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 may 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 absolutely imperative to ensure 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 (SR5) 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 SR5 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 device 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 periodic 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.

⚠️ WARNING: This product can expose you to chemicals including Methylene Chloride which is known to the State of California to cause cancer, and Bisphenol A, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

- 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!

©2004 Whelen Engineering Company Inc.
Form No.13943B (091506)
Installation:

WARNING! The LED models designated “external flasher” must be connected to an electronic flasher. Allowing the LED to steady burn will damage the lighthead and void the warranty.

External Flasher Models: This product draws significantly less current than a standard incandescent automotive bulb. If your flasher does not operate properly, it may be necessary to replace your existing flasher module with a Whelen 3TERM flasher module. Contact your sales representative for specific vehicle application.

Note: Make sure lighthead will not interfere with existing equipment or any items on the opposite side of the mounting surface.

1. Using the dimensions shown, mark off and drill the four 1/4 inch diameter mounting holes and the 1 inch wire hole into the mounting surface. Check measurements before drilling.
2. Install the 4 supplied plastic grommets into the mounting holes then install rubber grommet (customer supplied) into the wire hole.
3. Using appropriately sized wires (Minimum wire size / 18 AWG), extend the lighthead wires to their connections. Fuse the positive connections at 3 Amps and test operation of lighthead before securing it to vehicle.
4. Position the lighthead onto the mounting surface and secure to the vehicle using the four #8 x 1-1/2” sheet metal screws.

Flasher Models:

Scan-Lock™ / White-Violet Wire: This feature allows the user to select from several available flash patterns

TO CYCLE THROUGH ALL PATTERNS: Apply positive voltage to the WHITE-VIOLET wire for less than 1 second and release. Apply positive voltage to the WHITE-VIOLET wire for more than 1 second and release to cycle backward.

FLASH PATTERNS: SignalAlert™ 75 / SignalAlert™ 150 / SingleFlash 375 / SingleFlash 150 / SingleFlash 5 / DoubleFlash 150 / DoubleFlash 75 / CometFlash® 75 / ActionScan™ / ModuFlash™ / ComAlert™ / ActionScan™ / SignalAlert™ / Steady / Steady-Brake

FLASH PATTERNS / SPLIT / 4 WIRE: Flash™ / ModuFlash™ / ComAlert™ / ActionScan™ / SignalAlert™ / Steady / Steady-Brake

TO SET A PATTERN AS DEFAULT: Allow the desired pattern to run for more than 5 seconds. The lighthead will now display this pattern when active.

TO RESET TO THE FACTORY DEFAULT PATTERN: Turn off power, apply positive voltage to the WHITE-VIOLET wire, then turn power on.

Hi-Lo Intensity: Violet Wire: This feature allows the user to step the unit down to low power operation for nighttime use. Apply positive voltage to the VIOLET wire to put the lighthead into low power. Remove the voltage from the VIOLET wire to restore high power operation.

FLASHER-CONNECTOR-VOLTAGE / LENS COLOR
2 = EXTERNAL / NONE / 12V
4 = ON BOARD / NONE / 12V
1 = EXTERNAL / NONE / 24V
3 = ON BOARD / NONE / 24V
1 = AMBER / RED / 12V
2 = BLUE / WHITE / 12V
3 = WHITE / AMBER / RED / 24V
4 = VIOLET / WHITE / RED / 24V

Wire Functions / Split / 12V

LED COLOR 1 = Power
LED COLOR 2 = Ground
BLACK = Power
WHITE-VIOLET = Scan-Lock™

Wire Functions / On-Board Flasher / 12V

LED COLOR = Power
BLACK = Ground
WHITE-VIOLET = Scan-Lock™

Wire Functions / External Flasher / 24V

LED COLOR = Power
BLACK-WHITE = Ground
WHITE-VIOLET = Scan-Lock™

Wire Functions / External Flasher / 12V

LED COLOR = Power
BLACK-WHITE = Ground
WHITE-VIOLET = Scan-Lock™

TO SET A PATTERN AS DEFAULT: Allow the desired pattern to run for more than 5 seconds. The lighthead will now display this pattern when active.

TO RESET TO THE FACTORY DEFAULT PATTERN: Turn off power, apply positive voltage to the WHITE-VIOLET wire, then turn power on.

Hi-Lo Intensity: Violet Wire: This feature allows the user to step the unit down to low power operation for nighttime use. Apply positive voltage to the VIOLET wire to put the lighthead into low power. Remove the voltage from the VIOLET wire to restore high power operation.

Wire Functions / Split / 12V

LED COLOR 1 = Power
LED COLOR 2 = Ground
BLACK = Power
WHITE-VIOLET = Scan-Lock™

Wire Functions / On-Board Flasher / 12V

LED COLOR = Power
BLACK = Ground
WHITE-VIOLET = Scan-Lock™

Wire Functions / External Flasher / 24V

LED COLOR = Power
BLACK-WHITE = Ground
WHITE-VIOLET = Scan-Lock™

Wire Functions / External Flasher / 12V

LED COLOR = Power
BLACK-WHITE = Ground
WHITE-VIOLET = Scan-Lock™

Wire Functions / Split / 12V

LED COLOR 1 = Power
LED COLOR 2 = Ground
BLACK = Power
WHITE-VIOLET = Scan-Lock™

Wire Functions / On-Board Flasher / 12V

LED COLOR = Power
BLACK = Ground
WHITE-VIOLET = Scan-Lock™

Wire Functions / External Flasher / 24V

LED COLOR = Power
BLACK-WHITE = Ground
WHITE-VIOLET = Scan-Lock™

Wire Functions / External Flasher / 12V

LED COLOR = Power
BLACK-WHITE = Ground
WHITE-VIOLET = Scan-Lock™

Wire Functions / Split / 12V

LED COLOR 1 = Power
LED COLOR 2 = Ground
BLACK = Power
WHITE-VIOLET = Scan-Lock™

Wire Functions / On-Board Flasher / 12V

LED COLOR = Power
BLACK = Ground
WHITE-VIOLET = Scan-Lock™

Wire Functions / External Flasher / 24V

LED COLOR = Power
BLACK-WHITE = Ground
WHITE-VIOLET = Scan-Lock™

Wire Functions / External Flasher / 12V

LED COLOR = Power
BLACK-WHITE = Ground
WHITE-VIOLET = Scan-Lock™