The procedure listed below is for the LH side.

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

PROCEDURE

PREPARE VEHICLE FOR HEADLIGHT AIMING ADJUSTMENT

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.

Vehicles with manually adjustable headlights should be adjusted to "0".

PREPARE FOR HEADLIGHT AIMING

except Taiwan:

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.

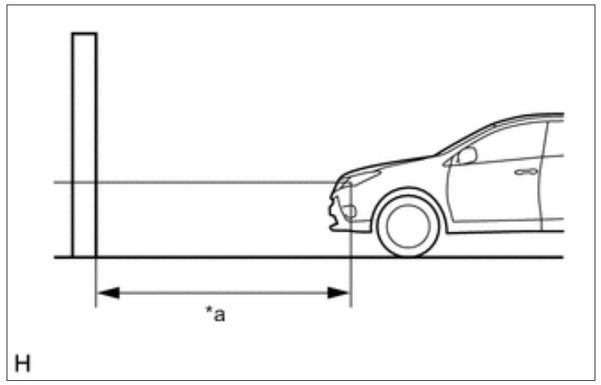
Create a 25 m (82 ft.) distance between the vehicle (headlight bulb center) and the wall.

Make sure that the vehicle is on a level surface.

Bounce the vehicle up and down to settle the suspension.

Note

A distance of 25 m (82 ft.) between the vehicle (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.)



*a	25 m or 3 m

for Taiwan:

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.

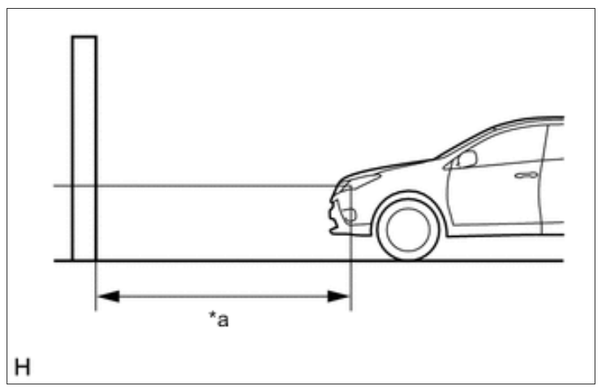
Place the vehicle at a 90° angle to the wall.

Create a 10 m (32.8 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 to settle the suspension.

Note



A distance of 10 m (32.8 ft.) between the vehicle (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.)	*a	10 m or 3 m

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.

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

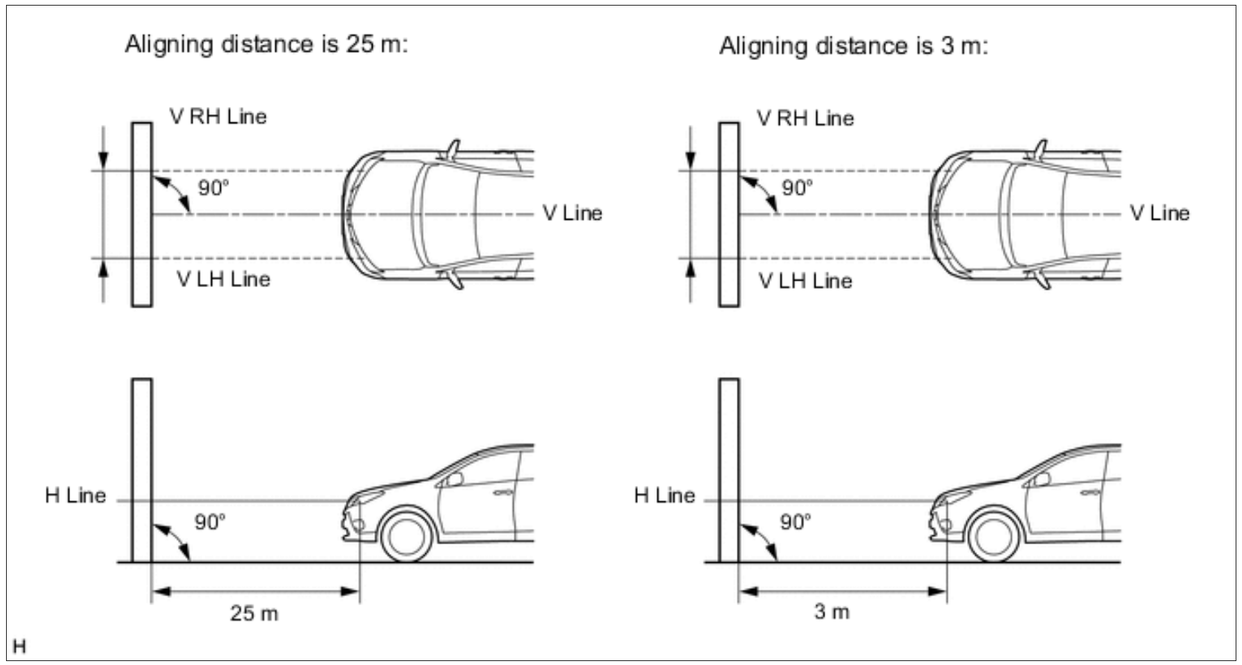
except Taiwan:

Set the screen as shown in the illustration.

Tech Tips

Stand the screen perpendicular to the ground.

Align the V line on the screen with the center of the vehicle.



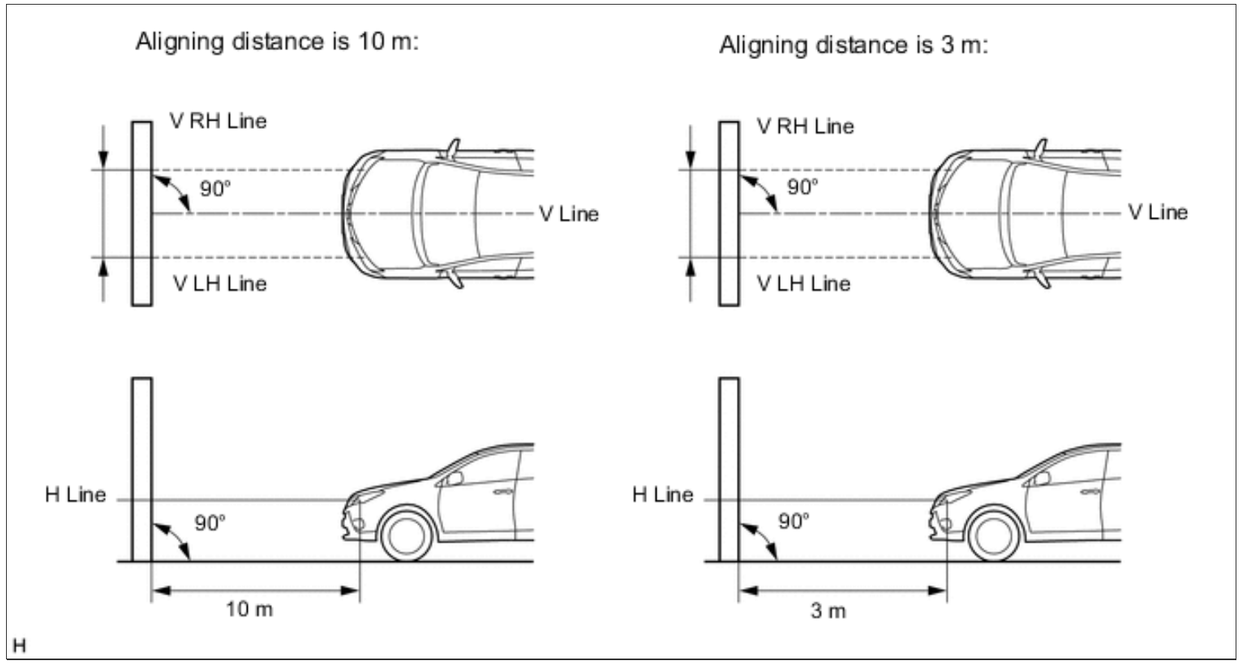
for Taiwan:

Set the screen as shown in the illustration.

Tech Tips

Stand the screen perpendicular to the ground.

Align the V line on the screen with the center of the vehicle.



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

Tech Tips

The base lines differ for "low beam inspection" and "high beam inspection".

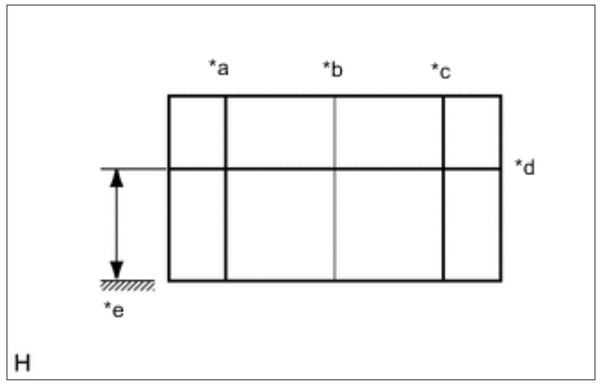
Mark the headlight bulb center marks on the screen. If the center mark cannot be observed on the headlight, use the center of the headlight bulb or the name of the manufacturer marked on the headlight as the center mark.

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.

V LH Line and V RH Line (Center mark position of the 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 low beam headlight bulbs).



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

INSPECT HEADLIGHT AIMING

Cover the headlight or disconnect the connector of the headlight/headlight ECU on the opposite side to prevent light from the headlight that is not being inspected from affecting the headlight aiming inspection.

CAUTION:

Do not disconnect the HID high voltage connector for the bulb when performing this 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.

Tech Tips

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

Start the engine.

except Taiwan:

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

Tech Tips

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 beingcorrect.

The illustration is for LHD vehicles. RHD vehicles are the opposite of the illustration.

If the alignment distance is 25 m (82 ft.):

The low beam cutoff line should be within 83 mm (3.27 in.) and 376 mm (1.23 ft.) below the H line as well as 249 mm (9.80 in.) left or right of the V LH 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 V LH or V RH line.

If the alignment distance is 25 m (82 ft.):

The horizontal line of the preferred low beam cutoff line is 249 mm (9.80 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.):

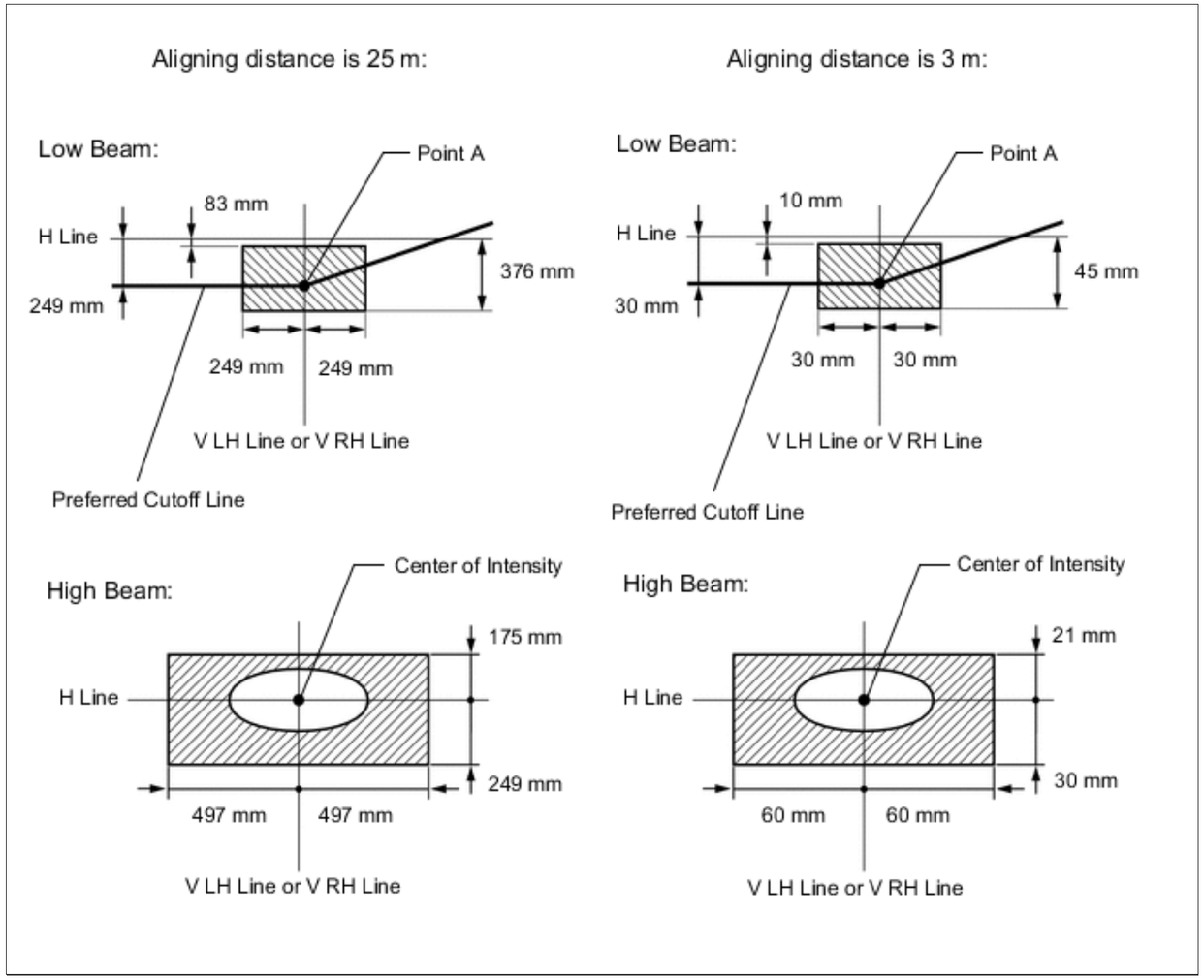
The horizontal line of the preferred low beam cutoff line is 30 mm (1.18 in.) below the H line and point A of the preferred low beam cutoff line is on the V LH or V RH line.

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 249 mm (9.80 in.) below the H line as well as 497 mm (1.63 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.



for Taiwan:

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

Tech Tips

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 beingcorrect.

If the alignment distance is 10 m (32.8 ft.):

The low beam cutoff line should be within 33 mm (1.30 in.) and 150 mm (5.91 in.) below the H line as well as 66 mm (2.60 in.) left or right of the V LH 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 20 mm (0.787 in.) left or right of the V LH or V RH line.

If the alignment distance is 10 m (32.8 ft.):

The horizontal line of the preferred low beam cutoff line is 99 mm (3.90 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

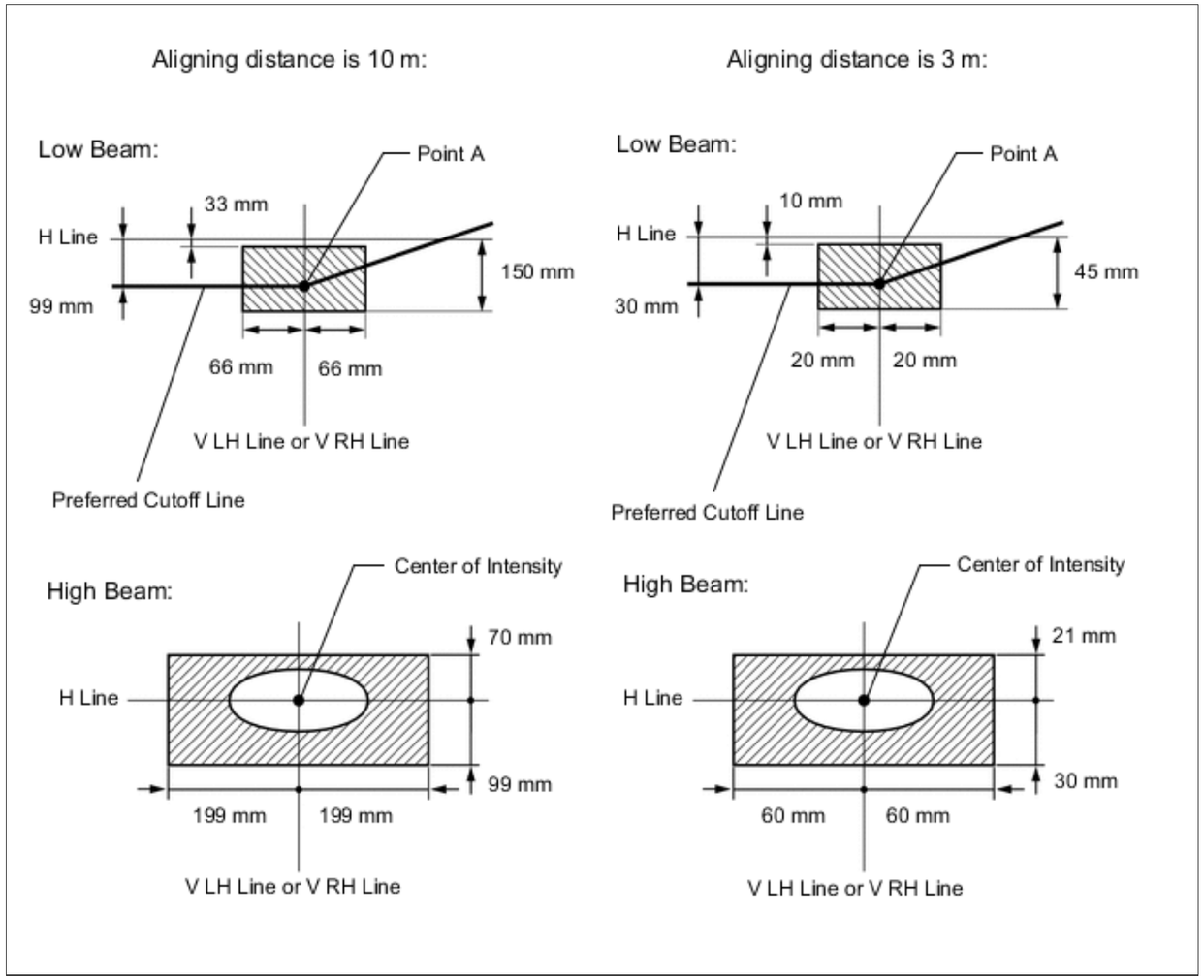
line.

If the alignment distance is 10 m (32.8 ft.):

The high beam center of intensity should be within 70 mm (2.76 in.) above and 99 mm (3.90 in.) below the H line as well as 199 mm (7.83 in.) 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.



ADJUST HEADLIGHT AIMING

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.

Note

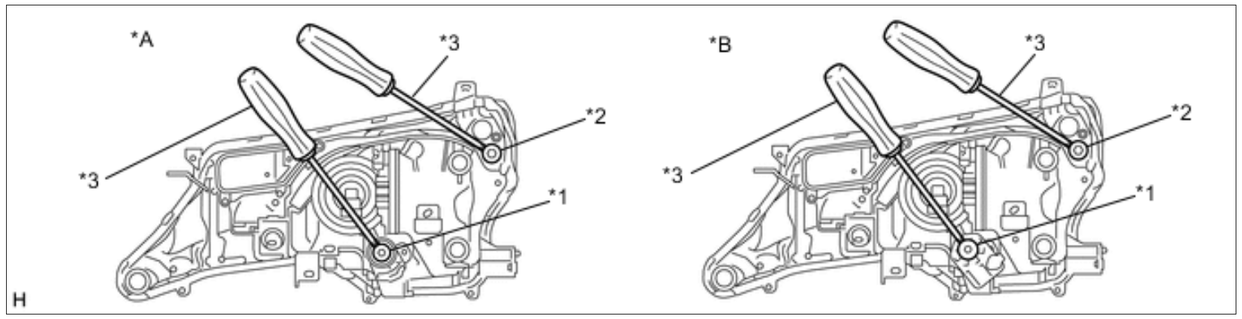
The final turn of the aiming screw should be made in the clockwise direction. If the screw is tightened excessively, loosen it, and then retighten it so that the final turn of the screw is in the clockwise direction.

Tech Tips

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 bulb, headlight unit and headlight unit reflector 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	w/o Headlight Leveling	*B	w/ Headlight Leveling
*1	Vertical Aiming	*2	Horizontal Aiming
*3	Screwdriver	-	-