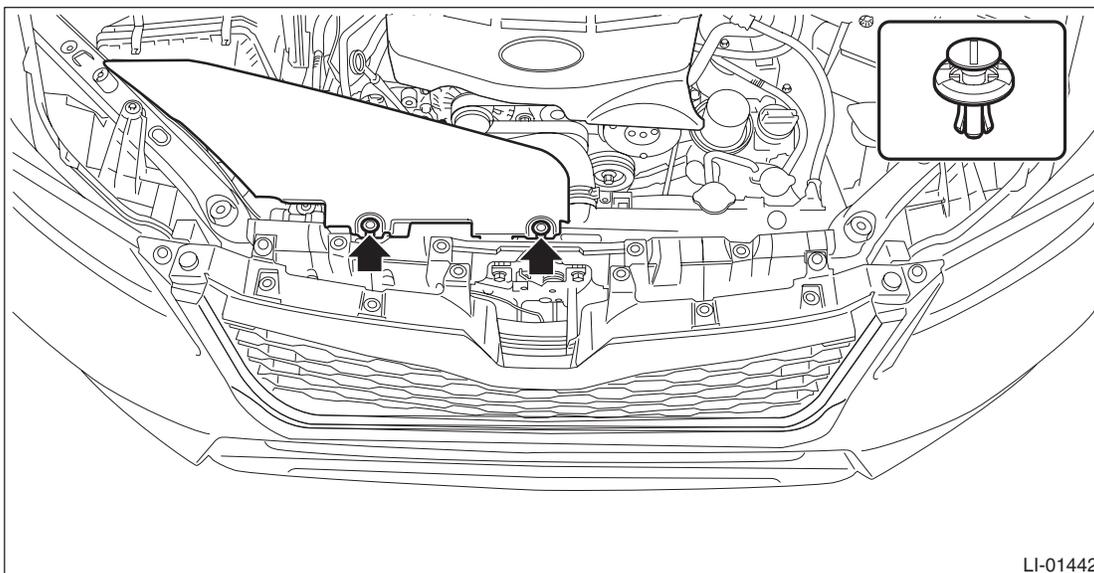
**WARNING:**

**Because the headlight system uses high voltage, be careful not to perform work with wet hands. There is a possibility of electrical shock.**

**CAUTION:**

**The HID type uses very high voltages for the lighting circuit. Make sure that the power supply is turned OFF before working.**

- 1) Disconnect the ground cable from battery.
- 2) Remove the clips and remove the air intake duct (rear).

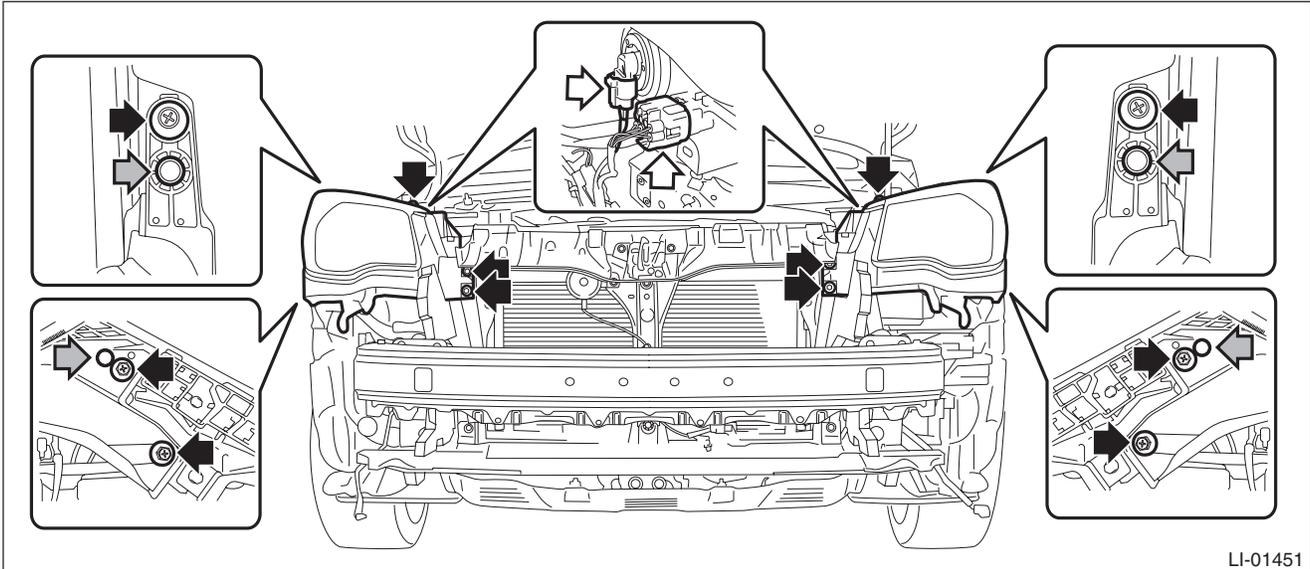


3) Remove the bumper face - front. <Ref. to EI-31, REMOVAL, Front Bumper.>

# Headlight Assembly

## LIGHTING SYSTEM

- 4) Remove the light assembly - head.
  - (1) Disconnect connectors.
  - (2) Remove the bolts and clips, and remove the light assembly - head.



## B: INSTALLATION

- 1) Install each part in the reverse order of removal.

### NOTE:

Secure the flange section of the bumper face - front to the bracket - front bumper side.

### **Tightening torque:**

**Light assembly - head: 7.5 N·m (0.76 kgf·m, 5.5 ft·lb)**

- 2) Adjust the headlight beam and fog light beam.

- Adjust the headlight beam. <Ref. to LI-31, HEADLIGHT BEAM ADJUSTMENT, ADJUSTMENT, Headlight Assembly.>
- Adjust the fog light beam. (Model with fog light) <Ref. to LI-47, FOG LIGHT AIMING, ADJUSTMENT, Front Fog Light Assembly.>

## C: ADJUSTMENT

### 1. HEADLIGHT BEAM ADJUSTMENT

#### CAUTION:

- Turn off the light before adjusting the beam level of the light assembly - head. If it is necessary to inspect the beam level, do not keep the light on for two minutes or more.

- When blocking the light emitted from the headlight, use a light shield or equivalent.

**Do not apply the tape on the lens or place the cloth over it. It may raise the temperature in the light and cause deformation/bubble formations of the plastic lens.**

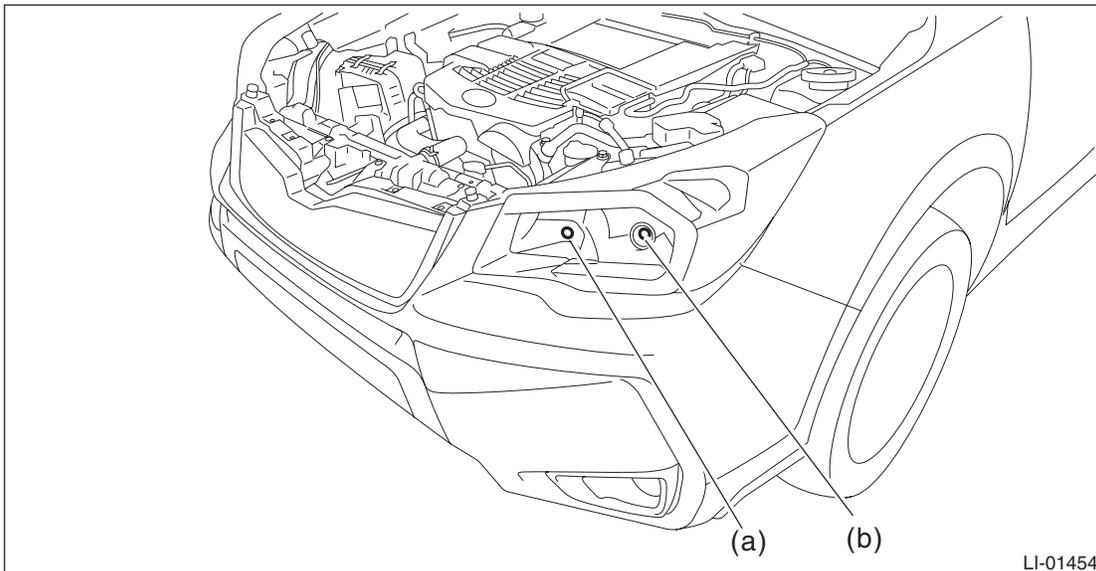
1) Before checking the beam level of the light assembly - head, be sure of the following:

- The area around the light assembly - head has not sustained any scratches, damage or other type of deformation.
- Vehicle is parked on a level surface.
- The inflation pressure of tires is correct.
- Vehicle's fuel tank is fully filled.

2) Bounce the vehicle several times to normalize the suspension.

3) Make certain that someone is seated in the driver's seat.

4) Measure the distance between the low beam bulb centers and the height of the bulb center.



(a) High beam

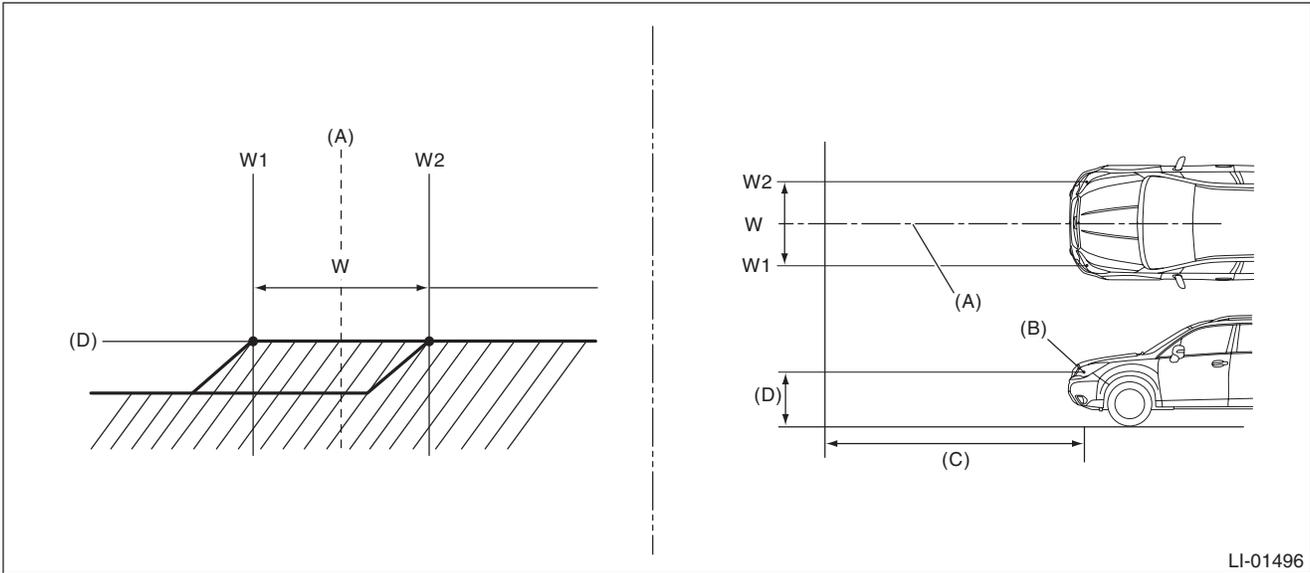
(b) Low beam

# Headlight Assembly

## LIGHTING SYSTEM

5) Adjust the beam level of the light assembly - head.

(1) Place the vehicle with the front end facing to the measurement panel, then illuminate the low beam.



LI-01496

(A) Vehicle center

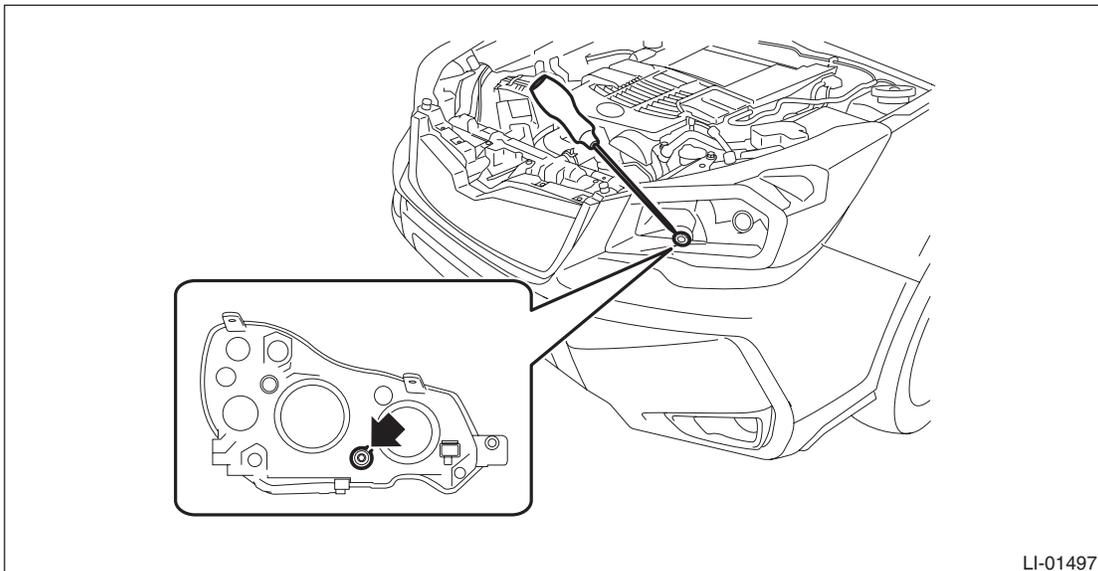
(C) 3 m (10 ft)

(D) Height of headlight center

(B) Bulb center marking

W mm (in)
1,298 (51.10)

(2) Adjust the low beam by turning the aiming screw.



LI-01497

## 15. Headlight Bulb

### A: REMOVAL

#### 1. HIGH BEAM

##### WARNING:

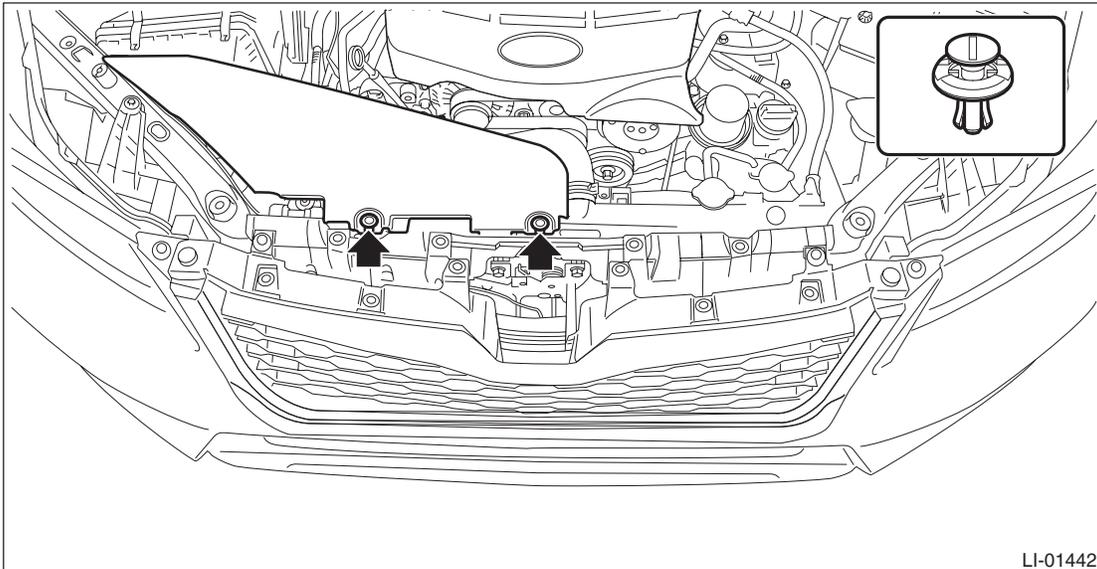
Because the headlight system uses high voltage, be careful not to perform work with wet hands. There is a possibility of electrical shock.

##### CAUTION:

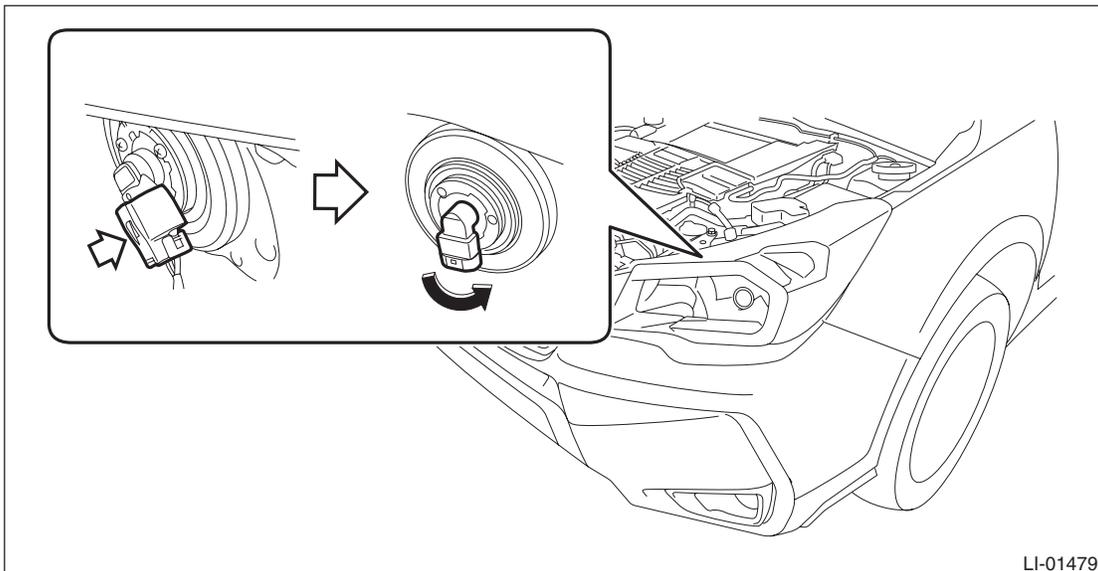
- Because the halogen bulb operates at a high temperature, dirt and oil on the bulb surface reduces the bulb's service life. Hold the flange portion when replacing the bulb. Never touch the glass portion.
- Do not leave the light assembly - head without the bulb for a long time. Dust, moisture, etc. entering the light may affect its performance.

1) Disconnect the ground cable from battery.

2) Remove the clips and remove the air intake duct (rear). (When removing the high beam bulb RH)



3) Disconnect the connector and remove the high beam bulb.



# Headlight Bulb

## LIGHTING SYSTEM

### 2. HALOGEN TYPE LOW BEAM

#### WARNING:

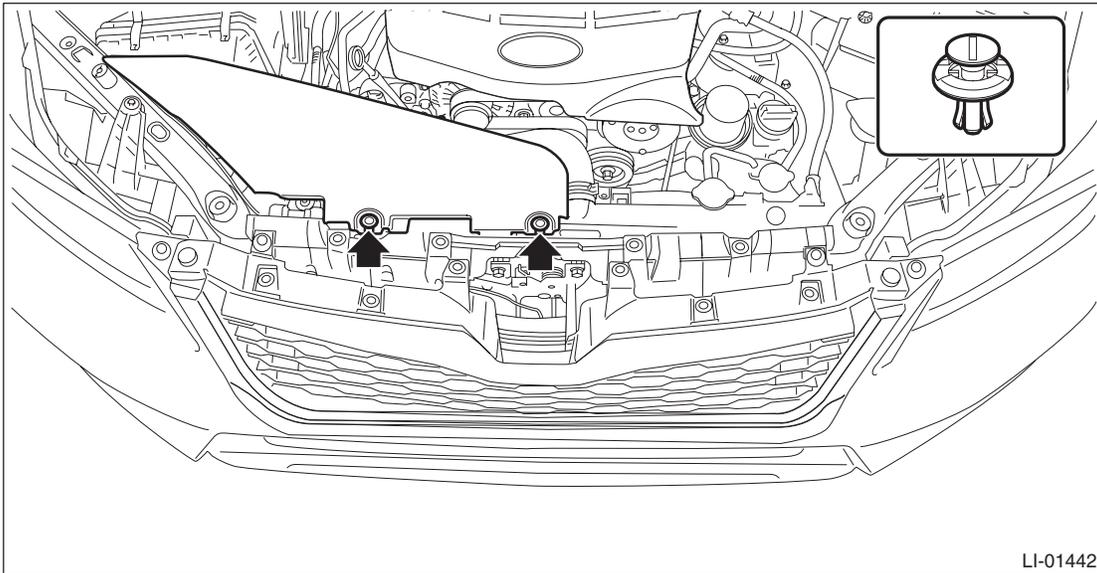
Because the headlight system uses high voltage, be careful not to perform work with wet hands. There is a possibility of electrical shock.

#### CAUTION:

- Because the halogen bulb operates at a high temperature, dirt and oil on the bulb surface reduces the bulb's service life. Hold the flange portion when replacing the bulb. Never touch the glass portion.
- Do not leave the light assembly - head without the bulb for a long time. Dust, moisture, etc. entering the light may affect its performance.

1) Disconnect the ground cable from battery.

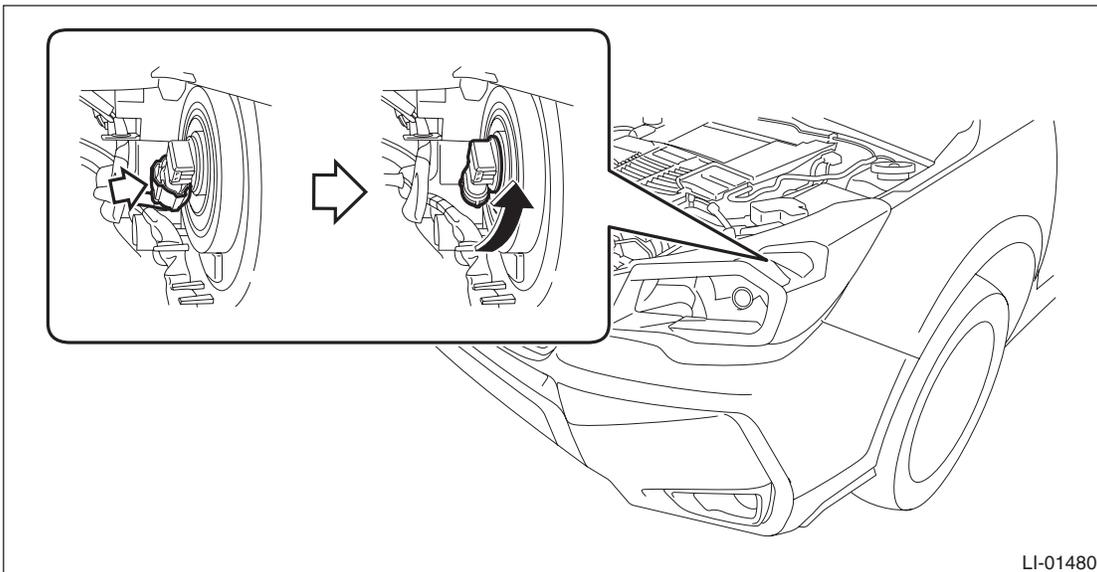
2) Remove the clips and remove the air intake duct (rear). (When removing the low beam bulb RH)



3) Disconnect the connector and remove the low beam bulb.

#### CAUTION:

Make sure to check if any bulb O-ring is remained on the housing side as this may sometimes happen.



## 3. HID TYPE LOW BEAM

### WARNING:

Because the headlight system uses high voltage, be careful not to perform work with wet hands. There is a possibility of electrical shock.

### CAUTION:

- Because the lighting circuit uses high voltage, be sure to confirm that the power supply is turned off before operation.
- When replacing bulb, hold the flange area. Be careful not to touch the glass area.
- Do not leave the light assembly - head without the bulb and ballast - headlight for a long time. Dust, moisture, etc. entering the light may affect its performance.

1) Disconnect the ground cable from battery.

2) Remove the battery. (When removing the low beam bulb LH) <Ref. to SC(H4DO)-63, REMOVAL, Battery.>

3) Remove the air cleaner case. (When removing the low beam bulb RH)

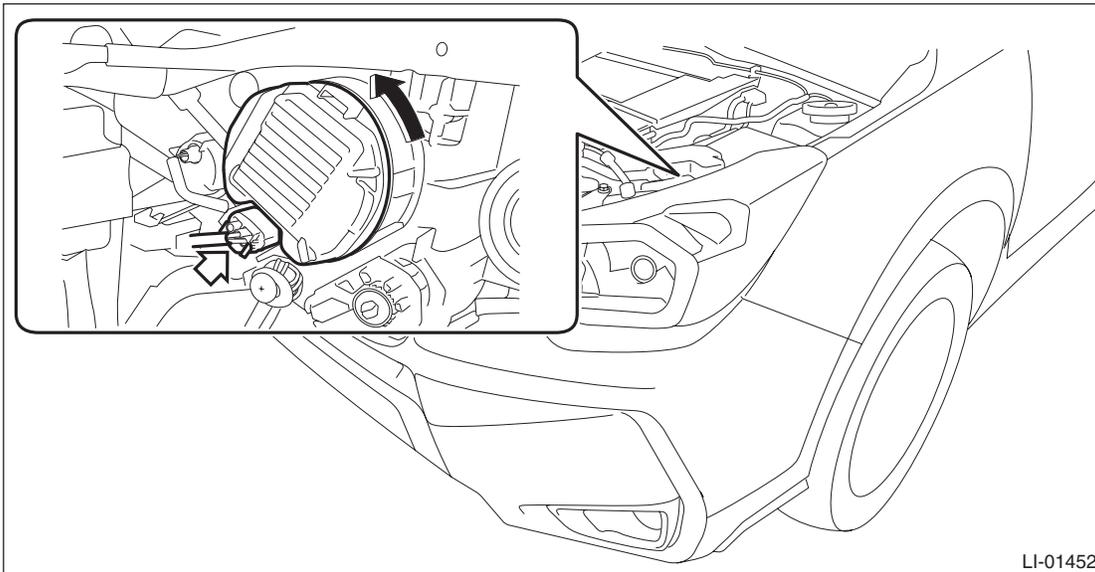
- Non-turbo model: <Ref. to IN(H4DO)-6, REMOVAL, Air Cleaner Case.>

- Turbo model: <Ref. to IN(H4DOTC)-9, REMOVAL, Air Cleaner Case.>

4) Remove the low beam bulb.

(1) Disconnect the connector.

(2) Remove the ballast - headlight, and pull out the light assembly - head.



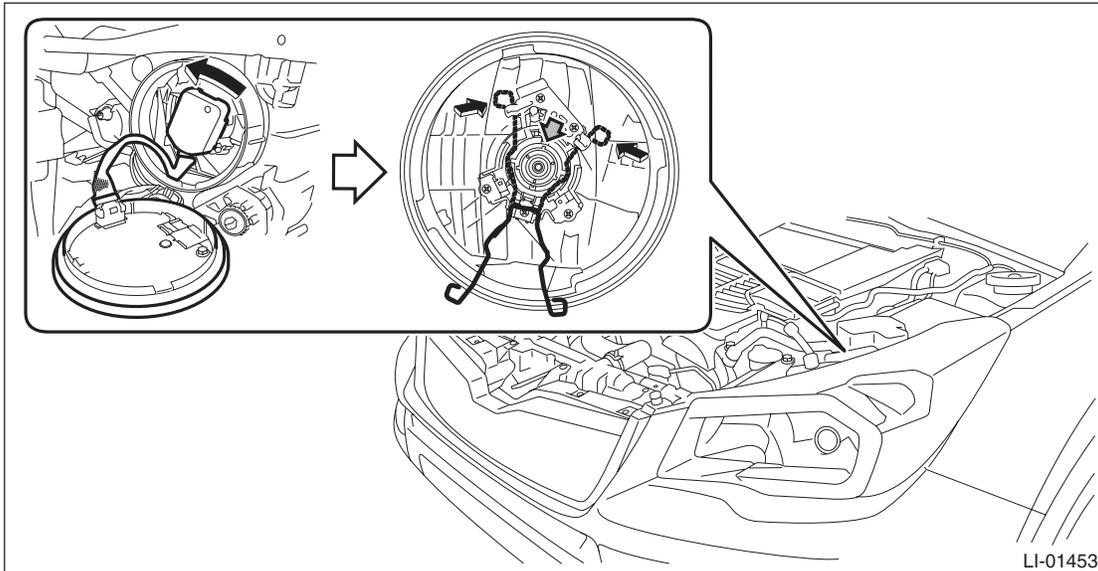
LI-01452

(3) Remove the bulb socket and remove the ballast - headlight.

# Headlight Bulb

## LIGHTING SYSTEM

(4) Unlock the bulb spring, and remove the low beam bulb.



### **B: INSTALLATION**

Install each part in the reverse order of removal.

### **C: INSPECTION**

#### **1. HALOGEN TYPE**

##### **WARNING:**

**Because the headlight system uses high voltage, be careful not to perform work with wet hands. There is a possibility of electrical shock.**

##### **CAUTION:**

- **Because the halogen bulb operates at a high temperature, dirt and oil on the bulb surface reduces the bulb's service life. Hold the flange portion when replacing the bulb. Never touch the glass portion.**
  - **Do not leave the light assembly - head without the bulb for a long time. Dust, moisture, etc. entering the headlight may affect its performance.**
- 1) Visually check the bulb for blow out.
  - 2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
  - 3) Replace the bulb if it is found defective.

## 2. HID TYPE

### WARNING:

Because the headlight system uses high voltage, be careful not to perform work with wet hands. There is a possibility of electrical shock.

### CAUTION:

- Do not leave the light assembly - head without the bulb and ballast - headlight for a long time. Dust, moisture, etc. entering the headlight may affect its performance.
- When lit (lighting switch is ON), do not touch the harness, light internals, or metal parts of the light.
- When performing a lighting test, make sure that the headlight is mounted on the vehicle, and the power supply is connected to the connector on the vehicle's side.

1) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>

2) Install the specified bulb to check whether it lights properly.

3) If it does not light properly, replace with a new bulb.

## Headlight Bulb

### LIGHTING SYSTEM

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#### 4) Check the ballast - headlight.

Inspect the ballast - headlight in the following manner, and determine whether or not to reuse.

(1) Perform cold starts (light the headlight after turning off for 10 minutes or more), and hot starts (light the headlight for 15 minutes or more, then turn off for 1 minute and relight) several times, to make sure that the headlight lights properly.

(2) Monitor the lighting condition right after a cold start up to a stable state (approx. 5 min.), to see if there are any unstable conditions such as flickering.

(3) Install bulbs with the same number of operating hours on both headlights, and light for approximately 30 minutes. Check for whether there is a difference in brightness on the right and left sides.

#### 5) Replace the ballast - headlight if it is found defective.