

INSTALLATION & OPERATION MANUAL



SL10 Series LED Warning Light



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IMPORTANT: Read all instructions and warnings before installing and using.
INSTALLER: This manual must be delivered to the end user of this equipment.

Introduction

The Shield™ LED Mini Bar is a weatherproof LED based warning light beacon that contains 10 state-of-the-art high intensity LED light heads. The Shield Mini-Bar is available in both Permanent Mount and Magnet Mount configurations.

WARNING!



This Product contains high intensity LED devices. To prevent eye damage, DO NOT stare into light beam at close range.



The use of this or any warning device does not insure that all drivers can or will observe or react to an emergency warning signal. Never take the right-of-way for granted. It is your responsibility to be sure you can proceed safely before entering an intersection, driving against traffic, responding at a high rate of speed, or walking on or around traffic lanes.

The effectiveness of this warning device is highly dependent upon correct mounting and wiring. Read and follow the manufacturer's instructions before installing or using this device. The vehicle operator should insure daily that all features of the device operate correctly. In use, the vehicle operator should insure the projection of the warning signal is not blocked by vehicle components (i.e.: open trunks or compartment doors), people, vehicles, or other obstructions. This equipment is intended for use by authorized personnel only. It is the user's responsibility to understand and obey all laws regarding emergency warning devices. The user should check all applicable city, state and federal laws and regulations.

Code 3, Inc., assumes no liability for any loss resulting from the use of this warning device.

Proper installation is vital to the performance of this warning device and the safe operation of the emergency vehicle. It is important to recognize that the operator of the emergency vehicle is under psychological and physiological stress caused by the emergency situation. The warning device should be installed in such a manner as to: A) Not reduce the output performance of the system, B) Place the controls within convenient reach of the operator so that he can operate the system without losing eye contact with the roadway.

Emergency warning devices often 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 severe vehicle damage, including fire.

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.

Features and Specifications

Operating Voltage: 10-30VDC, Reverse Polarity Protected

Current: 2.5A Average (Flash Pattern Dependant)

Size: 17.63"L (447.8mm) x 8.90"W (226mm) x 2.94"H (74.68mm) (excluding mounting brackets)

Mounting Hole Centers, Permanent Mount Bracket: 9.843" (250mm) x 9.606" (244mm)

Weight: 5.6lbs (2.54Kg) (with Permanent Mounting Bracket)

Installation & Mounting

Magnetic Mounting:

The magnetic based beacon provides a secure, temporary installation on a non-moving vehicle. The beacon should be placed in the center of the roof where the least amount of curvature occurs. Check the magnet for debris before installation. Any foreign matter can reduce holding power and scratch the vehicle. The roof surface should be dry and have a dull, non-glossy finish. A glossy, highly waxed surface will reduce the magnet's holding power. The standard Code 3 magnetic mounting kit for the Shield Mini-Bar is capable of providing a combined holding force of up to 200lbs. To ease installation and to avoid scratching the vehicle's paint when positioning the beacon it is recommended that a thin piece of cardboard be placed under each magnet until the beacon is positioned as desired. Then remove the cardboard, one piece at a time. Check the beacon to be certain that it is being held securely in position and can be seen from all directions. The user should not attempt to drive with the beacon magnetically mounted.



WARNING!

As with any magnetically-mounted warning device, its use on the exterior of a moving vehicle is at the sole discretion and responsibility of the user.

Magnetic mounting provides a secure, temporary installation on a non-moving vehicle in most circumstances and is recommended for stationary use only.

This device, when magnetically mounted, is not intended for use on a moving vehicle.

Permanent Mounting:

The permanent mount beacon provides a secure, permanent installation. Use the supplied brackets to mount the beacon in the desired location. Wire routing should be taken into consideration when choosing a mounting location.

Magnetic Mount

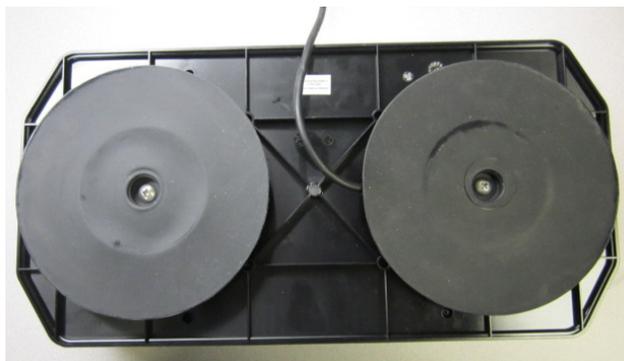


Permanent Mount



Magnetic Suction Mount Upgrade

To upgrade to the Magnetic Suction Mounting System, remove the (2) mounting brackets shown in the pictures above by removing the (4) mounting bracket screws and install the (2) Suction Magnets using the (2) mounting screws provided in the upgrade kit. See picture below.



Wiring Instructions

Magnetic Mounting:

The magnetic mount beacon is equipped with a lighter plug with two rocker switches, that plugs into a 12 Volt DC cigarette lighter outlet; rotate and push with reasonable moderate force to insure the best possible connection.

Permanent Mount:

For Permanent Mount applications, Red wire should be wired to +power through a 5A or 7.5A fuse. The Black wire should be connected to a good chassis ground. For best results choose a ground point that is bonded directly to the vehicle battery's negative terminal.

Operation:

Setting the Flash Pattern:

The Shield™ LED Mini-Bar flash pattern can be changed in one of two ways depending on the configuration of your Mini-Bar. For units equipped with a Lighter Plug, a momentary action rocker switch is located on the Lighter Plug. The flash pattern will be advanced on step each time the switch is pressed. For units intended for Permanent Mounting, the blue wire in the cable will allow the flash pattern to be advanced (similar to the above description) each time the blue wire is tapped to +Power. After the desired flash pattern is selected the bare end of the blue wire should be covered with heat shrinkable tubing and taped back on the outer jacket in case you want to change the flash pattern again in the future.

Flash Patterns:

| PATTERN NO. | PATTERNS |
|-------------|-------------------------------|
| 1 | Cycle Flash (Factory Default) |
| 2 | Single Flash (split)* |
| 3 | Double Flash (split)* |
| 4 | Quad Flash (split)* |
| 5 | Five Flash (split)* |
| 6 | Picket Fence* |
| 7 | Ten Flash (split)* |
| 8 | Single Quad Flash* |
| 9 | Single H/L (split)* |
| 10 | Double (all) |
| 11 | Quad (all) |
| 12 | Five Flash (all) |
| 13 | Fast Flash (all) |
| 14 | Ten Flash (all) |
| 15 | Single Quad (all)* |
| 16 | Single H/L (all)* |
| 17 | 2 head Rotating |

Maintenance:

The Shield™ LED Mini-Bar is designed to be weather proof and maintenance free under normal operating conditions. Refer to the guide below for help with troubleshooting. Should the unit be diagnosed as malfunctioning, the unit should be removed from service and replaced with a new unit.

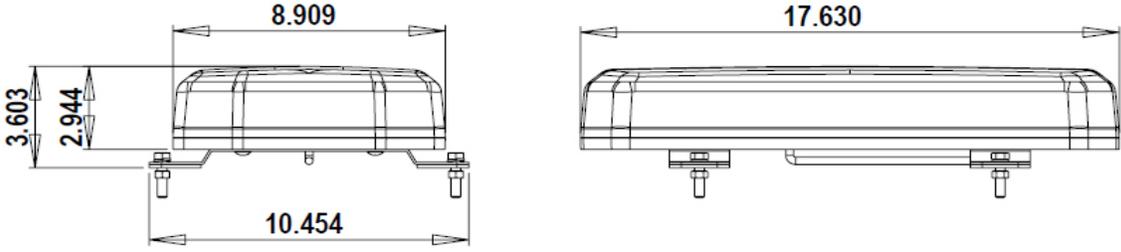
WARNING!



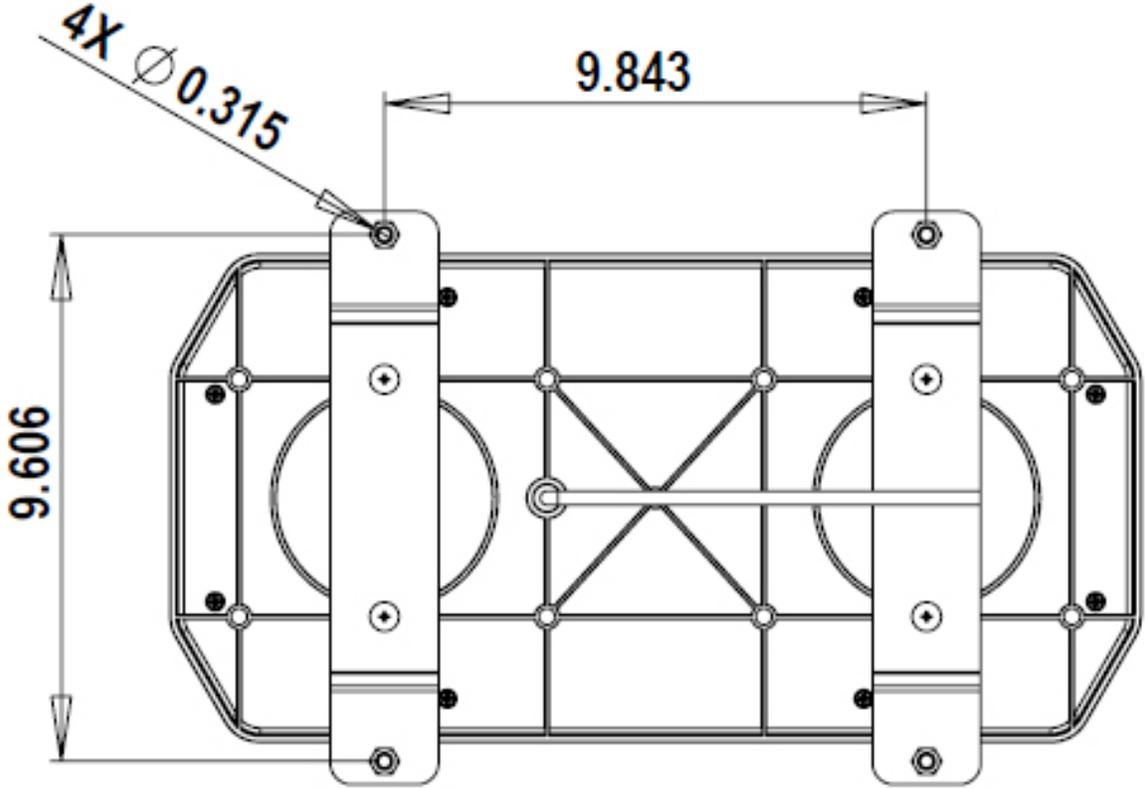
LED module housings may become hot with extended use. Allow modules to cool completely before attempting to remove.

| TROUBLESHOOTING | | |
|-------------------------------|--|--|
| Problem | Probable Cause | Remedy |
| Mini-Bar does not light | a. No power to unit | a. Check wire for loose connection |
| | b. Power input wire reversed | b. Reverse power wires |
| | c. Damaged or shortaged cabling | c. Check cables for damage |
| | d. Defective Mini-Bar | d. Contact Service Dept. |
| Flash Pattern does not change | a. Not pressing Pattern Change Switch (Mag Mount) | a. Use Pattern Change Switch |
| | b. Not applying Ground to Pattern Change Wire (Perm Mount) | b. Apply Ground (-) to Pattern Change Wire |

Dimensions (shown with permanent mount brackets)



Permanent Mounting Hole Locations



NOTES

WARRANTY

Code 3, Inc.'s L.E.D. emergency devices are tested and found to be operational at the time of manufacture. Provided they are installed and operated in accordance with manufacturer's recommendations, Code 3, Inc. guarantees all parts and components except the lamps to a period of 1 year, LED Lighthouse modules to a period of 5 years (unless otherwise expressed) from the date of purchase or delivery, whichever is later. Units demonstrated to be defective within the warranty period will be repaired or replaced at the factory service center at no cost.

Use of lamp or other electrical load of a wattage higher than installed or recommended by the factory, or use of inappropriate or inadequate wiring or circuit protection causes this warranty to become void. Failure or destruction of the product resulting from abuse or unusual use and/or accidents is not covered by this warranty. Code 3, Inc. shall in no way be liable for other damages including consequential, indirect or special damages whether loss is due to negligence or breach of warranty.

CODE 3, INC. MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY INCLUDING, WITHOUT LIMITATION, WARRANTIES OF FITNESS OR MERCHANTABILITY, WITH RESPECT TO THIS PRODUCT.

PRODUCT RETURNS

If a product must be returned for repair or replacement*, please contact our factory to obtain a Return Goods Authorization Number (RGA number) before you ship the product to Code 3, Inc. Write the RGA number clearly on the package near the mailing label. Be sure you use sufficient packing materials to avoid damage to the product being returned while in transit.

*Code 3, Inc. reserves the right to repair or replace at its discretion. Code 3, Inc. assumes no responsibility or liability for expenses incurred for the removal and/or reinstallation of products requiring service and/or repair; nor for the packaging, handling, and shipping; nor for the handling of products return to sender after the service has been rendered.

**PROBLEMS OR QUESTIONS? CALL OUR TECHNICAL ASSISTANCE HOTLINE (314) 996-2800
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