

## Class 1 Division 2 Emergency LED Light 4' 3 lamp - Battery Backup - Failsafe Lighting - UL 924 Instruction Manual

Thank you for your purchase of the Larson Electronics HALP-EMG-48-3L-LED-G2 Hazardous Location light fixture. Please follow the steps below in order to operate and maintain this product.

### WARNING!

1. TO PREVENT RISK OF ELECTRICAL SHOCK DEACTIVATE/DISCONNECT POWER SUPPLY BEFORE INSTALLING, MAINTAINING OR RELAMPING FIXTURE.
2. TO REDUCE RISK OF FIRE OR EXPLOSION, DO NOT INSTALL WHERE THE MARKED OPERATING TEMPERATURE EXCEEDS THE IGNITION TEMPERATURE OF THE HAZARDOUS ATMOSPHERE(S).
3. THIS FIXTURE SHOULD BE INSTALLED BY QUALIFIED TECHNICIANS IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ANY LOCAL REQUIREMENTS.

The Hazardous Area LED Light Fixture is U.S./Canada approved Class 1 Division 2 Groups A, B, C and D, UL 1598A listed, has a T4C temperature rating, and is specifically designed to handle the rigors of wet and corrosive marine environments. This fixture is equipped with an added battery backup providing 90 minutes of emergency runtime.

### INSTALLATION

This fixture is shipped with preconfigured Mount and Hub Size. See product label for specific unit received.

1. Remove lens by releasing latches that secure the lens. Set the lens aside.
2. Pinch locking tabs to release the ballast tray from the housing. The ballast tray will suspend by the tethers inside the fixture. Make sure tethers are connected.
3. Install fixture to mounting surface at four mounting locations (mounting hardware note included).
4. Electrical voltages and frequency are listed on the ballast tray for reference.
5. Connect two red battery leads together to enable battery backup. See wire diagram.
6. For supply connections use conductors suitable for min. 90° C.
7. Connect internal wires per wiring diagram on ballast, and according to NEC requirements.
8. Replace ballast tray, lamps, and lens. Secure all latches.
9. Energize fixture.

### MAINTENANCE

Electrical and mechanical inspection of all components must be performed on a regularly scheduled basis, determined by the environment and frequency of use. It is recommended that inspection be performed a minimum of once a year.

**WARNING: ELECTRICAL POWER SUPPLY MUST BE "OFF" BEFORE AND DURING INSTALLATION AND MAINTENANCE. INSTALLATION AND MAINTENANCE PROCEDURE MUST BE PERFORMED BY A TRAINED AND COMPETENT ELECTRICIAN.**

1. Inspect all contact wire terminals for tightness. Discoloration due to excessive heat is an indicator of a possible problem and should be thoroughly investigated and repaired as necessary.
2. Inspect contacts for signs of wear and replace if necessary.
3. Clean exterior surfaces making sure nameplates remain legible.

If any part of the light appears to be missing, broken, or show signs of damage—discontinue use immediately! This condition could cause serious or fatal personal injury due to electrocution and/or equipment damage. Repair with the proper replacement part(s) before continuing service.

### TROUBLESHOOTING

Refer to the guide below or contact the manufacturer if the fixture does not function properly.

- ➔ Is the correct line voltage being supplied to the fixture?
- ➔ Is the fixture properly grounded?

These instructions may not cover all details or variations of this product for your equipment or installation requirements. Should further information not covered by these instructions be required, please contact Larson Electronics at 1-800-369-6671 for further assistance.

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

# OPERATION

During normal operation, AC power is supplied to the AC ballast/driver through the backup micro inverter and the inverter charges the battery. Connecting the inverter connector wires (red and white) enables the emergency circuit and supplies power to the control/monitor circuit. The backup micro inverter detects AC input line voltage (120/277) and automatically sets the output voltage during emergency mode.

When AC power fails, the backup micro inverter automatically switches to emergency mode, keeping the load illuminated for a minimum of 90 minutes. When AC power is restored, the backup micro inverter returns to charging mode. The backup micro inverter consists of a low-battery voltage disconnect which is reset when AC power is restored. The unit can also detect an abnormal load condition (open or shorted load) during emergency mode operation and will protect the inverter from damage.

# MAINTENANCE

Although no routine maintenance is required to keep the backup micro inverter functional, it should be checked periodically to ensure that it is working. The following schedule is recommended:

1. Visually inspect the charging indicator light monthly. It should be illuminated.
2. Test the emergency operation of the fixture at 30-day intervals for a minimum of 30 seconds. The lamp should operate at full illumination.
3. Conduct a 90-minute discharge test once a year. The lamp should operate at full illumination for at least 90 minutes.

**! REFER ANY SERVICING INDICATED BY THESE CHECKS TO QUALIFIED PERSONNEL !**

## BACKUP MICRO INVERTER AND AC BALLAST/DRIVER MUST BE FED FROM THE SAME BRANCH CIRCUIT

TYPICAL SCHEMATICS ONLY. CONSULT THE FACTORY FOR OTHER WIRING DIAGRAMS.

### WIRING DIAGRAM

