ERG Lighting™

Driving Your Vision

A division of Endicott Research Group, Inc.

EBKIT5WUV400
EBKIT12WUV1000

(LED Emergency Backup Lighting Kits)

2601 Wayne Street, Endicott, NY 13760 ● www.ERGLighting.com ● 1-800-215-5866

Description

LED DRIVER TYPE:	Constant Power
TOTAL OUTPUT POWER:	5W or 12W
UNIVERSAL INPUT VOLTAGE:	120~277 Vac +/- 10%
NUMBER OF OUTPUTS:	1
EMERGENCY OPERATION:	90 minutes
SAFETY/ ENVIRONMENTAL:	UL924
	FCC Part 15 (Class B)
	EN61000-3-2
WARRANTY:	5 years

Product Features

- **UL 924 Recognized**
- **Meets FCC Part 15 (Class B) Consumer Limits**
- **IP20 for dry and damp locations**
- **Protections:**
  - **Short Circuit**
  - **Over Voltage**
  - **Over Current**
  - **Over Temperature**
- **Maximum Case Temperature: 75°C**
- **Operating Temperature: 0 to 55°C**
- **Storage Temperature: -20 to 55°C**
- **Battery: Nickel-Cadmium, Quick Connect**
- **Battery Recharge Time: 24 hours**
- **Push-button Test Switch**

Typical Electrical Specifications at System Level

PART NUMBER	Total Output Power	Input Voltage	Power Factor	Max Input Current	Output Current	Output Voltage
EBKIT5WUV400	5W	120~277Vac +/- 10%	>0.5	0.051A@120V 0.047A@240V 0.041A@277V	0.41A@12Vdc 0.10A@36~41Vdc	12-41Vdc
EBKIT12WUV1000	12W	120~277Vac +/- 10%	>0.5	0.051A@120V 0.047A@240V 0.041A@277V	0.93A@12Vdc 0.30A@36~41Vdc	12-41Vdc

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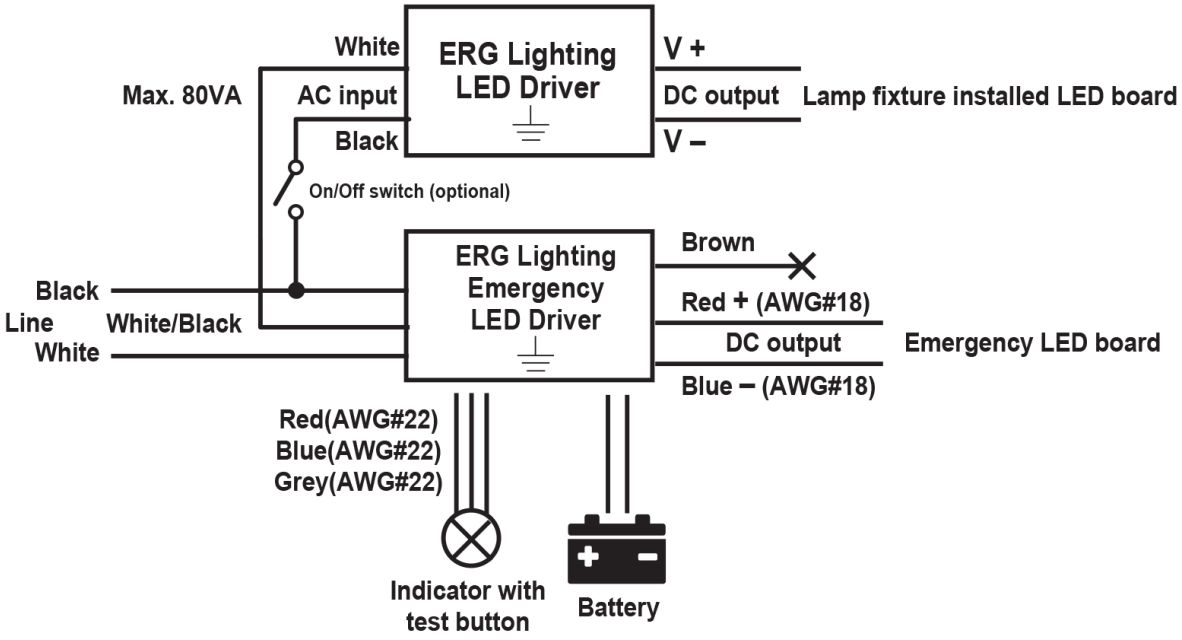
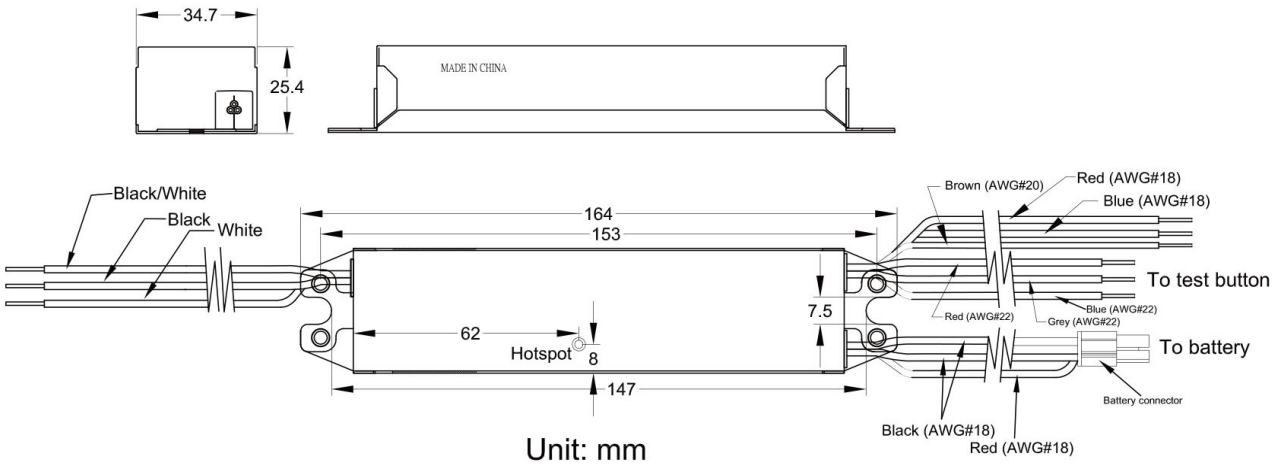
WIRING DIAGRAM



If either blackout happends or test button is pressed, Emergency LED board will light up.

EMERGENCY LED DRIVER DRAWING



ERGLighting
sales@ERGlighting.com

UL LISTED RoHS compliant

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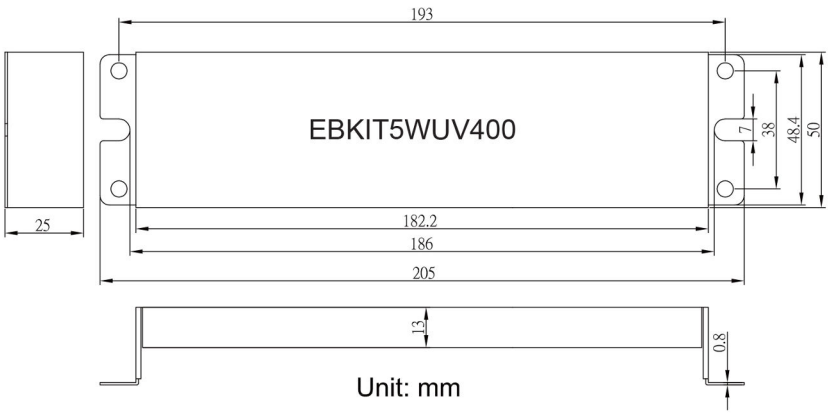
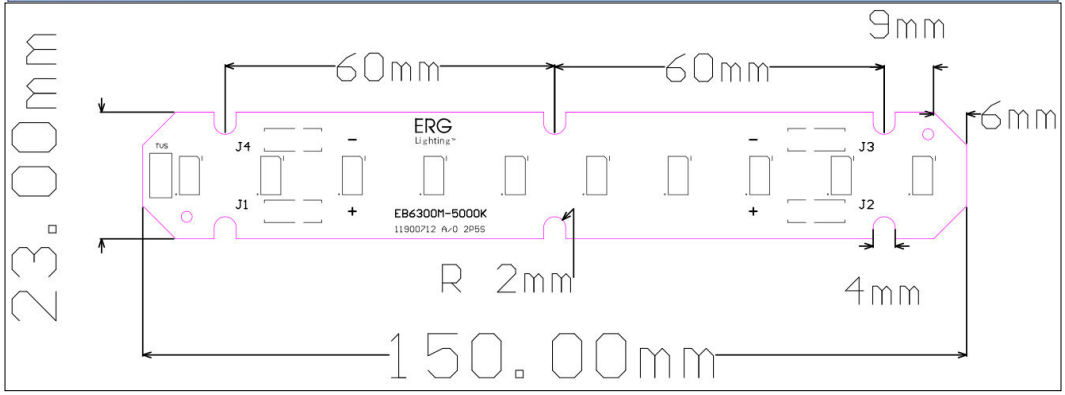
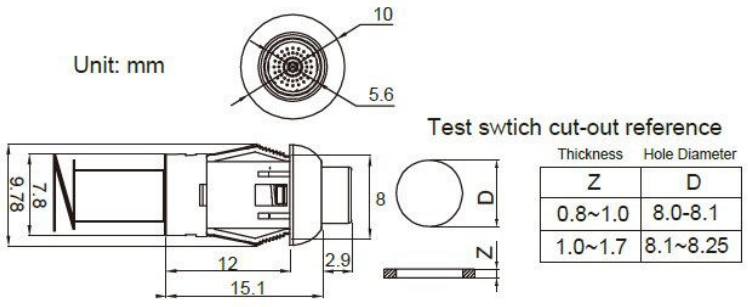
BATTERY SHROUD DIMENSION



LED MODULE



TEST SWITCH (3-WIRE)



Test swtich cut-out reference

Thickness Z	Hole Diameter D
0.8~1.0	8.0-8.1
1.0~1.7	8.1~8.25

NOTES:

1. To maintain good battery lifespan before installing emergency driver, during storage, complete charge and discharge cycle is recommended at least 6 months.
2. For operation, wiring and installation, refer to www.ERGlighting.com.

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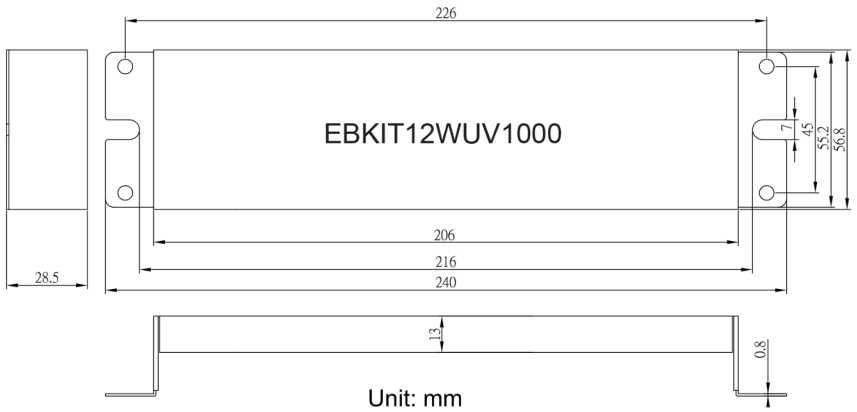

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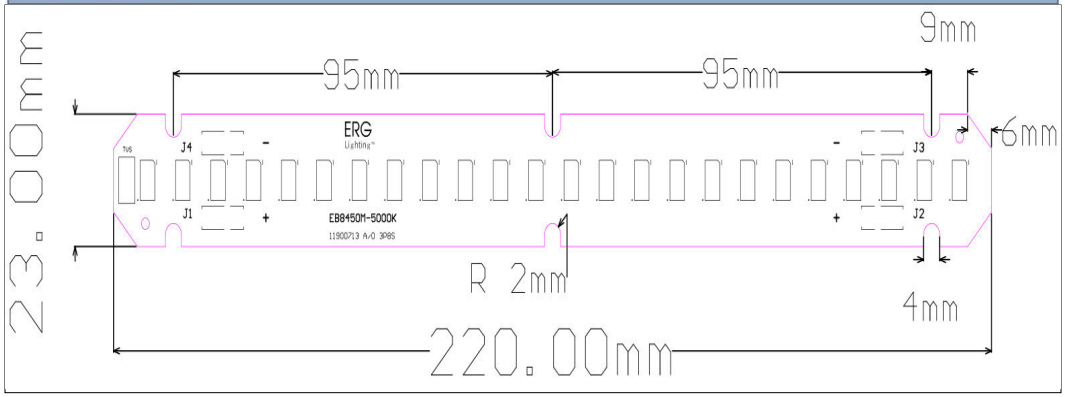

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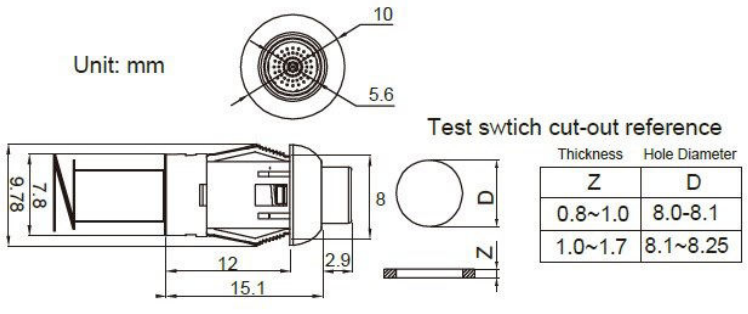

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INSTALLATION

Product includes the following components:

PARTS	QUANTITY
LED Emergency Driver & Battery (including test button)	1
Emergency LED Module	1
Hardware (Tek Screws)	6
Instruction Sheet	1
Luminaire Modification Label	1

Note: Install requires application of the Luminaire Modification Label provided in your Kit, as per UL. This label includes the statement: "This equipment has more than one connection point." This label must be applied to the fixture housing during installation.

IMPORTANT SAFEGUARDS

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

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

WARNING: Risk of fire or electric shock. Luminaire wiring and electrical parts may be damaged when drilling for installation of LED Emergency Backup. Check for enclosed wiring and components.
WARNING: Risk of fire or electric shock. This LED Emergency Backup installation requires knowledge of luminaires electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.
WARNING: Risk of fire or electric shock LED Emergency Backup is only for use in surface mount or recessed Type IC or Non-IC luminaries listed to UL Standards. Suitable for use in damp locations and plenum spaces. Not for use in heated air outlets or hazardous locations.
WARNING: Risk of fire or electric shock. Do not alter, relocate, or remove wiring, lampholders, power supply, or any other electrical component.
WARNING: To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
WARNING: Do not make or alter any open holes of the wiring enclosure or electrical component enclosure during installation. Only those open holes indicated in the instructions and/or drawings may be added or altered as a result of LED Emergency Backup installation. Do not leave any other open holes in the wiring enclosure or electrical component enclosure during installation.
CAUTION: Before installing, make certain the AC power to the fixture is off.
CAUTION: The electrical rating of this product is 120-277V. Installer must confirm that there is 120- 277V at the fixture before installation.
CAUTION: LEDs are extremely bright. Do not look directly at the LED light source for extended time as over-exposure may cause harm to the eyes.
CAUTION: Verify that all replacement lamp types marked on the installed luminaire are also identified as suitable for use with this emergency battery pack.

- The emergency LED driver shall be enclosed by the LED luminaire and bonded to the grounding of LED luminaire.
- Do not use outdoors.
- Do not let power supply cords touch hot surfaces.
- Do not mount near gas or electric heaters.
- Use caution when servicing batteries. Battery acid can cause burns to skin and eyes. If acid is spilled on skin or in eyes, flush acid with fresh water and contact a physician immediately.
- 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.
- Use with grounded, UL Listed, damp location rated fixtures.

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1. Read and understand all warning and notes stated above, before proceeding with installation.

2. Fixture Compatibility & Applications:

The EBKIT5WUV400 and EBKIT12WUV1000 emergency packs can be used with most LED loads that have a forward voltage requirement between 12-40Vdc. Verify AC driver in the fixture is Class 2 compliant per driver manufacturer specifications. Verify LED load has a forward voltage requirement between 12-40Vdc. Make sure the LED module load for models EBKIT5WUV400 & EBKIT12WUV1000 are EB6300M-5000K and EB8450M-5000K respectively.

These emergency packs have been evaluated to and found compliant to UL 924. The emergency pack assembly is accepted as a component of a luminaire where the suitability of the combination shall be determined by Authorities Having Jurisdiction. The as-installed performance of the system must meet or exceed all Federal, State, and Local code requirements.

3. Mounting:

Pre-Drill one 1/2" hole into the fixture ballast cover / wire-way cover for the test switch. (See Figure 1.)
Determine appropriate location for the Battery Backup LED Driver and LED Battery Pack in the fixture. LED Battery Pack can be remote mounted on top of the fixture if needed. If remote mounting of battery is required, drill ½" hole in fixture as needed or use exiting knockout. Deburr edges of new hole and/or use a grommet to prevent sharp edges from damaging wires.
Install the Battery Backup LED Driver and LED Battery Pack to the fixture using existing mounting holes in fixture or make new holes as needed.

FIGURE 1

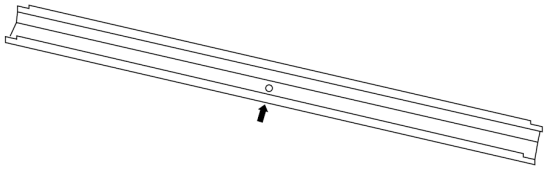
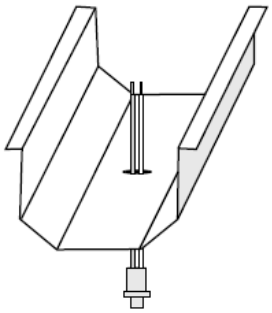


FIGURE 2



4. Wiring & Labeling:

Insert Test Switch into the pre-drilled hole in the fixture's wire way cover. (See Figure 2.)

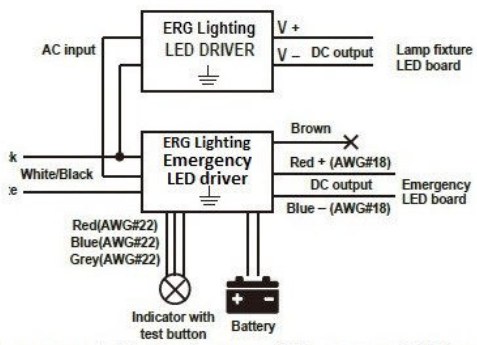
Complete wiring as indicated below. Install in accordance with National Electric Code. Emergency Pack and AC Driver must be on the same branch circuit. Ensure hot / live lead going to the Black wire on the Emergency LED driver is Un-Switched. When used with switched fixtures, the emergency pack must be wired ahead of the switch. See (Figure 2)

Adhere Luminiare Modification Label to the fixture on the ballast cover where it is easily visible to anyone servicing the fixture in the future.

5. Complete Installation:

When the installation is complete, verify all necessary connections have been made. Switch the AC Power on and join the battery pack connector.

WIRING DIAGRAM



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6. Operation:

Normal Mode: AC power is present. The AC driver operates the LED load as designed. The emergency pack is charging. The test button will be lit, showing that the battery is charging.
Emergency Mode: When the AC power goes out, the emergency pack detects the power outage and automatically switches to the emergency mode. The LED load is illuminated, for a minimum of 90 minutes. When AC power is restored, the emergency pack switches back to Normal Mode and starts re-charging.

7. Testing Procedures:

Press the test button to cut the power to the AC driver and switch the system to emergency mode. Release the test button to return to normal mode. Switch off the circuit breaker to simulate a full power outage. For Initial Testing, allow the unit to charge approxi-mately 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 schedule:

Monthly- Insure that 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.

“Written records of the testing shall be kept by the owner for inspection by the authority having jurisdiction.”