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 devices 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 communications 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 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 Lead which is known to the State of California to cause cancer and 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 that 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 product is 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 owner’s 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. 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.
- 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.
- Do not attempt to activate or control this device in a hazardous driving situation.
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- It is recommended that these instructions be stored in a safe place and referred to when performing maintenance and/or reinstallation of this product.
IMPORTANT! Before mounting this unit refer to the AIR BAG WARNING on page 1. Read all warnings before beginning.

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

**Installation:**

Note: When routing wires, it is important to choose a path that will keep the wires away from excessive heat or any vehicle equipment that could compromise the integrity of the wires (ex. trunk lids, door jams, etc.)

1. Secure the mounting bracket to the Inner Edge housing using the two 
   #8 - 32 x 3/8 TORX HEAD SCREWS provided (Fig. 1).
2. Loosen (do not remove) the screws securing the passenger-side visor swivel bracket to the vehicle.
3. Slide the outside end of the mounting bracket under the visor swivel bracket (Fig. 1). At the same time slip the rectangular hole in the other end of the mounting bracket over the visor clip bracket (Fig. 1). With the mounting bracket in position retighten the visor swivel bracket hardware.
4. Using the screw hole in the mounting bracket as a guide, carefully drill a pilot hole (for a #10 sheet metal screw) into the sheet metal behind the headliner and secure the other side of the mounting bracket using the supplied #10 X 1” PHILLIPS PAN HEAD SHEET METAL SCREW.
5. Repeat this procedure for the driver-side assembly.
6. When properly mounted, the rubber seal will be in full contact with the vehicle windshield and roof. This is to prevent light output from entering the passenger compartment. When this has been achieved, tighten all mounting hardware firmly to maintain contact (Fig. 1).
7. Route the lightbar cable down the vehicle A-pillar to your control head.
8. Make all wiring connections using the information in the wiring diagram.

**Connecting the Power Cable:**

**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!**

1. Follow the factory wiring harness through the firewall. It may be necessary to drill a hole in the firewall. If so, be absolutely sure that there are no components that could be damaged by drilling. After the hole has been drilled, insert a grommet to protect the cable.
2. Route the cable along the factory wiring harness towards the battery. Install a 40 amp fuse block (customer supplied) on the end of the RED wire in the power cable. **NOTE:** Remove the fuse from the fuse block before connecting any wires to the battery.  
3. Connect the BLACK wire to Chassis Ground.

**Connecting the Communication Cable:**

Splice the GREEN and GREY wires from the lightbar to the GREEN and GREY wires from the Whelen WC Controller.

**Control Point Module**

The Control Point Module serves as the ‘brains’ of the Whelen WC Series lightbar. The module is programmed with the WeCan™ Programming Software via the USB port and in turn, provides the necessary signals that allow the lightbar to function in the desired manner.

Each of the 18 inputs in WeCan™ Programming software may be programmed to activate any number or combination of installed lightbar components by applying +12VDC to an input. Refer to the installation guide included with your switches for detailed wiring information.

**Programming Procedure:**

**IMPORTANT!** It is not necessary to program this device unless changes to the default configuration (for example pattern or switch control changes) are desired.

1. Connect a USB cable from the host PC to the module’s USB port.
2. Start the WeCan software on the host PC and open the configuration to be programmed.
3. Click on the “WeCan” button on the menu bar. Select “Control Point” then “Program” from the fly-out.
4. A window will open to confirm that you are about to program a Control Point Module. Confirm that the USB cable is connected to both the module and the PC and then press “OK” to continue. The software will display a window when the programming procedure has been successfully completed.
5. Confirm proper operation of the module.

**DEFAULT CONFIGURATION (12V Inputs)**

**POS** | **COLOR** | **FUNCTION**
--- | --- | ---
1 | GREEN | alternating driver-passerenger (signalalert™ 75)
2 | GREEN/WHITE | alternating side-to-side (signalalert™ 75)
3 | GREEN/BLACK | in-out (signalalert™ 75)
4 | WHITE | driver outboard duo (steady)
5 | WHITE/RED | alternating driver-passerenger (async) (signalalert™ 75)
6 | YELLOW | passenger outboard duo (steady)
7 | WHITE/BLUE | driver inboard (ca steady)
8 | WHITE/RED* | outboard duo (singleflash 150)
9 | WHITE/BLACK | cruise lights
10 | BLUE | Ca bar pattern
11 | BLUE/WHITE | ultra scan bar pattern
12 | BLUE/BLACK | ca single ultra scan bar pattern
13 | WHITE/BLACK | zz ca 75 bar pattern
14 | WHITE/BLACK | center duo (steady)
15 | WHITE/RED | alternating side-to-side duo (doubleflash 75)
16 | RED/WHITE | all duo (steady)
17 | WHITE/BLUE* | center duo (singleflash 150)
18 | VIOLET | low power

**IMPORTANT!** When programming your module keep the following in mind:

- Connect to an ignition controlled circuit that can accommodate an additional 250mA load.
- Connect the black wire to chassis ground.
- DO NOT USE CIRCUIT BREAKERS WITH THIS PRODUCT!

**NOTE:** These are the default configurations. If you need to change or customize a configuration, contact your local Whelen dealer or visit the Whelen website for additional information.

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**WARNING:** CAUTION! DO NOT LOOK DIRECTLY AT THESE LED'S WHILE THEY ARE ON. MOMENTARY BLINDNESS AND/OR EYE DAMAGE COULD RESULT!
Your lightbar should now be fully operational. If it is not functioning properly, check your connections for the following:

- The positive wire (RED) is properly connected to the battery, by way of the user supplied fuse block.
- A working fuse of the correct amperage is installed in the fuse block (See illustration above, for the specific fuse rating for your lightbar).
- The ground wire (BLACK) is properly connected to the factory ground. Be sure that the wire is fully grounded to this location.
- The two communication wires (GREEN and GREY) are properly connected to their communication designations.

If these connections are good, contact your Whelen® representative for further assistance.

IMPORTANT! Before returning this vehicle to active service, visually confirm the proper operation of this product, as well as all vehicle components/equipment.