

## ***LED Emergency Battery Backup***

### ***Installation Instructions***

Ordering Code: EB40P

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#### **WHAT COMES IN THE BOX**

- (1) EB40P unit
- (1) Installation instructions
- (8) Wire nuts

#### **TOOLS NEEDED**

- Wire Stripper
- Wire Cutter
- Phillips Screwdriver
- Step Ladder



#### **OVERVIEW**

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Litetronics Emergency Battery Backup unit (EB40P) delivers 90-minutes of power to fixtures in the event of a power outage. When the normal power supply is present, the unit will fully charge and remain in stand-by mode. When a power outage occurs, the unit will switch to emergency mode and deliver 10W power for a minimum of 90-minutes. When power is restored, the unit will switch back to stand-by mode and begin recharging.

The EB40P is the main component to the backup system, but must be accompanied by one of two indicator modules (sold separately), which provide a set of visible indicator lights that signify the status of operation for the EB40P. Each option offers a different approach to mounting/installation based on the application.

- EBCM (Emergency Backup Ceiling-mounted Indicator Module) - This option connects to the EB40P and can be mounted in a grid panel adjacent to the fixture.
- EBAM (Emergency Backup Adhesive-mounted Indicator Module) - This option applies to any non-grid ceiling application. It includes an adhesive strip that will affix to the surface of a fixture or nearby structural element.
- Smart Option  
BLE controller - This option applies with blue tooth sensor or module

## SAFETY WARNING AND INSTRUCTIONS

**When using electrical equipment, basic safety precautions should always be observed. Read and follow all safety instructions.**

- 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.
- Risk of fire or electric shock. This LED Emergency Backup installation requires knowledge of luminaire and electrical systems. If not qualified, do not attempt to install. Contact a qualified electrician.
- Before installation, make certain the AC power to the fixture is off.
- The electrical rating of this product is 120-480V. Installer must confirm that there is 120-480V to the fixture before installation.
- To prevent electrical shock, only mate unit connector after installation is complete and before the AC power to the fixture is back on.
- Do not use outdoors.
- This LED Emergency Backup unit requires an un-switched AC power source of 120-480V, 50/60Hz.
- Do not let power supply cords touch hot surfaces.
- Do not mount near gas or electric heaters.
- Equipment should be mounted in locations and at heights where it is not subjected to tampering by unauthorized personnel. The use of accessory equipment is not recommended by the manufacturer and may cause an unsafe condition.
- Do not use this equipment for other than its intended use.
- Use with grounded, UL/ETL listed, dry or damp location rated fixtures.

## COMPATIBILITY

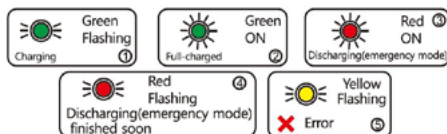
The EB40P is compatible with all LED fixtures using greater than 80W and less than 400W (Including maximum wattage tolerance). All fixtures must also include 0-10V dimming.

## EB40P OPERATING INSTRUCTIONS

- Make sure that installation of the EB40P includes one of the two indicator modules.
- Once installed and powered on, the battery will begin to charge. The green, flashing indicator light will remain on until fully charged, which takes approximately 24 hours.
- Once fully charged, the green indicator light will illuminate and remain on as long as the battery remains full.
- If yellow light is flashing, a problem has been detected. Contact Litetronics for troubleshooting.
- In the event of a power failure, the fixture delivers 90 minutes of emergency light, during which the red light will remain on, then flash on/off when battery is low.

### INDICATOR MODULE LIGHT REFERENCE GUIDE

1. Green/flashing = Charging
2. Green/solid on = Fully charged
3. Red/solid on = Discharging/emergency mode
4. Red/flashing = Discharging with limited battery life remaining
5. Yellow/flashing on = Error. Contact Litetronics for troubleshooting



### TESTING

- The fixture includes an automatic monthly self-testing function, which operates at 30-day intervals for 30 seconds and 360-day intervals for 90 minutes. During testing, the red indicator light will remain on.
- Additional testing and demo functionality is available via remote control, part # TR01, and BLE Controller (sold separately).

## OPERATING INSTRUCTIONS - (CONTINUED)

### MAINTENANCE

Although no routine maintenance is required to keep the emergency battery backup functional, it should be checked periodically to ensure that it is working. The following schedule is recommended:

- Visually inspect the charge indicator light monthly. It should be illuminated.
- Test the emergency operation of the fixture at 30-day intervals for a minimum of 30 seconds.
- Conduct a 90-minute discharge test once a year. LED tubes should operate at up to 40W for at least 90 minutes.

### SERVICE

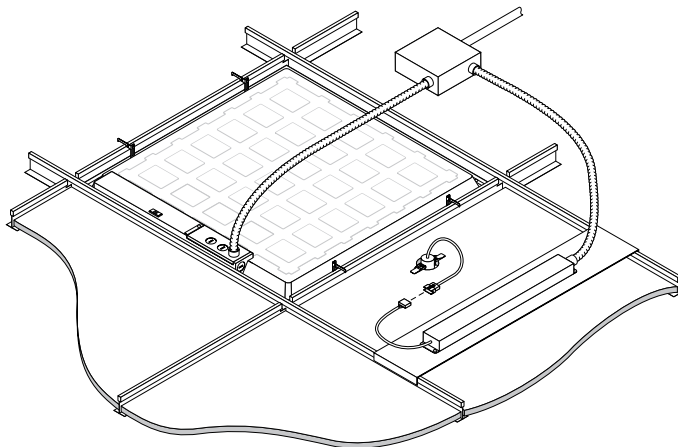
Should be performed as indicated above by qualified personnel.

## INSTALLATION - CEILING MOUNTED

### BEFORE BEGINNING INSTALLATION, TURN OFF POWER AT THE CIRCUIT BREAKER.

1. Choose a location for the Emergency Battery Backup unit and indicator module. We recommend placing the unit close to the luminaire input power wires while also making sure the indicator module will reach its desired location. See **Figure A** for reference.
2. Once the EBB unit is secured in place, make wiring connections based on the wiring diagrams found on pages 6-7.
3. Mark the desired location for the indicator module on the adjacent ceiling panel. Drill a hole for the indicator to pass through that is 1.75" in diameter.
4. Compress the spring clamps and pass the indicator module, wiring first, up through the panel until it sits flush with the bottom side. Release the spring clamps and they will hold the module in place. See **Figure B**.
5. Connect the indicator module and unit via the quick connector.
6. Restore power to the fixture. When power is received, the green flashing light should appear, indicating that the unit is charging. An initial full charge could take up to 24 hours.

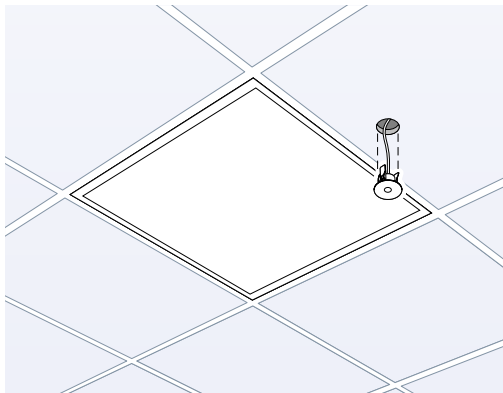
**Figure A**



**Note:** Grid tray not Litetronics product but for illustration only.

## INSTALLATION - CEILING MOUNTED (CONTINUED)

**Figure B**



## INSTALLATION - ADHESIVE MOUNTED

**BEFORE BEGINNING INSTALLATION, TURN OFF POWER AT THE CIRCUIT BREAKER.**

1. Choose a location for the Emergency Battery Backup unit and indicator module. We recommend placing the unit close to the luminaire input power wires while also making sure the indicator module will reach it's desired location. See **Figure C & D** for reference.
2. Once the EBB unit is secured in place, make wiring connections based on the wiring diagrams.
3. Find the desired location for the indicator module on the side of the fixture or a nearby structural element, making sure that the indicator lights will be visible from below. Peel off the outside strip from the tape and apply the module to the desired location. Hold for 30 seconds.
4. Connect the indicator module and unit via the quick connector.
5. Restore power to the fixture. When power is received, the green flashing light should appear, indicating that the unit is charging. An initial full charge could take up to 24 hours.

**Figure C**

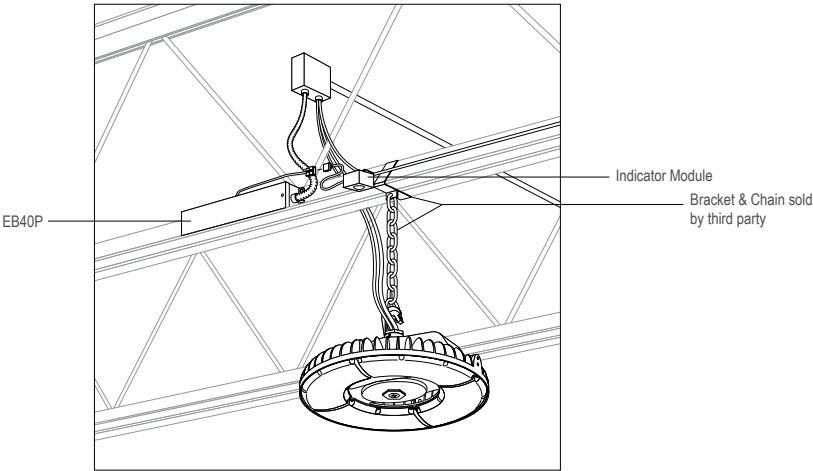
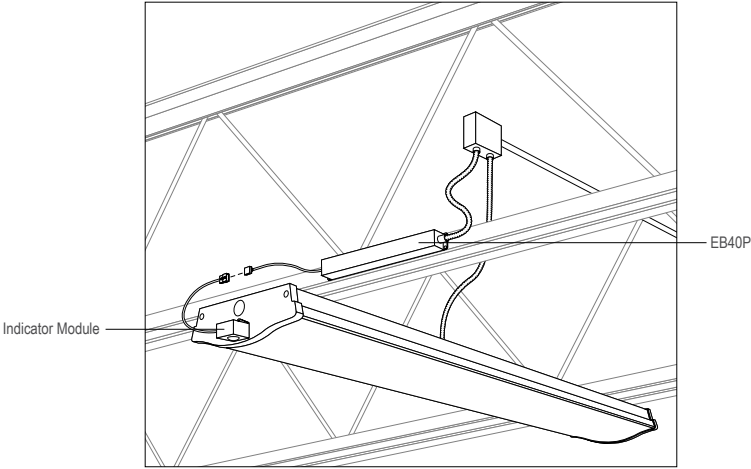
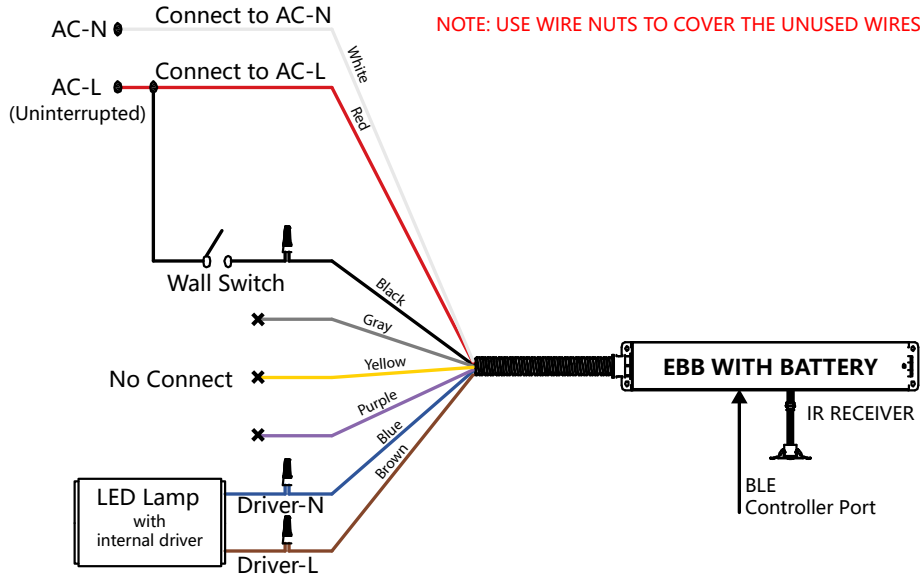


Figure D

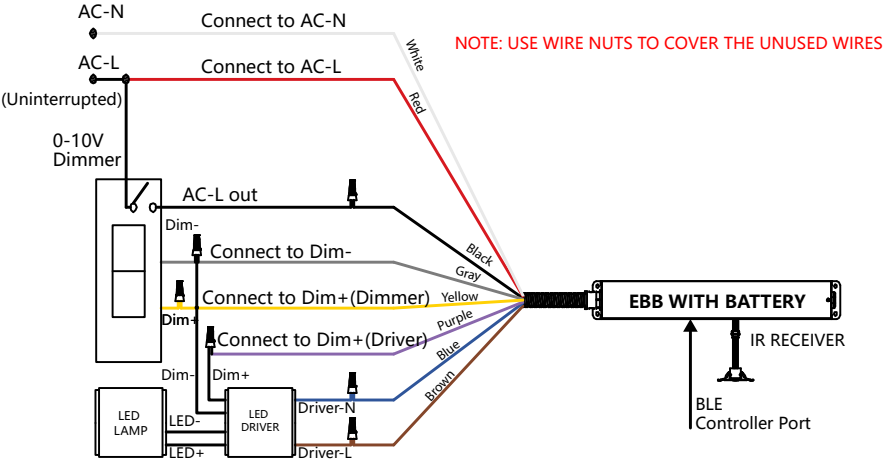


WIRING DIAGRAMS

A WHEN THE LED DRIVER POWER IS LESS THAN 40W



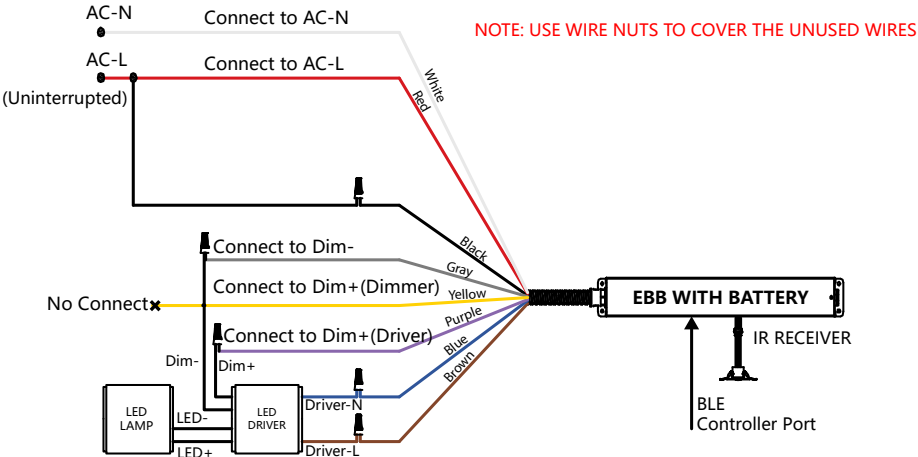
**B WHEN THE LED DRIVER POWER IS GREATER THAN 80W AND USED WITH A DIMMER**



**IMPORTANT:** The purple and gray dimming wires must be connected to Luminaire or driver dimming wires

**CAUTION:** For Diagrams B, C, D, Gray & Purple Dimming leads from EB40P Must Be Connected to Driver Dim +/- leads / terminal Blocks. If connection is not made, the LED Array will flicker and shut down after 10 seconds in 99% of the cases while in emergency mode. In some cases, the EB40P will fail as it will overheat. Dimming circuit helps to limit higher driver load to <40W.

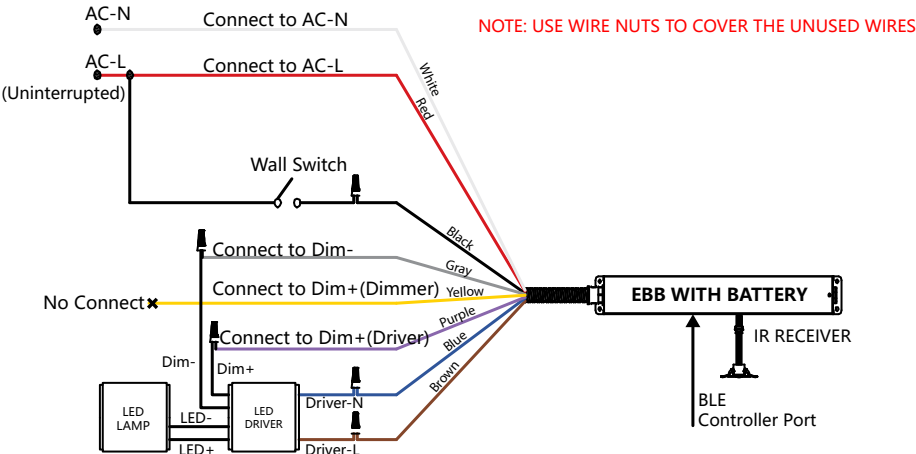
**C WHEN LED DRIVER POWER IS GREATER THAN 80W USED WITHOUT SWITCH AND WITHOUT DIMMER**



**IMPORTANT:** The purple and gray dimming wires must be connected to Luminaire or driver dimming wires

**CAUTION:** For Diagrams B, C, D, Gray & Purple Dimming leads from EB40P Must Be Connected to Driver Dim +/- leads / terminal Blocks. If connection is not made, the LED Array will flicker and shut down after 10 seconds in 99% of the cases while in emergency mode. In some cases, the EB40P will fail as it will overheat. Dimming circuit helps to limit higher driver load to <40W.

**D WHEN LED DRIVER POWER IS GREATER THAN 80W USED WITHOUT DIMMER WITH SWITCH**



**IMPORTANT:** The purple and gray dimming wires must be connected to Luminaire or driver dimming wires

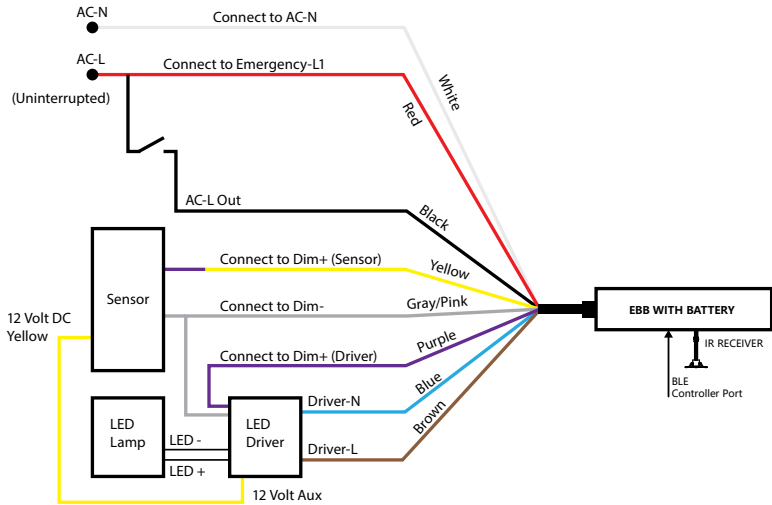
**CAUTION:** For Diagrams B, C, D, Gray & Purple Dimming leads from EB40P Must Be Connected to Driver Dim +/- leads / terminal Blocks. If connection is not made, the LED Array will flicker and shut down after 10 seconds in 99% of the cases while in emergency mode. In some cases, the EB40P will fail as it will overheat. Dimming circuit helps to limit higher driver load to <40W.

**E WIRING INSTRUCTIONS FOR 12V SENSOR WITH EMERGENCY BATTERY BACKUP**

**INSTRUCTIONS**

1. Remove a wire nut on purple dimming wires. Connect the label shown sensor dimming wire (Dim+) to the yellow emergency dimming wire (Dim+) using a wire nut.
2. Connect the purple emergency dimming wire (Dim+) to the label shown driver's Dim+ using a wire nut.
3. Connect the gray emergency dimming wire (Dim-) and gray dimming wire (Dim-) using a wire nut.
4. Connect the brown and blue emergency output wires to the black and white driver input wires.
5. Connect the white, red and black emergency input wires in accordance with the following wiring diagram.

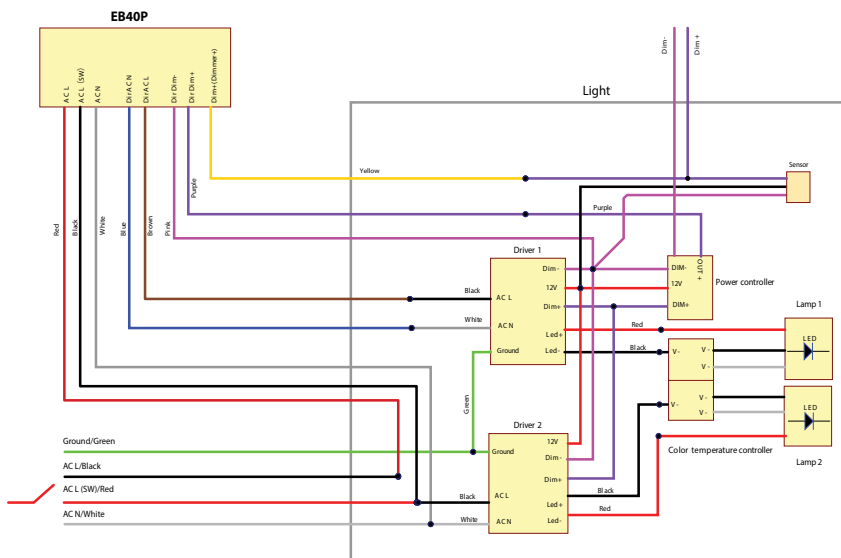
**WIRING DIAGRAM**



**IMPORTANT:** The purple and gray dimming wires must be connected to Luminaire or driver dimming wires

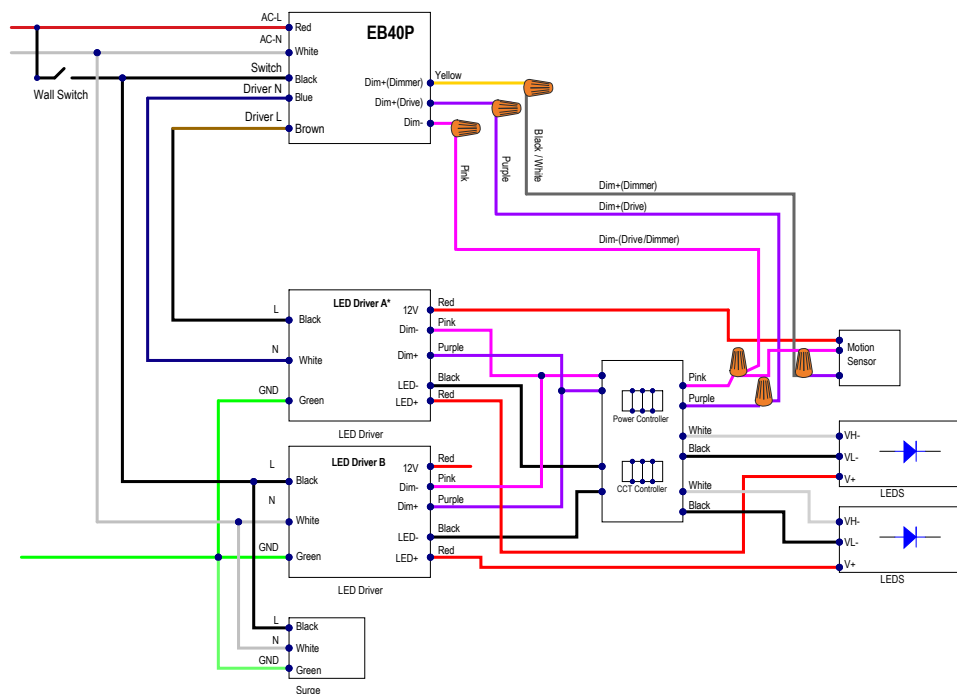
## FOR ROUND HIGH BAY XL (HBX500)

**NOTE:** Should be connected to one driver only, after opening the housing cover. Two holes are provided for the wires in and wires out (for indicator test switch).



## FOR LINEAR HIGH BAY (LHBP385)

**NOTE:** Should be connected to one driver only, after opening the driver cover.



**Note:** \* LED Driver A near the power/CCT controller should be connected to EB40P.

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Thank you for choosing

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To check for an updated version of these instructions, please visit [www.litetronics.com](http://www.litetronics.com).

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