evio™
an **Aleo Lighting** Brand

EM-AC Series
LED EMERGENCY DRIVER

MODEL: EM-AC-V200-UNV-H-FI-16

INSTALLATION INSTRUCTIONS

IMPORTANT SAFEGUARDS

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

READ AND FOLLOW ALL SAFETY INSTRUCTIONS:

CAUTION -

DO NOT join battery connector until installation is complete and AC power is supplied to the emergency driver.

DO NOT Use Outdoors. Use with grounded, UL Listed, damp location rated fixtures, case should be grounded.

DO NOT mount near gas or electric heaters.

DO NOT use this equipment for other than intended use

For use in 0ºC minimum, 50ºC maximum ambient temperature. Not for use in heated air outlets and wet or hazardous locations.

An unswitched AC power source is required (120-277 VAC, 50/60 Hz). The EM-AC and AC driver must be on the same branch circuit.

The EM-AC should be mounted in locations and at heights where it will not be subjected to tampering by unauthorized Personnel.

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

WARNING - FAILURE TO FOLLOW THESE INSTRUCTIONS AND WARNINGS MAY RESULT IN SERIOUS INJURY OR DAMAGE TO PROPERTY

For your safety, thoroughly read these instructions and warnings in its entirety prior to installing or servicing this product. These instructions do not attempt to cover all installation and maintenance circumstances. If you do not understand these instructions or if additional information is needed, please contact Evio customer service.

WARNING - This product must be installed and serviced by a professional electrician in accordance with applicable federal, state, and local laws, regulations, and electrical code. If not qualified, do not attempt installation of this product. Contact a qualified electrician.

WARNING - To avoid risk of electrical shock, AC Power must be off before installing or servicing of emergency driver. Verify that supply voltage is correct by comparing with the input voltage on the driver label
Make all electrical and ground connections in accordance with NEC and any applicable code requirements

CAUTION - This is a sealed unit. Components are not replaceable. Replace the entire unit when necessary.

CAUTION - To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects. Do not let power supply wires touch hot surfaces luminaire wiring and electrical parts may be damaged when drilling for installation of LED Emergency Backup.

CAUTION - Battery is rechargeable LiFePO4 and must be recycled or disposed of properly.

IMPORTANT - LED Indicator light illuminated indicates battery is in charge mode when AC power is applied. It is recommended and required by applicable code to test the emergency driver to ensure proper function of the system; push the test switch for thirty (30) seconds every 30 days to ensure the emergency driver is functioning as LED light source is illuminated. Conduct a ninety (90) minute discharge test one (1) time per year; LED light source should be illuminated for a minimum of ninety (90) minutes

IMPORTANT: THE BATTERY MUST BE RECHARGED EVERY (3) THREE MONTHS. IF NOT RECHARGED ACCORDINGLY, BATTERY MAY FAIL AND VOID WARRANTY.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

THIS PRODUCT CONTAINS A RECHARGEABLE LiFePO4 BATTERY. THE BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY.

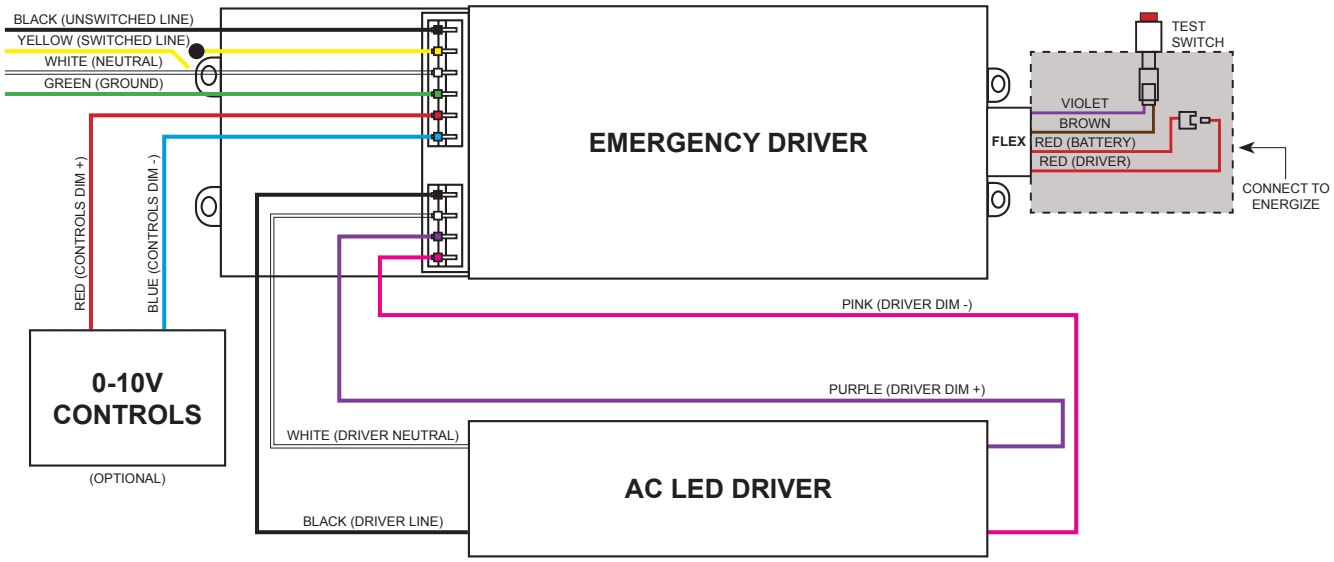
LiFePO4

INSTALLATION

Wiring Diagram

WARNING:
When Battery Switch turned ON, output leads will be HOT.

IMPORTANT:
Dimming wires must be connected to LED Driver dimming wires for EM to function properly. Will NOT operate if not connected.



WARNING: Make Sure Battery connector is disconnected. When connected, output leads will be HOT.

1. **Read and understand all warning and notes stated on pg. 1 before proceeding with installation**
2. **Compatibility:**

   The EM-AC emergency drivers can be field-installed with most LED drivers with a 120V-277V input voltage under 100W and with 0-10V dimming. Verify LED driver in the fixture is UL Class 2. Verify that Emergency Backup unit selected does not exceed the power delivered to the LED Driver under normal operation. Operating Temp: 0°C ~ +50°C.
3. **Determine Suitability of Means of Egress Lighting Levels**

   Estimate the egress lighting illumination levels by:

   a. Determine the efficacy (lm/) of LED load. It is the installer's responsibility to validate the luminaire manufacturer's efficacy data.

   b. Lumens can be calculated by multiplying the output power of the EM-AC driver by the efficacy of the load.

   c. Use the lumen levels calculated above, luminaire IES files, and industry standard lighting design tools to calculate the anticipated illumination levels in the path of egress.

   It is ultimately the responsibility of the designer/specifier or installer to ensure the system delivers code compliant path of egress illumination in accordance with federal, state or local requirements.
4. **Mounting:**

   Mount the EM-AC Emergency Driver on or adjacent to the fixture in a location that does not interfere with the existing AC driver or any other hardware. When battery packs are remote mounted, please contact Customer Service for the maximum allowed distance between the battery pack and the load. To install the Test Button, there are (2) options:

   A) CEILING-MOUNT TEST BUTTON - Cut a single gang switch box (not provided) into the ceiling tile adjacent to the fixture within reach of Flex Conduit. After mounting the switch box, connect Flex Conduit to the box, secure in place, and route all leads inside the box. Attach Test Button to provided single gang Wall Box Cover Plate, connect Test Button to EM-AC, attach Wall Box Cover Plate to switch box.

   - or -

   B) FIXTURE-MOUNT TEST BUTTON – Feed Flex Conduit to a knockout hole in the fixture junction box or wiring compartment, secure flex in place, and route all leads inside the fixture junction box or wiring compartment. Insert Test Button (without wall box cover plate) into pre-drilled ½" hole in appropriate location of fixture. Connect Test Button to EM-AC.

INSTALLATION

5. **Wiring:**

   Complete wiring according to Wiring Diagram on page 2. Install in accordance with National Electric Code. Emergency Driver and LED Driver must be on same branch circuit. Ensure hot lead going to the Black lead on the Emergency LED driver is UNSWITCHED. When used with switched fixture(s), the Emergency Driver must be wired ahead of the switch. INPUT: follow Wiring Diagram to make connections to AC line and 0-10V dimming controls (optional).

   OUTPUT: follow Wiring Diagram to make connections to LED Driver input and 0-10V dimming.

   IMPORTANT: MUST CONNECT 0-10V DIMMING WIRES TO LED DRIVER DIMMING WIRE.

6. **Testing:**

   Press the Test Button to cut power to the LED driver and switch system to emergency mode. The light source should illuminate in emergency mode. Release the button to return to normal mode. Switch the circuit breaker off to simulate a full power outage. For initial testing, allow the unit to charger for at least 1-hour, then conduct a short discharge test. Allow a 24-hour charge before conducting a one hour test.

   NFPA 101, Life Safety Code, outlines the following test schedule:

   Monthly – Insure the Test Button light is illuminated. Conduct a 30-second discharge test by depressing the Test Button. The LED load should operate at reduced output

   Annually – Insure that the Test Button is illuminated. Conduct a full 90-minute discharge test. The unit should operate as intended for the duration of the test.