

Installation Instructions

NEPK-20LEDUNV

Emergency LED Driver with Remote Test Switch

READ PRIOR TO ATTEMPTING INSTALLATION
ALWAYS TURN OFF MAIN POWER BEFORE INSTALLATION
INSTALLATION SHOULD BE CARRIED OUT BY YOUR LOCAL ELECTRICIAN



IMPORTANT SAFEGUARDS

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

PLEASE READ AND FOLLOW ALL SAFETY INSTRUCTIONS

Contains Li-ion
Rechargeable battery
Must be recycled or
Disposed Properly



IMPORTANT: Before installing, make certain the AC Power to the fixture is off to avoid electric shock.

IMPORTANT: An un-switched AC power source of 100VAC to 347VAC is required. This device is designed for use in fixtures listed for dry and damp locations.

IMPORTANT: Verify that all replacement lamp types marked on the installed luminaire are also identified as suitable for use with this emergency battery pack.

IMPORTANT: It is recommended to charge the battery within half a year to prevent over discharge.

CAUTION: Make sure all electrical connections conform to the National Electrical Code and all applicable local regulations.

CAUTION: Do not let power supply cords touch hot surfaces.

CAUTION: Do not mount near gas or electric heaters. Do not use outdoors.

This product is for use with an LED lighting load which up to 20W with output voltage at 170VDC in emergency mode for a minimum of 90 minutes.

To reduce the risk of electric shock, disconnect both normal and emergency power supplies before servicing.

This emergency driver is for factory installation and field installation.

This product is suitable for use in damp locations where the ambient temperature is 5°C minimum, +50°C maximum. Product is not suitable for heated air outlets and wet or hazardous locations.

Use with grounded, UL Listed, damp location rated fixtures and case should be grounding.

Do not attempt to service battery. A sealed, no-maintenance battery is used that is not field replaceable. Contact the manufacturer for information on service.

The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.

Do not use this product for other than intended use.

Servicing should be performed by qualified service personnel.

Equipment should be mounted in locations and at heights where it will not be subjected to tampering by unauthorized personnel.

APPLICATION

- For use with luminaire $\leq 20W$, EM dimming wires may be connect or disconnected to the luminaire's 0-10V dimming.
- For use with luminaire $\leq 80W$, EM dimming wires must be connect to the luminaire's 0-10V dimming.

Luminaires $\geq 20W$ must have 0-10V dimming to operate with EM. Operating luminaires greater than 20W without 0-10V dimming will result in poor performance and void warranty.

Application	#	Condition (EM rated power = 20W)	Dimming Wires Connected	Calculate Wattage and Lumens at EM mode
$\leq 20W$	1	Luminaire rated power \leq EM rated power	No	100% of luminaire lumens
	2	Luminaire rated power \leq EM rated power	Yes	60% of luminaire lumens
$\leq 80W$	3	Luminaire rated power \geq EM rated power with 0.6 * (Luminaire rated power) \leq EM rated power	Yes	60% of luminaire lumens
	4	Luminaire rated power \geq EM rated power with 0.6 * (Luminaire rated power) \geq EM rated power	Yes	(EM rated power / luminaire rated power) * luminaire lumens

EXAMPLE

EM mode, calculated wattage, actual wattage and lumens may be slightly different. Calculated wattage is for reference only.

Application	#	Condition (EM rated power = 20W)	Dimming Wires Connected	Calculate Wattage and Lumens at EM mode
$\leq 20W$	1	Luminaire rated at 15W, 1000lm Luminaire rated power, 15W \leq EM rated power, 20W	No	15W x 100% = 15W 1000lm x 100% = 1000lm
	2	Luminaire rated at 15W, 1000lm Luminaire rated power, 15W \leq EM rated power, 20W	Yes	15W x 60% = 9W 1000lm x 60% = 600lm
$\leq 80W$	3	Luminaire rated at 30W, 1500lm Luminaire rated power, 30W \geq EM rated power, 20W with 0.6 * (Luminaire rated power, 30W) \leq EM rated power, 20W	Yes	30W x 60% = 18W 1500lm x 60% = 900lm
	4	Luminaire rated at 40W, 2000lm Luminaire rated power, 40W \geq EM rated power, 20W with 0.6 * (Luminaire rated power, 40W) \geq EM rated power, 20W	Yes	40W x 60% = 24W 20W/40W x 2000lm = 1000lm

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INSTALLATION OF THIS EMERGENCY LED DRIVER WILL VARY BASED ON THE LUMINAIRE TYPE, HOWEVER, GENERALLY FOLLOW THESE STEPS:

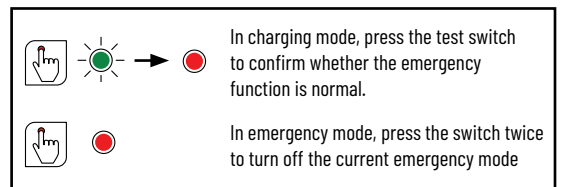
INSTALLING THE EMERGENCY DRIVER

1. Disconnect AC power from the LED luminaire.
2. Mount the emergency LED driver by the mounting tabs using the supplied screws.
3. The emergency driver with cable conduit suitable to remote mounted from the luminaire. When used in conjunction with an AC driver, this distance is up to half the distance the AC driver manufacturer recommends remote mounting the AC driver from the LED Load.

Mounting Height: This product meets or exceeds the NFPA minimum light requirements with all loads, down to the smallest rated lamp load, at heights up to 7.17ft (2.2m). Many factors influence emergency illumination levels, such as the lamp load selected, luminaire design and environmental factors therefore end use verification is necessary. For field installations, when the attached luminaire is mounted at heights greater than 7.17ft (2.2m), the level of illumination must be measured in the end application to ensure the requirements of NFPA 101 and local codes.

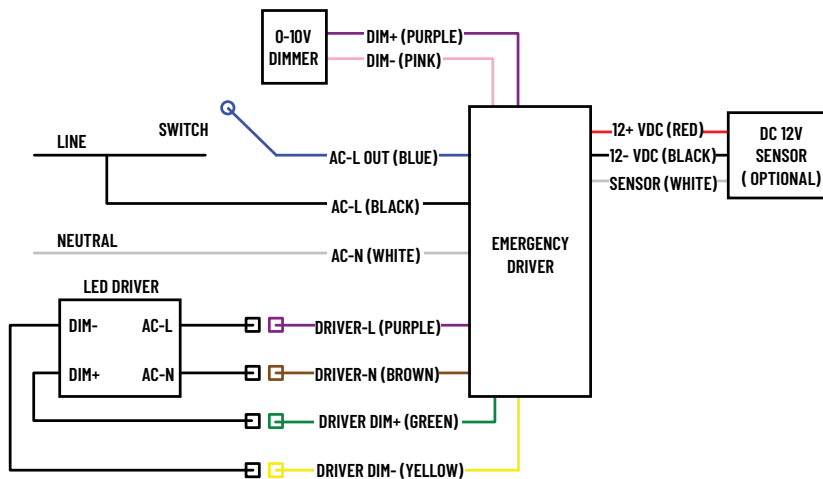
TEST SWITCH MODES

- Solid Green = Fully charged
- Solid Red = Emergency mode
- Flashing Yellow = Error
- Flashing Green = EM charging
- Flashing Red = EM discharging



WIRING THE EMERGENCY DRIVER

1. Refer to wiring diagram and connect the emergency driver to the AC driver and dimmer. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
2. Cap off the sensor wires if not needed.
3. After installation is complete, supply AC power to the emergency driver.
4. At this point, the charging indicator light should be green and flashing while the battery is charging. When charging is complete, the indicator should be a solid green light. When in Emergency mode, the indicator light should be a solid red light.



OPERATION

When AC power is applied, the charging indicator light will flash, indicating the battery is being charged. When power fails, the emergency driver automatically switches to emergency power, operating the emergency LED load at reduced illumination. When AC power is restored, the emergency driver returns to charging mode. This emergency driver will operate LED lighting load supplies up to 20W constant power with output voltage at 170VDC in emergency mode for a minimum of 90 minutes.

MAINTENANCE

- Although no routine maintenance is required to keep the emergency driver 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 LED lighting load should operate at reduced illumination.
 3. Conduct a 90-minute discharge test once a year. The emergency LED load should operate at reduced illumination for a minimum of 90 minutes.
 4. The life expectancy of the batteries is at least 5 years. Integral battery is not replaceable, replace entire unit when necessary.