

## Explosion Proof LED Strobe Light Instruction Manual

Do not attempt operation until you are familiar with all warnings, precautions, and procedures outlined within this instruction sheet. Read carefully before operating. Retain these instructions for future reference.

### WARNING:

USER SHOULD BE TRAINED IN THE PROPER USE AND MAINTENANCE OF THIS DEVICE. IF WIRING OR LAMP REPLACEMENT INSTRUCTIONS ARE NOT FOLLOWED EXACTLY, THE HANDLAMP MAY NOT BE SUITABLE FOR THE HAZARDOUS LOCATION INVOLVED. WHEN HANDLAMP IS CONNECTED TO A POWER SOURCE IN HAZARDOUS AREA, JUNCTION BOX, OR PLUG, AND MATCHING RECEPTACLE MUST BE SUITABLE FOR HAZARDOUS LOCATION INVOLVED.

**WARNING:** To prevent ignition of a hazardous atmosphere, the supply circuit should be disconnected when installing, re-lamping or performing any maintenance on this fixture.

**WARNING:** When installing this fixture in hazardous locations, check the operating temperature limits prior to installation to be sure it confirms to the environmental temperature restrictions and NEC classifications. Check the fixture's metal nameplate for temperature (T) ratings.

**WARNING:** The globe is tempered glass. Do not scratch or chip. Turn the power off before starting installation, repair or re-lamping.

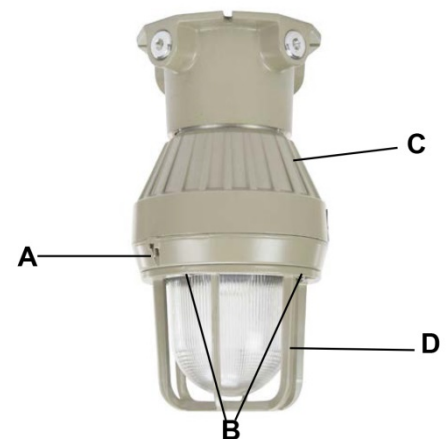
**WARNING:** Operate this fixture only at the voltage of your specific supply circuit. Failure to do so will result in damage to the fixture.

**WARNING:** Substitute components may impair explosion proof safety.

THE GLOBE IS MADE OF TEMPERED GLASS. IF THIS GLASS BECOMES SCRATCHED OR CHIPPED IT SHOULD BE REPLACED IMMEDIATELY.

## INSTALLATION

1. Install fixture's mounting accessory per instructions supplied with the mount (See Mounting Options). Unscrew and remove the fixture from mount (C).
2. Verify that the supply line voltage and fixture nameplate voltage are compatible.
3. Wire according to wiring instructions in this manual.
4. Make sure the external threads at the top of the fixture tank are free of any dirt, metal chips or other foreign materials. Apply a thin coat of lubricant to the threads.
5. Close off any open NPT ports.
6. Screw fixture into mount and tighten the set screw.
7. Loosen the set screw for the globe assembly to access pattern switch (A).
8. Enable power to the fixture and toggle switch until desired pattern is selected.
9. Make sure the globe support threads are clean. To prevent galling of threads, apply a thin coat of lubricant to the male threads. Thread the globe support assembly back into the fixture tank and turn until there is no gap between the flanges.
10. Tighten the locking screw (A).
11. To install the guard (D) loosen the 4 screws (B), slip the guard over the screws and rotate it to the locked position. Tighten the screws firmly. The globe assembly can be removed with the guard installed.



Join or "lap" marks may form during the pouring of molten glass in the globe manufacturing process. It is not unusual for these marks to become visible. This is a common and normal occurrence for large explosion proof globes and does not affect performance. Take extreme care not to cross-thread the fixture when installing into mounting accessory. Install fixture by threading into the mounting accessory; the electrical contacts will automatically engage. Be sure the fixture is tight. This fixture is factory sealed.

## Pendant Mounting

1. Thread the fixture onto the conduit, sealing around the conduit using approved NEC procedures. Flats are provided at the top of the fixture to tighten with a wrench.
2. After securing to the conduit, tighten the set screw.



Pendant Mount



Ceiling Mount

## Wall Mounting

1. Remove the wiring box from the arm and attach box to the mounting surface.
2. Pull leads to the box and through the arm to the wiring chamber.
3. Attach the arm to the wall box.
4. The mounting screws should be tightened in alternate sequence.



Wall Mount

## Ceiling Mounting

1. Attach fixture to mounting surface using the two mounting tabs provided.

## Wiring Instructions

Connect low voltage (+) to red fixture wire, and low voltage (-) to black fixture wire. For synchronized operation, connect yellow wires of additional fixtures together. Insulate this connection using an insulated butt splice to prevent accidental contact with power or ground. Make all wiring connections in accordance with accepted NEC and local wiring procedures for factory sealed fixtures. Be sure any unused wiring entrances are closed with closure plugs provided.

### Connections:

|        |                 |       |                   |
|--------|-----------------|-------|-------------------|
| Red    | +Power          | Black | Ground            |
| Yellow | Synchronization | Blue  | Pattern Selection |

**NOTE:** A user supplied fuse must be installed in series with the red wire. Install the fuse near the power source. The fuse should be sized to the nearest standard size fuse that is approximately 125% of the combined total current of all strobe lights installed on the circuit. As an example, two lights should be fused at 3A for 12 VDC operation, 1A for 24V operation.

**Important:** To extend the power (+) and ground (-) wires, use the following as a guide.

1 to 10 ft. use 20AWG wire 10 to 50 ft. use 18AWG wire

## Flash Pattern Selection

Any one of the 30 Flash Patterns may be selected by using the blue wire or internal toggle switch to scroll through the patterns. Loosen the set screw and remove the globe assembly of the fixture. Use the toggle switch to change flash pattern. When the yellow (SYNC) wires from each light are connected, lights with Phase 1 patterns selected will flash in an alternating sequence with lights that have a Phase 2 pattern selected. The following patterns are available:

| Description                                         | Phase |
|-----------------------------------------------------|-------|
| 1. 75FPM Single Flash sim. Phase 1                  | Sim.  |
| 2. 75FPM Single Flash sim. Phase 2                  | Sim.  |
| 3. 75FPM Single Flash Alt.                          | Alt.  |
| 4. 150FPM Single Flash All sim. Phase 1             | Sim.  |
| 5. 150FPM Single Flash All sim. Phase 2             | Sim.  |
| 6. 150FPM Single Flash Alt.                         | Alt.  |
| 7. 75FPM Double Flash sim. Phase 1                  | Sim.  |
| 8. 75FPM Double Flash sim. Phase 2                  | Sim.  |
| 9. 75FPM Double Flash Alt.                          | Alt.  |
| 10. 150FPM Double Flash sim. Phase 1                | Sim.  |
| 11. 150FPM Double Flash sim. Phase 2                | Sim.  |
| 12. 150FPM Double Flash Alt.                        | Alt.  |
| 13. 75FPM Quad Flash sim. Phase 1 (factory default) | Sim.  |
| 14. 75FPM Quad Flash sim. Phase 2                   | Sim.  |
| 15. 75FPM Quad Flash Alt.                           | Alt.  |
| 16. 150FPM Quad Flash sim. Phase 1                  | Sim.  |
| 17. 150FPM Quad Flash sim. Phase 2                  | Sim.  |
| 18. 150FPM Quad Flash Alt.                          | Alt.  |
| 19. 75FPM TripleAlter sim. Phase 1                  | Sim.  |
| 20. 75FPM TripleAlter sim. Phase 2                  | Sim.  |
| 21. 75FPM TripleAlter Alt.                          | Alt.  |
| 22. 150FPM TripleAlter sim. Phase 1                 | Sim.  |
| 23. 150FPM TripleAlter sim. Phase 2                 | Sim.  |
| 24. 150FPM TripleAlter Alt.                         | Alt.  |
| 25. Steady Burn                                     | Sim.  |
| 26. Variflash sim.                                  | Sim.  |
| 27. 2 Double Flash, 2 TripleAlter sim.              | Sim.  |
| 28. 4 Single Flash, 2 Quad sim.                     | Sim.  |
| 29. Sequential Back and Forth                       | Sim.  |
| 30. Off                                             | -     |



## Pattern Selection Timing

| Time        | Function                                                  |
|-------------|-----------------------------------------------------------|
| 0-1 Seconds | Next Pattern/On                                           |
| 1-3 Seconds | Previous Pattern                                          |
| 3-5 Seconds | Restore Factory Default Pattern (see flash pattern table) |
| >5 Seconds  | Off                                                       |

Following this manual information will extend the lifespan and use of this strobe light in a safe manner.

KEEP THIS LIGHT AND ALL ACCESSORIES OUT-OF-REACH OF CHILDREN.

## Maintenance

Turn OFF the supplying circuit before opening fixture for re-lamping. To re-lamp loosen the locking screw and remove the globe support assembly.

The globe support assembly disengages after approximately 3 turns. Access to the fixture internal lamp area is only necessary for changing the flash pattern. Clean the threads and apply a thin coating of lubricant before reassembling.

To maintain maximum light output, the fixture should be cleaned periodically. Maintenance procedures sometimes require fixtures to be hosed down for good housekeeping.

The supply circuit must be turned OFF and the fixture globe must be allowed to cool to the ambient room temperature before cleaning. Only mild, non-abrasive cleaning agents should be used. These periodic cleaning procedures are important to prevent the accumulation of dust and dirt which will impair the light output of the fixture. The glass globe should be regularly inspected for scratches and chips and, if damaged, the entire globe support assembly must be replaced.

### Caution Notice:

Technical information, advice and recommendations contained in these documents is based upon information that Larson Electronics LLC believes to be reliable. All of the information and advice contained in these documents is intended only for use by persons having been trained and possessing the requisite skill and know-how and to be used by such persons only at their own discretion and risk. The nature of these instructions is informative only and does not cover all of the details, variations or combinations in which this equipment may be used; its storage, delivery, installation, check-out, safe operation and maintenance. Since conditions of use of the product are outside of the care, custody and control of the manufacturer, the purchaser should determine the suitability of the product for his intended use, and assumes all risk and liability whatsoever in connection therewith.

## Troubleshooting

**Note:** Do not tamper with the LED or flasher modules. This product is sold as a complete system, and is not designed for field repair. Any attempt to disassemble the product will void the warranty.

All lights are thoroughly tested before shipping. However, should you encounter a problem during installation or during the life of the product, refer to the guide below for information on troubleshooting. In most cases problems that occur will be related either to the power/control wiring.

| Problem                                   |                                                                                                                                                                                                                      | Solution                                                                                                                                                                                                                                  |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>External fuse blows</b>                | <ol style="list-style-type: none"> <li>1. Power input wires shorted</li> <li>2. Incorrect fuse size</li> <li>3. Flasher Module Failed</li> </ol>                                                                     | <ol style="list-style-type: none"> <li>1. Check power connections</li> <li>2. Replace with correct Size fuse</li> <li>3. Return for service</li> </ol>                                                                                    |
| <b>Light heads do not flash</b>           | <ol style="list-style-type: none"> <li>1. Wire connections loose at switch panel or power source</li> <li>2. Cable to light heads damaged and shorting to chassis</li> <li>3. Flash pattern is set to OFF</li> </ol> | <ol style="list-style-type: none"> <li>1. Check all connections</li> <li>2. Isolate damaged cable by disconnecting and reconnecting outputs one at a time. Repair the damaged cable.</li> <li>3. Select valid flashing pattern</li> </ol> |
| <b>Incorrect flash pattern</b>            | <ol style="list-style-type: none"> <li>1. Wrong flash pattern is selected</li> </ol>                                                                                                                                 | <ol style="list-style-type: none"> <li>1. See FLASH PATTERN SELECTION</li> </ol>                                                                                                                                                          |
| <b>Flash patterns change continuously</b> | <ol style="list-style-type: none"> <li>1. Unit is in CYCLE FLASH mode. Proper Operation</li> </ol>                                                                                                                   | <ol style="list-style-type: none"> <li>1. This is normal operation for this mode. If CYCLE FLASH MODE is not desired see FLASH PATTERN SELECTION</li> </ol>                                                                               |

## Use and Care

Unauthorized modification may impair the function and/or safety of the work light and could affect the life of the equipment. Always check for damaged or worn out parts before using the light.

Should further information not covered by these instructions be required, please contact Larson Electronics at 1-800-369-6671 or [sales@larsonelectronics.com](mailto:sales@larsonelectronics.com) for further assistance.

Please visit [LarsonElectronics.com](http://LarsonElectronics.com) for **Warranty** and **Return** information.