

**MODEL 371ST-250**  
**INSTALLATION AND SERVICE INSTRUCTIONS**  
**FOR COMMANDER®**  
**MODEL 371ST-250 STROBE LIGHTS**

Address all communications and shipments to:



**FEDERAL SIGNAL CORPORATION**

**INSTALLATION AND SERVICE INSTRUCTIONS  
FOR COMMANDER®  
MODEL 371ST-250 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/Canadian Electric Code and will follow the NEC/CEC 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.
- Do not connect this light to the system when power is on.
- After installation, ensure that the threaded dome ring joint is fully engaged.
- 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.

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

## **I. INSTALLATION.**

### **A. Unpacking.**

After unpacking the light, examine it for damage that may have occurred in transit. If the equipment has been damaged, do not attempt to install or operate it. File a claim immediately with the carrier stating the extent of the damage. Carefully check all envelopes, shipping labels, and tags before removing or destroying them.

### **B. Mounting (see figure 1).**

The Model 371ST lights are designed for mounting on a flat horizontal surface or on a 1" NPT pipe. For surface mounting on solid substrates, a separately purchased Model 371BRCKT (3-point mounting bracket) may be used. If conduit side entries are to be used, disassemble light as described in section I.D.1 and remove knockout(s) with a blunt tool prior to mounting light. Use a file to remove excess flash around the knockout.

#### **1. Pipe Mounting.**

- a. Attach light to pipe by turning clockwise.
- b. Refer to section D for information on making electrical connections.

#### **2. Surface Mounting.**

- a. Using the gasket as a template, scribe four drill position marks on the mounting surface. Drill a 9/32" (7.1mm) diameter hole at each of the outside drill position marks for mounting. Drill or punch a 1-3/8" (34.9mm) diameter hole at the center drill position mark for wire entry.
- b. Attach 1" NPT conduit or suitable user supplied 1" NPT hub or connector to conduit entrance in bottom of light.
- c. Set light on gasket and attach to the mounting surface using the provided 1/4" screws and washers.
- d. Refer to section D for information on making electrical connections.

### C. Specifications.

Operating Voltage	225-300 VDC
Operating Current	0.25A
Energy Output	10.0 Joules
Flash Rate	60 FPM
Environmental Ratings	Type 4X, IP66

### D. Electrical Connections (see figure 2).

The model 371ST comes assembled from the factory. Models are supplied with a two power leads for wiring to the supply circuit. If conduit side entries are to be used or if the housing is to be used as a junction box perform the following steps:

#### WARNING

**To avoid electrical shock hazards, do not connect to supply circuit when power is applied.**

1. Disassemble the light as follows:
  - a. Remove dome assembly by grasping the die-cast ring attached to the dome and turning it counter-clockwise.
  - b. Remove three #10 hex head screws that secure strobe-spinning assembly to housing.
  - c. Remove strobe-spinning assembly.
2. If conduit side entries are to be used, attach either Myers STNTB-2 or T&B H075-TBH 3/4" N.P.T. conduit hub with 3/4" N.P.T. close nipple (all user-supplied) to housing and tighten securely. When side entries are used, the bottom 1" NPT conduit entry must be plugged with a threaded plug (user-supplied).
3. Route supply wires (12AWG to 16AWG) into housing. Connect the red (+) lead to the positive power source lead and the black (-) lead to the negative power source lead.

#### NOTE

Polarity **MUST** be observed for proper operation.

4. Re-assemble the light and test for proper operation.

## II. MAINTENANCE.

### SAFETY MESSAGE TO MAINTENANCE PERSONNEL

Listed below are some important safety instructions and precautions you should follow:

- Read and understand all instructions before operating this system.
- Any maintenance to the light system must be done with the power turned off.
- Any maintenance to the light system must be performed by a trained electrician in accordance with NEC/CEC Guidelines and local codes.
- Never alter the unit in any manner. Safety may be endangered if additional openings or other alterations are made to units.
- The nameplate, which contains cautionary or other information of importance to maintenance personnel, should not be obscured.
- If the dome is damaged in any way, the complete dome assembly **MUST** be replaced.
- After performing any maintenance, test the light system to ensure that it is operating properly.

### A. Flashtube Replacement (see figure 3).

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 POWER BEFORE SERVICING THIS UNIT.

To replace strobe tube, proceed as follows:

1. Remove the dome assembly by grasping the die-cast ring attached to the dome and turning it counter-clockwise. If difficulty occurs removing the dome assembly, place a screwdriver blade against one of the four bosses on the die-cast ring attached to the dome. Gently tap the screwdriver handle to loosen the dome assembly from the housing.

## WARNING

To maintain the watertight enclosure, do not damage dome or threads while disassembling or reassembling the unit. Lubricated threaded joints exposed for long periods of time may attract small particles of dirt or other foreign materials. Re-assemble joint immediately after performing maintenance.

2. Remove the two #8 screws retaining the fresnel lens to it's mounting base and lift the lens off the metal spinning.
3. Carefully remove the flash tube from its socket by grasping the connector and lifting upwards using a slight rocking motion.
4. See replacement parts table (Section IIB) for a complete list of Federal Signal lamps that are available. Install a new flash tube by fully seating it into the socket.
5. Reassemble the unit.
6. Test light for proper operation.

### B. Replacement Parts.

Description	Part No.
Glass Dome Assembly, Amber	K8459126A
Glass Dome Assembly, Blue	K8459126A-01
Glass Dome Assembly, Red	K8459126A-02
Fresnel lens, Clear	K8422B428A
Gasket, dome ring	K8459123A
Gasket, surface mount	K8459127A
Flash Tube	K149122B
Printed circuit board assy., 250VDC	K2001070B

### C. Accessories.

Description	Part No.
Mounting Bracket, Surface	371BRCKT
Conduit hub kit, 3/4" NPT	K8459138A
Close-up plug, 1" NPT	K8459130A

## 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.

Address all communications and shipments to:

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

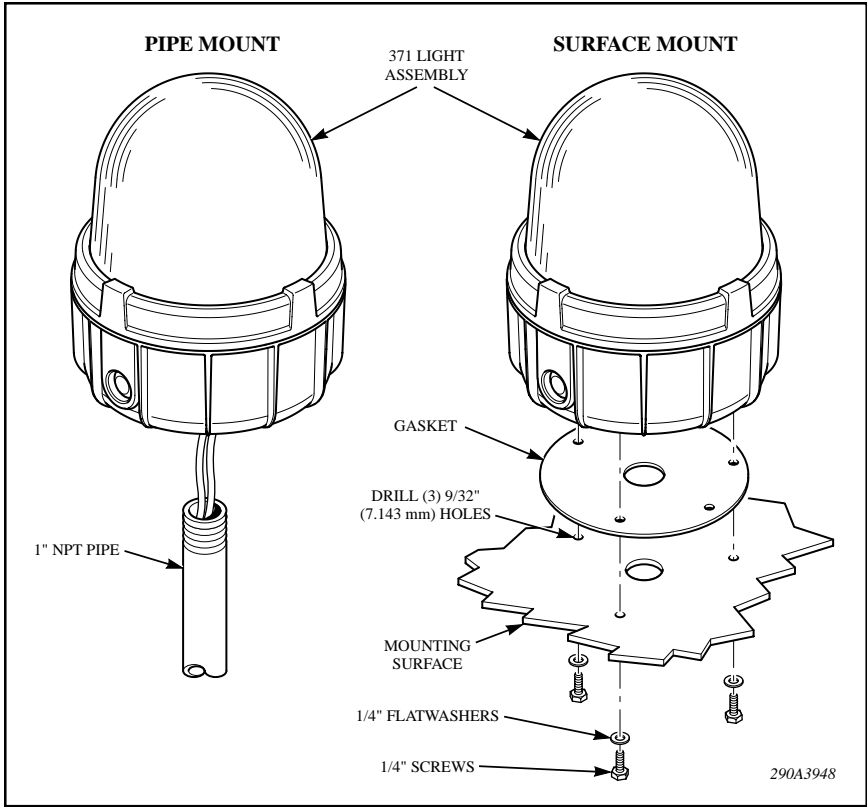


Figure 1.

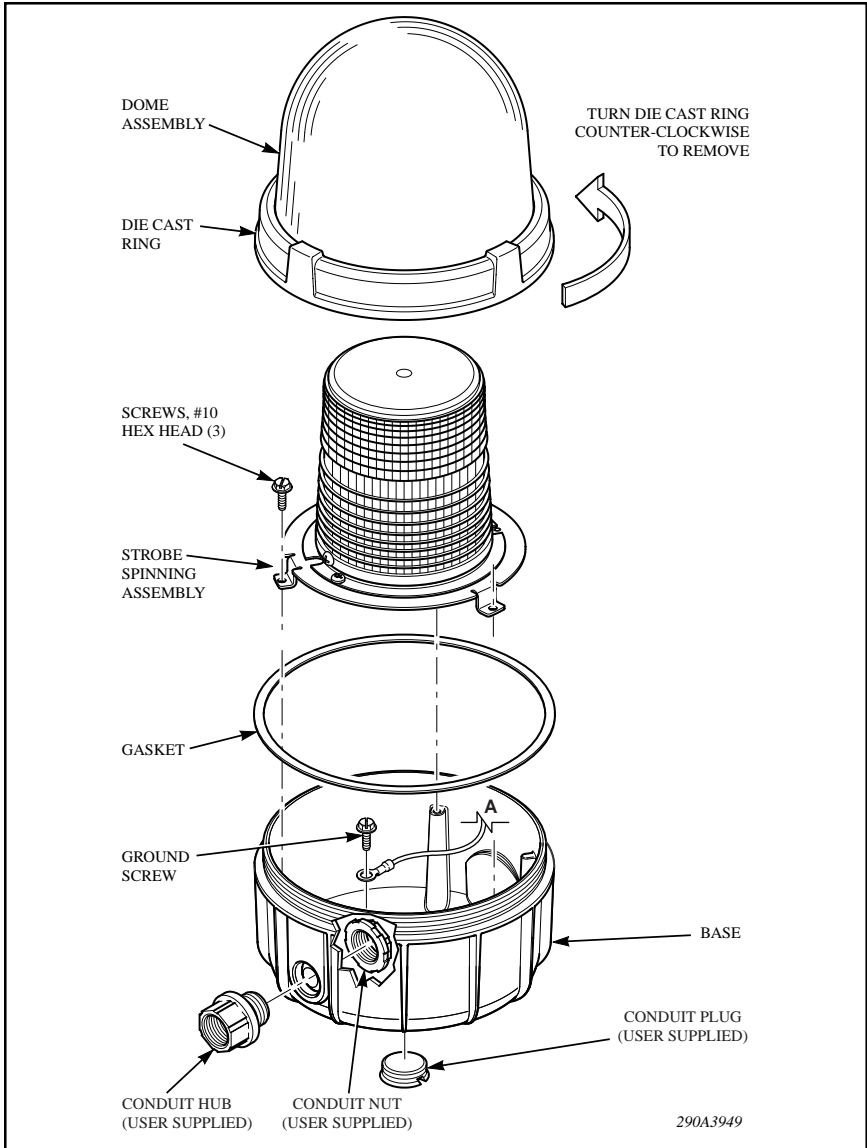


Figure 2.

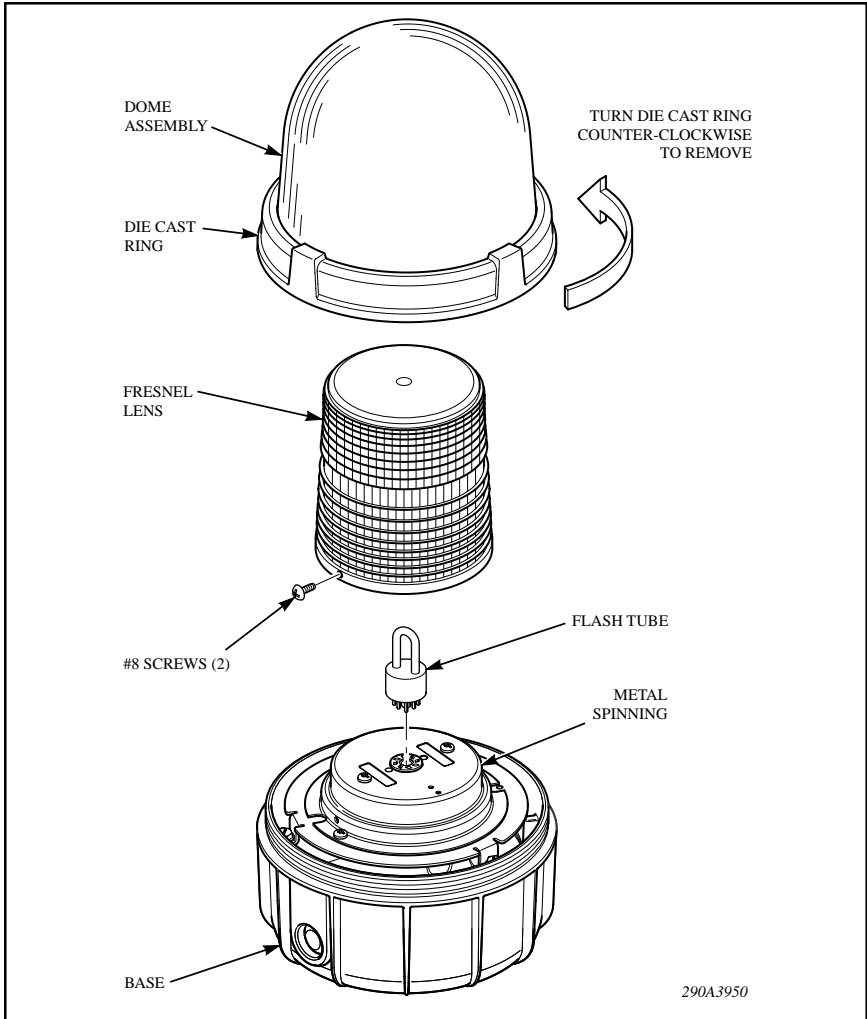


Figure 3.

256820E  
REV. E 300  
Printed in USA.