

# GROTE 90MM HEADLAMP INSTALLATION AND AIMING INSTRUCTIONS

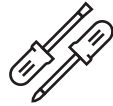
If installing in Europe, aiming must be done by professional using proper aiming equipment.

## TOOLS REQUIRED:

FOR INSTALL AND AIMING

Torx 20 Screwdriver for adjusting from the front

E4 Torx Stem for adjusting from the rear



FOR AIMING ONLY

Tape Measure

Tape or String



## INCLUDED IN BOX:

(1) 90mm Low Beam Headlight or

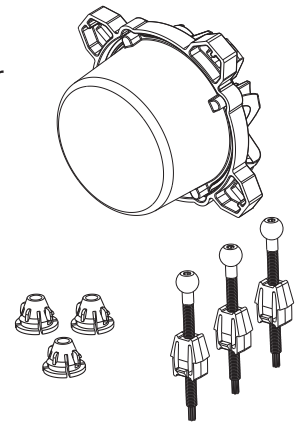
(1) 90mm High Beam Headlight

Hardware Bag with:

(3) Adjuster Ball Baskets

(3) Adjustment Rods

Lamp has DT06-2S connector. If vehicle has different connector, an adapter will be needed. (sold separately)



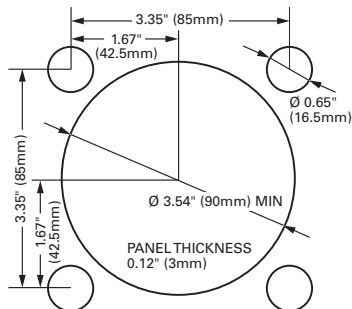
**1** Make sure vehicle is off and battery has been disconnected.

**2** Disconnect and remove existing headlamps.

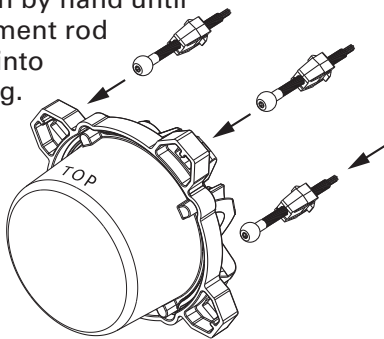
**3** Install the headlight with the new attachment hardware.

**3A.** Ensure mounting holes are correct size.

Note: Only 3 of the 4 small holes are required.

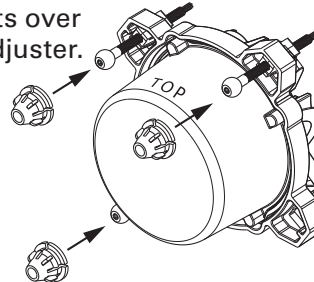


**3B.** Insert adjustment screws in mounting bracket from back with ball facing front and side labeled "top" facing up. Press in by hand until adjustment rod snaps into housing.



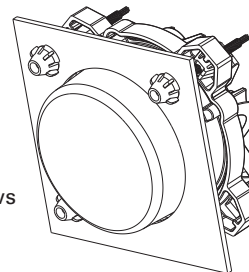
**3C.** If your vehicle has 3 mounting holes, ensure position of adjustment rods in new headlamp match vehicle mounting holes.

**3D.** Snap ball baskets over ball adjuster.

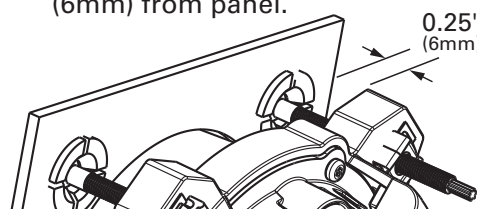


**3E.** Press ball baskets and lamp into mounting holes on vehicle.

If you have trouble seating ball basket completely, gentle tapping on adjuster screws may be needed.

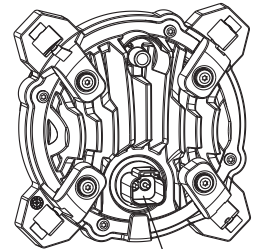


**3F.** Adjust screws until mounting bracket is approximately 0.25" (6mm) from panel.



**4**

Plug lamp into your existing harness.



DT06-2S connector

(If compatible harness is needed, use Grote part number 68310)

**5**

Use the Aiming Instructions on next page to aim the new lamps.



## Following installation, Grote headlamps MUST be properly aimed.

If installing in Europe, aiming must be done by professional using proper aiming equipment.

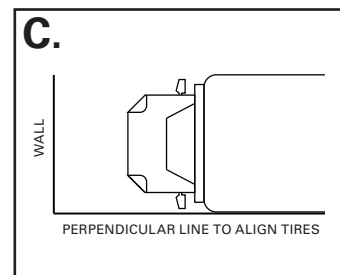
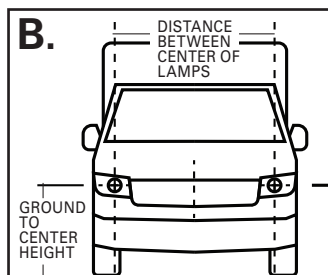
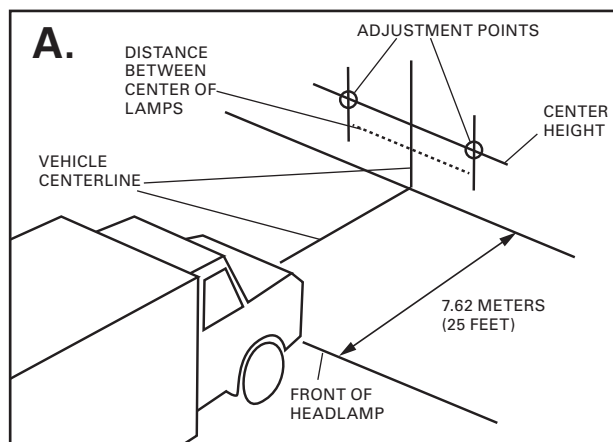
The horizontal line of the beam pattern must adhere to all relevant regulations which can be achieved through securely mounting and accurately aiming the headlamp. If unfamiliar with the legal requirements for mounting and aiming headlamps, it is suggested to seek that outside assistance from a professional. Improper headlamp alignment increases risk to other drivers. Local authorities have the right to issue tickets or citations if headlamps fail to meet established regulations. Grote does not assume responsibility nor is it liable for any citations/tickets received or damage to the vehicles or lamps as a result of following these guidelines.

## AIMING INSTRUCTIONS:

The lamps are aimed by visually observing the pattern and adjusting it to the correct location. Thus, it is best to work in a shaded area, at dusk, or inside. Park vehicle 25' away from wall/screen on level surface; ensure vehicle is perpendicular to wall/screen. (See figures A & C). Now you are ready to aim your lamps.

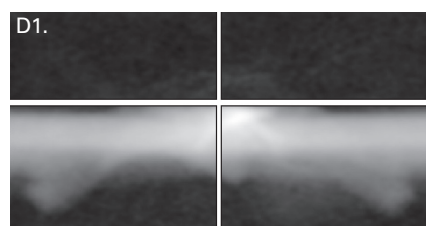
## TAPING TARGET ADJUSTMENT POINTS:

1. Measure and note the center height from the ground to the center of the lamp you are adjusting (see figure B).
2. Measure and note the distance between the lamps you are adjusting (centered, see figure B).
3. On wall/screen 25' away from the vehicle, tape or indicate adjustment points (see figure A). It is critical that vehicle is perpendicular to taped wall/screen.
4. If you are adjusting high and low beams, repeat steps 1-3 as required.

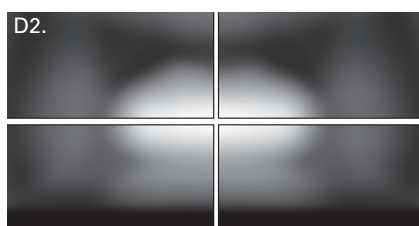


## AIMING/ADJUSTING LAMPS:

1. The beam pattern is adjusted using the two adjustment rods that are diagonal from each other. The other mounting is the pivot. The mounting screw under / above the pivot is used to move the pattern up and down. The other is used to adjust left and right (See figure E).
2. Now that the vehicle is aligned correctly and aiming/adjusting points are in place, (all lamps you are adjusting require separate points for high and low beam), turn on the head lamps and block or unplug one of the lamps while aiming the other.
  - 2a. For adjusting low beam, adjust so that light pattern is displayed as in Figure D1. Ensure that bright spot is to the inside below center of target adjustment point.
  - 2b. For adjusting high beam, adjust so that light pattern is displayed as in Figure D2. Ensure the pattern is centered on target adjustment point.
3. Repeat process on all lamps as required.



LOW BEAM



HIGH BEAM

