

# MaxLite® LED T8 Hybrid Type AB Series



## General Safety Information

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

### **⚠ WARNING**

**DANGER** - RISK OF SHOCK- DISCONNECT POWER BEFORE INSTALLATION  
**WARNING** - RISK OF FIRE OR ELECTRIC SHOCK. LED RETROFIT KIT INSTALLATION REQUIRES KNOWLEDGE OF LUMINAIRE ELECTRICAL SYSTEMS. IF NOT QUALIFIED, DO NOT ATTEMPT INSTALLATION AND CONTACT A QUALIFIED ELECTRICIAN.

**WARNING** - RISK OF FIRE OR ELECTRIC SHOCK. PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE OR YOUR LOCAL ELECTRICAL CODE. IF YOU ARE NOT FAMILIAR WITH THESE CODES AND REQUIREMENTS, CONTACT A QUALIFIED ELECTRICIAN.

**WARNING** - RISK OF FIRE OR ELECTRIC SHOCK. INSTALL THIS KIT ONLY IN LUMINAIRES THAT HAVE THE CONSTRUCTION FEATURES AND DIMENSIONS SHOWN IN THE PHOTOGRAPHS AND/OR DRAWINGS AND WHERE THE INPUT RATING OF THE RETROFIT KIT DOES NOT EXCEED THE INPUT RATING OF THE LUMINAIRE.

**WARNING** - TO PREVENT WIRING DAMAGE OR ABRASION, DO NOT EXPOSE WIRING TO EDGES OF SHEET METAL OR OTHER SHARP OBJECTS. DO NOT MAKE OR ALTER ANY OPEN HOLES IN AN ENCLOSURE OF WIRING OR ELECTRICAL COMPONENTS DURING KIT INSTALLATION.

**DANGER** - RISK OF SHOCK-DISCONNECT POWER BEFORE INSTALLATION. THE RETROFIT KITS INCLUDING INSTALLATION INSTRUCTIONS, LED LAMP, LUMINAIRE MARKING LABELS. THE TB LED TUBES ARE INTENDED TO RETROFIT LISTED SURFACE MOUNTED, TYPE NON-IC OR TYPE IC RECESSED MOUNTED FLUORESCENT LUMINAIRES WITH OR WITHOUT DIFFUSER FOR MAXIMUM FOUR LAMPS WITH LAMP TO LAMP DISTANCE 11 CM MINIMUM; OR RETROFIT SURFACE MOUNTED LISTED FLUORESCENT LUMINAIRES WITHOUT DIFFUSER FOR MAXIMUM SIX LAMPS WITH LAMP TO LAMP DISTANCE 5.5 CM MINIMUM.

**WARNING** - RISK OF FIRE OR ELECTRIC SHOCK. THE ELECTRICAL RATING OF THESE PRODUCTS ARE 120-277VAC, THE INSTALLER MUST DETERMINE WHETHER THEY HAVE 120-277V AT THE LUMINAIRE BEFORE INSTALLATION.

**WARNING** - RISK OF FIRE OR ELECTRIC SHOCK. THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.

**WARNING**- RISK OF FIRE. INPUT RATINGS MAY NEED TO BE DETERMINED BASED ON ANY CONFIGURATION(S) PERMITTED BY THE INSTALLATION INSTRUCTIONS. REGARDLESS OF THE CONFIGURATION(S) OF THE RETROFIT KIT, THE INPUT RATINGS OF THE OVERALL RETROFIT KIT SHALL NOT EXCEED THE MARKED INPUT RATINGS OF THE HOST LUMINAIRE.

INSTALLERS SHOULD NOT DISCONNECT EXISTING WIRES FROM LAMPHOLDER TERMINALS TO MAKE NEW CONNECTIONS AT LAMPHOLDER TERMINALS. INSTEAD INSTALLERS SHOULD CUT EXISTING LAMPHOLDER LEADS AWAY FROM THE LAMPHOLDER AND MAKE NEW ELECTRICAL CONNECTIONS TO LAMPHOLDER LEAD WIRES BY EMPLOYING APPLICABLE CONNECTORS.

EXAMINE LUMINAIRE FOR DAMAGE BEFORE INSTALLING LED LAMP. IF LAMPHOLDERS OR OTHER PARTS ARE VISIBLY DAMAGED CONTACT A SERVICE PERSON THIS RETROFIT KIT IS ACCEPTED AS A COMPONENT OF A LUMINAIRE WHERE THE SUITABILITY OF THE COMBINATION SHALL BE DETERMINED BY AUTHORITIES HAVING JURISDICTION. BE DETERMINED BY AUTHORITIES HAVING JURISDICTION. PRODUCT MUST BE INSTALLED BY A QUALIFIED ELECTRICIAN IN ACCORDANCE WITH THE APPLICABLE AND APPROPRIATE ELECTRICAL CODES. THE INSTALLATION GUIDE DOES NOT SUPERSEDE LOCAL OR NATIONAL REGULATIONS FOR ELECTRICAL INSTALLATIONS.

DO NOT MIX FLUORESCENT AND LED LAMPS IN THE SAME LUMINAIRE unless Ballast is Marked for this Purpose.

L 13T8AB4CS-CG HAVE BEEN EVALUATED FOR USE WITH STANDARD DIMMERS FOR SUPPLY VOLTAGE 120V ONLY.

SUITABLE FOR DRY AND DAMP LOCATIONS.

THIS DEVICE IS NOT INTENDED FOR USE WITH EMERGENCY EXITS.

Installers should examine all parts that are not intended to be replaced by the retrofit kit for damage and replace any damaged parts prior to installation of the retrofit kit.

Prior to installation, review all environmental designation locations in the retrofit kit installation instructions. Only install in damp or wet locations if so indicated in the installation instructions.

This luminaire has been modified to operate LED lamps. Do not attempt to install or operate fluorescent lamps in this luminaire.



*Pictures are for illustration purposes only. Your model may vary.*

## MaxLite® LED T8 Hybrid Type AB Series

- For use with fluorescent luminaires.
- Suitable for closed type luminaires.
- Suitable for use with luminaires with maximum 4 lamps.
- Suitable for use with luminaires with fluorescent lamp compartment.

**FOR "ONE END" WIRING CONFIGURATION ONLY, WARNING:** TO AVOID POTENTIAL FIRE OR SHOCK HAZARD, DO NOT USE THIS RETROFIT KIT IN LUMINAIRES EMPLOYING SHUNTED BI-PIN LAMP HOLDERS. NOTE; SHUNTED LAMP HOLDERS ARE FOUND ONLY IN FLUORESCENT LUMINAIRES WITH INSTANT-START BALLASTS. INSTANT-START BALLASTS CAN BE IDENTIFIED BY THE WORDS "INSTANT START" OR "I.S." MARKED ON THE BALLAST THIS DESIGNATION MAY BE IN THE FORM OF A STATEMENT PERTAINING TO THE BALLAST ITSELF, OR MAY BE COMBINED WITH THE MARKING FOR THE LAMPS WITH WHICH THE BALLAST IS INTENDED TO BE USED, FOR EXAMPLE F40T12/IS. FOR MORE INFORMATION, CONTACT THE LED LUMINAIRE RETROFIT KIT MANUFACTURER.

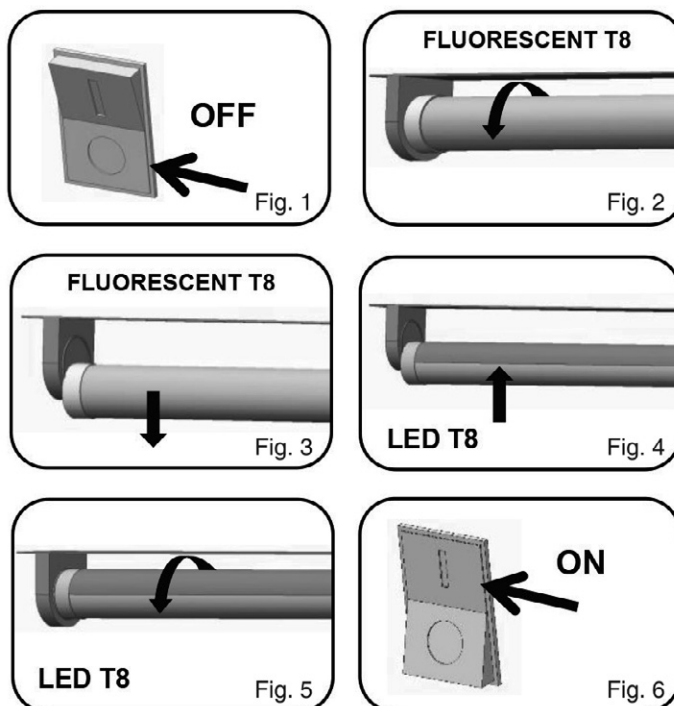
THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

### Installation Instructions – Direct Replacement (UL Type A)

1. Please make sure the ballast is on the compatible list, if not you can choose to use ballast bypass mode. Refer to installation instructions for UL Type-B.
2. Turn off the power to the luminaire. (Fig. 1)
3. Remove diffuser (if applicable).
4. Remove the existing fluorescent lamps from the luminaire. (Fig. 2 & 3) Verify the fluorescent tube type with the table below.

| Model Number   | ANSI Designation of Target Lamps |
|----------------|----------------------------------|
| L 13TBAB4CS-CG | 32W/48T8                         |

5. Dispose the existing fluorescent lamps in accordance with government regulations in your area.
6. Install Maxlite LED TB DirectFit lamps. Ensure that the pins are LED TS firmly seated in the lampholders. (Fig. 4 & 5)
7. Replace diffuser (if removed in step 2).
8. Switch on power to the luminaire. (Fig. 6)



#### For use as LED Luminaire Conversion Retrofit Kit

**DANGER - RISK OF SHOCK-DISCONNECT POWER BEFORE INSTALLATION.**

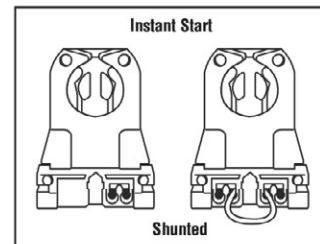
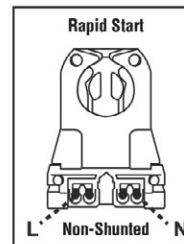
The retrofit kits including Installation Instructions, LED Lamp, Luminaire Marking Labels. The units covered by this report are intended to retrofit surface mount, Type IC or non-IC recessed mount Listed fluorescent luminaires that use maximum 4 straight tubular lamps with or without a diffuser, the minimum dimension of luminaires are:

| Luminaire Overall Dimensions |        |                 |                |                |                      |
|------------------------------|--------|-----------------|----------------|----------------|----------------------|
| Model Number                 | Pieces | Length          | Width          | Height         | Lamp-to-Lamp Spacing |
| L13TBAB4CS-CG                | 4      | 48.42"<br>123cm | 22.04"<br>56cm | 2.95"<br>7.5cm | 1.38"<br>3.5cm       |

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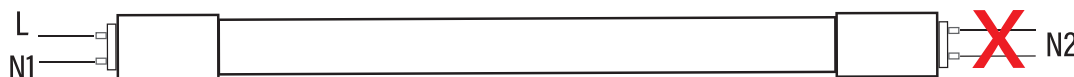
### Installation Instructions – Ballast Bypass (UL Type-B)

1. Make sure the circuit breaker that supplies the power to the fixture is turned off.
2. Remove lens or diffuser cover (if applicable) and existing fluorescent lamps.
3. Open/Remove ballast wiring compartment cover.
4. Identify the line and neutral wires running from the breaker box to the ballast and confirm the power is off
5. Cut all wires connected to ballast, and remove ballast (and starter if present).  
Dispose of removed ballast and fluorescent lamps in accordance with government regulations in your area.
6. MaxLite LED TS lamps are designed to work with shunted and non-shunted lampholders. They can be wired for single ended power or double ended power.



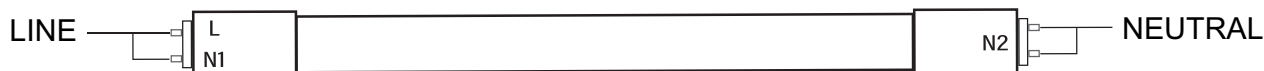
### Single-Ended Wiring – Ballast Bypass (UL Type-B)

Make sure to use non-shunted lampholder. Connect **LINE** and **NEUTRAL** to pins "L" and "N1".  
Do not connect "N2" with "LINE" and "NEUTRAL".



### Double-Ended Wiring – Ballast Bypass (UL Type-B)

Connect line to "L" and "N1". Connect **NEUTRAL** to "N2".  
This can also be reversed (**LINE** to "N2", **NEUTRAL** to "L" and "N1").



7. Mark re-wiring method on Re lamping Label and attach it on a visible location inside the fixture.
8. Install ballast cover and diffuser (if applicable) back on luminaire. Install LED TB tube.
9. Turn power on at the breaker box and turn on lights.

### Compatible Dimmers

| Brand  | Model      |             |
|--------|------------|-------------|
| Lutron | CTELV-303P | DVEL-V-300P |
|        | SELV-300P  | NTELV-300   |

## MaxLite® LED T8 Hybrid Type AB Series



### Warranty Information

Maxlite Inc. warrants its products for a minimum period of **FIVE (5)** years from the earlier of the actual installation date or 90 days after the original date of purchase from a Maxlite authorized distributor/dealer (the “Warranty Period”), as follows: If a Product fails to operate during the Warranty Period as a result of defects in materials or workmanship, Maxlite will, at its option, repair it, replace it with the same or like Product.

Please refer to Maxlite’s website (at <http://maxlite.com/resources/warranties>) for the complete coverage details as well as the terms and conditions of our warranty.

### **Limitation of Liability**

THIS WARRANTY IS EXCLUSIVE, AND IS THE SOLE REMEDY FOR ANY AND ALL CLAIMS, WHETHER IN CONTRACT, IN TORT OR OTHERWISE ARISING FROM THE FAILURE OF PRODUCT AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED TO THE EXTENT PERMITTED BY LAW AND, IN ANY EVENT, SHALL BE LIMITED TO THE WARRANTY PERIOD SPECIFIED ABOVE. THE LIABILITY OF MAXLITE SHALL BE LIMITED TO THE TERMS OF THE EXPRESS WARRANTY SET FORTH HEREIN. IN NO EVENT WILL MAXLITE BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, WITHOUT LIMITATION, DAMAGES RESULTING FROM LOSS OF USE, PROFITS, BUSINESS OR GOODWILL, LABOR COSTS, REMOVAL OR INSTALLATION COSTS, WHETHER OR NOT MAXLITE HAS BEEN ADVISED OF THE POSSIBILITY THEREOF. UNDER NO CIRCUMSTANCES SHALL MAXLITE’S ENTIRE LIABILITY FOR A DEFECTIVE PRODUCT EXCEED THE PURCHASE PRICE OF THAT PRODUCT (EXCLUDING LABOR WARRANTY COVERAGE WHERE SPECIFICALLY OFFERED BY MAXLITE). WARRANTY SERVICES PROVIDED UNDER THESE TERMS AND CONDITIONS DO NOT ENSURE THE UNINTERRUPTED OPERATION OF PRODUCTS; MAXLITE SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY ANY DELAYS INVOLVING WARRANTY SERVICE.

This Warranty gives you specific legal rights and you may also have other rights that may vary from state to state. Because some states or jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damages, such limitation may not apply to you.