LEDDR Series Emergency LED Driver

Installation and Operation Instructions

WARNING:
Risk of Shock.
Disconnect Power before Installation.

IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. The Emergency LED Driver is designed for factory installation and for field installation only if determined to meet the installed egress requirements.
2. All installation and servicing should be performed by qualified service personnel.
3. Install in accordance with the National Electric Code and applicable local codes.
4. The Emergency LED Driver requires an unswitched AC power source of 120 to 277 volts, 50/60 HZ.
5. The Emergency LED Driver is suitable for use in dry and damp location where ambient temperature is 0 to 50C.
6. The Emergency LED Driver should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
7. The Emergency LED Driver is suitable for use only with LED lamps having an operating voltage of 20 Vdc minimum, 50 Vdc maximum and will provide 90 minutes of emergency operation.
8. To reduce the risk of electrical shock, do not connect the Emergency LED Driver converter connector together until installation is complete and AC power is applied to the luminaire.
9. The Emergency LED Driver has more than one power source. To reduce the risk of electrical shock, remove the normal AC power source(s) to the luminaire and disconnect the Emergency LED Driver converter connector before servicing.
10. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition and will void warranty.
11. Do not use this equipment for other than intended use.
12. Do not mount near gas or electric heaters.
13. The Emergency LED Driver is a sealed unit. Components are not replaceable. Replace entire unit when necessary.
14. The Emergency LED Driver contains a non-replaceable NiCad battery that must be recycled properly.

SAVE THESE INSTRUCTIONS

The installation and use of this product must comply with all national, federal, state, municipal, or local codes. Please read this manual thoroughly before installing or operating Emergency LED Drivers.

Installation Instructions

CAUTION: BEFORE INSTALLATION, MAKE CERTAIN THE AC POWER IS OFF AND THE EMERGENCY LED DRIVER'S CONVERTER CONNECTOR IS DISCONNECTED.

Mounting the Emergency LED Driver (see figure1)

1. Mount the Emergency LED Driver to the top of the luminaire with suitable fasteners (not provided).

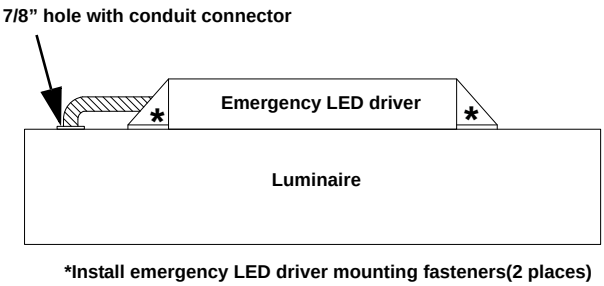

Figure 1

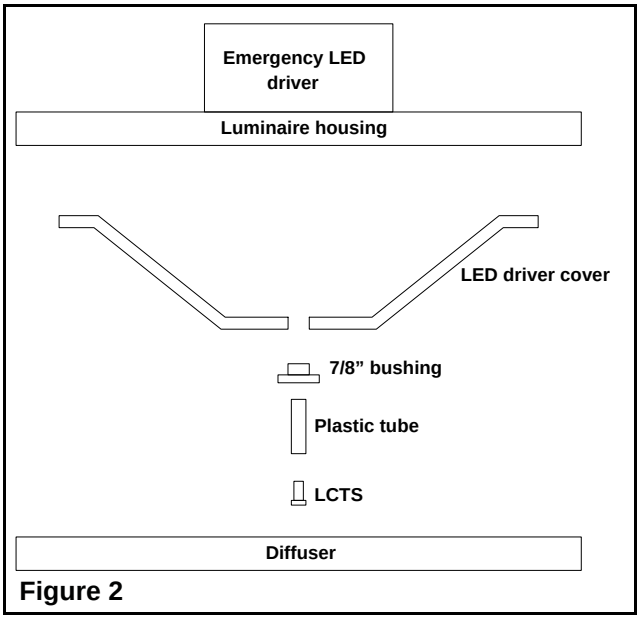

Figure 2

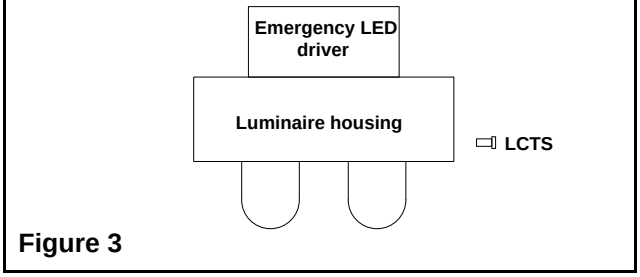

Figure 3

2. Drill or punch a 7/8” hole (1/2” knockout) on top of luminaire for flexible conduit.
3. Attach flexible conduit to luminaire.

INSTALLING THE LED COMBO TEST SWITCH (LCTS)

Recessed Troffer Luminaire (see figure 2)

1. Select a convenient location with proper clearance in the LED Driver cover and drill or punch a 7/8” hole (1/2” knockout).
2. Insert the 7/8” bushing into the hole.
3. Push the plastic tube through the bushing.
4. Route the leads of the LCTS through the plastic tube.
5. Connect the wires from the Emergency LED Driver to the LCTS (Violet to Violet, Brown to Brown).

Strip Luminaire (see figure 3)

1. Select a convenient location on the fixture where the LCTS will be visible after installation.
2. Allow for proper clearance inside the fixture and drill or punch a 1/2” hole.
3. Push the LCTS housing into the 1/2” hole and secure with nut.
4. Connect the wires from the Emergency LED Driver to the LCTS (Violet to Violet, Brown to Brown).

Wiring the Emergency LED Driver (see figure 4)

Perform all wiring with exception of the Violet and Brown wires.
Note: wiring must be performed in accordance with the National Electric Code and applicable local codes.
Consult Customer Service for additional wiring diagrams.

Wiring the AC input (see figure 4)

1. The Emergency LED Driver and AC LED Driver must be on the same branch circuit.
2. The Emergency LED Driver requires an unswitched AC power source of 120 to 277 volts.
3. When the Emergency LED Driver is used in a switched luminaire, the AC input to the Emergency LED Driver must be connected to ahead of the luminaire switch (line side of luminaire switch).

Completing the installation (see figure 4)

When the installation is complete, switch the AC power ON and join the Emergency LED Driver converter connector.

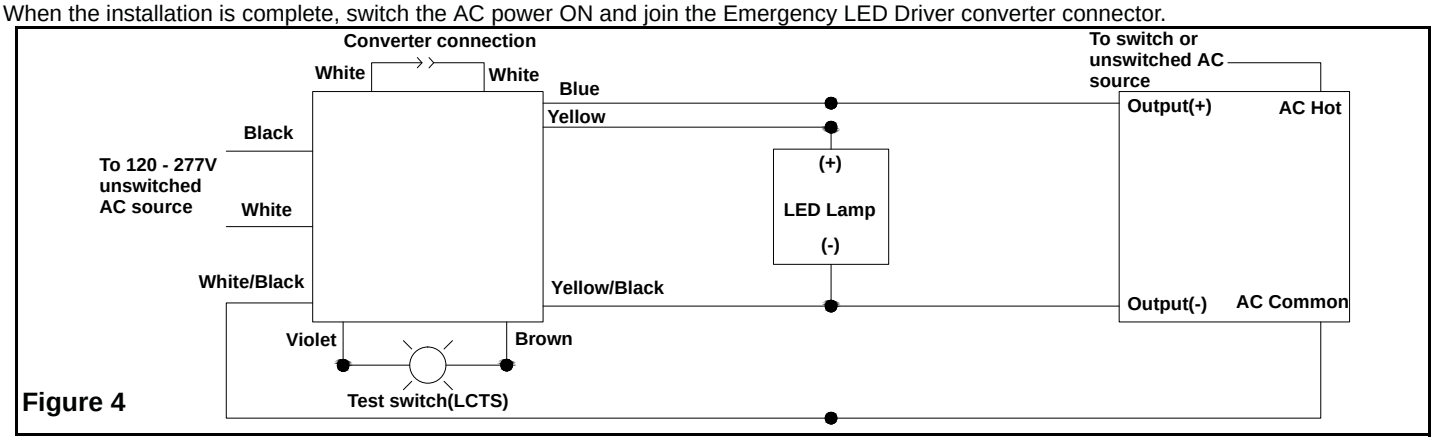

Figure 4

Operation

Normal Mode:

AC power is present. The AC LED Driver operates the LED lamp(s) as intended.
The LCTS will be illuminated indicating that the Emergency LED Driver is in the standby charging mode.

Emergency Mode:

AC power fails. The Emergency LED Driver senses the AC power failure and automatically switches to Emergency Mode. One or multiple LED lamps will be illuminated for a minimum of 90 minutes. When AC power is restored, the Emergency LED Driver switches the system back to the Normal Mode and resumes battery charging.

Testing and Maintenance

Pressing the LCTS simulates an AC power failure and forces the system into the Emergency Mode.
Only the emergency LED lamp (s) will be illuminated.
Testing may also be performed by opening circuit breaker powering the system.

Initial Testing:

Allow the unit to charge for approximately 1 hour, then press the LCTS to conduct a short test.
Allow a 24 hour charge before conducting a 1 ½ hour test.

Monthly:

Insure that the LCTS is illuminated. Conduct a 30 second test by depressing the LCTS.

Annually:

Insure that the LCTS is illuminated. Conduct a 1 ½ hour test by opening circuit breaker controlling the Emergency LED Driver unit(s) to be tested.

IMPORTANT: Written records of testing shall be kept on file for inspection by the authority having jurisdiction.

This LED driver comes with a (5) five year full warranty.

LEDDR SERIES System Coordination Guidelines

These guidelines were developed to allow the lighting system Designer/Specifier to predict the operating performance levels of LED luminaires when powered by an electrically compatible LEDDR Series model. It is ultimately the responsibility of the Designer/Specifier to ensure that the as installed system delivers code-compliant path of egress illumination.

1. Determine Electrical Compatibility
   a. Verify that the Luminaire LED Driver, where applicable, is Class 2 compliant.
   b. Verify that the Luminaire LED Lamp(s) have an operating voltage between 20Vdc and 50Vdc.
   c. Verify that the Luminaire LED Lamp(s) have a power rating equal to, or greater than, the emergency power rating of the LEDDR model under consideration.

Refer to table below and catalog page for more information.

LEDDR Model Number	EMERGENCY OUTPUT (CONSTANT)
LEDDR-5	5.0 WATTS
LEDDR-7	7.5 WATTS
LEDDR-11	10.7 WATTS
LEDDR-14	13.7 WATTS
LEDDR-17	17.0 WATTS

2. Calculate Lumen Output During Emergency Operation.
   a. Access luminaire data by logging onto DesignLights Consortium® (www.designlights.org).
   b. Select "Search the DLC Qualified Product List' on the DLC homepage.
   c. Enter manufacturer name and P/N of luminaire under consideration in the “search by keyword” text window.
   d. Select "Search" tab to open the "Qualified Products List".
   e. Determine luminaire Lumens per Watt efficacy i n "Rated Data" specifications.
   f. Multiply luminaire Lumens per Watt by Emergency Output of the LEDDR model under consideration.
   Refer to Table above.
   This figure is the Lumens available from the luminaire during emergency operation.
3. Determine Suitability of Means of Egress Lighting Levels.
   a. Using industry standard lighting design software, along with IES files for the luminaire under consideration, verify that the as installed available Lumens (as calculated in 2f above) are sufficient to meet code-compliant path of egress illumination levels.

   While the LEDDR series has been found compliant with the requirements of UL Standard 924, it is ultimately the responsibility of the Designer/Specifier to assure the as installed system delivers code-compliant path of egress illumination in accordance with Federal, State or local municipal requirements.