

## **WHELEN<sup>®</sup>** ENGINEERING COMPANY INC.

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## Installation Guide Guardian™ Lightbar with Rotators Models: G1M\* / G1P\* / G1V\* G2M\* / G2P\* / G2V\*

### **Safety First**

This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained herein that could prevent serious injury or damage.

- **Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures.**
- **If mounting this product requires drilling holes, the installer MUST be sure that no vehicle components or other vital parts could be damaged by the drilling process. Check both sides of the mounting surface before drilling begins. Also de-burr any holes and remove any metal shards or remnants. Install grommets into all wire passage holes.**
- **If this manual states that this product may be mounted with suction cups, magnets, tape or Velcro™, clean the mounting surface with a 50/50 mix of isopropyl alcohol and water and dry thoroughly.**
- **Do not install this product or route any wires in the deployment area of your air bag. Equipment mounted or located in the air bag deployment area will damage or reduce the effectiveness of the air bag, or become a projectile that could cause serious personal injury or death. Refer to your vehicle owners manual for the air bag deployment area. The User/Installer assumes full responsibility to determine proper mounting location, based on providing ultimate safety to all passengers inside the vehicle.**
- **For this product to operate at optimum efficiency, a good electrical connection to chassis ground must be made. The recommended procedure requires the product ground wire to be connected directly to the NEGATIVE (-) battery post.**
- **If this product uses a remote device to activate or control this product, make sure that this control is located in an area that allows both the vehicle and the control to be operated safely in any driving condition.**
- **Do not attempt to activate or control this device in a hazardous driving situation.**
- **This product contains either strobe light(s), halogen light(s), high-intensity LEDs or a combination of these lights. Do not stare directly into these lights. Momentary blindness and/or eye damage could result.**
- **Use only soap and water to clean the outer lens. Use of other chemicals could result in premature lens cracking (crazing) and discoloration. Lenses in this condition have significantly reduced effectiveness and should be replaced immediately. Inspect and operate this product regularly to confirm its proper operation and mounting condition. Do not use a pressure washer to clean this product.**
- **It is recommended that these instructions be stored in a safe place and referred to when performing maintenance and/or reinstallation of this product.**
- **FAILURE TO FOLLOW THESE SAFETY PRECAUTIONS AND INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT OR VEHICLE AND/OR SERIOUS INJURY TO YOU AND YOUR PASSENGERS!**

**For warranty information regarding this product, visit [www.whelen.com/warranty](http://www.whelen.com/warranty)**

## Installation:

- Since this installation will require drilling, it is absolutely necessary to make sure that no other vehicle components will be damaged in the process. Check both sides of the mounting surface before starting and if damage is possible, select a different mounting location.
- Always deburr all holes and remove any metal filings from the vehicle.

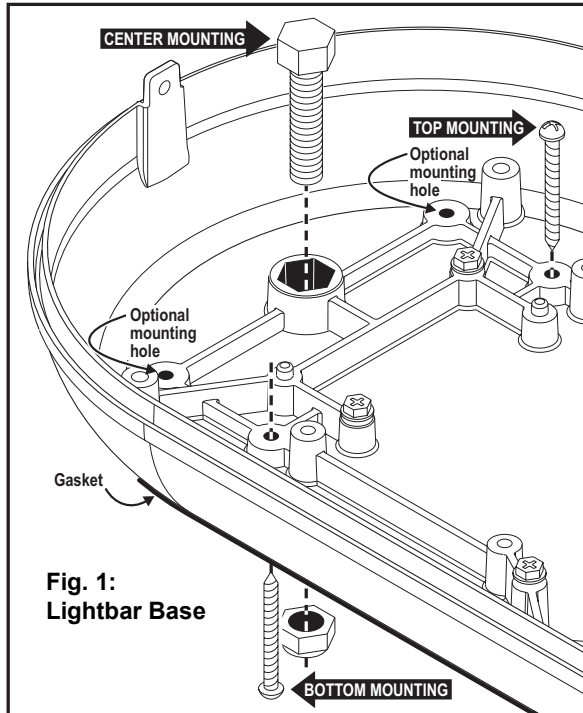


Fig. 1:  
Lightbar Base

**WARNING! All customer supplied wires that connect to the positive terminal of the battery must be sized to supply at least 125% of the maximum operating current and FUSED at the battery to carry that load. DO NOT USE CIRCUIT BREAKERS WITH THIS PRODUCT!**

## Top Mount:

1. Remove the 2 screws at each end of the lightbar that secure the dome to the base and remove the dome.
2. With a 3/16" drill bit, drill out the 4 mounting bosses in the base for clearance holes for #8 sheet metal screws (figs. 1 & 2).
3. Be sure the mounting area is relatively flat. Using the lightbar base as a template, scribe the 4 mounting hole locations onto the mounting surface.
4. Mark the location for a wire access hole behind the lightbar.
5. Drill the mounting holes scribed in step 3 with a #29 drill bit and the wire access hole from step 4 using a 3/8" drill bit.
6. Install a 3/8" rubber grommet in the wire access hole and route the wires through. Apply silicone sealing compound around the wires and grommet.
7. Carefully position the lightbar over the mounting holes and secure the lightbar to the mounting surface using the #8 sheet metal screws supplied.
8. Replace the dome with the 2 screws removed in step 1.
9. Wire the Guardian™ as shown in Fig. 3.

## Bottom Mount

1. Be sure the mounting area is relatively flat. Using the information in figure 2 scribe the 4 mounting hole locations onto the mounting surface.
2. Mark off the wire access hole, located right behind the lightbar.
3. Drill the mounting holes you marked off in step 1 with a 3/16" drill bit and the wire access hole with a 3/8" drill bit.
4. Install a 3/8" rubber grommet in the wire access hole and route the wires through, then apply a silicone sealing compound around the wires and grommet.
5. Carefully position the lightbar over the mounting holes and secure the lightbar to the mounting surface using the #8 sheet metal screws supplied.
6. Wire the Guardian™ as shown in Fig. 3.

## Center Mount: Optional

1. Be sure the mounting area is relatively flat. Using the information in fig. 2, scribe the 2 mounting hole locations onto the mounting surface.
2. Mark off the wire access hole, located right behind the lightbar.
3. Drill the 2 mounting holes using an 11/32" drill bit and the wire access hole using a 3/8" drill bit.
4. Tighten each locknut onto its bolt to draw the bolt head into the base then remove the locknuts.
5. Align the bolts with the 2 mounting holes you drilled and position the lighththead onto the mounting surface.
6. Install a 3/8" rubber grommet in the wire access hole and route the wires through, then apply a silicone sealing compound around the wires and grommet.
7. Secure the lightbar with the locknuts.
8. Wire the Guardian™ as shown in Fig. 3.

## Temporary Mount (Magnetic, Suction Cup, etc.)

**WARNING! The presence of any temporarily mounted warning light on the outside of a vehicle in motion is not recommended and is at the sole discretion and liability of the user!**

Thoroughly clean the proposed mounting surface prior to mounting. For suction cup mounting, wipe the suction cup clean, place the Guardian onto its mounting surface and apply gentle pressure to ensure a good seal has been achieved. The Magnetic/Suction Cups mount the same way as standard suction cups but are best suited to a flat, steel surface.

## IMPORTANT ELECTRICAL WARNINGS!

**Guardian models equipped with cigar cords are intended for short duration, intermittent operation only! Prolonged operation requires the Guardian to be wired to the vehicle as shown in Fig. 3.**

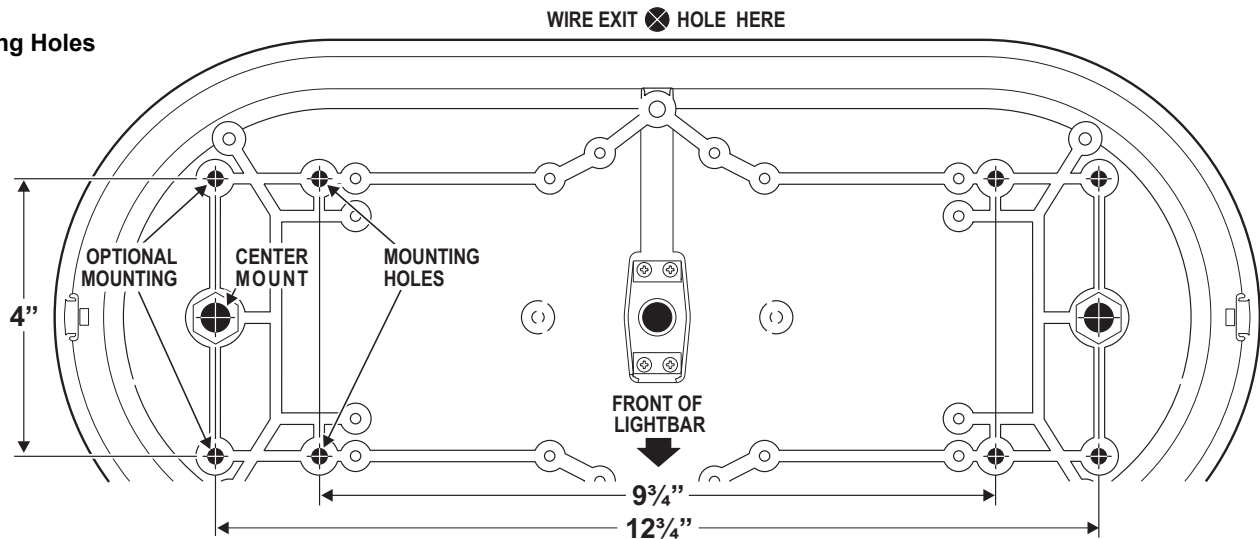
**DO NOT use a cigar lighter socket as a power source for this or any electrical accessory! Use a 12-volt accessory power port or auxiliary power outlet of sufficient capability. Do not exceed the manufacturers power rating for the selected port/outlet.**

**DO NOT pull on the power plug wires when removing the plug from the outlet! To remove, firmly grasp the power plug housing and pull.**

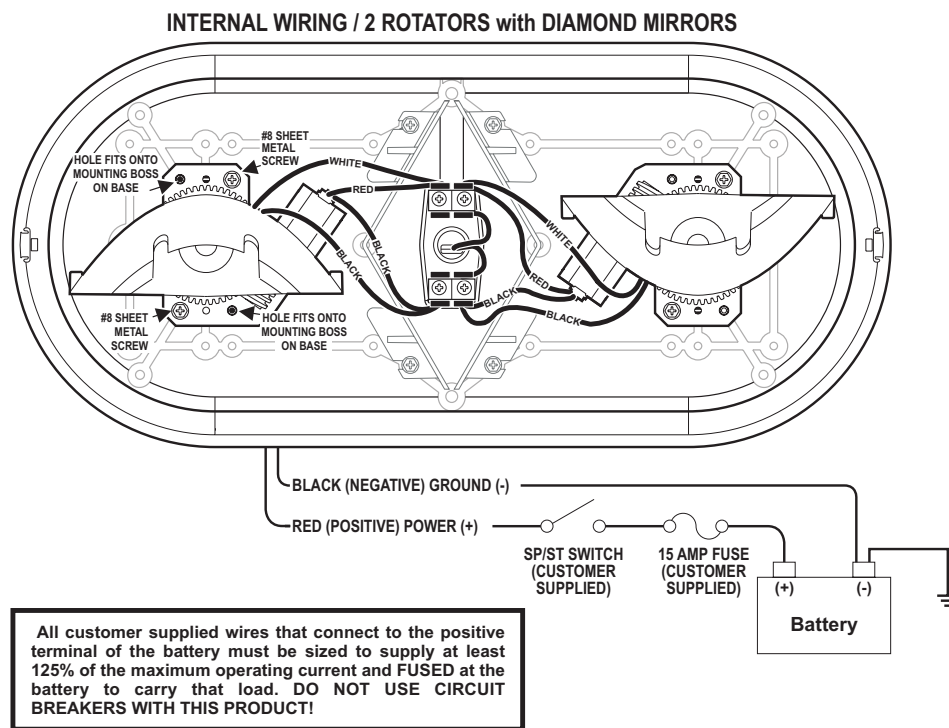
**If converting a cigar cord model to permanent wiring, the ribbed side of the cigar cord is positive (+). See Fig. 3 for wiring information.**

**ANY DEVIATIONS FROM THE ABOVE ELECTRICAL GUIDELINES WILL VOID THE PRODUCT WARRANTY.**

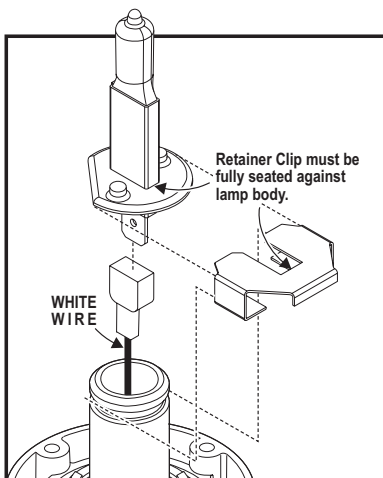
**Fig. 2:**  
Mounting Holes



**Fig. 3:**  
Wiring



**Fig. 4:**  
Lamp Installation



### Changing a Rotator Bulb:

1. Remove the 2 dome screws at each end of the lightbar and remove the dome.
2. After the bulb has completely cooled off, remove the old bulb by removing the retaining clip then pulling the bulb straight up and unplugging it from its wire. If the rotators reflector is in the way you may move it by turning the worm gear on the motor.

**WARNING! Turn the reflector by the motor or worm gear only or you will damage the reflector.**

**WARNING! Do not touch the glass on the new bulb.**

3. Plug the new bulb into the white wire and insert it into the lamp socket as shown then replace the retaining clip. Reassemble the lightbar and confirm proper operation of the rotator.