CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.
- It is possible that a No. 1 headlight bulb is incorrectly installed, affecting headlight aim. Headlight assembly and No. 1 headlight bulb installation should be considered prior to performing the adjustment procedure.

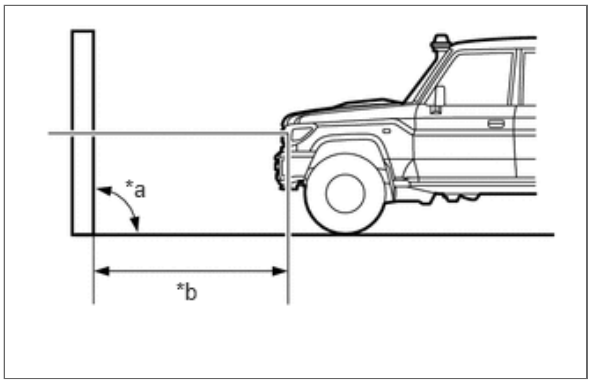
PROCEDURE

1.PREPARE VEHICLE FOR HEADLIGHT AIMING ADJUSTMENT

a. Prepare the vehicle:

- Make sure that there is no damage to the body around the headlights.
- Fill the fuel tank.
- Make sure that the oil 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.
- Have a person of average weight (75 kg, 165 lb) sit in the driver seat.
- Bounce the vehicle at the corners up and down to stabilize the suspension.
- w/ Headlight Leveling:
  Vehicles with manually adjustable headlights should be adjusted to "0".

2.PREPARE FOR HEADLIGHT AIMING



*a	90 °
*b	25 m or 3 m

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 25 m (82.0 ft.) distance between the vehicle (No. 1 headlight bulb center) and the wall.
- Make sure that the vehicle is on a level surface.
- Bounce the vehicle up and down to settle the suspension.

NOTICE:

A distance of 25 m (82.0 ft.) between the vehicle (No. 1 headlight bulb center) and the wall is necessary for proper aim adjustment. If unavailable, secure a distance of exactly 3 m (9.84 ft.) for the check and adjustment. (The target zone will change with the distance, so follow the instructions in the illustration.)

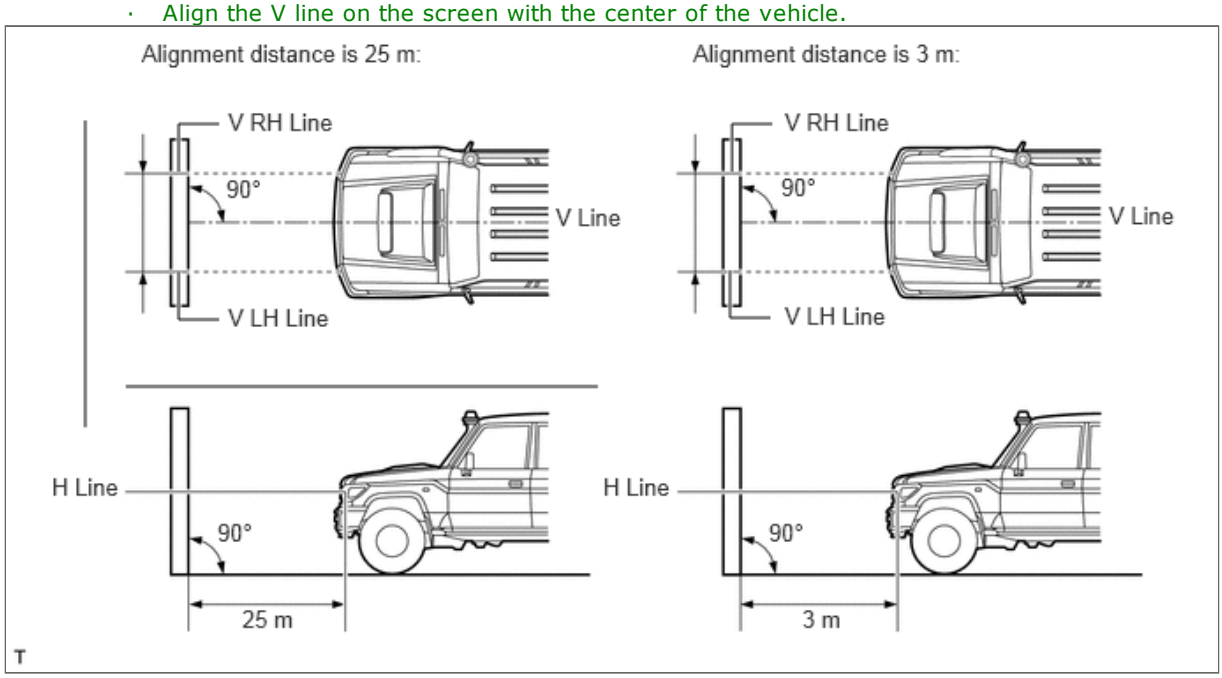
b. Prepare a piece of thick white paper approximately 2 m (6.56 ft.) (height) x 4 m (13.1 ft.) (width) to use as a screen.

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

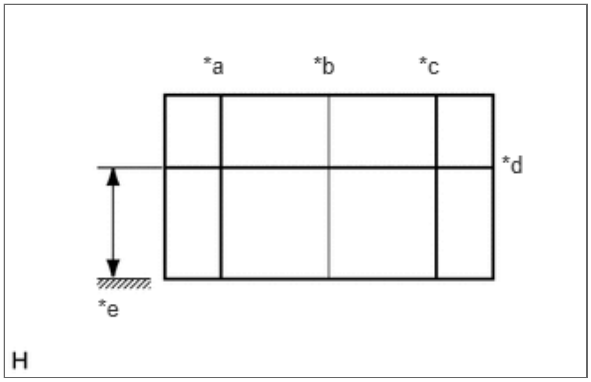
d. Set the screen as shown in the illustration.

HINT:

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



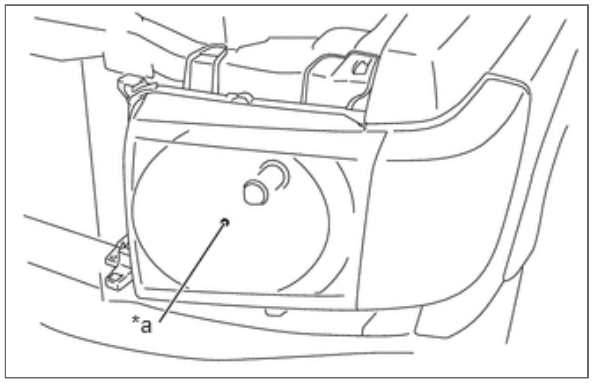
e.



*a	V LH Line
*b	V Line
*c	V RH Line
*d	H Line
*e	Ground

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

HINT:



*a	Center Mark

Mark the No. 1 headlight bulb center marks on the screen. If the center mark cannot be observed on the headlight, use the center of the No. 1 headlight bulb or the manufacturer's name marked on the headlight as the center mark.

i. 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.

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

3.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:

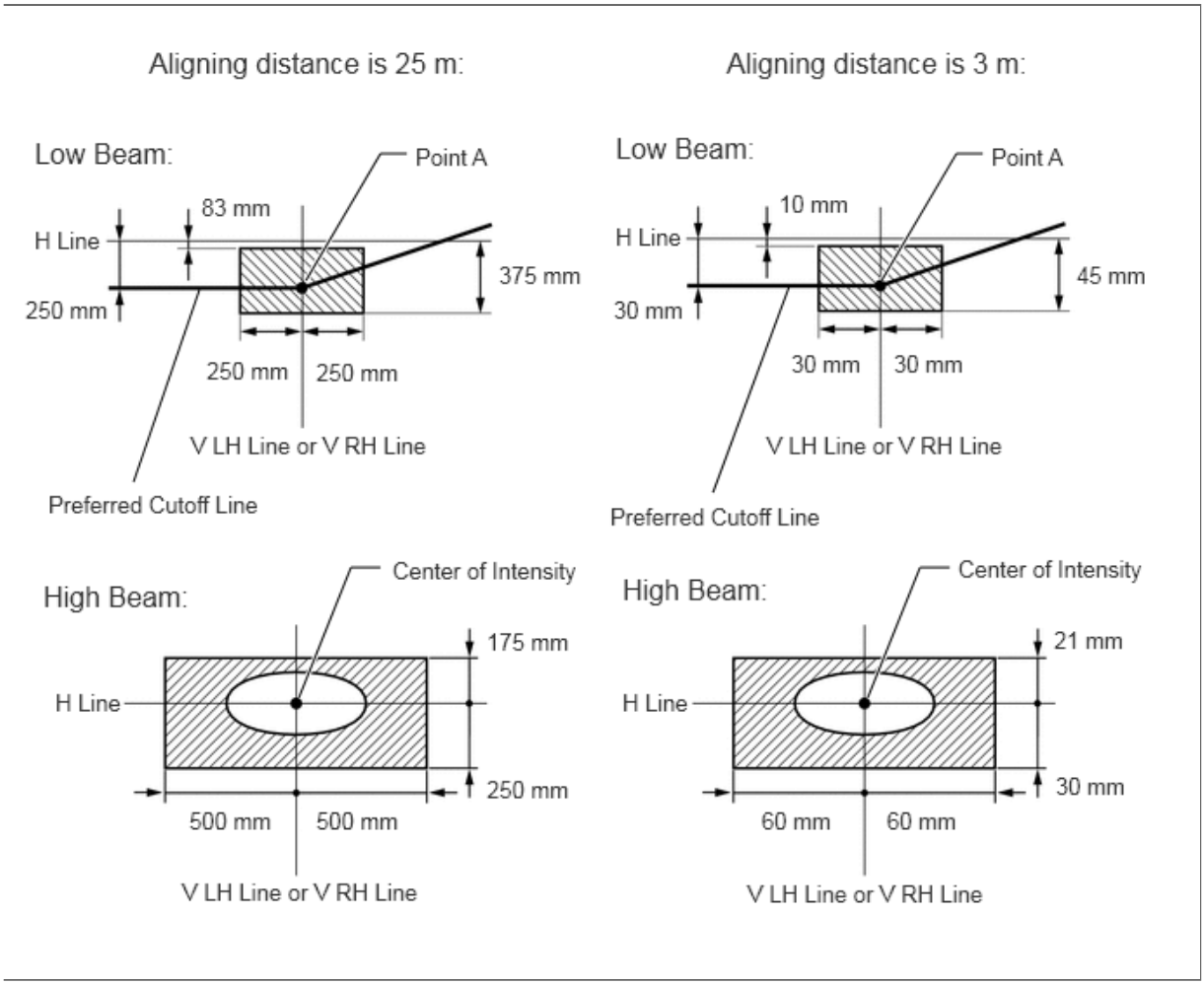
Do not keep the headlight covered for more than 3 minutes. The headlight lens is made of synthetic resin, which may melt or be damaged due to excessive heat.

b. Start the engine.

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

HINT:

- The low beam and high beam headlight are a unit. Adjusting the aim on the low beam to the correct position should also result in the high beam adjustment being correct.
- The illustration is for LHD vehicles. RHD vehicles are the opposite of the illustration.
- If the alignment distance is 25 m (82.0 ft.):
  The low beam cutoff line should be within 83 mm(3.27 in.) and 375 mm (1.23 ft.) below the H line as well as 250 mm (9.84 in.) left or right of the VLH or V RH line.
- If the alignment distance is 3 m (9.84 ft.):
  The low beam cutoff line should be within 10 mm(0.394 in.) and 45 mm (1.77 in.) below the H line as well as 30 mm (1.18 in.) left or right of the VLH or V RH line.
- If the alignment distance is 25 m (82.0 ft.):
  The horizontal line of the preferred low beam cutoff line is 250 mm (9.84 in.) below the H line and point A of the preferred low beam cutoff line is on the V LH or V RH line.
- If the alignment distance is 3 m (9.84 ft.):
  The horizontal line of the preferred low beam cutoff line is 30 mm (1.18 in.) below the H line and point A of the preferred low beam cutoff line is on the V LH or V RH line.
- If the alignment distance is 25 m (82.0 ft.):
  The high beam center of intensity should be within 175 mm (6.89 in.) above and 250 mm (9.84 in.) below the H line as well as 500 mm (1.64 ft.) left or right of the V LH or V RH line.
- If the alignment distance is 3 m (9.84 ft.):
  The high beam center of intensity should be within 21 mm (0.827 in.) above and 30 mm (1.18 in.) below the H line as well as 60 mm (2.36 in.) left or right of the V LH or V RH line.



4.ADJUST HEADLIGHT AIMING

a. Using a screwdriver, adjust the aim.
Adjust the aim of each headlight so that it is within the specified range by turning each aiming screw with a screwdriver.

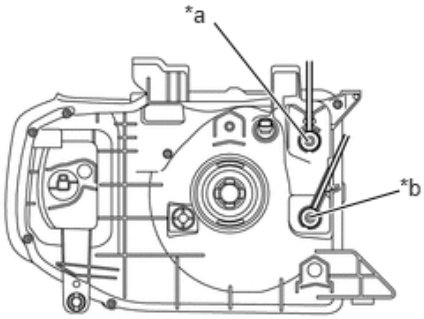
NOTICE:

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.

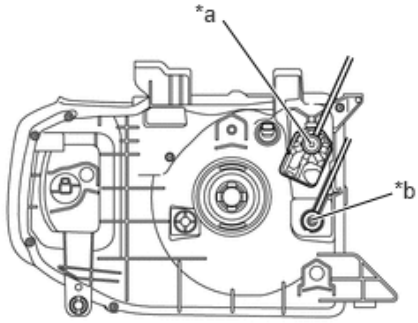
HINT:

- The low beam and high beam headlight 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 headlight aim, check the headlight assembly and No. 1 headlight bulb installation.
- The headlight aim moves up when turning the vertical aiming screw clockwise, and moves down when turning the vertical aiming screw counterclockwise. The headlight aim moves right when turning the horizontal aiming screw clockwise, and moves left when turning the horizontal aiming screw counterclockwise.

*A



*B



T

*A	w/o Headlight Leveling	*B	w/ Headlight Leveling
*a	Vertical Aiming	*b	Horizontal Aiming