

MODEL LP3

**INSTALLATION AND SERVICE INSTRUCTIONS FOR STREAMLINE™
LP3 STROBE LIGHTS**

MODELO LP3

**INSTRUCCIONES DE INSTALACION Y MANTENIMIENTO PARA LUCES
ESTROBOSCOPICAS LP3 STREAMLINE™**

MODELE LP3

**INSTRUCTIONS D'INSTALLATION ET D'ENTRETIEN POUR LES
LAMPES STROBOSCOPIQUES LP3 STREAMLINE™**

Address all communications and shipments to:
Dirija todos la correspondencia y envíos a:
Adressez toutes les communiations et expéditions à:



FEDERAL SIGNAL CORPORATION
Electrical Products Division
2645 Federal Signal Drive
University Park, IL 60466-3195

INSTALLATION AND SERVICE INSTRUCTIONS FOR STREAMLINE™ LP3 STROBE LIGHTS

SAFETY MESSAGE TO INSTALLERS, USERS, AND MAINTENANCE PERSONNEL

It is important to follow all instructions shipped with this product. This device is to be installed by a trained electrician who is thoroughly familiar with the National Electric Code and will follow the NEC Guidelines as well as local codes.

The selection of mounting location for the device, its controls and the routing of the wiring is to be accomplished under the direction of the facilities engineer and the safety engineer. In addition, listed below are some other important safety instructions and precautions you should follow:

- Read and understand all instructions before installing or operating this equipment.
- Disconnect light from the power supply before any installation or maintenance is performed.
- After installation, test the light system to ensure that it is operating properly.
- After testing is complete, provide a copy of this instruction sheet to all operating personnel.
- Establish a procedure to routinely check the light installation for integrity and proper operation.
- The nameplate, which may contain cautionary or other information of importance to maintenance personnel, should NOT be obscured in any way.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death.

I. INSTALLATION.

A. Mounting.

1. Pipe Mounting (LP3P).

The Model LP3P strobe light may be installed on 1/2" NPT pipe. If 3/4" NPT pipe is used, a user-supplied reducer and pipe nipple are required.

- a. Attach light to pipe by turning clockwise. Use tool against wrench flats on conduit hub for final tightening.
- b. Refer to section C for information on making electrical connections.

2. Surface Mounting.

Model LP3S and LP3T strobe lights may be surface mounted directly. When surface mounted using Model LP3S, wiring may be run through a hole in bottom of housing or through a notch in bottom recess of housing. NOTE: Wiring should NOT be run through notch in housing if unit operates on AC voltage.

a. Surface Mounting using LP3S.

1. Remove lens from housing by turning counter-clockwise.
2. Remove the printed circuit board assembly by depressing the two snap tabs inside the housing and lifting the board assembly upwards.
3. Using the rubber gasket as a template, or the dimensions shown in figure 3, mark three mounting holes and center wiring hole. Drill or punch out holes as necessary.
4. If wiring is to be run through notch in bottom recess of housing, remove 0.28" (7.1mm) diameter knockout in bottom of housing and remove tab from rubber gasket.
 - a. Feed supply wires (14 to 18 AWG only) through 0.28" (7.1mm) diameter knockout and leave enough wire inside housing to make connections to terminal block located on top side of printed circuit board assembly.

5. Locate thick rubber gasket on mounting surface and set housing on top of gasket. Secure to mounting surface using the appropriate user supplied #6 (3.5mm) screws.
6. Refer to section C for information on making electrical connections.

b. Surface Mounting using LP3T.

1. Using gasket as a template, or the dimensions shown in figure 3, mark two mounting holes and center wiring hole (if wiring is to enter through bottom of unit). Drill or punch out holes as necessary.
2. Locate rubber gasket on mounting surface and set housing on top of gasket. Secure to mounting surface using the appropriate user supplied # 10 (5 mm) screws.
3. Refer to section C for information on making electrical connections.

B. Specifications.

Operating Voltage	12-48VDC	120VAC 50/60 Hz	230-240VAC 50/60 Hz
Operating Current	.44 - .10A	.10A	.07A
Energy Output	2.0 Joules	2.0 Joules	2.0 Joules
Flash Rate	65-95 FPM	65-95 FPM	65-95 FPM
Operating Temperature	-31°F to 150°F (-35°C to 66°C)		
Approvals	UL, cUL (excluding LP3T 12-48VDC)		
Additional Approvals	CE (excluding LP3E, LP3T, and all 120/240VAC models)		
Environmental Ratings	Indoor/Outdoor Use, Type 4X, IP66 (LP3T, IP55)		

C. Electrical Connections.

The Model LP3 comes assembled from the factory. Two 9" long lead wires are supplied on the 12-48 volt DC model of LP3T. All other models are supplied with a two position terminal block for making wiring connections.

1. Terminal Block Wiring.

If the strobe light has not been disassembled previously for mounting, perform the following steps:

- a. Remove lens from housing by turning counter-clockwise.
- b. Remove printed circuit board assembly by depressing the two snap tabs inside the housing and lift the board assembly upwards.
- c. If supply wires were not previously drawn into housing previously, feed supply wires (14 to 18 AWG only) through large hole in bottom of housing.
- d. Strip a maximum of 0.25" (6.4mm) of wire insulation from the ends of the power leads. Connect wires to terminal block by inserting the stripped ends of the wire into connector as far as they can travel and tightening clamping screw.

NOTE

Be sure to observe polarity on the 12-48 VDC printed circuit board assembly. The terminals are designated by a "+" and "-" on the terminal block for the positive and negative supply leads, respectively.

The maximum tightening torque is 5 in-lbs (.056 N-m) for field wiring connections on the terminal block. Make sure power supply lead insulation is flush with connector. If stranded wire is used, be sure that there are no loose strands outside the connector that could touch the adjacent lead to cause a short circuit.

- e. To reassemble, snap printed circuit board assembly into housing making sure that the board rests on its' mounting platforms. Take care not to pinch supply wires when inserting board. See figure 2 for recommended wire routing.
- f. Thread lens onto housing by turning clockwise until lens is fully seated.
- g. Install supplied locking screw on lens to secure.
- h. Energize the supply circuit and test strobe light for proper operation.

2. Lead Wiring.

- a. Connect the red (+) lead to the positive power source terminal and black (-) lead to the negative power source terminal.
- b. Energize the supply circuit and test strobe light for proper operation.

II. STROBE TUBE REPLACEMENT.

After extended operation, occasionally check for flash tube degradation. Should the flash tube misfire, have a noticeable decrease in light output, glow continuously or darken- replacement is necessary.

WARNING

HIGH VOLTAGES ARE PRESENT INSIDE THE LIGHT ASSEMBLY. WAIT AT LEAST 5 MINUTES AFTER SHUTTING OFF THE POWER BEFORE SERVICING THIS UNIT.

To replace strobe tube, proceed as follows:

- A. Disconnect power from the supply circuit and wait five minutes before opening unit to allow all capacitors to fully discharge.
- B. Loosen locking screw on lens and remove lens from housing by turning counter-clockwise.
- C. Carefully remove old strobe tube by grasping connector and lifting upwards.
- D. See replacement parts table in section IV, for a complete list of Federal Signal lamps that are available. Install new strobe tube by fully seating it into receptacle on the printed circuit board.
- E. Attach lens to housing by turning clockwise until it is fully seated.
- F. Tighten locking screw on lens to secure.

III. SERVICE.

The Federal factory will service your equipment or provide technical assistance with any problems that cannot be handled locally.

Any units returned to Federal Signal for service, inspection, or repair must be accompanied by a Return Material Authorization. This R.M.A. can be obtained from a local Distributor or Manufacturer's Representative.

At this time a brief explanation of the service requested, or the nature of the malfunction, should be provided.

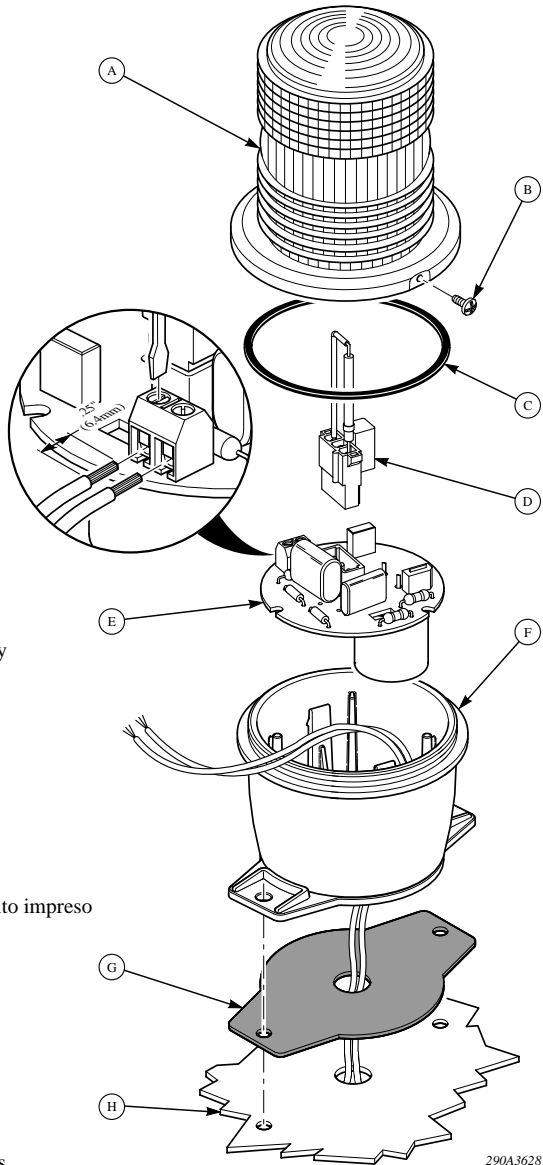
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Electrical Products Division
Service Department
2645 Federal Signal Drive
University Park, IL 60466-3195

IV. REPLACEMENT PARTS.

<u>Description</u>	<u>Part Number.</u>
Strobe tube	K149130A
Lens, Amber	K8589006A
Lens, Blue	K8589006A-01
Lens, Clear	K8589006A-02
Lens, Green	K8589006A-03
Lens, Red	K8589006A-04
Gasket, LP3S	K8589011A
Gasket, LP3T	K8589012A
Gasket, Lens	K8589013A
Printed circuit board assy, 120VAC	K2001317A
Printed circuit board assy, 240VAC	K2001317A-01
Printed circuit board assy, 12-48VDC	K2001316B

I



English

- A. Lens
- B. Screw
- C. Lens gasket
- D. Strobe tube
- E. Printed circuit board assembly
- F. Housing, LP3T
- G. Gasket, LP3T
- H. Mounting surface

Español

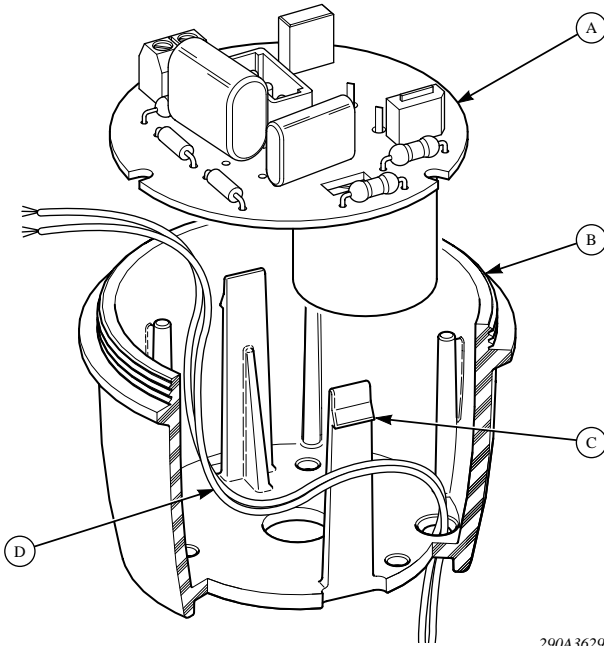
- A. Lente
- B. Tornillo
- C. Empaquetadura de lente
- D. Tubo estroboscópico
- E. Ensamblaje de placa de circuito impreso
- F. Caja, LP3T
- G. Empaquetadura, LP3T
- H. Superficie de montaje

Français

- A. Lentille
- B. Vis
- C. Joint d'étanchéité de lentille
- D. Tube stroboscopique
- E. Plaquette de circuits imprimés
- F. Boîtier, LP3T
- G. Joint d'étanchéité statique, LP3T
- H. Surface de montage

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2



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English

- A. Printed circuit board assembly
- B. Housing
- C. Snap tab
- D. Supply wire

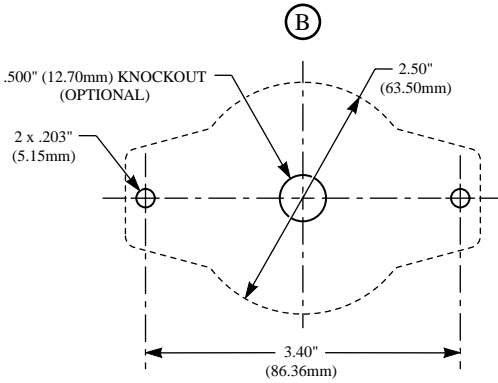
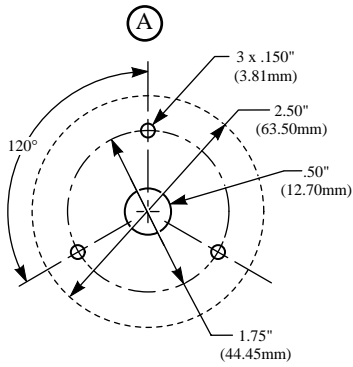
Español

- A. Ensamblaje de placa de circuito impreso
- B. Caja
- C. Lengüeta a presión
- D. Cable de alimentación

Français

- A. Plaquette de circuits imprimés
- B. Boîtier
- C. Attache à mousqueton
- D. Fil fourni

3



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English

A. Surface mount, LP3S

B. Surface mount, LP3T

Español

A. Montaje para superficie, LP3S

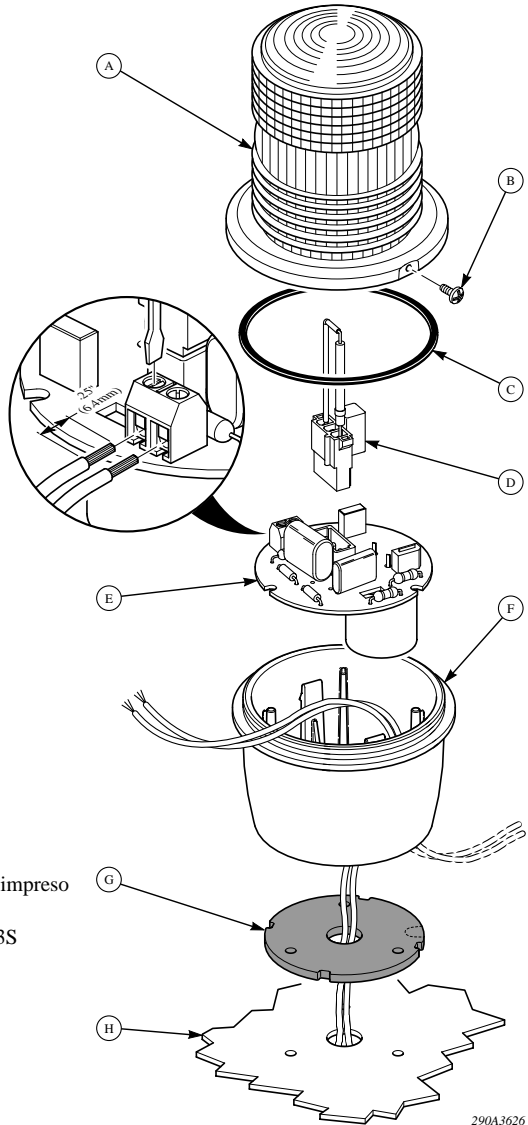
B. Montaje sobre superficie, LP3T

Français

A. Montage en surface, LP3S

B. Montage en surface, LP3T

4



English

- A. Lens
- B. Screw
- C. Lens gasket
- D. Strobe tube
- E. Printed circuit board assembly
- F. Housing, LP3S
- G. Gasket, LP3S
- H. Mounting surface

Español

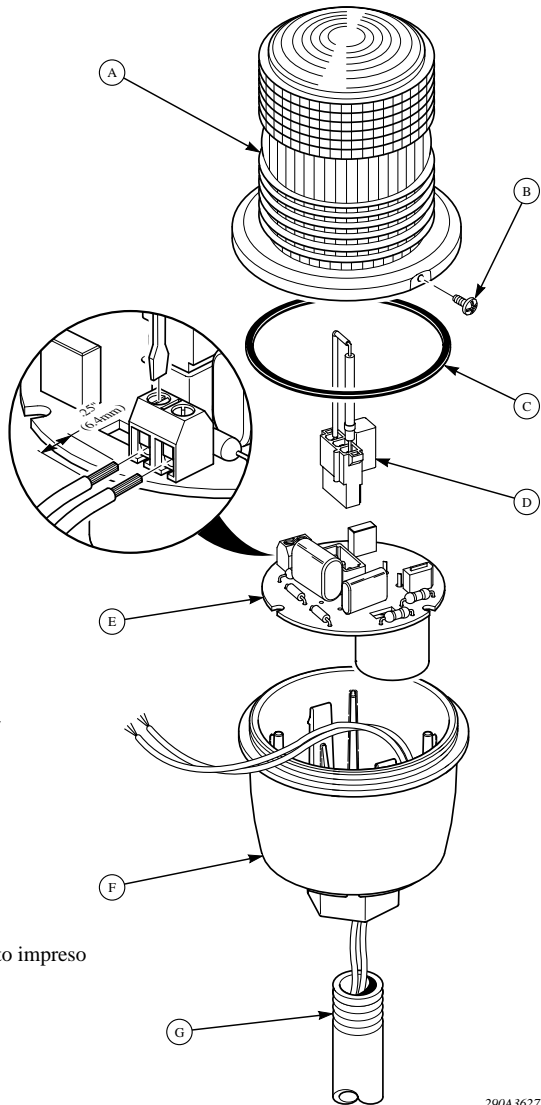
- A. Lente
- B. Tornillo
- C. Empaquetadura de lente
- D. Tubo estroboscópico
- E. Ensamblaje de placa de circuito impreso
- F. Caja, LP3S
- G. Empaquetadura de montaje, LP3S
- H. Superficie de alimentación

Français

- A. Lentille
- B. Vis
- C. Joint d'étanchéité de lentille
- D. Tube stroboscopique
- E. Plaquette de circuits imprimés
- F. Boîtier, LP3S
- G. Joint d'étanchéité statique, LP3S
- H. Surface de montage

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5



English

- A. Lens
- B. Screw
- C. Lens gasket
- D. Strobe tube
- E. Printed circuit board assembly
- F. Housing, LP3P
- G. 1/2" NPT pipe

Español

- A. Lente
- B. Tornillo
- C. Empaquetadura de lente
- D. Tubo estroboscópico
- E. Ensamblaje de placa de circuito impreso
- F. Caja, LP3P
- G. 1/2" NPT tubo

Français

- A. Lentille
- B. Vis
- C. Joint d'étanchéité de lentille
- D. Tube stroboscopique
- E. Plaquette de circuits imprimés
- F. Boîtier, LP3P
- G. 1/2" NPT tuyau

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