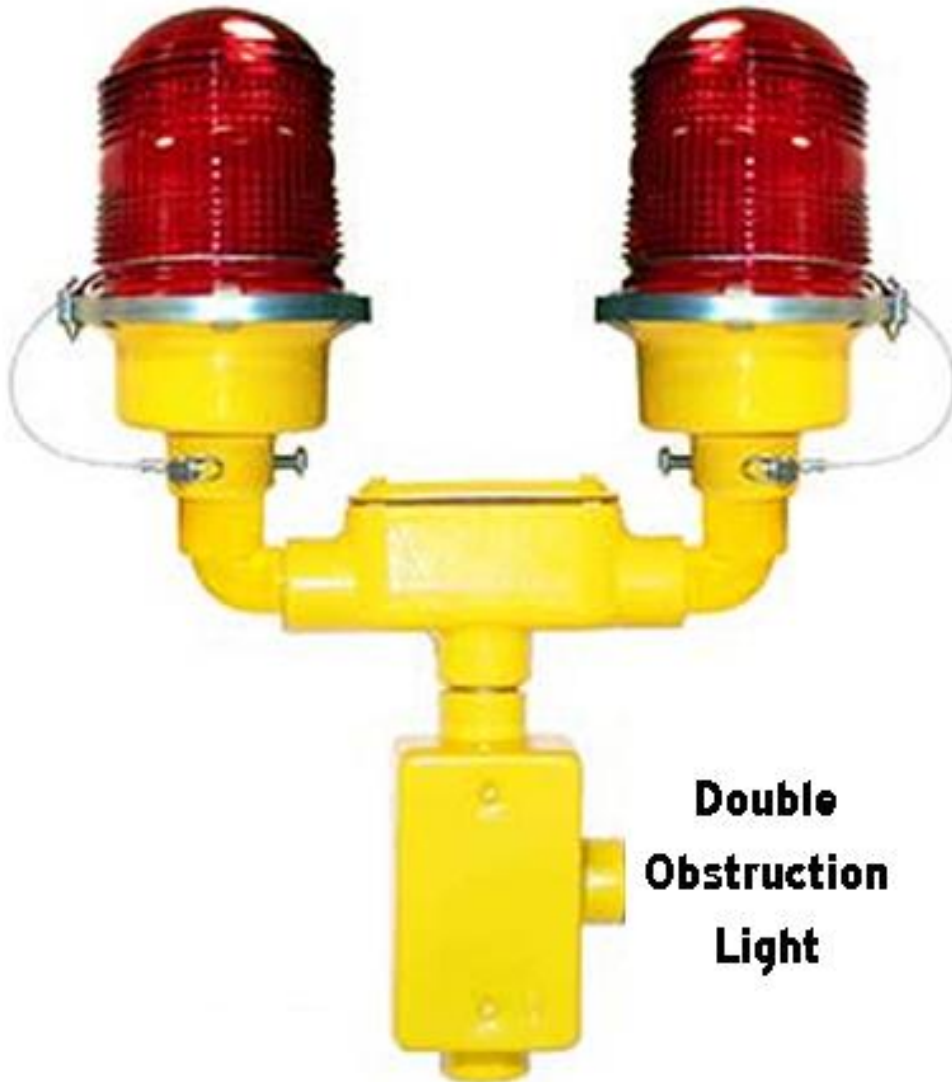




**Flight Light, Inc.**  
2708 47<sup>th</sup> Ave.  
Sacramento, CA 95822  
(916) 394-2800



**Double  
Obstruction  
Light**



## **L-810 Obstruction Light Installation Manual**

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## Section 1.0 - Introduction

This manual provides the information to install and troubleshoot a Flight Light Incorporated L-810 light fixture.

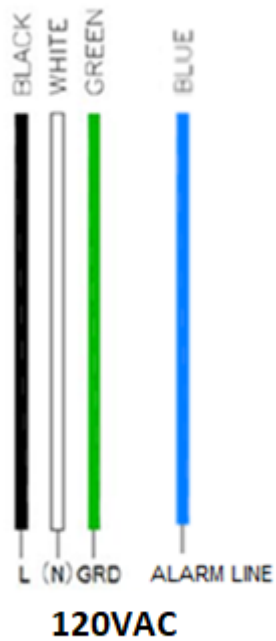
Flight Light L-810 obstruction lights are used on buildings, antennas, towers, cranes, and any other kind of obstacle which occupies airspace. Each fixture includes a glass Fresnel globe which is colored red for most applications. The fixtures are either a single or double lamp housing and made with 3/4" or 1" internally threaded housing. A side-mounted option is also available. These obstruction lights operate on a 120V or 230V circuit. The fixture is illuminated with a 116W, A21 medium screw base lamp.

### Features:

- FAA approved L-810, certified and tested by ETL with a red lens and 116W lamp #32B.
  - Direct installation into existing voltage power circuit.
  - Direct mounting to conduit, bottom or side mounting options available.+
  - All components used in Flight Light Inc. L-810 Obstruction Light, except lamps, is designed to meet performance requirements for a minimum of one year without maintenance.
1. Verify that all supply power is off
  2. Use the below wiring diagram and ensure your incoming power is matching the voltage the light was built for.
  3. Connect the wires from the fixture to the wires from the power source
  4. Make sure the connection is done in a protected, waterproof enclosure.
  5. In the case of double obstruction fixtures with the feature of Transfer Relay and Alarm Line, the (blue wire for 120VAC fixtures) or (orange wire for 240VAC fixtures) is defined as the **Alarm Line**, when the primary lamp fails the input voltage will be present at this wire. For example, a 120VAC input fixture at normal conditions will have 0VAC at the blue wire, in the case of primary lamp failure (turning off), it will energize the blue wire to the input voltage, this case 120VAC and will also turn on/energize the secondary lamp.

**CAUTION! The Alarm Line (Blue Wire) will be energized to high voltages during a failure of the primary Lamp.**

FAA Advisory Circulars are presently available online at:  
[http://www.faa.gov/regulations\\_policies/advisory\\_circulars/](http://www.faa.gov/regulations_policies/advisory_circulars/)

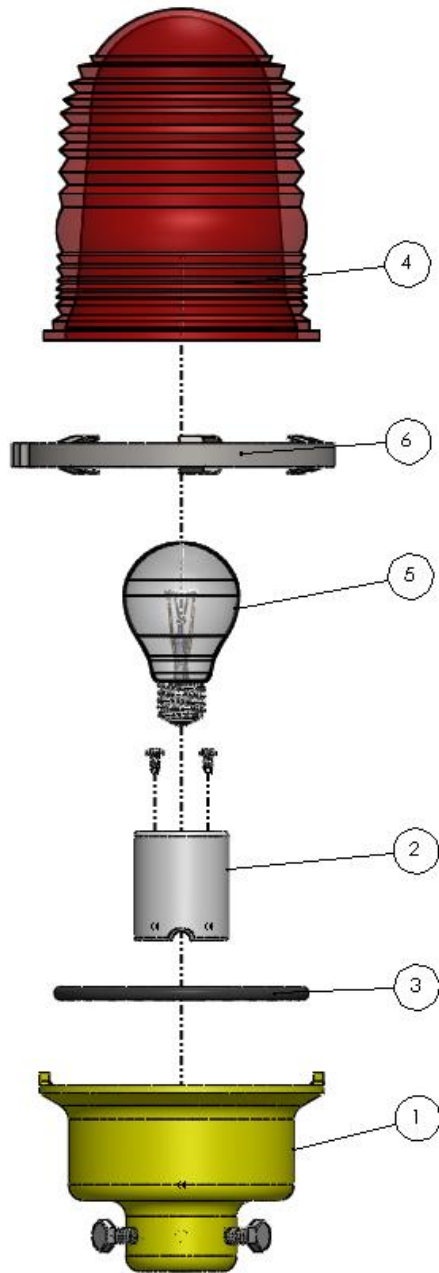


**CAUTION! The Alarm Line (Blue Wire for 120V fixtures) or (Orange Wire for 240V fixtures) will be energized to high voltages during a failure of the primary lamp.**



## Section 2 – Parts Layout

The following exploded view depicts the components which comprise the Flight Light L-810 light fixture.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	61-80003	Fixture Head	1
2	61-80004	Medium Base Light Socket	1
3	61-80002	Rubber O-Ring	1
4	61-861R	Red Fresnel Lens	1
5	LA-22483-2 LA-116W/230V	116W Incandescent Bulb 120V 116W Incandescent Bulb 240V	1
6	61-80001	Stainless Steel Clamp Band	1

## Section 3 - L-861 Parts List

The following table lists the parts shown in section 2. All parts are supplied by Flight Light, Inc.; located at 2708 47<sup>th</sup> Ave. Sacramento, California.

<b>Fig. #</b>	<b>P/N</b>	<b>Description</b>
1	61-80003	Fixture Head
2	61-80004	Medium Base Light Socket
3	61-861R	Red Fresnel Lens
4	61-80001	Clamp band - stainless steel
5	LA-22483-2	116W Incandescent Bulb 120V
	LA-116W/230V	116W Incandescent Bulb 240V
6	61-80002	O-Ring Seal
Not Shown	68-GRIP-1F	Strain Relief
Mounting Devices	13-A5.5-14	5-1/2" riser for 14" fixture
	13-FC1.5	Frangible metal coupling, 1.5"
	13-FC2.0	Frangible metal coupling, 2.0"

## Section 4 - L-810 Obstruction Light Installation Instructions

### Installation:

The L810 is provided with either ( $\frac{3}{4}$ " x 14) or (1" x 11½) NPT(F) female internal threads for mounting.

### Mechanical Dimensions:

- a. width = 14" (335.6mm)
- b. height = 19" (482.6mm)
- c. depth = 5" (127.0mm)

### Electrical Installation:

There are three wires provided for the customer to connect:

- Black – 120VAC or 240VAC Line
- White – AC Neutral
- Green – Ground

The wires **must not** be left exposed. The splice should be done in a secure, waterproof junction box and by using waterproof connectors.

Electrical tape and wire nuts alone don't properly insulate the wires from moisture, a waterproof junction box should always be used. Water and moisture entering through the cables will damage the light. Such damages are not covered under warranty.

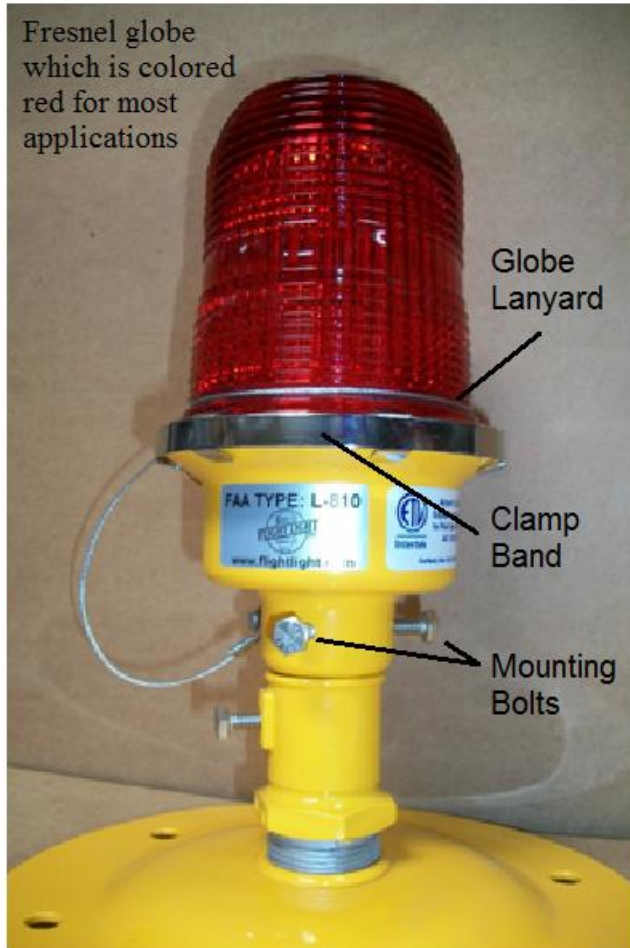
The below two pictures are only examples of a correct installation. Junction boxes and connectors are not provided with the lights.





## Section 5 - Maintenance

**REMOVE POWER FROM FIXTURE ELECTRICAL CIRCUIT AND DO LOCK OUT/TAG OUT PROCEDURES BEFORE PERFORMING MAINTAINENCE**



**Fig 1: L-810 on Base Plate**

1. Remove clamp band from head assembly. Gently lift the red globe and hang the clamp band and globe to the side. Replace medium screw base bulb (Attached to the bulb socket you will find a label showing part number, wattage and bulb voltage –see figure 2). Be sure to use the same type lamp matching wattage and voltage requirements. Install new bulb.
2. While red globe is removed, use a clean cloth to wipe inside surfaces of globe first, then the outer surface. Clean out any insect debris that might be in the head assembly.
3. Check the three mounting bolts to insure lamp fixture is secure.
4. Inspect the O-ring -it should be pliable and no evidence of leakage should be present. If the O-ring has become hard or brittle, or if there is evidence of leakage, replace the O-ring. (see parts list above)



5. Mount the red globe onto the head assembly, make sure to align nub of head assembly into the notch in the red globe. Re-install clamp band to secure red globe to head assembly.

