

# EMBK8WH-EXT03 SERIES

## DESCRIPTION

- \* AC solution EM for most 9~350W LED luminaire.
- \* It must connect 0/1-10V dimming wires if power of luminaire > power of EM.

## FEATURES

- \* UL listed for field or factory installation,CEC title 20 compliant
- \* Compliance with American NFPA 101 life Safety Code
- \* Constant output power
- \* 2 -in- 1 LED test switch and indicator light included
- \* Manual testing via remote control (optional)
- \* Monthly/annual self-testing
- \* With multi-protection function:
  - Battery overcharge protection
  - Battery over-discharge protection
  - Output overload protection
  - Short-circuit protection
  - Open load protection
- \* 5 years limited warranty



## ELECTRICAL SPECIFICATIONS

- \* Input voltage: 100-347VAC,50/60Hz
- \* Input current: 0.1A max
- \* Input power: 8W Max
- \* Power factor: 0.6 @100VAC, 0.5@347VAC
- \* Input of LED load: AC 6A Max
- \* Output voltage: 145Vdc
- \* Battery: Lithium
- \* Recharge duration: <24Hrs
- \* Emergency duration: 90mins
- \* Ambient temp: 0-50°C(32°F-122°F)



## MODEL SELECTION TABLE

| Models                 | ES-EIA15-01S   |
|------------------------|--|
| Emergency wattage      | 15W  |
| Battery capacity       | 14.8V/2600mAh  |
| Compatible led fixture | 15-120W LED lamp with 0-10V dimming <b>or</b> LED lamp less than 15W without 0-10V dimming |

## NORMAL MODE

Fixtures will operate normally when power is available. When an outage occurs, the fixture will switch to emergency mode, delivering power to the fixture for up to 90 minutes.

## EMERGENCY MODE

1. The emergency battery backup enters the emergency mode immediately after the mains power failure.
2. Stop the emergency and return to the charging state after the mains power call.

## SELF-DIAGNOSTIC

### MONTHLY SELF-TEST

It will automatically perform a monthly self-test every 30 days with a duration of 30S to check whether the emergency function is normal, and automatically restore to normal charging after 30S discharged.

### ANNUAL SELF-TEST

An annual self-test will be done every year (12 months) with a duration of 90mins to check whether the capacity of the battery pack is normal, and automatically restore to normal charging after fully discharged. (the condition of annual test is that the battery pack is fully charged).

If the annual inspection is interrupted, it will be retested after recovery and when the test conditions are met. (Possibility of interruption: such as sudden power failure, sudden manual test).

## TEST BUTTON & LED INDICATOR

| Operations       | Test button operations   | Remote control operations | Indicator status | Working status  |
|------------------|--------------------------|---------------------------|------------------|---|
| Normal mode      | Press the test button    | Press button A            | OFF              | Emergency mode  |
|                  | /                        | Press button B            | OFF              | Monthly testing   |
|                  | /                        | Press button C            | OFF              | Annual testing  |
|                  | /                        | /                         | ON               | Battery is charging or fully charged  |
| Emergency mode   | Press the test button 5S | /                         | OFF              | Turn off the battery pack   |
| Malfunction mode | /                        | /                         | Flashing         | 1.The battery pack is disconnected or it is broken.<br>2.The load is disconnected.<br>3.Short circuit or open circuit.<br>4.The wires are not connected properly. |

## ACCESSORIES



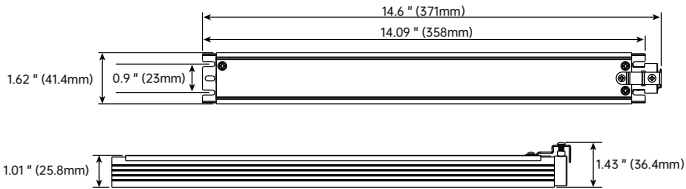
15pcs wire nuts



1pc test plate

## DIMENSION

| Model        | L             | W              | H              |
|--------------|---------------|----------------|----------------|
| ES-EIA15-01S | 14.6" (371mm) | 1.62" (41.4mm) | 1.43" (36.4mm) |

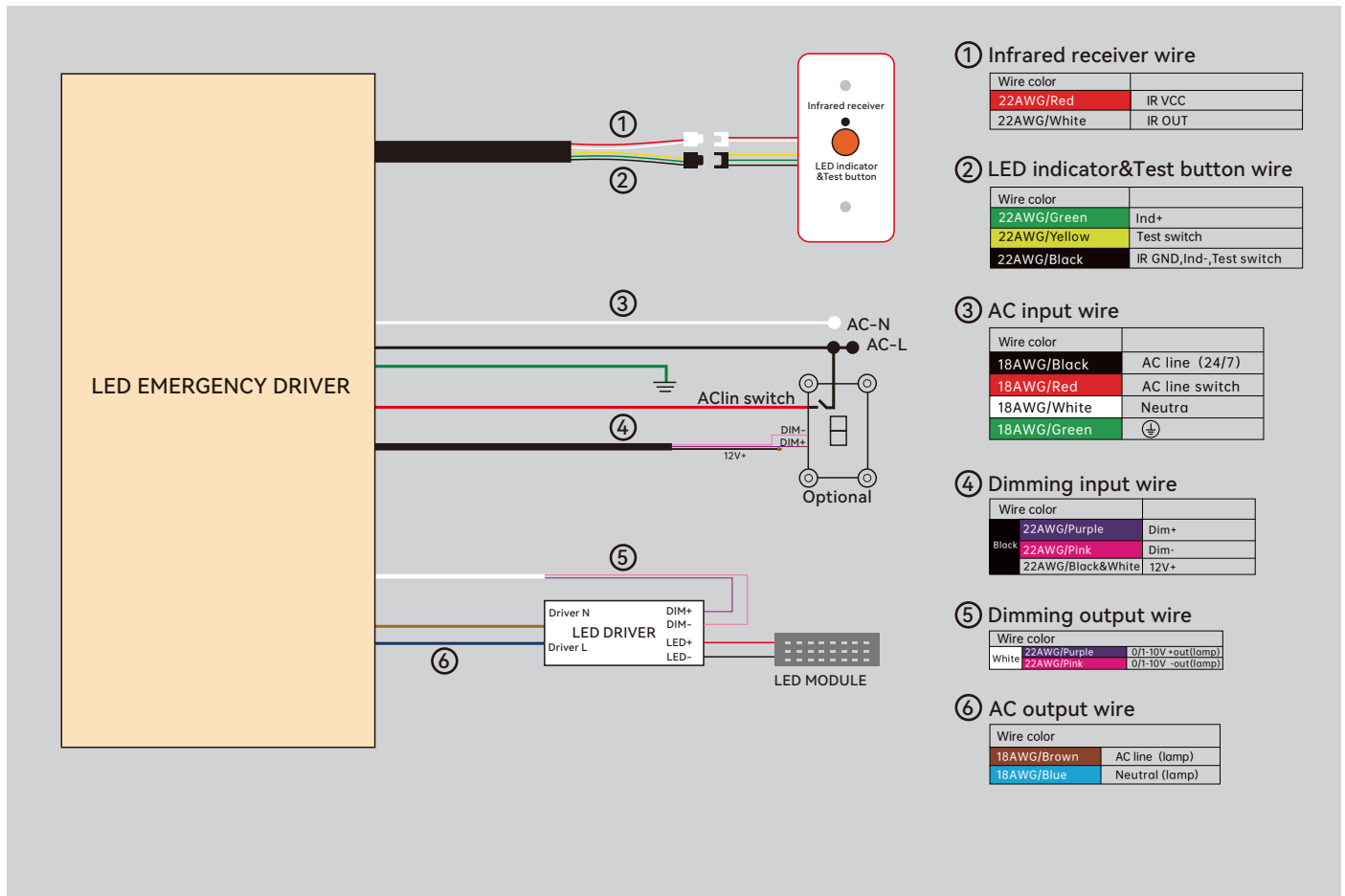


ES-EIA09-01S ES-EIA15-01S

## WIRING DIAGRAM

A: With dimmer, when power of luminaire  $\geq$  power of EM, the wiring diagram as below:

\* The output dimming wires of Emergency Driver must be connected with the input dimming wires of the LED Driver.

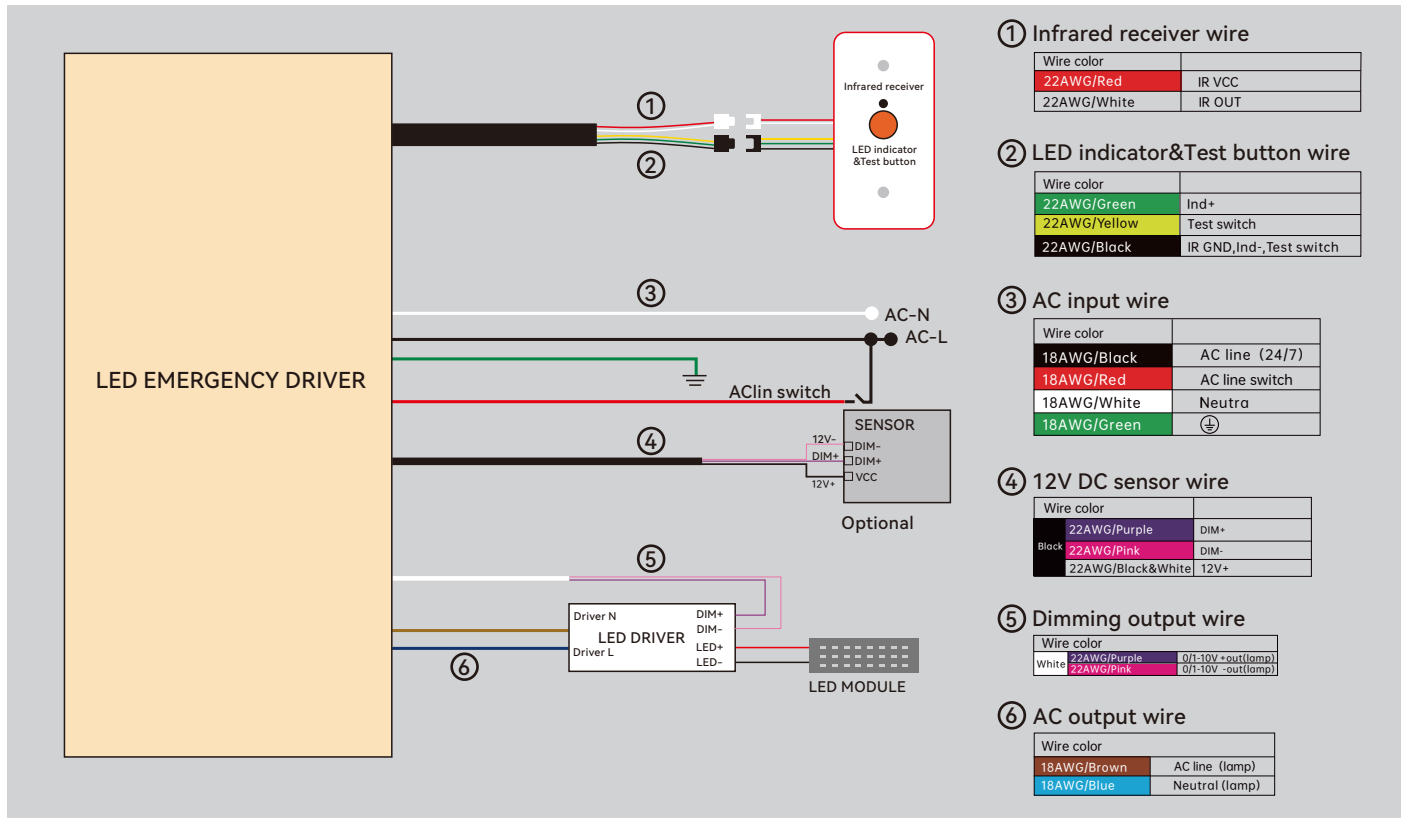


**⚠ Warning: Sensor and dimmer cannot be used at the same time!**

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B: With sensor, when power of luminaire  $\geq$  power of EM, the wiring diagram as below:

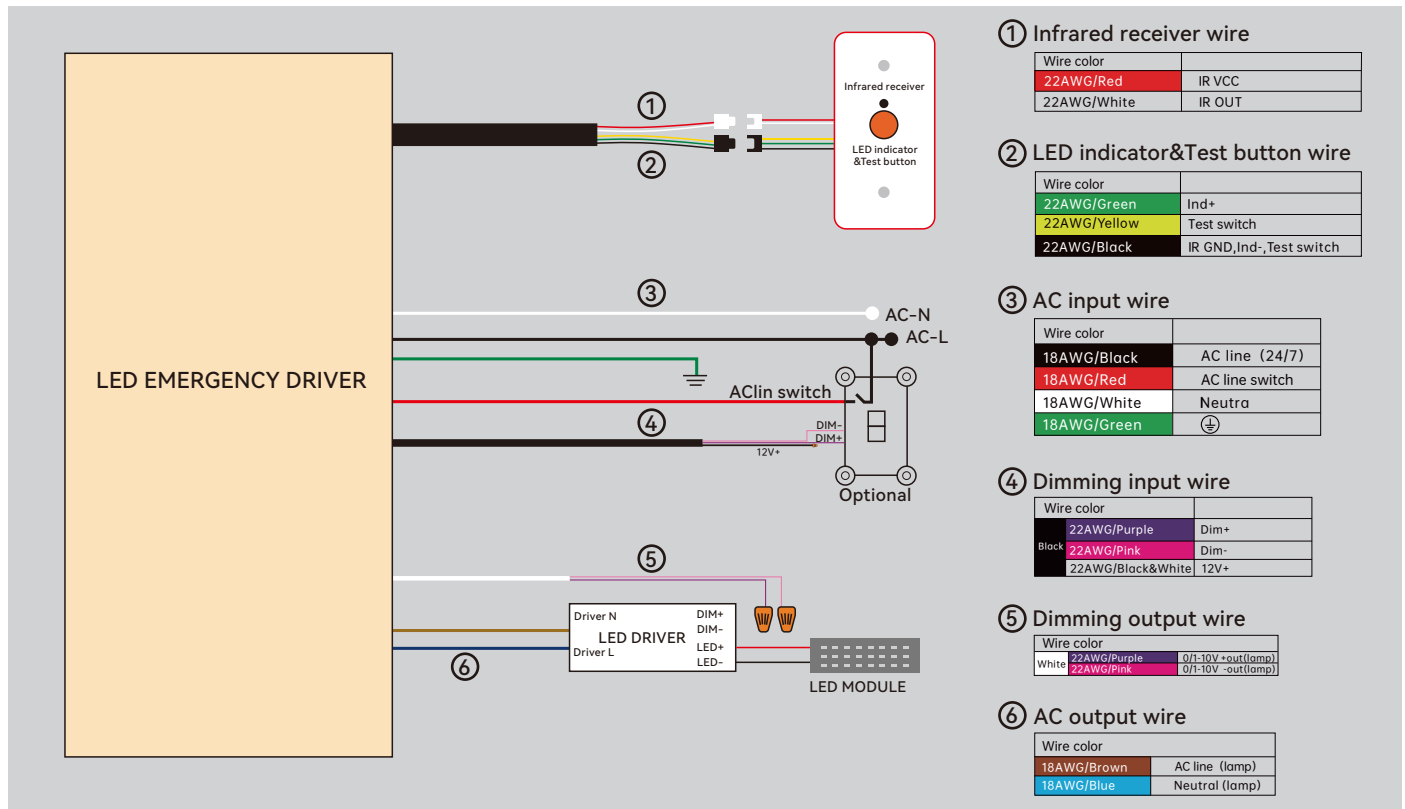
\* The output dimming wires of Emergency Driver must be connected with the input dimming wires of the LED Driver.



⚠ Warning: Sensor and dimmer cannot be used at the same time!

C: With dimmer, when power of luminaire  $<$  power of EM, the wiring diagram as below:

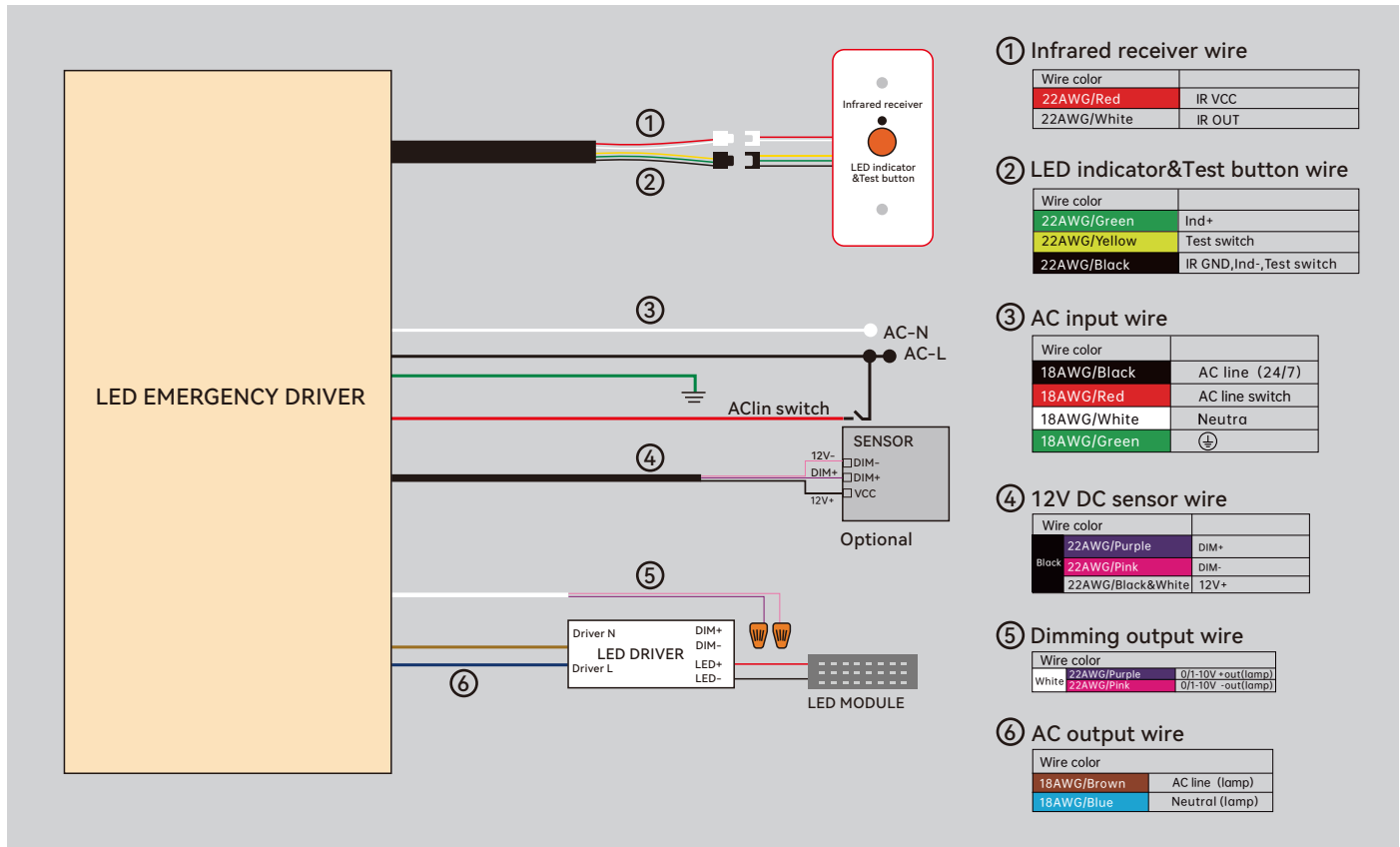
\* The output dimming wires of Emergency Driver must not be connected with the input dimming wires of the LED Driver.



⚠ Warning: Sensor and dimmer cannot be used at the same time!

D: With sensor, when power of luminaire < power of EM, the wiring diagram as below:

\* The output dimming wires of Emergency Driver must not be connected with the input dimming wires of the LED Driver.



**⚠ Warning: Sensor and dimmer cannot be used at the same time!**

## IMPORTANT SAFEGUARDS

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



1. CAUTION – To prevent electrical shock, do not mate unit connector until installation is complete and A.C. power is supplied to the unit.
2. CAUTION – This fixture provides more than one power supply output source. To reduce the risk of electrical shock, disconnect both normal and emergency sources by turning off the A.C. branch circuit and by disconnecting the unit connector.
3. CAUTION – This is a sealed unit. Components are not replaceable. Replace the entire unit when necessary.
4. CAUTION – Installation and servicing should be performed by qualified personnel only. De-energize before opening.
5. The EIA is for use with grounded LED luminaires listed to UL standards. Not for use in heated air outlets or hazardous locations.
6. The EIA requires an unswitched A.C. power source of 100 to 347 volts, 50/60 Hz.
7. The EIA and A.C. driver must be on the same branch circuit.
8. Do not mount near gas or electric heaters.
9. The EIA should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
10. The EIA will supply 145 VDC output at the individual rated specification for 90 minutes.
11. Suitable for use in damp locations and plenum spaces.
12. Flexible metal conduit is optional, depends on installation environment.
13. For use in 0° C minimum, 50° C maximum ambient temperatures.
14. Do not use this equipment for other than intended use.
15. Install in accordance with the National Electrical Code and local regulations.
16. Lighting fixture manufacturers, electricians, and end-users need to ensure product system compatibility before final installation.

