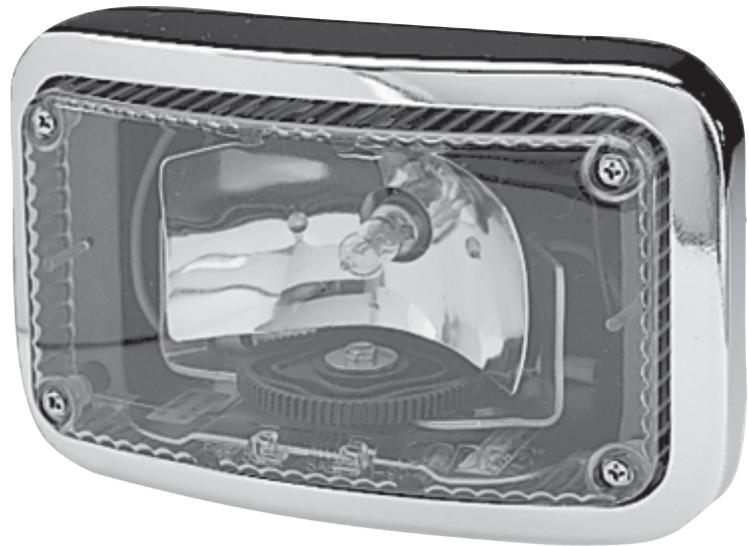


# INSTALLATION & OPERATION MANUAL

MODEL  
OL150  
Patent Pending



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

**CODE 3**<sup>®</sup>  
PUBLIC SAFETY EQUIPMENT, INC.

# OSCILASER<sup>™</sup>

## OSCILASER<sup>™</sup> FLUSHMOUNT

### Contents:

Introduction .....	2
Unpacking & Pre-Installation .....	2
Installation & Mounting .....	2-3
Maintenance .....	5
Cleaning .....	5
Changing Lamps .....	5
Troubleshooting .....	5
Parts List (Replacement Parts / Exploded View) .....	6
Warranty .....	7

**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 OL150 is an oscillating warning light for flush mounting into the body of most emergency vehicles.. This highly effective warning light systems feature the OsciLaser™ light assembly with its constant 50 watt Halogen signal that covers all areas within its field of illumination at least once per second.

## **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.

Public Safety Equipment, 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 one 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.**

## Unpacking and Preinstallation

Carefully unpack the unit and check the contents against the parts list on page # 6 of this booklet. Be careful to open the proper end of the OsciLaser™ light carton so the lens is not damaged or cut. Test the operation of the OsciLaser light assembly before installation by connecting the gray power wire to a +12 volt D.C. lead and the black wire to ground (earth).

## Installation and Mounting

### **WARNING!**

Larger wires and tight connections will provide longer service life for components. For high current wires it is highly recommended that terminal blocks or soldered connections be used with shrink tubing to protect the connections. Do not use insulation displacement connectors (e.g. 3M® Scotchlock type connectors). Route wiring using grommets and sealant when passing through compartment walls. Minimize the number of splices to reduce voltage drop. High ambient temperatures (e.g. underhood) will significantly reduce the current carrying capacity of wires, fuses, and circuit breakers. Use "SXL" type wire in engine compartment. All wiring should conform to the minimum wire size and other recommendations of the manufacturer and be protected from moving parts and hot surfaces. Looms, grommets, cable ties, and similar installation hardware should be used to anchor and protect all wiring. Fuses or circuit breakers should be located as close to the power takeoff points as possible and properly sized to protect the wiring and devices.

## WARNING!

Particular attention should be paid to the location and method of making electrical connections and splices to protect these points from corrosion and loss of conductivity. Ground terminations should only be made to substantial chassis components, preferably directly to the vehicle battery. The user should install a fuse sized to approximately 125% of the maximum Amp capacity in the supply line to protect against short circuits. For example, a 30 Amp fuse should carry a maximum of 24 Amps. **DO NOT USE 1/4" DIAMETER GLASS FUSES AS THEY ARE NOT SUITABLE FOR CONTINUOUS DUTY IN SIZES ABOVE 15 AMPS.** Circuit breakers are very sensitive to high temperatures and will "false trip" when mounted in hot environments or operated close to their capacity.

NOTE: All of the information listed in this booklet must be given to the end user by the installer.

- 1) Using the trim bezel as a template, inscribe the position for mounting the OscLaser™ as shown in Figure 1. To access and mark mounting holes, the gasket must be pierced with an ice pick or a sharp pointed object. Be sure to mark positions for the four mounting holes when completing this task.
- 2) At these inscribed positions, first drill the holes for the mounting screws using 3/16" drill bit. If it is not possible to access the product from behind the surface being mounted, a 1/8" drill bit should be used for the sheet metal screws also included in the mounting kit. Once this is accomplished, cut the rectangular hole for the housing.
- 3) Using *GE Silicone II* or a sealant with equal properties, lay a small bead around the housing as shown in Figure 2. This bead must be placed on the outer edge of the housing to ensure a proper and effective seal.
- 4) Slide the housing into the trim bezel and through to the hole on the vehicle as illustrated in Figure 3. Make sure the housing is oriented properly with the drain hole on the bottom and the two wiring holes at the top.
- 5) Once the housing and bezel are positioned in the hole, use the four #8 x 1-1/2" stainless steel machine screws, nuts, washers and lockwashers to secure the assembly to the vehicle (Figure 4). At this point, make sure that any excess sealant is wiped clean from the assembly. As noted in step 2, if access to the back of the mounting surface is not possible, it will then be necessary to use the four #8 x 1-1/4" stainless steel, sheet metal screws provided. In this situation, steps 6 through 8 must be completed before the bezel/housing assembly is affixed to the vehicle.

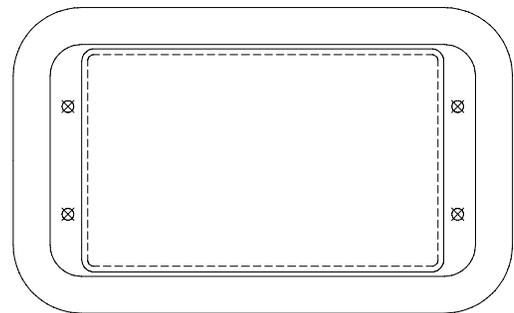


FIGURE 1

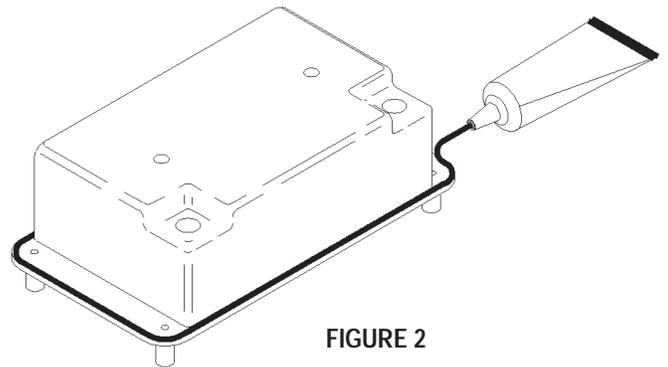


FIGURE 2

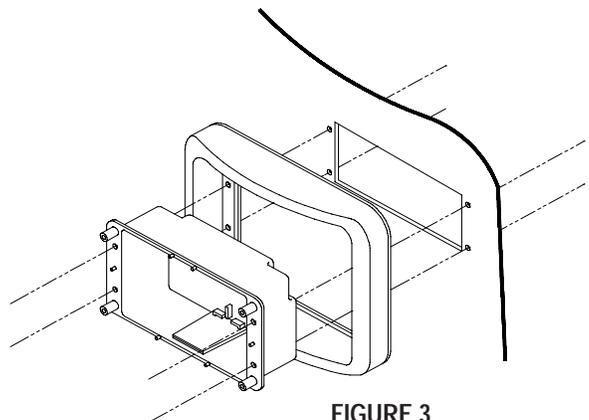


FIGURE 3

6) Slide the Oscilaser™ assembly into the housing while simultaneously running the power and ground wires out of their respective holes. Be sure to pull the power wire through the hole until the attached rubber grommets snap into the housing. In addition, the base plate should be captured in the slots at the back of the housing.

7) Connect the gray power wire to the appropriate lead from the lighting control switch.

8) Attach the black ground (earth) wire to the vehicle chassis or an available negative wire lead.

9) Attach the lens to the housing using the four #8 x 5/8" stainless steel, sheet metal screws provided (Figure 6). **IMPORTANT:** Similar to step 6, there are slots on the inside of the lens which must capture the Oscilaser base plate.

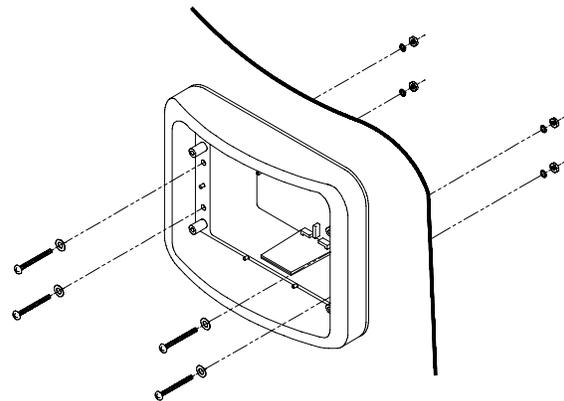


FIGURE 4

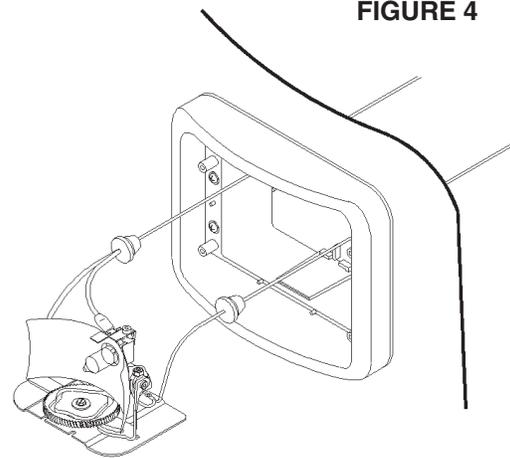


FIGURE 5

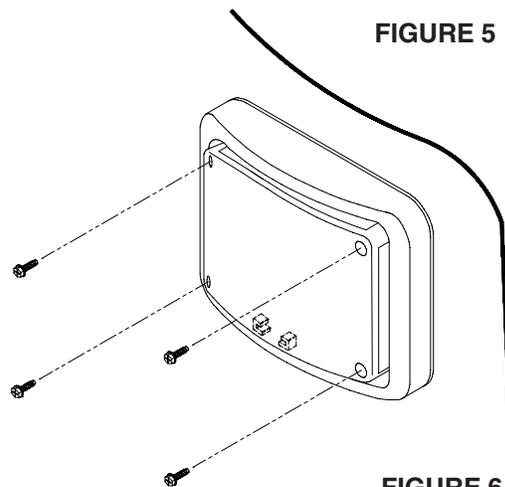


FIGURE 6

# Maintenance

If necessary, maintenance of your OsciLaser involves the cleaning of the lens and the replacement of the lamp on the OsciLaser assembly.

## Cleaning

Clean with soap and water to remove all salt, dirt or mud. Do not use any abrasive cleaners or harsh chemicals, because the polycarbonate lens will scratch very easily. Polish the lens with PSE lens polish and a soft paper cloth or towel.

## Changing Lamps

To remove the lens, remove the 4 corner #8 X 5/8" stainless steel screws. Using a glove or cloth for hand protection, push in the defective lamp and turn counter clockwise until the lamp can be removed. Install a new Osram 64170 AX or equal bayonet-base lamp (non ceramic base lamps are recommended) and replace lens.

**WARNING!** Lamps are extremely hot! Allow to cool completely before attempting to remove. Gloves and eye protection should be worn when handling halogen lamps as they are pressurized and accidental breakage can result in flying glass.

<b>Trouble-shooting guide</b>		
<b>PROBLEM (OSCILASER™ LIGHT)</b>	<b>PROBABLE CAUSE</b>	<b>REMEDY</b>
NO LIGHT AND NO OSCILLATION	<ol style="list-style-type: none"> <li>1) OPEN CIRCUIT IN WIRING</li> <li>2) LAMP AND MOTOR ARE DEFECTIVE</li> <li>3) SHORT CIRCUIT</li> </ol>	<ol style="list-style-type: none"> <li>1) CLOSE CIRCUIT BY CHECKING CONNECTIONS</li> <li>2) RETURN OSCILASER ASSEMBLY FOR REPAIR</li> <li>3) CHECK FOR SHORTS IN LAMP ASSEMBLY OR WIRING</li> </ol>
OSCILLATES WITH NO LIGHT	<ol style="list-style-type: none"> <li>1) LAMP IS DEFECTIVE</li> <li>2) WIRING TO LIGHT, IS LOOSE OR DISCONNECTED.</li> </ol>	<ol style="list-style-type: none"> <li>1) REPLACE LAMP</li> <li>2) RECONNECT WIRE TO OSCILASER LIGHT</li> </ol>
LIGHT IS ON WITH NO OSCILLATION	<ol style="list-style-type: none"> <li>1) MOTOR IS DEFECTIVE</li> <li>2) WIRING TO MOTOR IS LOOSE OR DISCONNECTED</li> </ol>	<ol style="list-style-type: none"> <li>1) RETURN ASSEMBLY FOR REPAIR</li> <li>2) RESOLDER WIRE TO MOTOR</li> </ol>
LIGHT IS ON WITH SLOW OR ERRATIC MOVEMENT OF OSCILASER	<ol style="list-style-type: none"> <li>1) OSCILASER ASSEMBLY IS DEFECTIVE</li> <li>2) LOW VEHICLE VOLTAGE</li> </ol>	<ol style="list-style-type: none"> <li>1) RETURN ASSEMBLY FOR REPAIR OR REPLACEMENT</li> <li>2) CHECK VEHICLE VOLTAGE</li> </ol>
WATER IS COLLECTING IN HOUSING	<ol style="list-style-type: none"> <li>1) WIRING HOLES ARE NOT SEALED PROPERLY</li> <li>2) HOUSING GASKET IS DEFECTIVE</li> </ol>	<ol style="list-style-type: none"> <li>1) RESEAL HOLES WITH CAULK</li> <li>2) REPLACE HOUSING GASKET ASSEMBLY</li> </ol>
UNIT BURNS FUSES/TRIPS CIRCUIT BREAKERS	<ol style="list-style-type: none"> <li>1) SHORT CIRCUIT</li> </ol>	<ol style="list-style-type: none"> <li>1) CHECK ASSEMBLY AND WIRING FOR SHORT CIRCUIT</li> </ol>

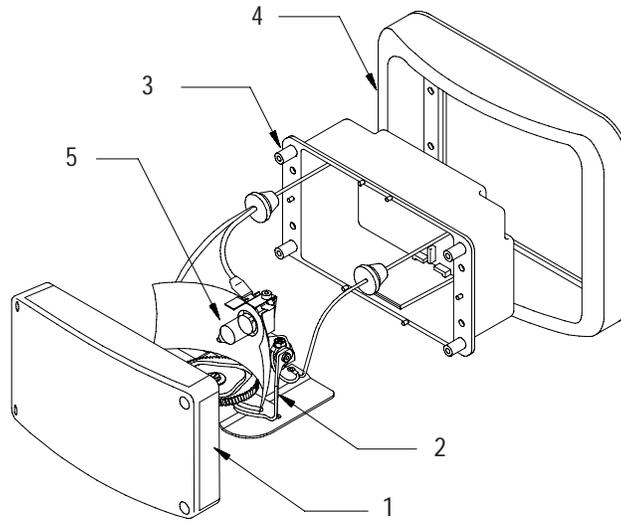


FIGURE 7

## Parts & Exploded Views

<u>Ref Number</u>	<u>Description</u>	<u>Part No.</u>
1	Lens	T05530 (Green) T05531 (Clear) T05532 (Red) T05533 (Blue) T05534 (Amber)
2	Oscilaser™ Assembly	S50031
3	Housing Gasket	T03759 T06512
4	Trim Bezel	T06511
5	Lamp	T01540 (50 watt halogenOsram 64170 AX)
<u>Parts Not Shown</u>		
6	Mounting Kit	S70011

**NOTES:**

# WARRANTY

This product was tested and found to be operational at the time of manufacture. Provided this product is installed and operated in accordance with the manufacturer's recommendations, Code 3, Inc. guarantees all parts and components except the lamps for a period of 1 years 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 a 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

In order to provide you with faster service, if you are going to return a product 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. 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 product at its discretion and assumes no responsibility or liability for expenses incurred for the removal and/or reinstallation of products requiring service and/or repair.

**NEED HELP? Call our Technical Assistance Hotline - (314) 996-2800**

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

  
**CODE 3**  
PUBLIC SAFETY EQUIPMENT, INC.

Code 3, Inc.  
10986 N. Warson Road  
St. Louis, Missouri 63114-2029—USA  
[www.code3pse.com](http://www.code3pse.com)

Revision 5, 03/2006 - Instruction Book Part No. T06536  
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