

INSTRUCTION MANUAL

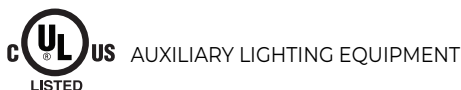
IMPORTANT SAFEGUARDS

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

READ AND FOLLOW ALL SAFETY INSTRUCTIONS:

1. To prevent electrical shock, do not engage the battery connector until installation is complete and AC power is supplied to the unit.
2. To reduce the risk of electrical shock, disconnect both normal and emergency power sources before servicing.
3. This is a sealed unit. Replace the entire unit when necessary.
4. Installation and servicing should be performed by qualified personnel only.
5. This unit must be grounded. See the wiring diagrams for details.
6. This unit must be connected to the unswitched normal source of power with a nominal voltage of 120 – 277/347 Vac, 50/60 Hz to monitor for a power failure.
7. The ACE-Hxx-180CP must be fed from the same branch circuit as the AC LED driver during normal mode.
8. The ACE-Hxx-180CP should be mounted in locations and heights where it will not readily be subjected to tampering by unauthorized personnel.
9. The ACE-Hxx-180CP is intended for mounting external to and hanging in-line with high bay lighting fixtures. It is suitable for factory or field installation.
10. This product is suitable for use in damp locations where the ambient temperature is in the range of 0 °C minimum to 55 °C maximum. This product is also suitable for use in sealed and gasketed fixtures.
11. This product is not suitable for heated air outlets, wet, or hazardous locations.
12. Use of accessory equipment not recommended by the manufacturer may cause an unsafe condition, void the warranty, or result in non-compliance with regulations.
13. Do not mount near gas or electric heaters. Do not use this product outdoors or for any use other than its intended use.
14. Install in accordance with the National Electrical Code and local regulations.

SAVE THESE INSTRUCTIONS



THIS PRODUCT CONTAINS A RECHARGEABLE LITHIUM-ION BATTERY. THE BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY.



INSTALLATION INSTRUCTIONS

CAUTION:

BEFORE INSTALLING, MAKE CERTAIN THE AC POWER IS OFF. DO NOT ENGAGE BATTERY CONNECTOR UNTIL INSTALLATION IS COMPLETE AND AC POWER IS SUPPLIED TO THE UNIT.

NOTE: Make sure the necessary branch circuit wiring is available. An unswitched source of power with a nominal voltage of 120 – 277 Vac, 50/60 Hz or 120 – 347 Vac, 50/60 Hz (depending on the model) is required. The emergency lighting power supply must be fed from the same branch circuit as the AC LED driver.

For field installations, the following items need to be checked to determine if the LED driver-luminaire combination is suitable.

- A:** Verify that the 0/1-10 Vdc dimmable LED driver's input is compatible with the emergency lighting power supply's output, which supplies 120 – 180 Vdc to the LED driver's input in emergency mode.
- B:** Verify that the 0/1-10 Vdc dimmable LED driver is compatible with the proper emergency lighting power supply model. This can be determined using the table below, and using the LED driver's output power range as a guide:

Model	Output Power (W)	LED Driver's Output Power (W)
ACE-H16-180CP	16	20 – 110
ACE-H30-180CP	30	80 – 210
ACE-H40-180CP	40	110 – 280

C: Ensure that there will be sufficient emergency egress lighting illumination levels per national, state, and local codes. Use the following guidelines.

- 1.) Determine the efficacy (lm/W) of the LED driver-luminaire combination. This information is typically given by the luminaire manufacturer in lumens per Watt (lm/W or LPW), or by direct measurement or published by a 3rd party such as Design Lights Consortium (www.designlights.org).
- 2.) The light output of the LED driver-luminaire combination in lumens can be calculated by multiplying the output power (W) of the emergency lighting power supply by the efficacy of the LED driver-luminaire combination (lm/W). This will provide an estimate as a beginning point for the emergency lighting design. Use the following equation and example as a guide:

Lumens in emergency mode (lm) = (emergency lighting power supply output power (W)) x (LED driver-luminaire efficacy (lm/W)).

Example: Given: The emergency lighting power supply = 16 W
 and LED driver-luminaire combination efficacy = 100 lm/W
 Then: Lumens in emergency mode = 16 x 100 = 1600 lm

NOTE: The above serves only as an example, actual results will depend on the specific data for the specific application.

- 3.) Once the light output (lm) is determined, use industry standard lighting design tools to estimate the illumination levels for the emergency egress path based on mounting height and other factors.

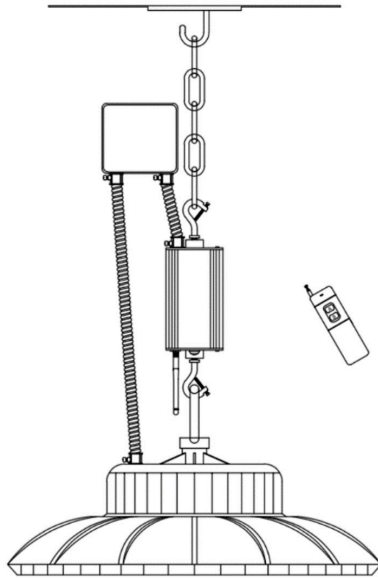
NOTE: This product is compatible with most LED fixtures and LED loads that meet criteria A, B, and C above. However, interoperability and compatibility cannot be guaranteed. Compatibility and interoperability testing for the end-use application is recommended. Please contact the factory should there be any questions.

NOTE: After installation, it is necessary that the emergency egress lighting illumination levels be measured to ensure compliance with national, state, and local codes.

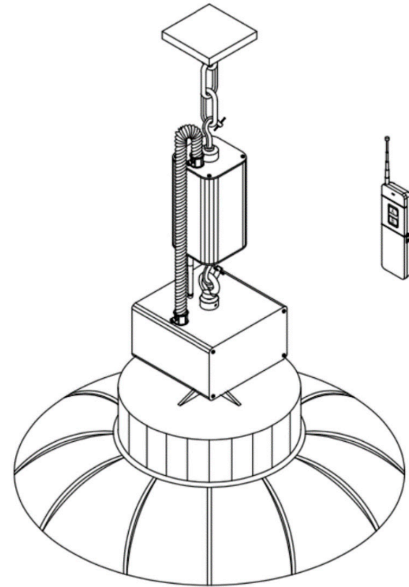
Installation of this emergency lighting power supply may vary from one luminaire type to another; however, the following steps generally apply:

Step 1.) Installing the emergency lighting power supply

- Ensure that AC power is disconnected from the LED luminaire.
- Hang the emergency lighting power supply by the fisheye bolt. Illustration 1 shows two options for placement of the junction box for making wiring connection.



Junction box mounted above the emergency lighting power supply.



Junction box mounted on top of the UFO fixture.

Illustration 1.

Step 2.) Wiring the emergency lighting power supply

- Select the appropriate wiring diagram.
- Make sure all connections are in accordance with the National Electrical Code, local codes, and any other applicable codes.
- After installation is complete, supply AC to the luminaire. The charging indicator LED should illuminate indicating that the battery is charging.
- A short-term discharge test may be conducted after the emergency lighting power supply has been charged for at least one hour. Let the unit charge for 24 hours before conducting a long-term discharge test.

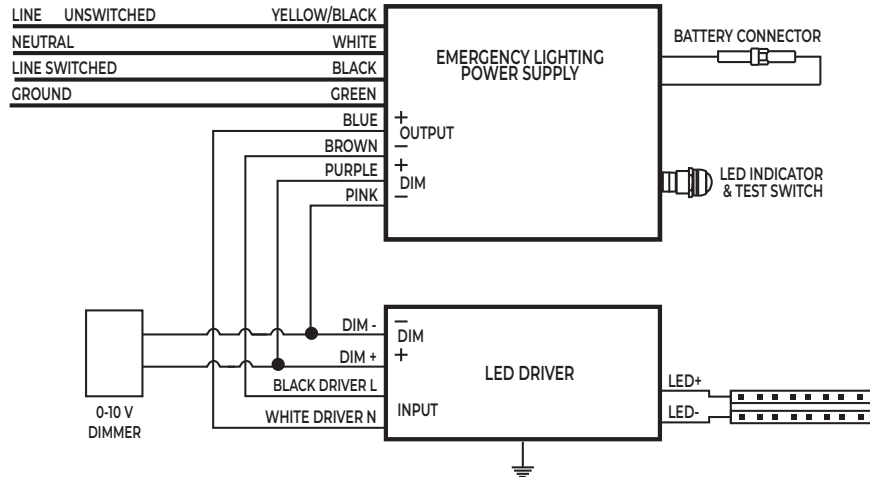
OPERATION:

Normal Mode – During normal-mode conditions the emergency lighting power supply charging indicator should be illuminated. The dimming function should operate as normal.

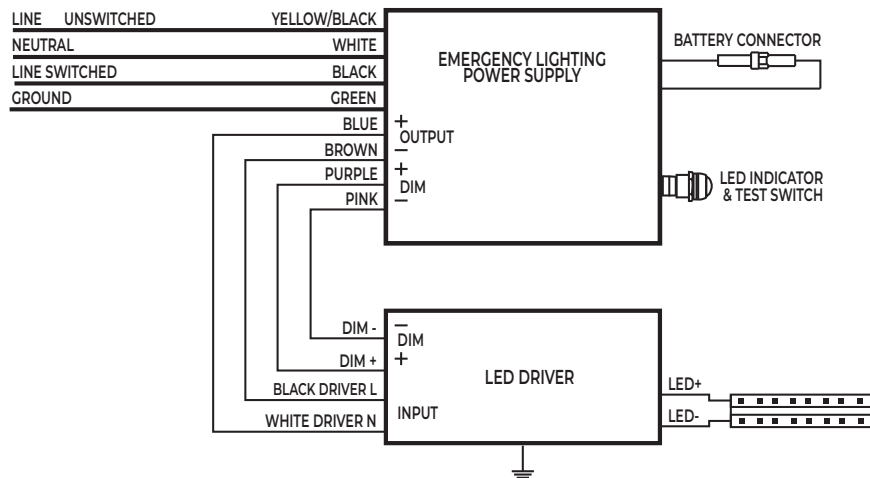
Emergency Mode – When there is a failure of the normal source of power, the emergency lighting power supply switches to emergency-mode and supplies the LED driver with a dc voltage between 120 and 180 volts. The emergency lighting power supply uses its 0-10 Vdc analog dimming controller to adjust the dimming signal fed to the compatible LED driver's dimming control input to regulate the power delivered to the LED driver for the duration of the power failure up to 90 minutes. When normal power returns, the emergency lighting power supply returns to normal mode.

TESTING & MAINTENANCE:

This is a maintenance free unit; however, periodic inspection and testing is required per NFPA 101, Life Safety Code. An optional wireless remote control test switch is sold separately, model 10221601-R. The remote control operates at a distance of 30 ft.



Wiring Diagram with 0-10 Vdc Dimmer



Wiring Diagram without 0-10 Vdc Dimmer

NOTE: For unswitched fixture applications, connect the switched line to the unswitched line.