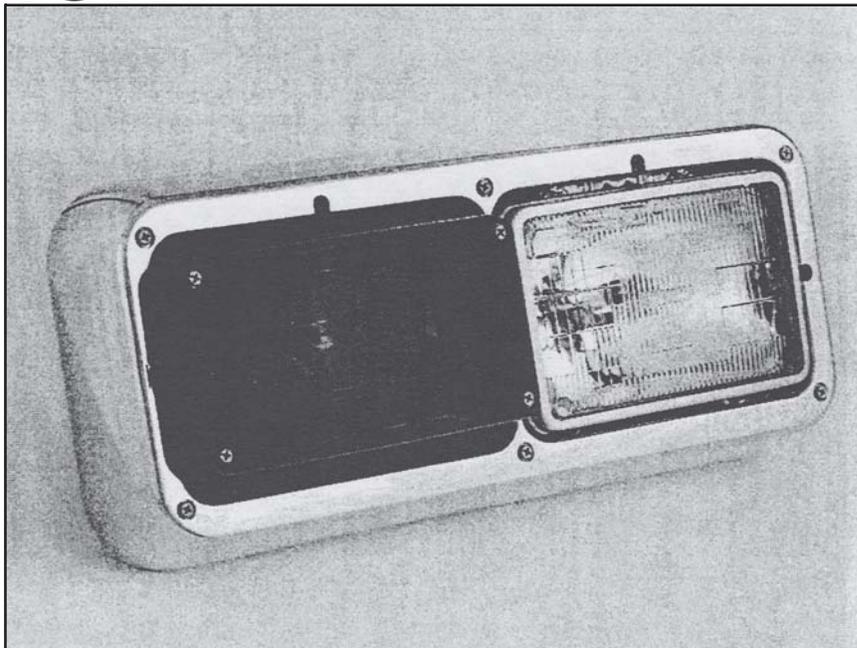


# INSTALLATION & OPERATION MANUAL

MODEL  
OL15F  
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> HEADLAMP MODULE

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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 OLF15 is an oscillating warning light for flush mounting into the headlamp housing of most firetrucks. 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 red 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.

The OL15F has a pair of hat shaped brackets mounted to the back of the unit. The upper bracket flanges serve to close the gap above & below the Oscilaser when the headlamp bezel is installed. The lower bracket is used to fasten the assembly to the headlamp housing itself.

The OL15F is intended to be mounted on the inner position of the headlamp housing.

These brackets are designed to adapt the Oscilaser to headlamp housings manufactured by either KD LAMP or ADVANCED TECHNOLOGY. However, slightly different instructions apply depending on which housing is used.

### **KD LAMP HOUSING:**

This housing has an internal gusset at the end of the unit that interferes with the case of the Oscilaser as it is lowered into the cavity. To eliminate this interference it is necessary to cut away a portion of this gusset. A simple way to do this is to make a vertical cut, about 1/4" out from the wall of the housing. Sheet metal snips may be used, cut down into the gusset about 3/4"-7/8". Then grasp the cut portion with a lineman's pliers and snap off. Remove and discard the cut away part of the gusset. Now the Oscilaser case and brackets may be lowered into the cavity of the housing. Make the electrical wiring connection by inserting the male connector into the female receptacle already in the wiring harness in the cavity of the housing. Next install the (2) no. 8 screws through the lower mounting bracket and through the hole in the flange of the housing. Add washers and nuts but hand tighten only loosely. Then drop the bezel over the Oscilaser. The tight fit between the lens on the Oscilaser and the opening in the bezel requires that the Oscilaser be positioned side to side exactly in the center of the opening in the bezel. Move the Oscilaser by hand until the bezel can be pressed down over it and seats against the housing bosses. Then carefully lift and remove the bezel so the Oscilaser lower mounting bracket can be securely tightened down and fastened to the housing flange. Then the bezel can be reinstalled and fastened down.

### **ADVANCED TECHNOLOGY HOUSING:**

If this unit has been furnished with riveted in extension springs, to facilitate headlamp alignment, it will cause an interference with the case of the Oscilaser. Only the upper portion of this spring will have to be cut off to eliminate the interference with the Oscilaser. A heavy side cutter may be used to snip off the straight hook part of the spring about 3/8" above the top coil. Now the Oscilaser case will fit into the cavity without interference. First, the electrical wiring connections should be completed. The red power wire is to be connected to a switched positive lead from a control switch. Attach the black ground (earth) wire to the vehicle chassis or an available negative wire lead. For fusing purposes, each unit draws approximately 4 amps.

Now the Oscilaser case and brackets can be positioned in the housing cavity with holes in the lower bracket aligned with the holes in the housing flanges. Install (2) no. 8 screws with flat & lock washers and nuts but hand tighten only loosely. Then drop the bezel over the Oscilaser. The close fit between the Oscilaser lens and the opening in the bezel requires that the Oscilaser be positioned side to side exactly in

the center of the opening in the bezel. Move the Oscilaser by hand until the bezel can be slipped down over it and seats against the housing bosses. Then carefully lift and remove the bezel so the Oscilaser lower mounting bracket can be securely fastened down to the housing flanges. Then the bezel can be reinstalled and fastened down.

## 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 7/8" 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	1) OPEN CIRCUIT IN WIRING 2) LAMP AND MOTOR ARE DEFECTIVE 3) SHORT CIRCUIT	1) CLOSE CIRCUIT BY CHECKING CONNECTIONS 2) RETURN OSCILASER ASSEMBLY FOR REPAIR 3) CHECK FOR SHORTS IN LAMP ASSEMBLY OR WIRING
OSCILLATES WITH NO LIGHT	1) LAMP IS DEFECTIVE 2) WIRING TO LIGHT, IS LOOSE OR DISCONNECTED.	1) REPLACE LAMP 2) RECONNECT WIRE TO OSCILASER LIGHT
LIGHT IS ON WITH NO OSCILLATION	1) MOTOR IS DEFECTIVE 2) WIRING TO MOTOR IS LOOSE OR DISCONNECTED	1) RETURN ASSEMBLY FOR REPAIR 2) RESOLDER WIRE TO MOTOR
LIGHT IS ON WITH SLOW OR ERRATIC MOVEMENT OF OSCILASER	1) OSCILASER ASSEMBLY IS DEFECTIVE 2) LOW VEHICLE VOLTAGE	1) RETURN ASSEMBLY FOR REPAIR OR REPLACEMENT 2) REPLACE HOUSING GASKET ASSEMBLY
WATER IS COLLECTING IN HOUSING	1) WIRING HOLES ARE NOT SEALED PROPERLY 2) HOUSING GASKET IS DEFECTIVE	1) RESEAL HOLES WITH CAULK
UNIT BURNS FUSES/TRIPS CIRCUIT BREAKERS	1) SHORT CIRCUIT	1) CHECK ASSEMBLY AND WIRING FOR SHORT CIRCUIT

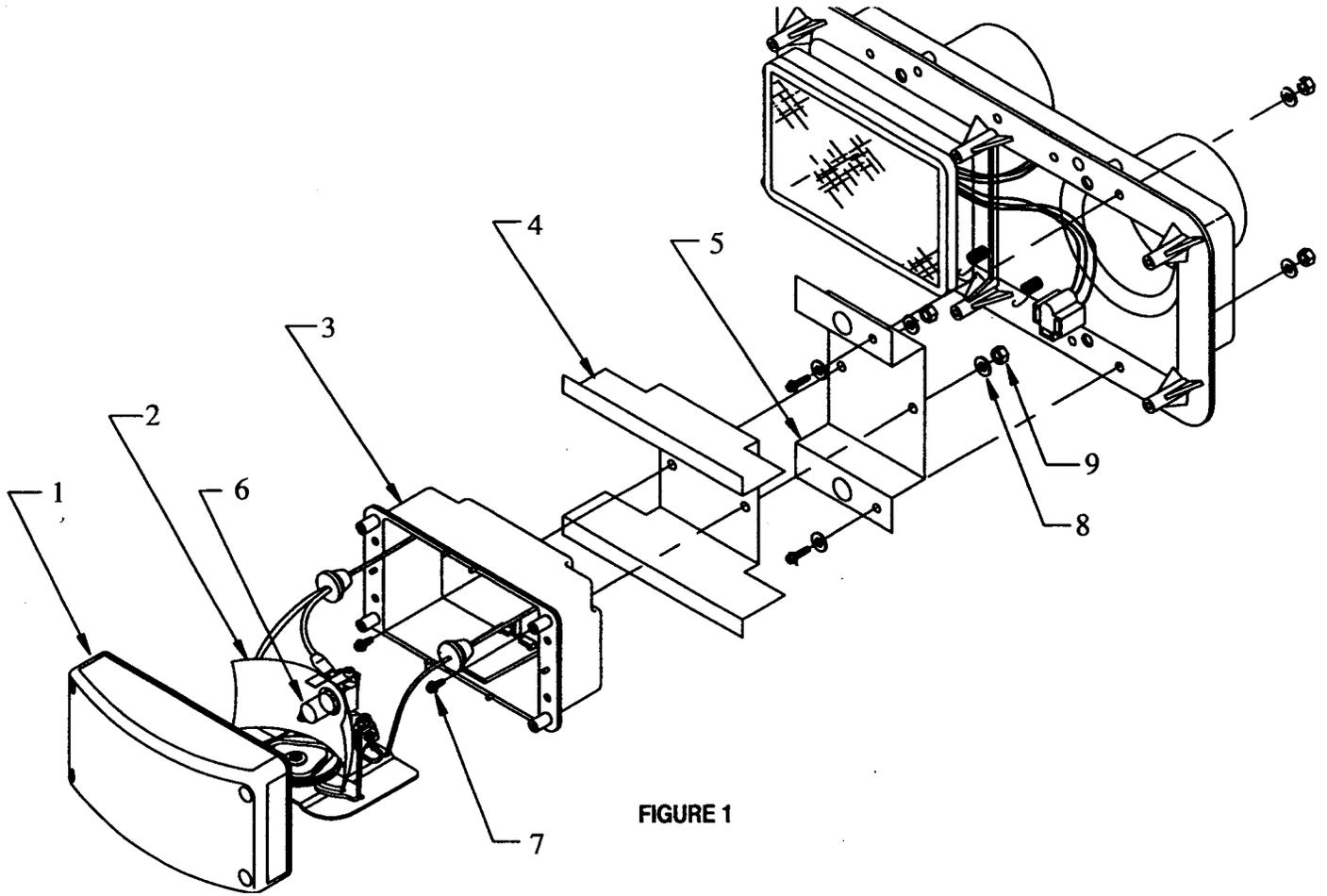


FIGURE 1

## 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	Lower Mounting Bracket	T89856
5	Upper (Gap Closure) Bracket	S89853
6	Lamp	T01540 (50 watt halogenOsram 64170 AX)
7	#8-32 X 1/2" Machine Screw	T02717
8	#10 Machine Screw Washer	T00154
9	#8-32 Hex Head Nut	T00391

**NOTES:**

**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**

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