

MODEL 371/371L
INSTRUCTION SHEET FOR COMMANDER®
MODEL 371/371L ROTATING LIGHTS

Address all communications and shipments to:



FEDERAL SIGNAL CORPORATION

INSTRUCTION SHEET FOR COMMANDER® MODEL 371/371L ROTATING 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

The Model 371 lights are designed for mounting on a flat horizontal surface or on a 1" NPT pipe. Mounting on a vertical surface can be accomplished using a separately purchased Model LWMB2 (wall mounting bracket) or LCMB2 (corner mounting bracket) mounting kit. For surface mounting on solid substrates, a separately purchased Model 371BRCKT (3-point mounting bracket) may be used. If mounting conditions are unusually severe, a shock mount kit (for mounting on a flat horizontal surface) may also be separately purchased. If conduit side entries are to be used, disassemble light as described in section IE.1 and remove knockout(s) with a blunt tool prior to mounting light.

1. Pipe Mounting

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

2. Surface Mounting (See figure 1)

- 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" (34.9 mm) diameter hole at the center drill position mark for conduit entry.
- b. Set light on gasket and attach to the mounting surface using the provided 1/4" screws and washers.
- c. Attach suitable 1" NPT hub or connector to conduit entrance in bottom of light. For Type 4X/IP66 applications, the hub or connector must be suitably rated (Myers ST-3 or T&B H100-TB hubs are recommended.)
- d. Refer to section E for information on making electrical connections.

C. Beam Adjustment

The angle of the sealed beam lamp can be altered if desired. The light is shipped from the factory with the lamp in the horizontal position. To change the lamp's angle proceed as follows:

1. Remove dome assembly by grasping the die-cast ring attached to the dome and turning it counter-clockwise.
2. See figure 2. The lamp is locked in place with three 10-32 screws. Remove the locking screw. Loosen the two pivot screws and adjust the lamp to the desired position. Tighten the two pivot screws to secure the lamp in position.
3. Replace the dome assembly by turning clockwise until it is seated securely against the gasket.

D. Specifications

| | | |
|-----------------------|------------------|------------------|
| Model | 371 | 371L |
| Operating Voltage | 120 VAC 50/60 Hz | 120 VAC 50/60 Hz |
| Lamp Wattage | 200W | 100W |
| Candlepower | 36,000 | 20,000 |
| Flash Rate | 60 FPM | 60 FPM |
| Environmental Ratings | Type 4X, IP66 | Type 4X, IP66 |

E. Electrical Connections

The model 371/371L comes assembled from the factory with two color-coded leads for wiring to a junction box. If desired, the factory leads can be removed and the supply connections can be directly made to the terminal block located on the back-side of the motor mounting base as described below.

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 no. 10 hex head screws that secure motor mounting base to housing.
 - c. Remove motor mounting base.
 - d. If desired, remove factory supplied leads from the terminal block.
2. If conduit side entries are to be used, attach either Myers STNTB-2 or T&BH075-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" N.P.T. conduit entry must be plugged with threaded plug (user-supplied).
3. Route supply wires (10 AWG to 16 AWG) into the light housing taking care to keep wires clear of motor fan.
4. Strip a maximum of .28" (7 mm) of wire insulation from the ends of the power leads. Connect wires to terminal block by inserting the stripped ends of the wire into the connector as far as they can travel and tightening the clamping screw (max. tightening torque = 7.0 in-lbs { .8 N-m}).

IMPORTANT

Proper grounding of the light requires two connections to a solid earth ground.

5. See figure 3. Connect earth ground to terminal block and green ground screw located in light housing.
6. 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. Lamp Replacement (See figure 4)

WARNING

To avoid electrical shock hazards, do not replace lamp when power is applied.

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. Lift the connector from the lamp terminals.
3. Lift the spring clip at the top of the lamp and rotate the curved lamp retainer toward the front of the lamp. Lift out the lamp.
4. Install the replacement lamp by placing the edge of the lamp into the groove of the die-cast lampholder. Rotate the lamp so that its prongs point straight up.
5. Rotate the lamp retainer up until the spring clip snaps over the edge of the lamp. Replace the connector on the lamp terminals.
6. Replace the dome assembly by turning clockwise until it is seated securely against the gasket.
7. Test light for proper operation.

B. Lubrication

1. Lubricate the lamp shaft bearings with a light machine oil every 12 months or 5000 hours of service, whichever comes first.
2. The worm and worm gear rarely require lubrication. However, if lubrication is required use a light high quality grease.
3. The motor is equipped with sealed bearings and requires no maintenance.
4. The threaded dome ring joint should be well lubricated with petroleum or a soap-thickened mineral oil. If corrosive products have accumulated on joints and cannot readily be removed with solvents, the parts should be discarded and replaced.

C. Replacement parts

| <u>Description</u> | <u>Part No.</u> |
|--|-----------------|
| Plastic dome assembly, Amber | K8459125A |
| Plastic dome assembly, Blue | K8459125A-01 |
| Plastic dome assembly, Clear | K8459125A-02 |
| Plastic dome assembly, Green | K8459125A-03 |
| Plastic dome assembly, Red | K8459125A-04 |
| Glass dome assembly, Amber | K8459126A |
| Glass dome assembly, Blue | K8459126A-01 |
| Glass dome assembly, Red | K8459126A-02 |
| Glass dome assembly, Clear | K8459126A-03 |
| Glass dome assembly, Green | K8459126A-04 |
| Gasket, dome ring | K8459123A |
| Gasket, surface mount | K8459127A |
| Lamp, 100 Watt (125/130V) (100PAR46/3NSP) | K8107A130 |
| Lamp, 200 Watt (125/130V) (200PAR46/3NSP) | K8442A039 |
| Kit, motor replacement | K8459A113B |
| Assembly, worm gear | K8459A017 |
| Brush and spring | K8442A028 |

D. Accessories

| <u>Description</u> | <u>Part Number</u> |
|---------------------------|--------------------|
| Mounting bracket, surface | 371BRCKT |
| Mounting bracket, wall | LWMB2 |
| Mounting bracket, corner | LCMB2 |
| Kit, shock mount | K8459A076C |
| Conduit hub kit, 3/4" NPT | K8459138A |
| Close-up plug, 1" NPT | K8459130A |

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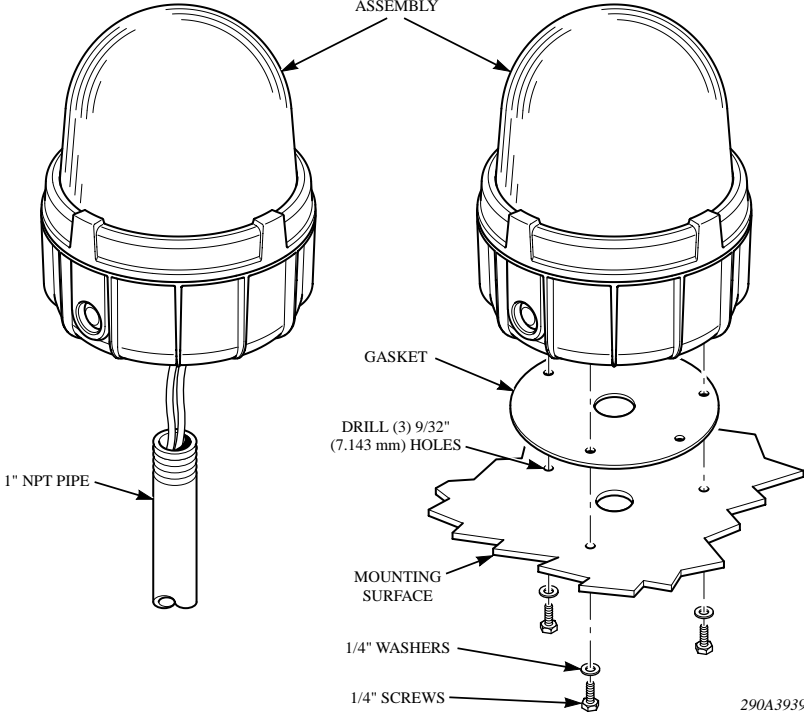
Electrical Products Division
Service Department
2645 Federal Signal Drive
University Park, IL 60466-3195

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PIPE MOUNT

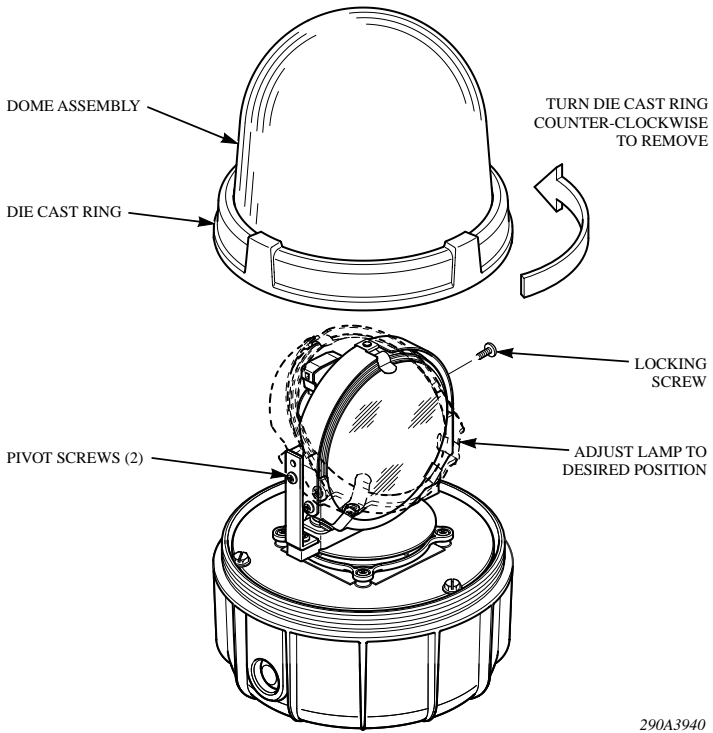
SURFACE MOUNT

371 LIGHT
ASSEMBLY

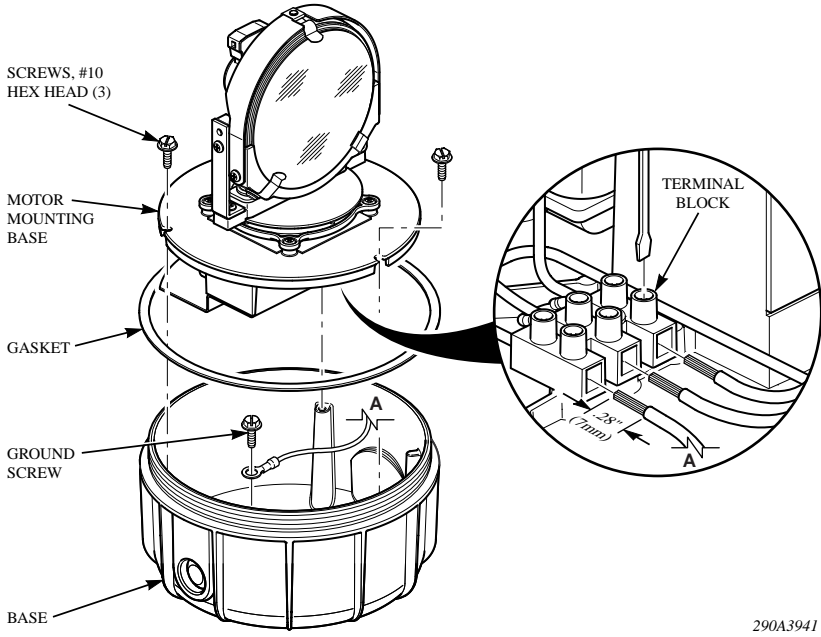
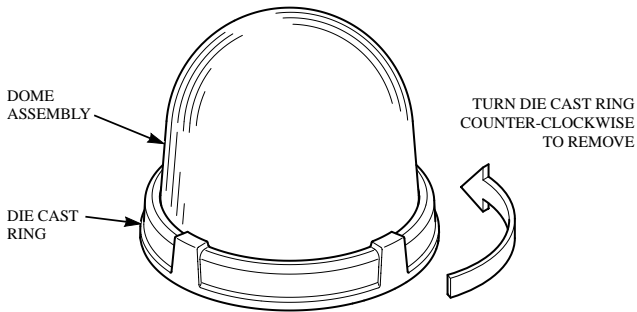


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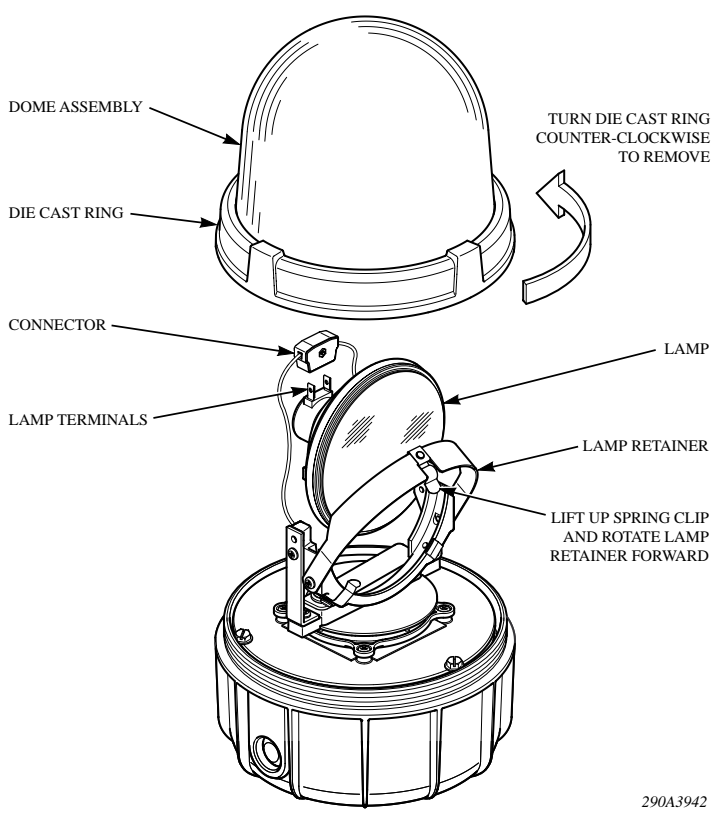


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