

Chassis ID	Path 3521/Repair//Headlamp, Adjustment
Model	Identity 127717023
Publish date 4/15/10	ID/Operation 3521-05-02-01

3521-05-02-01 Headlamp, Adjustment

Projection Beam Headlamps

Headlamp aiming kit 85104357 is the recommended tool for aiming the projection beam headlamps on the VNL Version 2. For all other VN/VHD headlamp aiming procedures see other service literature in group 35.

Note: Some local laws may require the use of electronic optical aiming equipment. If required, follow the aiming procedures as instructed in the aiming equipment suppliers instructions.

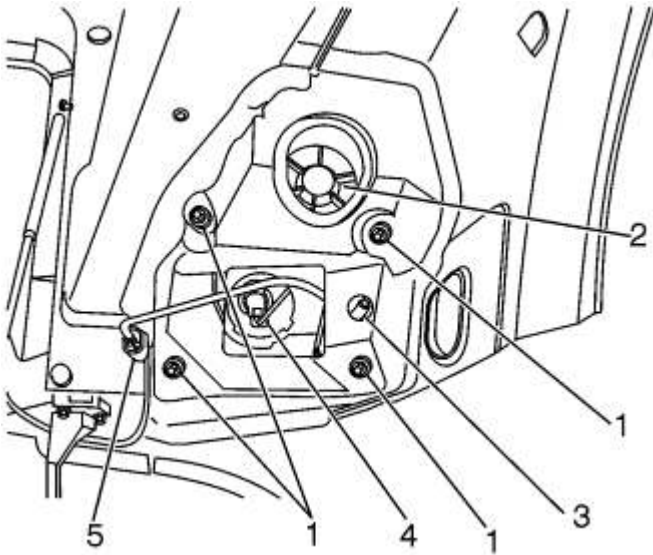
Vehicle Preparation

- The floor area the vehicle sits on, including 25 feet in front of the vehicle, must be level.
- The vehicle should be unloaded.
- Tires should be properly inflated.
- Vehicles with air suspension systems should be properly inflated. Maintain 90 PSI or higher in the vehicle air system throughout the aiming procedure.
- Check for broken or sagging springs on vehicles with mechanical suspension systems. Rock the vehicle to equalize the springs.
- Remove any large accumulation of mud or ice from under the hood/fender.
- The hood should be closed and latched.

Note: Damaged hoods should be repaired before attempting to perform an adjustment.

Aiming Procedure

1

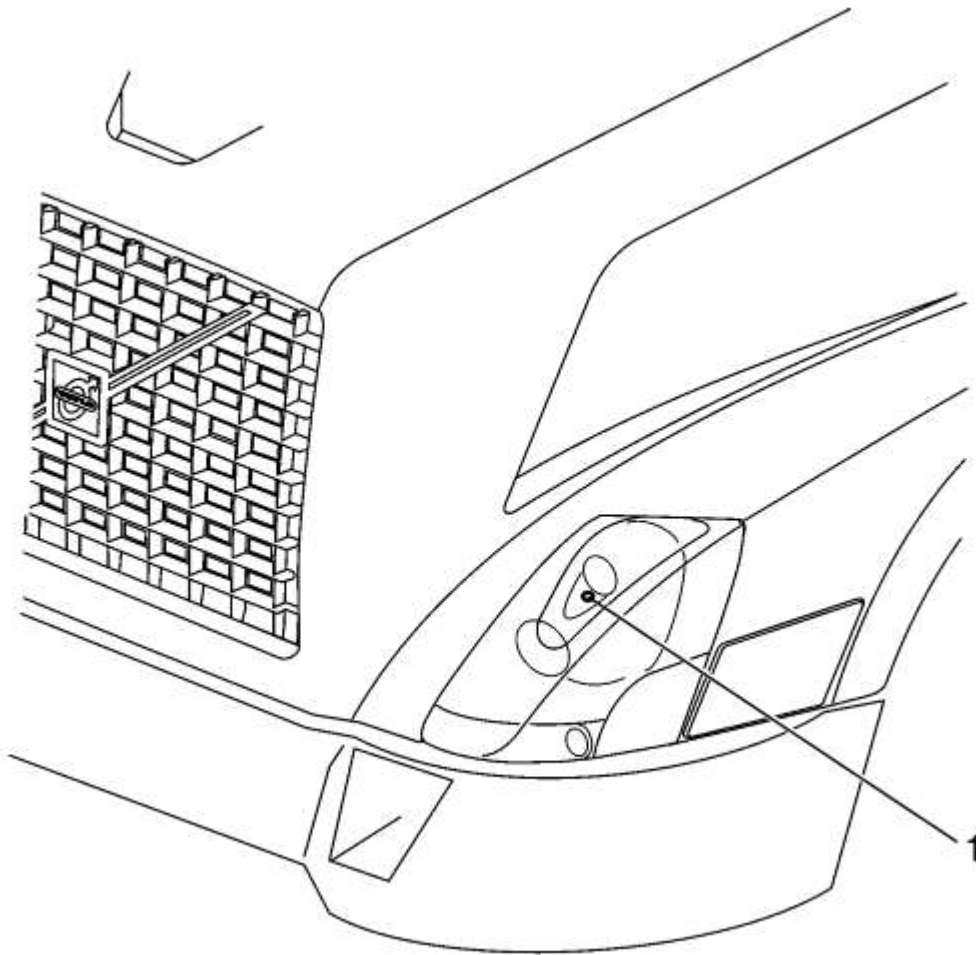


View Behind headlamp Assembly (splash shield removed)

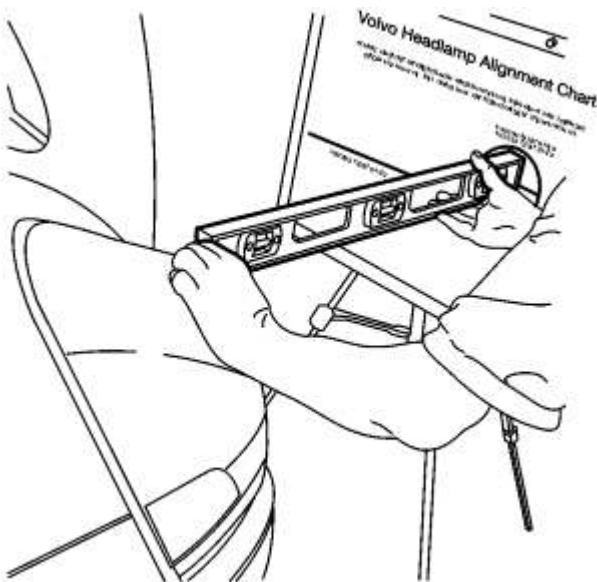
1. Mounting screw
2. Low beam access cover
3. Adjusting screw
4. Hi beam bulb (cover removed)
5. Connector

Note: For a visual reference, turn on the headlamps and place a piece of cardboard or similar material approximately 2 feet from the front of one headlamp. Observe the distinctive light pattern of the projection beam headlamp. The “cut off line” is the area that the light transitions from white light to the shadow. The headlamps will be adjusted by this “cut off line” with the headlamp aiming chart set 25 feet from the reference point on the low beam portion of the headlamp lens.

Note: headlamps are aimed individually. Observation of the cut off line is improved in low ambient light conditions and by blocking the light pattern of the lamp not being aimed. Only low beam headlamps should be illuminated when aiming.



1 Low beam reference point



Adjusting Aiming Chart (light area at bottom of chart is low beam pattern)

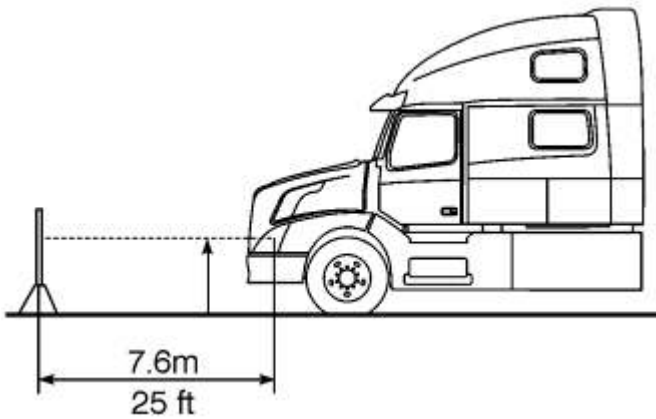
Place headlamp aiming kit 85104357 approximately 2 feet directly in front of the left headlamp. Use a 2 foot carpenter level (obtain locally, not supplied with kit) or equivalent tool to set the height of the headlamp aiming chart. Also, be sure the chart is level. The headlamp Reference Mark "cross hair" on the chart should be aligned to the reference point on the low beam portion of the headlamp lens. Both the height and level of the chart must be maintained throughout the aiming process.

Note: Two technicians are required to easily complete this step. Time has been doubled.

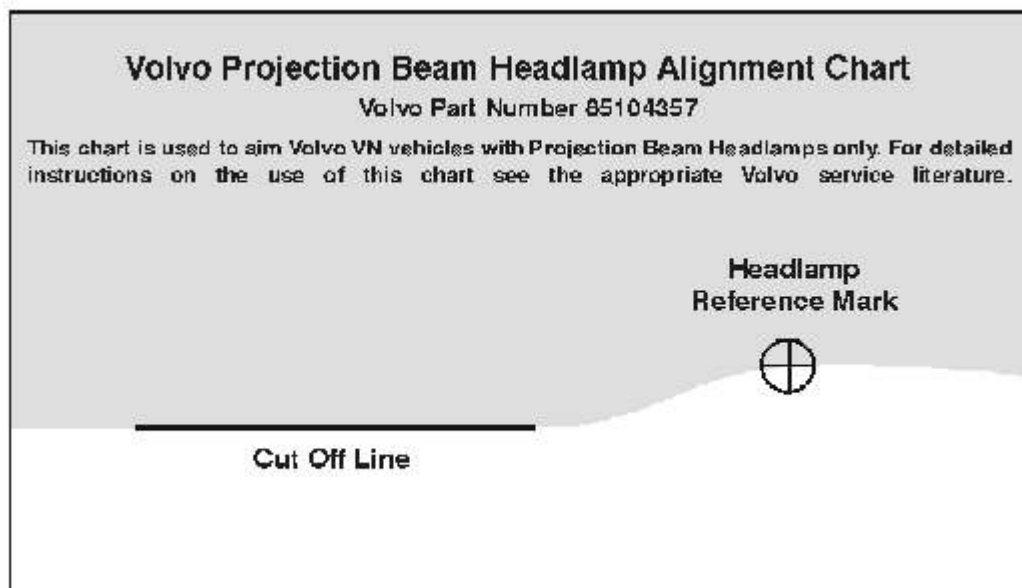
Copyright to this documentation belongs to the Volvo Group. No reproduction, copying, change, amendment or other similar disposal is entitled without prior written consent by the Volvo Group

The information contained herein is current at the time of its original distribution, but is subject to change. The reader is advised that printed copies are uncontrolled.

3



Headlamp Aiming Distance



Headlamp Aiming Chart

Move the headlamp aiming kit to 25 feet directly in front of the left headlamp as measured from the headlamp Reference Mark "cross hair" on the chart to the reference point on the low beam portion of the headlamp lens. Observe the pattern on the headlamp aiming chart. If properly adjusted, the pattern will appear as illustrated above with the cut off line of the headlamp beam falling onto the "CUT OFF LINE" on the headlamp aiming chart.

Note: Two technicians are required to easily complete this step. Time has been doubled.

4

If necessary adjust the headlamp vertical adjustment until the cut off line is aligned over the "CUT OFF LINE" on the headlamp aiming chart. Adjustment is made with an E6 Torx socket.

Note: There are no horizontal adjustments on the VNL Version 2 Projection Beam headlamps.

5

After adjustment is completed, repeat the process on the right headlamp.