

Installation Instructions

NSEM-6WD

Enclosure with Emergency Battery for 6" Surface Mounts

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

⚠ IMPORTANT - This equipment is intended to be installed only by qualified personnel. The installation must be made in accordance with the current edition to the National Electric Code and all applicable state and local building codes. The final installation must be approved by the appropriate qualified electrical/building inspector(s). Improper installation may result in a fire or electrical hazard. Be sure the electrical power to the circuit has been disconnected before installing this electrical system.

⚠ IMPORTANT - Cet équipement est destiné à être installé uniquement par du personnel qualifié. L'installation doit être faite en conformité avec l'édition actuelle du Code national de l'électricité et toutes étatiques et locales codes du bâtiment applicables. L'installation finale doit être approuvée par l'inspecteur en électricité / bâtiment qualifié approprié(s). Une mauvaise installation peut entraîner un incendie ou un risque électrique. Soyez sûr de la puissance électrique vers le circuit a été coupée avant l'installation de ce système électrique.

IMPORTANT SAFEGUARDS

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

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

1. Disconnect power at fuse or circuit breaker before installing or servicing.
2. Do not use outdoors.
3. Do not mount in hazardous locations or near gas or electric heaters.
4. Do not let power cords touch hot surface.
5. Equipment should be mounted in locations and at heights where it will not be subjected to tampering by unauthorized personnel.
6. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
7. Do not use this equipment for purposes other than its intended use.
8. All servicing should be performed by qualified personnel only.
9. Allow battery to charge for 24 hours before first use.
10. An unswitched AC power supply is required (120VAC, 60Hz).
11. This emergency driver is for factory installation and field installation.
12. Do not attempt to service the battery, a sealed, no-maintenance battery is used that is not field replaceable. Contact the manufacturer for more information.
13. Use flexible conduit only.

MAINTENANCE

The battery must be recharged if the product keep in stock over 9 months. Refer to the detailed manual for "BATTERY STOCK AND RECHARGE GUIDELINES". We recommend that the equipment be tested regularly in accordance with local codes. Replace the batteries as needed if discharge time do not achieve 90 minutes.

If the luminaire needs to be removed or replaced after installation, disconnect the battery. Disconnecting the battery prevents it from being damaged. Failure to do so may result in a defective unit.

If the emergency unit has been charged, allow the battery to fully discharge before disconnecting the luminaire.

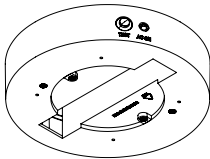
TROUBLE SHOOTING GUIDE

If luminaire or LED indicator do not illuminate, check the following:

1. Check AC supply - verify that the luminaire is properly wired.
2. Ensure the unit was not shorted or that the battery was disconnected.
3. Battery may have discharge. Charge the emergency unit for 24 hours, then re-test.
4. If above trouble shooting methods do not resolve the problem, contact the factory for further assistance.



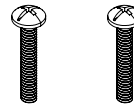
PACKAGING CONTENTS



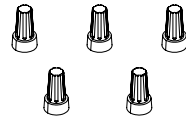
Enclosure with
Emergency Battery



(2) M4 Machine Screws
0.2" Long

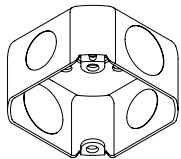


(2) 8-32 Machine Screws
1" Long

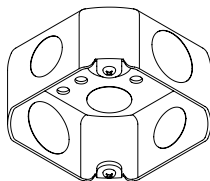


(5) Wire Nuts

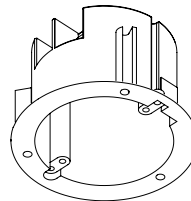
COMPATIBLE JUNCTION BOXES



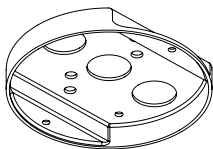
3" Octagonal Junction Box



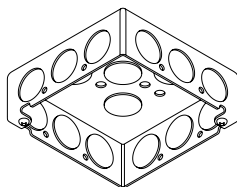
4" Octagonal Junction Box
Metallic or Non-Metallic
(Carlton A615)



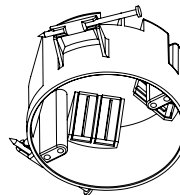
4" Round Non-Metallic
(Carlton B620)



4" Pancake Junction Box



4" Square Junction Box



4" Round Non-Metallic
(Carlton B618R)

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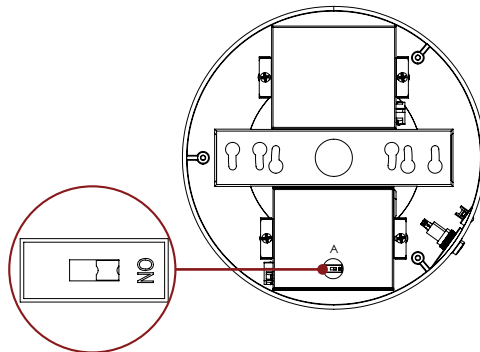
COMPATIBLE LUMINAIRES

Factory default will have the battery disconnected and the LED driver switch will be set to the "ON" position. Remove the backplate by unscrewing the screws and connect the battery. After connecting the battery, reassemble the backplate to the emergency unit.

Refer to chart for output voltage of emergency unit and compatible luminaire.

Compatible luminaires meet 90min illumination requirement of building, electrical, and safety code. Using non-compatible luminaire may result in non-compliance to building, electrical, and safety code.

COMPATIBLE LUMINAIRES			
Switch Position	Output Voltage	Compatible Luminaire	Estimated lumens in EM
ON	123VDC	NELOCAC-6RL130W	100%
		NELOCAC-6RP	40%
(Blank)	131VDC	N/A	N/A



MAX. MOUNTING HEIGHT

Max. mounting height: .ft (. m) or equivalent when used with compatible luminaire.

Switch Position / Voltage	Compatible Luminaire	Max. Mounting Height
Switch = "ON" / 123VDC	NELOCAC-6RL130W, NELOCAC-6RP	18.3ft (5.5m)

- Ensure there will be sufficient light output in the end application. Estimate the egress lighting illumination levels by confirming the following:
 - Find the efficacy of the LED load. This can be given by the luminaire manufacturer or DLC test report. This number will be given in lumens per watt (lm/W)
 - Lumens can be calculated by multiplying the output power of the emergency LED driver by the efficacy of the LED load. In many cases the actual lumen output in emergency mode will be greater than this calculation gives, however it will provide a good estimate for beginning the lighting design of the system.
 - Using the results of this calculation and industry standard lighting tools, calculate the anticipated illumination levels in the path of egress.

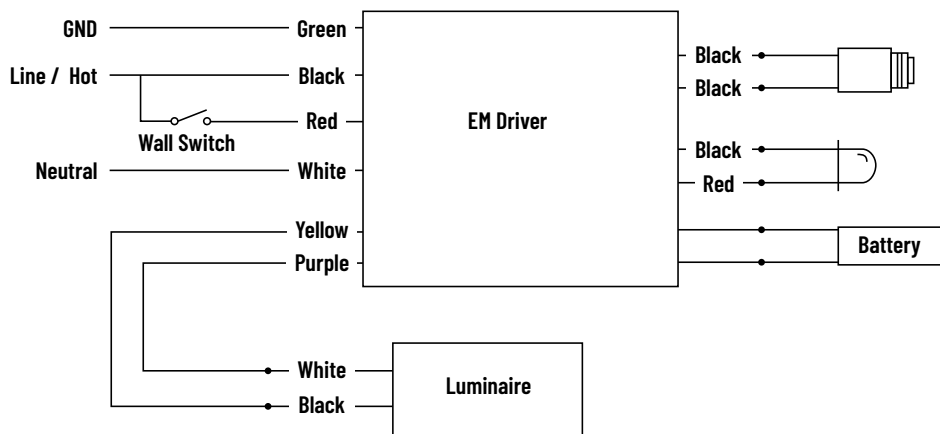
$$\text{Lumens in Emergency Mode} = \text{Lumens per Watt of Fixture} * \text{Output power Emergency LED Driver}$$

$$\text{Lumens} = (\text{lm/W}) * (\text{W})$$

NOTE: THIS PRODUCT HAS BEEN DESIGNED TO RELIABLY INTERFACE WITH A WIDE SELECTION OF LED LOADS AND IS ELECTRICALLY COMPATIBLE WITH EVERY SIMPLE LED ARRAY THAT MEETS CRITERIA ABOVE. HOWEVER, COMPATIBILITY CANNOT BE GUARANTEED WITH ALL CURRENT AND FUTURE LED SYSTEMS. COMPATIBILITY TESTING OF THE END-USE SYSTEM IS SUGGESTED. PLEASE CONTACT THE FACTORY WITH ANY QUESTIONS.

NOTE: AFTER INSTALLATION IT WILL BE NECESSARY TO MEASURE THE EGRESS LIGHTING ILLUMINATION LEVELS TO ENSURE IT COMPLIES WITH NATIONAL, STATE AND LOCAL CODE REQUIREMENTS.

WIRING DIAGRAM



Installation Instructions

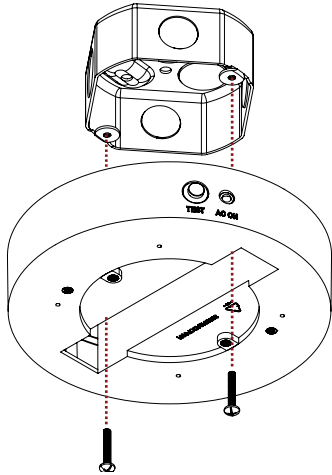
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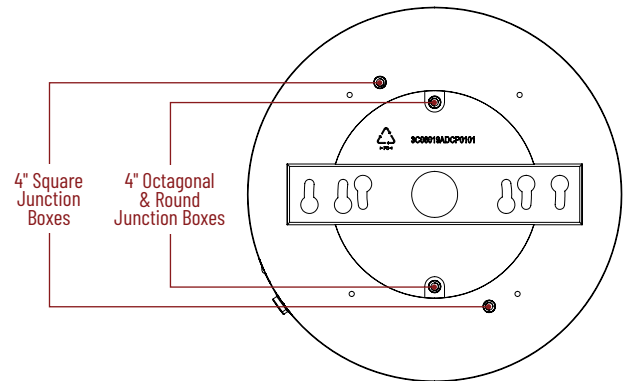
INSTALLATION INSTRUCTIONS

- 1** Remove the appropriate junction box labels and install the emergency unit to the junction box by two screws (provided), securing it through the appropriate mounting holes.



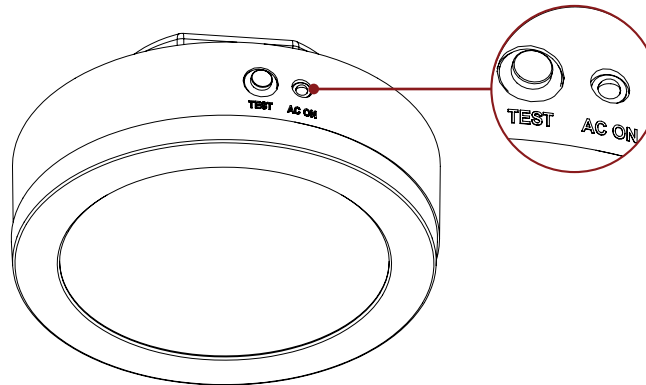
NOTE: MOUNTING HOLES ARE LABELED FOR USE WITH COMPATIBLE JUNCTION BOXES.
NOTE: DO NOT OVER TORQUE SCREWS. OVER TORQUING SCREWS WILL DEFORM UNIT.

- 2** After securing the emergency unit to the junction box. Connect the emergency unit to the luminaire, refer to the wiring diagram for proper connection. Secure the luminaire to the emergency unit through the designated mounting holes on the emergency unit to complete installation.



NOTE: DO NOT OVER TORQUE SCREWS. OVER TORQUING SCREWS WILL DEFORM UNIT.
NOTE: USE M4*0.2" SCREW FOR LUMINAIRE INSTALLATION.

- 3** After installation is completed, turn on power to confirm the luminaire is functioning properly. If both the luminaire and the LED indicator are both on, perform the following test. Press the test button, the LED indicator will turn off, the luminaire will be in emergency mode. If the luminaire or emergency unit do not operate properly, refer to the "Troubleshooting Guide" section.



LED Indicator Modes	
LED Indicator "ON"	AC power connected, and battery connected, EM charging
LED Indicator "OFF"	AC power connected, and battery disconnected, Battery is disconnected
LED Indicator "OFF"	AC disconnected, and battery connected, EM mode.