# Table of Contents

1.0 Notices and Warnings..................................................................................3

2.0 Introduction..................................................................................................4

3.0 Light Specifications
   3.1 Unit Dimensions and Weight.................................................................5
   3.2 Operating Specifications.........................................................................7

4.0 Identifying the Model..................................................................................8

5.0 Installation and Maintenance
   5.1 FAA Advisory Circulars.........................................................................9
   5.2 Installation & Maintenance Guide Specs ............................................10
   5.3 Installation of New Complete Assemblies...........................................10
   5.4 Installation of Field Retrofit Assemblies..........................................10
   5.5 Maintenance.........................................................................................11

6.0 Ordering Information
   6.1 Part Numbers and Descriptions.........................................................12
   6.2 Replacement Parts...............................................................................12
   6.3 Shipping Carton Weight and Dimensions.......................................13

7.0 Diagrams....................................................................................................14
1.0 Notices and Warnings

NOTICE

This manual contains important information regarding the safety, operation, and maintenance of this product. Before using the product, read and understand all cautions, warnings, instructions, and product labels. Failure to do so could result in injury and/or void the warranty.
2.0 Introduction

The Flight Light L-810LED1 obstruction light provides an LED-based solution to the FAA style of steady burning red obstruction lights. This product complies completely with FAA Advisory Circular AC 150/5345-43F and FAA EB-67 and is certified to these latest standards.
3.0 Light Specifications

3.1 Unit Dimensions and Weight

Height: 7.85 inches
Weight: 2 pounds
Height: 10.6 inches
Width: 12.75 inches
Weight: 5 pounds
3.2 Operating Specifications

**Type:** FAA Type L-810 steady-burning red obstruction light with LED light source

**Input Voltage:** 120 VAC, 208 – 277 VAC, 12 - 48 VDC

**Power Consumption:** Approximately 4-watts

**Applicable Specifications:** FAA AC 150/5345-43F plus FAA supplemental requirements for LED light sources EB-67

**Operating Temperature Range:** -55 to +55 degrees Celsius

**Humidity:** to 95% relative humidity

**Wind:** Wind speeds up to 150 mph

**Wind Blown Rain:** Exposure to wind-blown rain from any direction

**Salt Fog:** Exposure to salt-laden atmosphere
4.0 Identifying the Model

FL-L810LED - ________ - ____ __ - ___

Voltage
120A = 120 VAC
240A = 240 VAC
277A = 277 VAC
12-48D = 12/24/48 VDC

Configuration
SB = Single Light, Bottom Out
SS = Single Light, Side Out
DB = Double Light, Bottom Out
DS = Double Light, Side Out

Mounting Size
3 = 3/4-inch
4 = 1-inch

Option
5.0 **Installation and Maintenance**

5.1 **FAA Advisory Circulars**

The FAA has published guide specifications for the installation and maintenance of obstruction lighting products. FAA Advisory Circulars may be obtained by direct Internet access or by contacting the FAA.

5.1.1 **Direct Internet Access**

The direct Internet address at the FAA Office of the Associate Administrator for Airports (ARP) is [www.faa.gov/arp/arphome.htm](http://www.faa.gov/arp/arphome.htm)

5.1.2 **Written Requests**

Latest editions of the FAA Advisory Circulars may be obtained from the Department of Transportation (DOT), Subsequent Distribution Office, Ardmore East Business Center, 3341 Q 75th Avenue, Landover, Maryland 20785.

5.1.3 **Telephone Requests**

To receive information via telephone, contact the FAA at 1-800-FAA-SURE for a list of documents and ordering instructions.
5.2 Installation and Maintenance Guide Specifications

AC 150/5340-21  Airport Miscellaneous Lighting Visual Aids
Section 5, Obstruction Lights

AC 150/5340-26  Maintenance of Airport Visual Aid Facilities.
Chapter 4, Section 8, Hazard Beacons and Obstruction Lights

5.3 Installation Procedure for New Complete Assemblies

The installation of a new complete L-810LED1 light is similar to that of an incandescent light source assembly. The four basic steps for installation are:

1. **Ensure that all supply power is off**
2. Remove the LED light head
3. Connect the supplied electrical connectors to the power source
4. Reattach the light head to the base by the mounting clamps

5.4 Installation Procedure for Field Retrofit Assemblies

1. **Ensure that all supply power is off**
2. Unlatch the red glass dome from the base housing
3. Remove the red glass dome from the mounting clamp
4. Secure the mounting clamp
5. Remove the power source leads from the incandescent lamp socket
6. Remove the incandescent lamp socket
7. Inspect the sealing gasket and replace if necessary
8. Insert the LED light head source into the mounting clamp
9. Reinstall the sealing gasket
10. Attach the electrical leads with the supply connectors
11. Attach the LED light source to the fixture base
5.5 Maintenance

No regularly scheduled maintenance is required for the unit.

Flight Light warranties the light output of the L-810LED1 to meet or exceed FAA requirements for a five-year period.
6.0 Ordering Information

6.1 Part Numbers and Descriptions

<table>
<thead>
<tr>
<th>No.</th>
<th>Part Number</th>
<th>Part Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>L810LED1-120A-(suffix)</td>
<td>Complete Assy., 120 VAC</td>
</tr>
<tr>
<td>2</td>
<td>L810LED1-240A-(suffix)</td>
<td>Complete Assy., 240 VAC</td>
</tr>
<tr>
<td>3</td>
<td>L810LED1-277A-(suffix)</td>
<td>Complete Assy., 277 VAC</td>
</tr>
<tr>
<td>4</td>
<td>L810LED1-12-48D-(suffix)</td>
<td>Complete Assy., 12-48 VDC</td>
</tr>
</tbody>
</table>

6.2 Replacement Parts

The normal user serviceable L-810LED1 parts are shown in the table below with reference to the drawing item numbers in Figure 3:

<table>
<thead>
<tr>
<th>No.</th>
<th>Part Number</th>
<th>Part Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>74-L810LED120VAC</td>
<td>LED Light Head Assy., 120 V ac</td>
</tr>
<tr>
<td>2</td>
<td>74-L810LED220-277VAC</td>
<td>LED Light Head Assy., 240 V ac</td>
</tr>
<tr>
<td>3</td>
<td>74-L810LED220-277VAC</td>
<td>LED Light Head Assy., 277 V ac</td>
</tr>
<tr>
<td>4</td>
<td>74-L810LED12-48VDC</td>
<td>LED Light Head Assy., 12/48 V dc</td>
</tr>
<tr>
<td>5</td>
<td>61-80001</td>
<td>Fixture Clamp Band</td>
</tr>
<tr>
<td>6</td>
<td>61-80003-R</td>
<td>Fixture Base</td>
</tr>
<tr>
<td>7</td>
<td>61-80002</td>
<td>O’Ring</td>
</tr>
</tbody>
</table>
6.3 Shipping Carton Weight and Dimensions

Single Unit

Shipping weight: 2 lbs. (.91 kg)
Carton size: 14” X 7” X 13” (43.18 X 43.18 X 27.94 cm)

Double Unit

Shipping weight: 5 lbs. (2.27 kg)
Carton size: 14” X 7” X 13” (43.18 X 43.18 X 27.94 cm)
7.0 Diagrams
1. FASTEN TWO L-810s TOGETHER USING TWO ELBOWS AND JUNCTION BOX AS SHOWN.

NOTES:

1. Item 1: Junction Box, "T"
2. Item 2: Elbow, 90°, 3/4"-14 Male-Female, Galvanized Steel
3. Item 3: Single Obstruction Light in Fixture
4. Item 4: Nipple, 3/4"-14, Close Galvanized Steel

LIST OF MATERIALS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>PART NO.</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>JUNCTION BOX, &quot;T&quot;</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Elbow, 90°, 3/4&quot;-14 Male-Female, Galvanized Steel</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Single Obstruction Light in Fixture</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Nipple, 3/4&quot;-14, Close Galvanized Steel</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

ASSY., DUAL OBSTRUCTION LIGHT, L-810

SEE NOTES SK 4510

ALL DIMENSIONS ARE IN INCHES

BREAK ALL SHARP EDGES 90° TO 20°

DO NOT SCALE DRAWING

SEE NOTES