



## EMERGENCY DRIVER

## BEFORE INSTALLATION



- **READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION!**
- **CAUTION! RISK OF ELECTRICAL SHOCK!** – Disconnect all normal and emergency battery connections as well as turning off the battery switch before servicing.
- **FOLLOW ALL APPLICABLE ELECTRICAL CODES, BOTH NEC AND LOCAL!** – If you are uncertain of your local code and regulations, or NEC, contact a licensed electrician.
- This product will source nominally 7W of emergency power and should be used in accordance with fixture manufacturers' recommendations.
- This emergency driver is for factory or field installation either on, near, or remote from the LED fixture.
- This product is suitable for use in ambient environments from 0-50°C (-32° - 122°F).
- This product has a standby power rating of 5 watts. Do not use standby rating to determine the suitability of the branch circuit.
- This product is tested and UL listed for use with TILT® luminaires mounted at heights up to 12.6" (3.8m). Specify other heights per ANSI/NFPA emergency illumination requirements.
- Do not use outdoors.
- Do not mount near gas or electric heaters.
- Do not attempt to service the battery. The device uses a sealed, maintenance-free battery which is not field replaceable.
- Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Do not use this equipment for other than intended use.

**RATINGS:****INPUT:** 100-277 VAC 50 OR 60 HZ**OUTPUT:** 7W @ 24V MAX

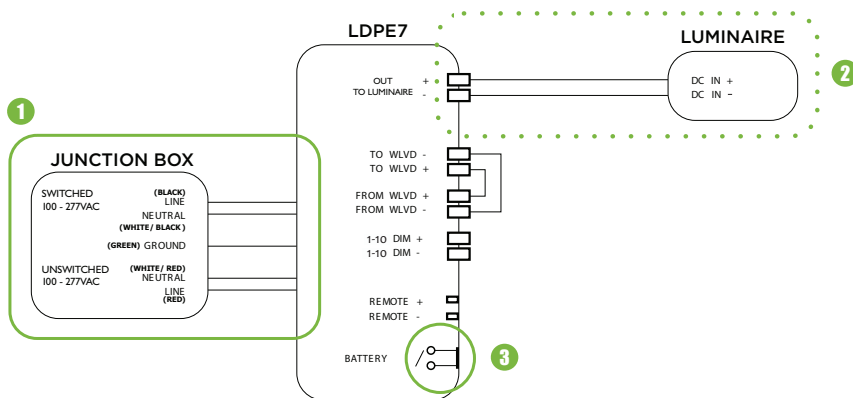
EMERGENCY RUN TIME: 90 MINUTES

INITIAL CHARGE TIME: 48 HOURS

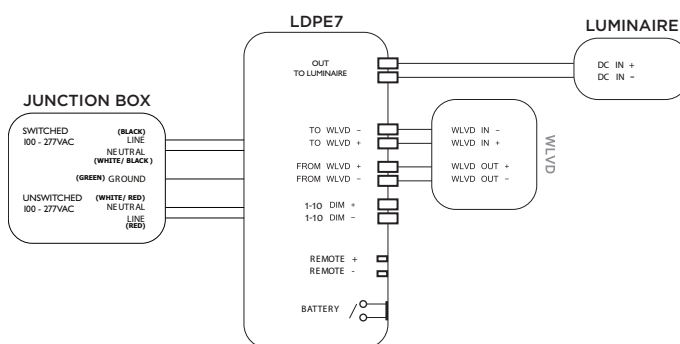
## WIRING DIAGRAM - SELF-TEST OPTION (STANDARD)

- 1 Connect LINE VOLTAGE to Emergency LED driver
- 2 Connect FIXTURE to Emergency LED driver
- 3 Activate BATTERY (Toggle battery switch to 'ON position')

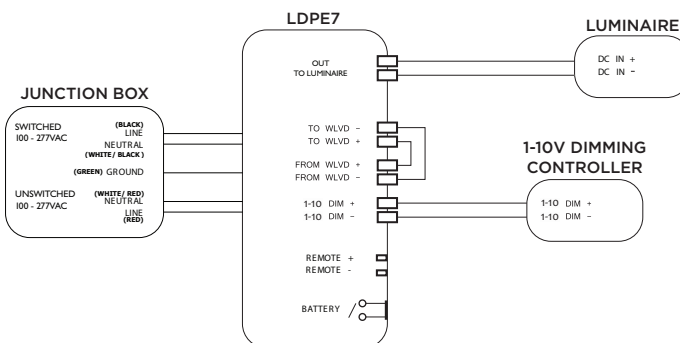
- Emergency luminaire illuminates during power outages. In this STANDARD INSTALLATION configuration, during normal operation, power from the AC circuit charges the battery.
- The emergency driver performs brief self-tests at least monthly and a full discharge at least yearly.
- If a need for service is detected during these tests, this is indicated using one of these methods:
  - Local STATUS indicator on LDPE7 and one of the following:
    - Connected LED fixture
    - Optional Remote Status/Test Indicator



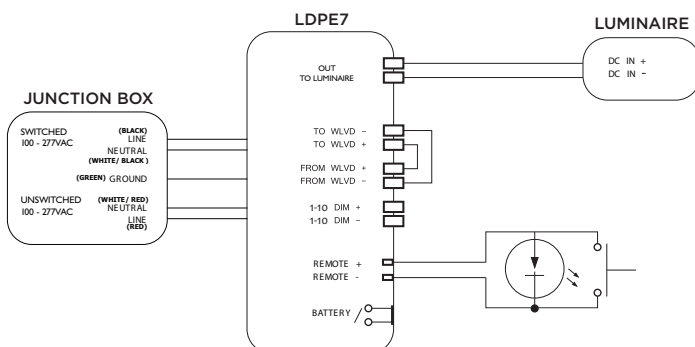
## WIRING DIAGRAM - WIRELESS DIMMER FIXTURE CONTROL



## WIRING DIAGRAM - 1-10V DIMMER CONTROL



## WIRING DIAGRAMS - OPTIONAL MANUAL TEST & EXTERNAL INDICATOR CONNECTIONS



## DIAGNOSTICS

Diagnostic information will be indicated on the local STATUS LED in the Emergency LED Driver and on ONE of these two places:

1. The connected luminaire
2. An external LED indicator (if connected).

See wiring diagrams for complete schematic information.

## STATUS INDICATIONS

This Emergency LED Driver performs a 90-second self-test routine at least monthly and a 90 minute self-test routine annually. There are two options for confirming that the unit is operating normally. Option A (recommended) uses the connected luminaire to notify space occupants of an error condition. Option B uses an external LED indicator that should be inspected by maintenance personnel.

## Flash Pattern



LED Luminaire	Status LED	Indicates	Corrective Action
Responds to wall switches/controls as expected	On, not blinking	Normal operation, battery charging	None
ON at low level during power outage	Off, not blinking	AC power outage, emergency battery operation	Restore AC power
Does not respond to wall switch controls	3 blinks, pause, repeat	LED fixture or connection failure	Check fixture & wiring
Number of blinks when power switched ON and at 1 hr intervals, ON at low level	Number of blinks, pause, repeat	Diagnostic code	See diagnostic code table

## DIAGNOSTIC CODE TABLE

If emergency lighting system needs service, and if the Status LED is connected, the LED will blink the diagnostic code constantly. Otherwise, the fixture will blink a diagnostic code upon turn on, then stay at emergency lighting level and blink diagnostic code at least every hour and anytime the switched power toggles on or off.

## Flash Pattern



Diagnostic Code	Indicates	Corrective Action
2 blinks	Emergency AC circuit outage while normal power is available	Confirm power connected to the unswitched AC input, reset breaker if tripped
3 blinks	No fixture detected	Confirm fixture is connected
4 blinks	Short circuit on DC wiring detected	Check for short-circuit
5 blinks	Battery issue (fault or dead)	Check that battery is connected (battery at Indicator Switch)
6 blinks	Internal system failure	Replace the Emergency Driver

## SELF TESTING GUIDE

## OPERATION

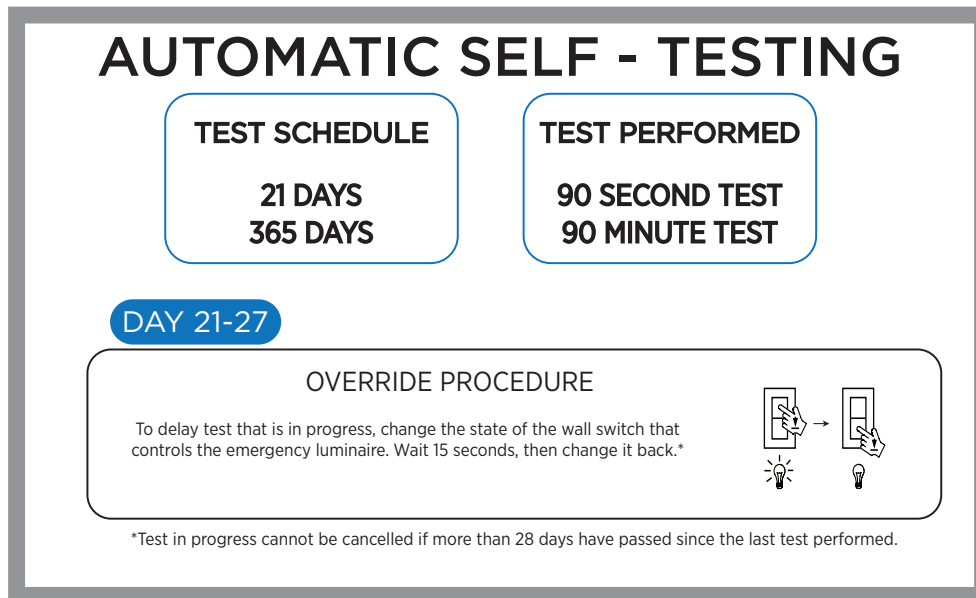
During normal operation, power from the AC circuit charges the battery. The emergency driver performs brief self-tests at least monthly and a full discharge test at least yearly. If a need for service is detected during these tests, this is indicated using the connected LED fixture or an optional external status LED.

## AUTOMATIC SELF-TEST OPERATION

The emergency driver performs a brief 90-second discharge test at least every 30 days and a full 90-minute test at least every year. The driver attempts to perform these tests at times that are less likely to disturb the occupants, such as when the lights have been off for an extended period of time. The battery and the LED panel are monitored during these tests and any abnormal conditions are detected and communicated through the attached LED fixture or external indicator LED (if installed). If the abnormal condition is corrected and a subsequent test passes, the error condition is cleared and the emergency driver returns to normal operation.

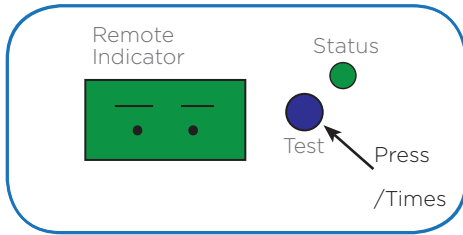
## OVERRIDE PROCEDURE

To delay a test in progress, change the state of the wall switch that normally controls the lights, then change it back. The emergency driver will delay the test for about 24 hrs only if fewer than 28 days have passed since the last test. On the 28th day, a test will be initiated and cannot be cancelled.



MANUAL TESTING GUIDE

All LDE7P units come with a built-in Status Indicator LED and a Test Switch that can be used to manually conduct both the 90 second and 90 minute discharge tests.



**TEST PERFORMED**  
**2/Times-** 90 Second Discharge  
**3/Times-** 90 Minute Full Discharge

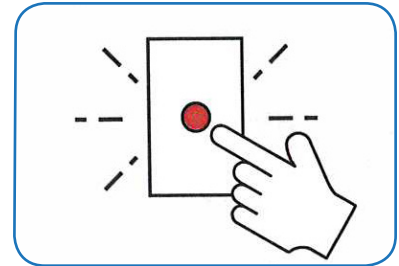
OPTIONAL - REMOTE TEST / STATUS INDICATOR

Typical installations of the LDE7P DO NOT require either remote status indicators or manual test buttons. However, all LDE7P units come with built-in connectors for an (optional) external remote test/status indicator that can be used to manually conduct both the 90 second and 90 minute discharge tests. For wiring diagrams, refer to Optional Manual Test and External Indicator Connection.

OPTION 1: REMOTE STATUS INDICATOR

- 1. Indicator displays status and diagnostic flash patterns (see diagnostic table)

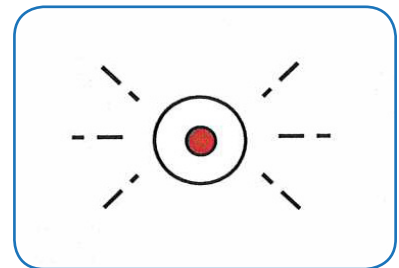
Note: Connection utilizes Remote Status/Test Indicator LED as the indicator and disables the use of the Luminaire as the indicator (self-test mode)



OPTION 2: REMOTE STATUS INDICATOR

- 1. Indicator displays status and diagnostic flash patterns (see “diagnostic table)
- 2. Manual test button can be used to perform 90 minute and 90 second tests (see manual test operation above)

Note: Connection utilizes local LED as the indicator and disables the use of the Luminaire as the indicator. Self-test mode is still active, the Luminaire indication is deactivated.



- \* THIS PRODUCT CONTAINS A RECHARGEABLE NICKEL-CADMIUM BATTERY
- \* THE BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY
- \* DO NOT DISPOSE OF THIS DEVICE IN THE TRASH

