

WHELEN[®]

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Installation Guide:
Guardian™ Lightbar
(with L22 LED Beacons)
Model(s): G8P*, G8V*,
G8PC, G8VC****

Safety First

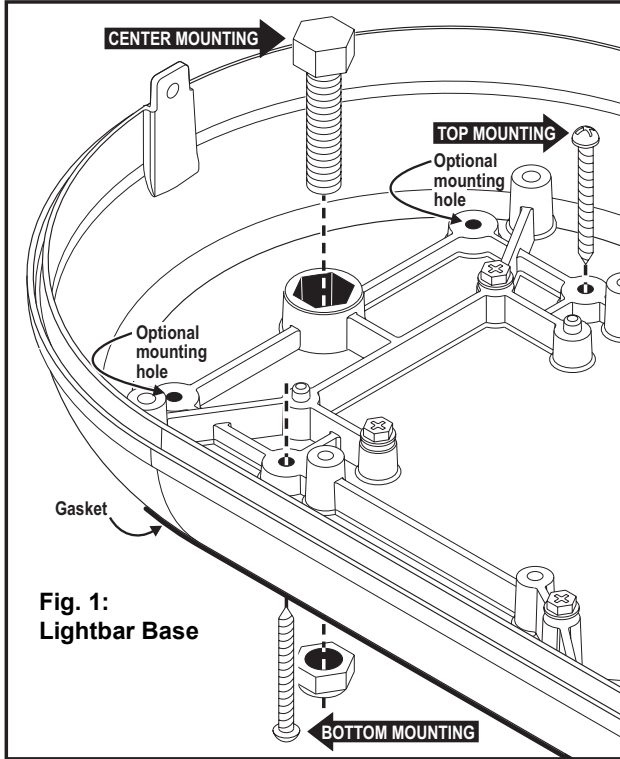
This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained 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 owner's 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

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.



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 be fused at the battery to carry the load.

Mounting:

IMPORTANT! The lightbar should be located a minimum of 16" from any radio antennas!

NOTE: Some mounting styles will require the removal of internal assemblies. Be sure to return all components to their original mounted condition prior to putting this product into service.

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 off the wire access hole located right behind the lightbar.

5. Drill the mounting holes you marked off in step 3 with a #29 drill bit and the wire access hole with a 3/8" drill bit.
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. Carefully position the lightbar over the mounting holes and secure the lightbar to the mounting surface using the #8 sheet metal screws supplied.
8. Remount the dome using the 2 screws removed in step 1.

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.

Center Mount

1. Be sure the mounting area is relatively flat. Using the information in Figure 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 lighthead 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.

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! 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.

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

Wiring

1. Extend the RED wire to a SP/ST switch. From this switch, extend a wire to +12VDC. Fuse this wire @ 7.5 Amps.

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!

2. Extend the BLK wire to chassis ground.
3. Extend the WHT/VIO wire to a user controlled momentary switch. From this switch extend a wire to +12VDC. Fuse this wire @ 1 Amp.

See Fig 3 for output wiring information.

Scan-Lock™ Pattern Selection - To advance the pattern, press the momentary switch (step 3) for less than 1 second and release. Hold this switch for more than 1 second to cycle backwards through the patterns.

To reset to the factory default pattern - Turn off the power to the Guardian™. While holding down the momentary switch, turn the Guardian on. Continue to hold the switch for 5 seconds and the Factory Default Pattern will be restored.

Flash Patterns -

- | | | |
|----------------------|---------------------|---------------------|
| 1. SignalAlert™* (A) | 2. SignalAlert™ (B) | 3. SignalAlert™ (C) |
| 4. CometFlash® (A) | 5. CometFlash® (B) | 6. CometFlash® (C) |
| 7. DoubleFlash (A) | 8. DoubleFlash (B) | 9. DoubleFlash (C) |
| 10. SingleFlash (A) | 11. SingleFlash (B) | 12. SingleFlash (C) |
| 13. SteadyFlash | 14. Steady | |

*Factory Default Pattern

A = Beacon #1 alternates with Beacon #2

B = Beacon #1 is simultaneous with Beacon #2

C = 3 Cycles of "A" followed by 3 Cycles of "B"

Fig. 2:
Mounting Holes

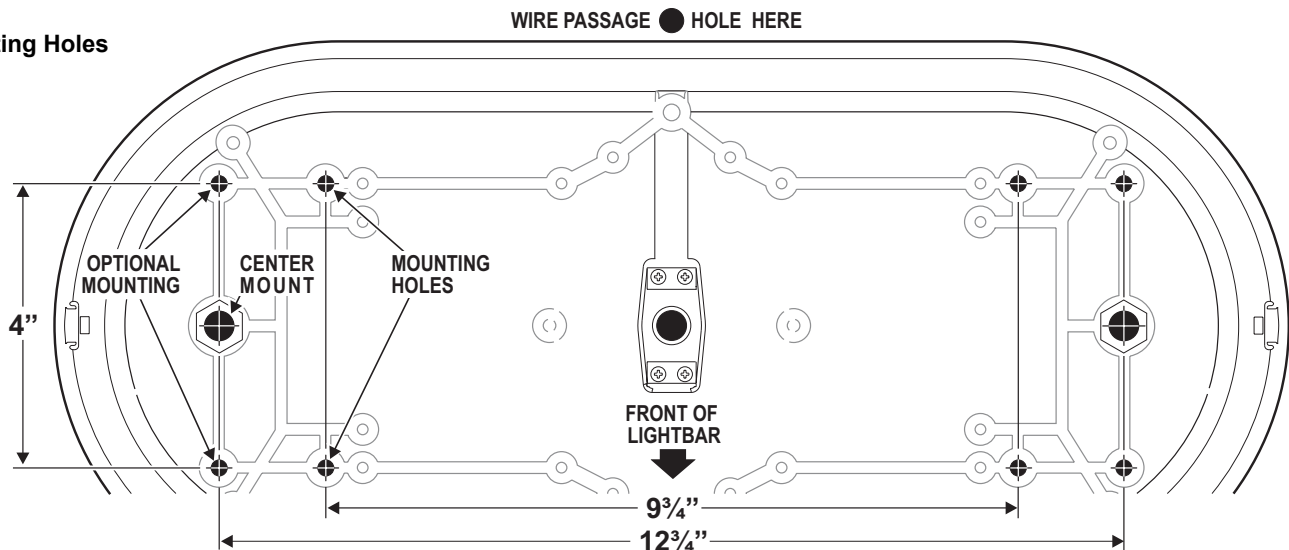


Fig. 3:
Wiring

