

# INSTALLATION INSTRUCTIONS

## ⚠ WARNING

To properly install this headlight you should have a good understanding of automotive electrical procedures and systems, and proficiency in the installation of headlights. **IF YOU DO NOT, PLEASE SEEK PROFESSIONAL ASSISTANCE.**

### BEFORE INSTALLATION:

**Tools Needed:** 3/8" Socket/Wrench (For Mounting)  
13mm Socket/Wrench (For Aiming)

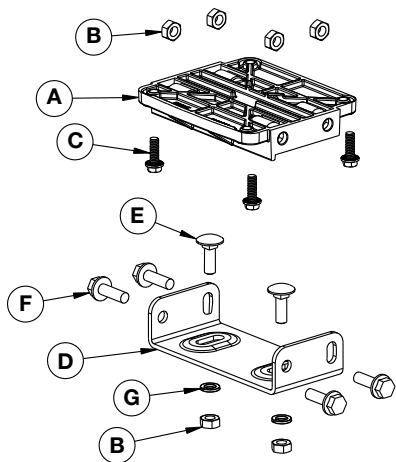
**Estimated Time:** 30 minutes

**Wire Functions:** Black = Ground  
Red = Front Position  
White = High Beam  
Orange = Low Beam  
Yellow = Turn Signal  
Blue = DRL\*

\*NOTE: Blue Wire is non-functioning on DOT versions

### In the Box:

- A. (x2) Mounting Bases
- B. (x12) M8-1.25mm Hex Nuts
- C. (x8) 1/4"-20x0.75" Hex Head Flange Bolts
- D. (x2) Mounting Brackets
- E. (x4) M8-1.25"x25 Carriage Bolts
- F. (x8) M8-1.25"x25 Hex Head Flange Bolts
- G. (x4) M8 Split Lock Washers



**Input Voltage:** 12-24V DC

**Operating Voltage:** 10-30V DC

### REGULATORY COMPLIANCE:



### PRE-INSTALLATION GUIDELINES:

1. Read all safety notes and mounting guidelines before installing the product. Verify that all parts listed under "In the Box" are present and complete.
2. Inspect the product for damage. DO NOT install the product if there is any damage. Contact the authorized retailer where you purchased it to initiate a warranty claim if there is damage.
3. Verify that all power supply and/or charging systems comply to the specified voltage limits for the light.

### IMPORTANT NOTES:

J.W. Speaker's Model 9800 is best suited for normal snow plowing, **not** "high speed" plowing on highways. Consult with your J.W. Speaker salesperson for more information.

The Model 9800 is **not** designed to be a plug and play for Boss snow plows. If you have a Boss snow plow please see your local Boss dealer for information on the right product to use.

### PRODUCT WARRANTY:

If you have issues with a J.W. Speaker product, please contact the authorized retailer where you purchased it.

**INSTRUCTIONS BEGIN ON THE NEXT PAGE**

## INSTALLATION INSTRUCTIONS:

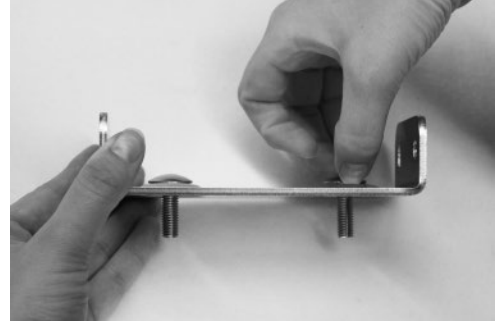
1. Turn off the equipment and disconnect the power supply.

3. Build the Mounting Assembly. Place the 4 Hex Nuts (B) into the pockets of the Mounting Base (A).

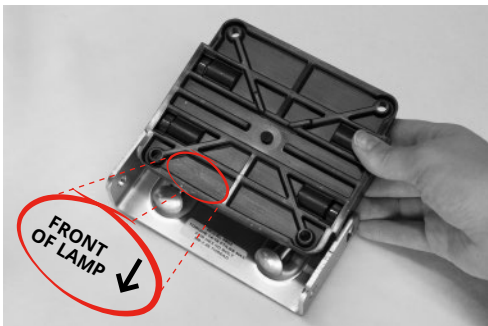


2. Ensure that the light mounting location is a FLAT, SOLID surface of the same (or larger) size as the bracket or light. This will prevent warping or distortion that can cause cracking or damage to the light and/or bracket.

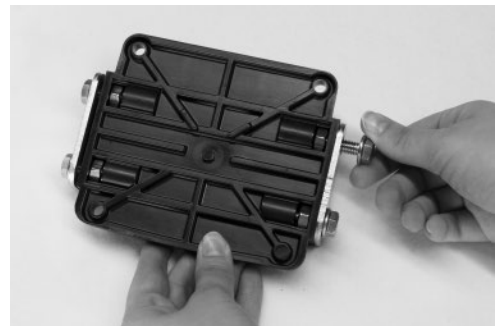
4. Place the 2, M8-1.25"x25 Carriage Bolts (E) into the slots in the Mounting Bracket (D).



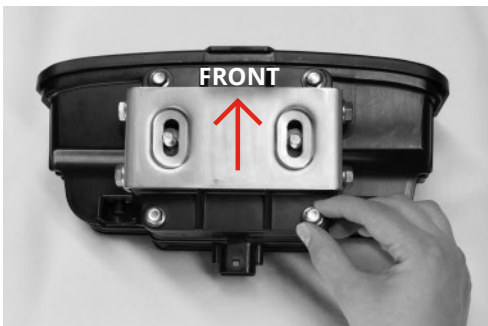
5. Align the "Front" text on the Mounting Base with the round holes on the mounting bracket (NOT the slotted holes).



6. Attach the Mounting Bracket (D) to the Mounting Base (A) with the 4, M8-1.25"x25 Hex Head Flange Bolts (F). Tighten the bolts by hand. These combined parts are the Mounting Assembly.



7. Align front of the headlight with "Front" text on the Mounting Base. Lamp will rock if not properly aligned. Attach Mounting Assembly to the headlight using the 4, 1/4"-20x0.75" Hex Head Flange Bolts. Tighten bolts to 46-50 IN-LBS.



8. Mount headlight to the vehicle using the 2, M8-1.25"x25 Carriage Bolts (E), 2 M8 Split Lock Washers (G) and remaining 2 Hex Nuts (B). Carefully splice the wires using the "Wire Functions" and "Voltage" information from page 1 to power the light.

9. All connections should be adequately protected against moisture. Shrink tubing is recommended. Lay and secure wiring/connectors to avoid any pulling or abrasion that may damage the wires.

10. Aim the headlights according to the instructions on the following pages. Use the 4, M8-1.25"x25 Hex Head Flange Bolts (F) on the side of the Mounting Assembly to angle the light up and down. Once properly aimed, tighten the 4 bolts to 96 IN-LBS MAX.

11. Frequently check the light to make sure that it is working properly and is securely attached.

# HEADLIGHT AIMING INSTRUCTIONS

## FOR LOW AND HIGH/LOW HEADLIGHTS

### ⚠ WARNING

Headlight must be securely mounted and properly aimed such that the beam pattern “cut off line” complies with all applicable regulations. **If you are not familiar with the legal requirements for aiming your headlights, please see a professional service provider.** We recommend that headlights are aimed with a headlight aiming system for proper alignment. Failure to properly aim your headlights is a risk to other drivers and could result in tickets or citations with local authorities. J.W. Speaker is not liable for any damage to the vehicle or light, or any tickets/citations as a result of using these guidelines.

### BEFORE AIMING:

1. Vehicle is being aimed on a level surface.
2. All tires are properly inflated.
3. Vehicle is at normal driving height.

### REQUIRED SUPPLIES:

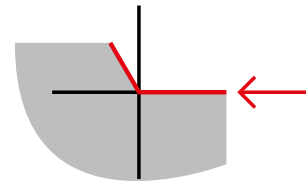
- Tape or chalk to mark lines
- Corresponding tools for your vehicle’s aiming mechanism

### OPTIONAL SUPPLIES:

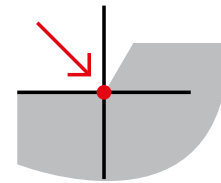
- Laser level to expedite the aiming process and will help to increase accuracy in aiming

### KEY TERMS:

**Kink (elbow):** The top of the pattern that is the cutoff when aimed at a wall.



**Alignment Point:** The center of the angle in the Kink that must align to the center point when aiming the light at a wall.



**LHT (Left Hand Traffic):**  
ECE Regulation countries  
like the United Kingdom

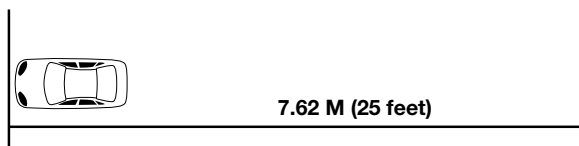
**RHT (Right Hand Traffic):**  
DOT (and some ECE)  
Regulation countries like the  
United States



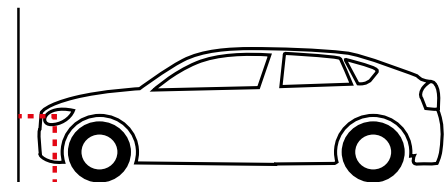
*The following instructions are illustrated for RHT vehicles.  
Aiming for LHT vehicles will be mirrored to what is shown.*

### AIMING GUIDELINES:

1. Park your vehicle close to a wall, in an area where there is at least 7.62 meters (25 feet) of space behind it (excluding the car length).



2. On the wall, draw a line from the ground to the approximate center point of the headlight. Repeat for the other headlight. This will create your Y axis lines.



## AIMING GUIDELINES CONTINUED:

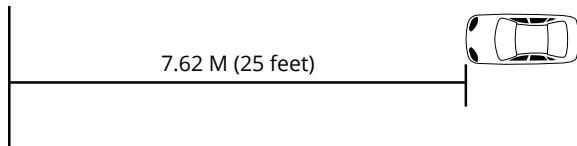
3. Connect the center points between headlights using chalk or tape. This will create your X axis (horizontal) line. **NOTE:** Use a straight edge and a level to make sure this line is straight.



4. Extend your vertical, Y (vertical) axis lines up approximately 3 feet. Your lines should match the diagram below, when looking at the lines straight on.

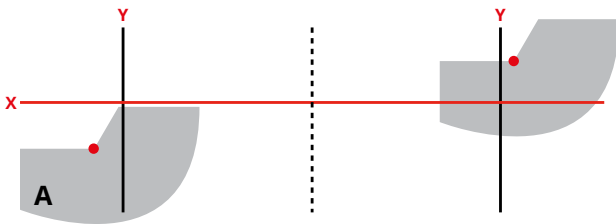


5. Reverse your vehicle in a straight line so that the front of the headlights are 7.62 meters (25 feet) back from the wall.

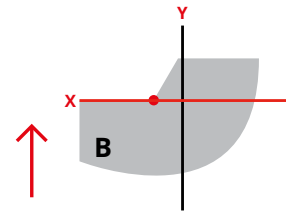


The goal of this sheet is to aim **BOTH** of your headlights so that the **Alignment Point** is at the crosssection of the horizontal X and vertical Y lines you have drawn. The following directions illustrate the process and proper aiming of headlights.

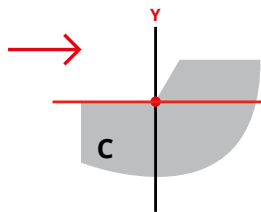
6. When you first turn on your vehicle after installing your headlights, the **Alignment Points** of the LOW BEAM may be positioned differently than shown and will likely be aimed differently from each other.



7. Using the alignment mechanisms in your vehicle, adjust one headlight vertically until the **Alignment Point** is even with the X axis.



8. On the same headlight, adjust horizontally until the **Alignment Point** is even with the Y axis.



9. Repeat this process on the other headlight. Both headlights should match the diagram below, where the **Alignment Point** is even with the point where the X and Y axis crosses.

