Installation Guide:
Centurion™ Lightbar Option Kit
Midboard Rotators

Warnings to Installers
Whelen’s emergency vehicle warning devices must be properly mounted and wired in order to be effective and safe. Read and follow all of Whelen’s written instructions when installing or using this device. Emergency vehicles are often operated under high speed stressful conditions which must be accounted for when installing all emergency warning devices. Controls should be placed within convenient reach of the operator so that they can operate the system without taking their eyes off the roadway. Emergency warning devices can require high electrical voltages and/or currents. Properly protect and use caution around live electrical connections. Grounding or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or vehicle damage, including fire. Many electronic devices used in emergency vehicles can create or be affected by electromagnetic interference. Therefore, after installation of any electronic device it is necessary to test all electronic equipment simultaneously to insure that they operate free of interference from other components within the vehicle. Never power emergency warning equipment from the same circuit or share the same grounding circuit with radio communication equipment. All devices should be mounted in accordance with the manufacturer’s instructions and securely fastened to vehicle elements of sufficient strength to withstand the forces applied to the device. Driver and/or passenger air bags (SRS) will affect the way equipment should be mounted. This device should be mounted by permanent installation and within the zones specified by the vehicle manufacturer, if any. Any device mounted in the deployment area of an air bag will damage or reduce the effectiveness of the air bag and may damage or dislodge the device. Installer must be sure that this device, its mounting hardware and electrical supply wiring does not interfere with the air bag or the SRS wiring or sensors. Mounting the unit inside the vehicle by a method other than permanent installation is not recommended as unit may become dislodged during swerving; sudden braking or collision. Failure to follow instructions can result in personal injury. Whelen assumes no liability for any loss resulting from the use of this warning device. PROPER INSTALLATION COMBINED WITH OPERATOR TRAINING IN THE PROPER USE OF EMERGENCY WARNING DEVICES IS ESSENTIAL TO INSURE THE SAFETY OF EMERGENCY PERSONNEL AND THE PUBLIC.

Warnings to Users
Whelen’s emergency vehicle warning devices are intended to alert other operators and pedestrians to the presence and operation of emergency vehicles and personnel. However, the use of this or any other Whelen emergency warning devices does not guarantee that you will have the right-of-way or that other drivers and pedestrians will properly heed an emergency warning signal. Never assume you have the right-of-way. It is your responsibility to proceed safely before entering an intersection, driving against traffic, responding at a high rate of speed, or walking on or around traffic lanes. Emergency vehicle warning devices should be tested on a daily basis to ensure that they operate properly. When in actual use, the operator must ensure that both visual and audible warnings are not blocked by vehicle components (i.e.: open trunks or compartment doors), people, vehicles, or other obstructions. It is the user’s responsibility to understand and obey all laws regarding emergency warning devices. The user should be familiar with all applicable laws and regulations prior to the use of any emergency vehicle warning device. Whelen’s audible warning devices are designed to project sound in a forward direction away from the vehicle occupants. However, because sustained period exposure to loud sounds can cause hearing loss, all audible warning devices should be installed and operated in accordance with the standards established by the National Fire Protection Association.

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.
- Whelen Engineering requires the use of waterproof butt splices and/or connectors if that connector could be exposed to moisture.
- Any holes, either created or utilized by this product, should be made both air- and watertight using a sealant recommended by your vehicle manufacturer.
- Failure to use specified installation parts and/or hardware will void the product warranty.
- 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 the 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 (this does not include products that use cigar power cords).
- If this product uses a remote device for activation or control, make sure that this device is located in an area that allows both the vehicle and the device 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!
Installation:
1. Remove the two Torx head screws that secure the end cap to the base (Fig. 1).
2. Slide the lens sections off the end of the base and remove the dividers to gain access to the lightbar base (Fig. 2). Be sure to note the order in which the lenses were installed on the lightbar.

**IMPORTANT:** The lenses are seated very tightly into the lens divider gaskets to prevent leaks. You will need to insert a screwdriver at each corner (between the black endcap and aluminum base) and gently pry the lens out to break it free from the dividers. Pry each side out a little at a time, alternating from one side to the other until the lens slides out easily. Before reassembling, apply a small amount of liquid dish detergent to the sides of the rubber gaskets to help them slide in easier and obtain a better seal.

**NOTE:** If this is a replacement for an existing rotator, remove any remaining VHB adhesive tape (if present) from the base of the lightbar before proceeding. This surface must be clean. (See “Switching from the Old Style Rotator” on page 3)

3. Measure the length and width of the base of the bar to find the center. Mark the center point with a pencil or marker.

**IMPORTANT:** Be sure to leave the proper distance between mirrors and rotators. Check all measurements.

4. First install the 2 mirrors at the center of the lightbar. Using your center lines, mount the mirrors as shown in the illustration, securing them with the hex head screws supplied. Now mount the 2 other mirrors toward the inside of the existing outer mirrors.

5. Measuring from the outside of the lightbar base as shown, mount the 2 rotator assemblies (with the motor toward the front) and secure them by threading the 2 screws and washers of each rotator, into the channel that runs the length of the base.

**Wiring:**
1. Find the ground lugs coming from the rotator assemblies (attached to 2 BLACK wires). Using a hex head screw, attach it to the lightbar base and tighten it firmly. It will screw into the same channel the rotator threads into.
2. Next find the wire extension and plug it into the faston connector coming from the rotator assembly (RED & BLACK wires).
3. Run the extension wire along the base of the lightbar and attach it to any open wire in the lightbar wire harness.
4. Neatly dress and place any loose wires under the cable clamps to avoid interference with any moving parts, then replace and secure all domes.
FRONT OF LIGHTBAR

23.05

CONNECTS TO OPEN WIRE IN INPUT HARNESS

25 TYP

Attach ground lug to base of bar.

CENTRE LINE OF LIGHTBAR

-23.05

WARNING: Do not install Halogen Bulbs exceeding the maximum watt rating for your rotator. This will be either 35 or 50 Watts depending on which rotator you have. (See Parts List)

WARNING: The outer surfaces of this product may be cleaned with mild soap and water. Use of any other chemicals may void product warranty. Do not use a pressure washer.

ATTACHMENT: The cable coming from the lightbar must be fused. Follow the diagram below. Fusing will vary depending on whether you have a 12 or 24 Volt Rotator.

CABLE COMING FROM LIGHTBAR

ANY UNUSED WIRE

CUSTOMER SUPPLIED FUS: 15 AMP FUSE / 12 Volt Rotator or 7.5 AMP FUSE / 24 Volt Rotator

CUSTOMER SUPPLIED SWITCH

TO POWER