

INSTALLATION & OPERATION MANUAL

WARRIOR™ OPTIX™



3-Up OPTIX



6-Up OPTIX

GLADIATOR™ LCLED™

LCLED



Code 3, Inc., a subsidiary of
Public Safety Equipment, Inc.



INTERIOR LED LIGHTHEADS

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Read all instructions and warnings before installing and using.

IMPORTANT: INSTALLER: *This manual must be delivered to the end user of this equipment.*

Introduction

The L.E.D. Warrior™ represents an effective warning signal device. The product has been designed to be easily installed and operated. A list of standard features is shown below for each model. The Warrior utilizes state-of-the-art L.E.D.s OPTIX™ Optics to produce a true emergency level signal available in Red, Amber, Blue and White. The Gladiator™ LCLEd™ model uses more economical LEDs and reflector optics. These lightheades last longer and use less current than standard halogen or strobe lamps.



WARNING!

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.

Standard Features

Warrior 6-UP OPTIX

2 Side by side head L.E.D. warning Flashing system
9' power cord with cigarette plug-in provided
10-16 Vdc operation
Current: .5A Red/Amber flashing, .8 A Blue/White Flashing, 1.0A R/A Steady Burn, 1.6A B/W Steady Burn
Reverse polarity protection
21 Flash patterns, controlled with flash pattern change button built into housing.

Warrior 3-Up OPTIX

1 Head L.E.D. flashing system
9' power cord with cigarette plug-in provided
10-16 Vdc operation.
Current: .25A Red or Amber Flashing, .4A Blue or White Flashing, .5A R/ A Steady Burn, .8A B/ W Steady Burn.
Reverse polarity protection
10 flash patterns, externally controlled with flash pattern change button.

Gladiator LCLEd

1 Head economical L.E.D. flashing system
9' Power cord with cigarette plug-in provided
10-16 Vdc operation
Current: .2A or less all modes.
Reverse polarity protection
4 Flash patterns, externally controlled with flash pattern change button.
All Models: Temperature Range: -40 C to 84 C (-40 F to 185 F)

Unpacking & Pre-installation

After unpacking the items, carefully inspect the contents for damage that may have occurred during transit. If any item is damaged, please contact the carrier immediately. These L.E.D. lighting units can be tested by inserting the cigarette plug-in of the power cord into an appropriate +12 Vdc socket.

If the vehicle has an electrical system other than +12 Vdc, contact your local representative or call the electronics Technical Assistance HOTLINE.

WARNING!



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

Installation & Mounting



WARNING!

This unit must be mounted within the interior passenger compartment of the vehicle only. It is not intended for use in exterior applications.

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.

The Warrior™ and Gladiator™ lights are interior lights designed for easy mounting . The following instructions must be followed to insure that the unit is mounted correctly.

For suction cup mounting, attach the (3) set of suction cups to (3) of the mounting bracket (see Fig. 1 for orientation) with the #10 self tapping screws, do not overtighten the screws. Next, fasten the bracket without suction cups with (2) #10-24 machine screws, #10 lock washers and #10-24 nuts, but do not tighten the nuts at this time. Make sure one screw captures the tether cord. After the suction cup assembly is fastened to the unit, adjust the bracket so that the unit will be level with the ground when mounted to the windshield. Be certain that the vehicle is on level ground before adjusting the bracket. Also try to keep the unit as close to the windshield as possible. This can be adjusted by sliding the suction cup assembly back or forward on the unit before tightening it down. When the angle is set, tighten all screws and nuts. The mounting brackets (#4 or #6 in Fig. 1) can be reversed to improve the fit to the window. The Warrior version disassembles with the removal of two #6x5/8" sheet metal screws. To disassemble the Gladiator, remove the lighthouse (attached with two 6-32 machine screws) then remove the two #6x5/8" sheet metal screws. T09795 can be added to the visor to take up any gap that remains. The visor can also be trimmed with scissors or tin snips to improve the fit.

Once the unit is mounted on the windshield, locate a place to mount other end of the tether cord. Depending on where the unit is mounted, the tether cord can be attached anywhere on the dash or to the roof of the vehicle, as long as it is into sheet metal. Hold the free end of the tether cord in position and verify that the LED unit cannot reach the passenger or driver. Then, attach the tether cord to this section of sheet metal (not to plastic or rubber). Note: When removing the unit from the windshield be sure to release the suction cups by lifting the tabs on each suction cup. If the unit is pulled off the windshield, it could result in stripping out the holes in the suction cups.

The L-Bracket Mounting option allows the LED unit to be mounted to the rear deck of your vehicle. The following instructions must be followed to insure that the unit is mounted correctly:

Attach the mounting hardware to the unit as shown in Fig. 1. Place the unit against the rear deck and make adjustments with the hardware until the product is located in an area that does not obstruct the view or inflict injury to either driver or passenger. Tighten loose hardware and mark the position of each mounting foot.

Remove bracket assemblies from the unit. Using the marked positions, mount the brackets on the rear deck with user supplied sheet metal screws or through-bolts. Adjust the unit to provide the most effective signal.

Caution: The unit must be mounted through the steel of the vehicle. Avoid mounting to plastic or other non-structural members.

Wiring Instructions

All models are stand alone self-contained units ready for installation with no special wiring required. They are provided with a cigarette plug designed to be used with a +12VDC fused lighter socket. Alternately, the user can remove the plug and connect (through a properly sized fuse) to a user supplied switch. The ribbed wire is positive (+12VDC) and the smooth wire is negative.

Operation

The LED lighthead arrives completely assembled and ready for installation. They are designed to function at 10 - 16 VDC.

To operate the unit, insert the cigarette plug provided into a +12VDC lighter socket and rotate 1/4 turn to insure a good electrical connection.

Flash Patterns Selections

Each of these modes can be selected by using the momentary button located on the unit. Each flash mode can be selected by momentarily depressing the button until the unit stops flashing, and then releasing. As each flash mode is selected it is automatically programmed into the unit such that when power is removed it will always return to the selected mode the next time power is applied. If another mode is desired, just use the momentary button to step through each mode until the desired mode is found.

Selecting and programming Cycle Flash mode in the Warrior™ models:

When shipped, the unit will be in "Cycle Flash mode". This mode cycles through a variety of flash patterns continuously providing an ever changing warning signal. If the unit is not in Cycle Flash, or you wish to return to Cycle flash from another mode, then the momentary button should be depressed until the unit stops flashing, and held on for several seconds then released. This will program cycle flash into the unit.

6-Up Head Model

Flash Modes:

<u>Alternating Heads</u>	<u>Simultaneous Heads</u>	<u>Steady with Flashing</u>
Cycle Flash	Quad Flash	Fast Double Flash w/Steady
Single Flash	Triple Flash	Quad Flash w/Steady
Double Flash	Double Flash	
Triple Flash	Single Flash	
Quad Flash	Pursuit Flash	
Five Flash		
Fast Single Flash		
Fast Double Flash		
Fast Triple Flash		
Fast Quad Flash		
Quad Pop Flash		
Triple Pop Flash		
Double Pop Flash		
Wig-Wag Flash Alt.		

Note: All modes flash at a rate of 70 fpm minimum. Fast modes flash at a rate of 100 fpm minimum.

Warrior 3-Up OPTIX Model

Flash Mode:

Cycleflash (Factory default)
Steady Burn
Five Flash
Quadflash
Triple Flash
Doubleflash
Fast Double Flash
NFPA
Quad Pop Flash
Triple Pop Flash

Gladiator™ LCLEd™ Model

Flash Mode:

Steady Burn
75 FPM Single
75 FPM Double Flash
75 FPM Quad
Cycle

Options & Specifications

MODEL	H	W	D	WEIGHT
Gladiator™ LCLED™	1.75"	4.5"	5.5"	1.0 lbs
Warrior™ 3-Up OPTIX™	1.75"	4.5"	5.5"	1.0 lbs
Warrior 6-Up OPTIX	1.75"	7.5"	5.5"	1.5 lbs

Maintenance

The product is designed for minimal maintenance and trouble free service. Periodic inspection of the product will ensure trouble free operation. However, occasional cleaning of the lenses is required to sustain maximum light output. Use plain water and a soft cloth, or Code 3 lens polish and a very soft paper towel or facial tissue.

Should problems arise during installation or during the life of the product, refer to the guide below for information on troubleshooting. Additional information may be obtained from the factory technical HOTLINE at (314) 996-2800.

TROUBLESHOOTING		
PROBLEM	PROBABLE CAUSE	REMEDY
Product does not activate	<ul style="list-style-type: none"> a. No power to unit b. Power input wires reversed c. Damaged or shorted cabling 	<ul style="list-style-type: none"> a. Check wiring for loose connection. b. Check power connections c. Check cables for damage

Parts List

Ref. No.	Description	Gladiator	Warrior 3-Up	Warrior 6-Up
1	Visor	T13210	T13210	T13211
2	Bezel	T07554	T07554	T07558
3	Lighthead	See Table	See Table	See Table
4	Bracket, Lighthead/Suction Cup	T13208	T13208	T13209
5	Suction Cup Assy	S95332	S95332	S95332
6	L-Bracket	T13225	T13225	T13224
7	Shroud	T13212	T13212	T13213
Not Shown	Screws, Black #6-5/8" Phillips	T13241	T13241	T13241
Not Shown	Button, Pattern Change	T13219	T13222	T13219
Not Shown	Cord, Cigar	T15948	T15948	T15948
Not Shown	Gasket (Visor option only)	T09795	T09795	T09795
Not Shown	Tape, Reflective, Mylar (Visor only)	T13239	T13239	T13239

Warrior™ 3-Up Lighthead Parts

P/N	Description
T13139	Driving Circuit Board
T13716	Insulator
T07582	Wide Optic
T07583	Directional Optic
T07584	Hybrid Optic
T08420	Red LED Circuit Board
T08421	Amber LED Circuit Board
T08422	Blue LED Circuit Board
T08423	White Circuit Board
T07552	3-Up Casting
T07553	3-Up Outer Lens

Gladiator™ LCLED™ Version	
Option--LCLED	
T04583	Blue
T04584	Amber
T04585	White
T04590	Red
Common Parts	
S95335	Spacer, Painted
S95334	Mtg. Brkt, Pemserted
T06598	6-32X1/4 Screw

Warrior 6-Up Version Lighthead			
Option--LED Head			
P/N	LED 1	LED 2	Optic
S22978	Amber	Amber	Hybrid
S22979	Amber	Amber	Standard
S22980	Amber	Amber	Wide
S22981	Amber	Blue	Hybrid
S22982	Amber	Blue	Standard
S22983	Amber	Blue	Wide
S22984	Amber	Red	Hybrid
S22985	Amber	Red	Standard
S22986	Amber	Red	Wide
S22987	Amber	White	Hybrid
S22988	Amber	White	Standard
S22989	Amber	White	Wide
S22990	Blue	Blue	Hybrid
S22991	Blue	Blue	Standard
S22992	Blue	Blue	Wide
S22993	Blue	Red	Hybrid
S22994	Blue	Red	Standard
S22995	Blue	Red	Wide
S22996	Blue	White	Hybrid
S22997	Blue	White	Standard
S22998	Blue	White	Wide
S22999	Red	Red	Hybrid
S23018	Red	Red	Standard
S23019	Red	Red	Wide
S23020	Red	White	Hybrid
S23021	Red	White	Standard
S23022	Red	White	Wide
S23023	White	White	Hybrid
S23024	White	White	Standard

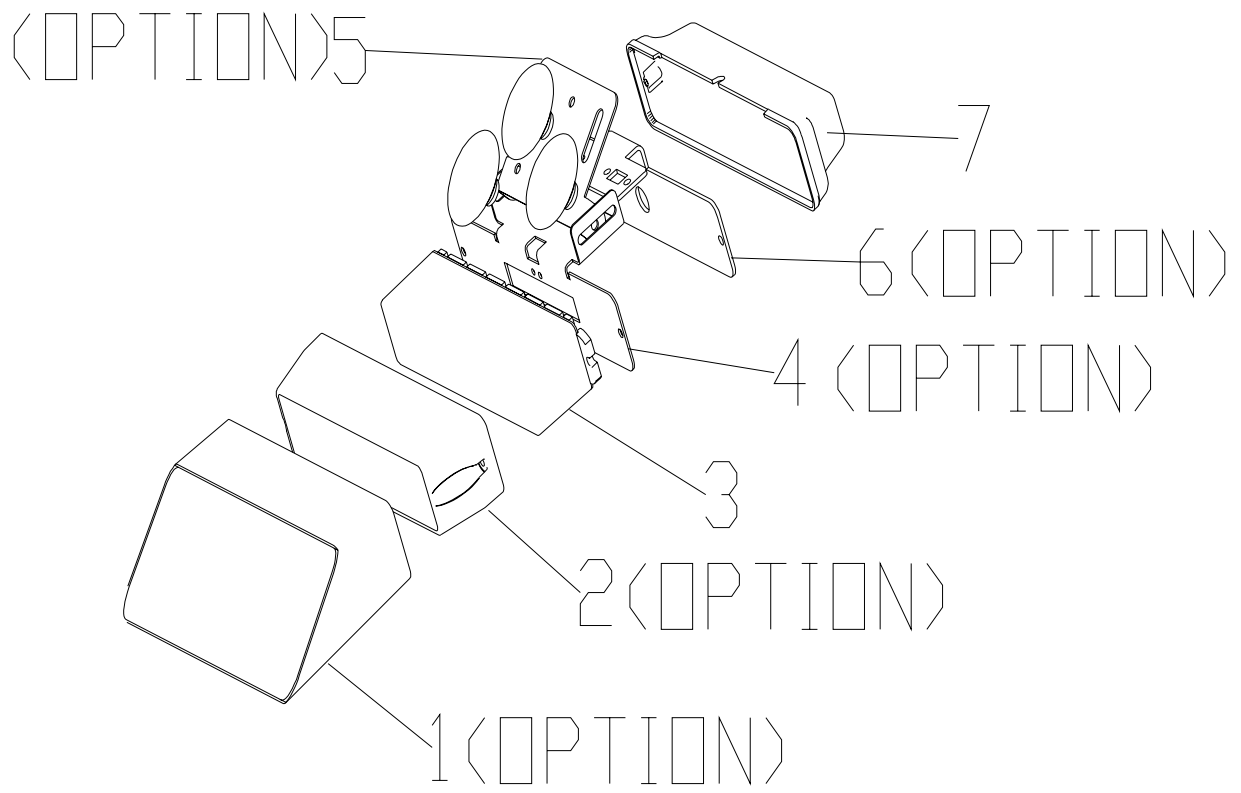


Figure 1

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 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 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 returned to sender after the service has been rendered.

NEED HELP? CALL OUR TECHNICAL ASSISTANCE HOTLINE - (314) 996-2800

Code 3, Inc., a subsidiary of
Public Safety Equipment, Inc.

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Revision 3, 3/2006 - Instruction Book Part No. T13256
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