

# LED T8 Tubes



## Installation instructions for LTF-T8-XXWXXXX Series

**WARNING:** These products may represent a possible shock or fire hazard if improperly installed or attached in any way. Products must be installed in accordance with these instructions, current electrical codes and/or the current National Electric Code (NEC).

**WARNING: Risk of fire or electric shock. Install these kits only in luminaires that have the construction features and dimensions shown in the photographs and/or illustrations on the following pages.**

**READ THESE INSTRUCTIONS. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.**

**WARNING: To reduce the risk of fire and reduce the risk of electrical shock, do not remove the retrofit LED tube lamp enclosure (cover and/or caps). No user-serviceable part inside. Refer servicing to qualified service personnel.**

**Make sure you have all the kit components before beginning any installation:**

This product is sold in cases of six retrofit kits. Each retrofit kit includes the following components: LED T8 Tube Lamp (1 pc), T8 non-shunted lampholder (1 pc, also known as “tombstone” or bi-pin socket), installation instructions (1 pc) and installation labels (one label is to be used for each modified fixture).

**Note: You will need 18-gauge solid copper type (not included) to complete the installation.**

The end retrofit luminaire has been modified and can no longer operate the originally intended lamp.

## **LUMINAIRE CONVERSION RETROFIT KIT FOR USE ONLY WITH FLUORESCENT LUMINAIRES.**

Models LTF-T8-XXWXXXX Series are suitable for dry or damp location.

**Do not make or alter any open holes in a wiring enclosure nor in any electrical components during kit installation!**

**WARNING: Risk of fire or electric shock. Retrofit kit installation requires knowledge of fluorescent lighting luminaires electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.**

**WARNING: Risk of fire or electric shock. The electrical input range of this product is 100-277V AC, 60 Hz (18W -22W). The installer must determine whether power supply is in the range of 100-277V AC at the luminaire before installation.**

**WARNING: Risk of fire or electric shock. Luminaires wiring, ballast(s), or other electrical parts may be damaged when drilling for installation of reflector kit hardware. Check for enclosed wiring and components.**

**WARNING: Risk of fire or electric shock. Do not use this retrofit kit in luminaires employing shunted bi-pin lampholders.**

Note: Shunted lampholders (also known as “tombstones” or bi-pin sockets) are found only in fluorescent luminaires with Instant-Start ballasts. Instant-Start ballasts can be identified by the words “Instant Start” or “I.S.” or the designation “IS” within the lamp marking on the ballast, for example F40T12-IS. For more information, contact the LED luminaire retrofit kit manufacturer.

Note: For luminaires with starters, the starters must be disconnected from the circuit. Please **do not remove** the starter(s) from the luminaire, since it would create an opening in the luminaire.

**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.**

**THE RETROFIT ASSEMBLY IS ACCEPTED AS A COMPONENT OF A FLUORESCENT LUMINAIRE WHERE THE SUITABILITY OF THE COMBINATION SHALL BE DETERMINED BY UL OR AUTHORITIES HAVING JURISDICTION.**

**WARNING: To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.**

Each lampholder (also known as “tombstone” or bi-pin socket) shall be installed only in the intended manner and location.

### **CAUTION - To reduce risk of fire, electric shock or injury to persons:**

1. Make sure that the electrical power to the fixture is disconnected prior to any installation or retrofit.
2. Read all instructions regarding ballast bypass and non-shunted T8 socket (“tombstone”) before beginning retrofit.
3. Do not use these products in luminaires located where elevated ambient temperatures exist.
4. Caution: Risk of Electric Shock. Models LTF-T8-XXWXXXX Series are suitable for dry or damp location.
5. Caution: Risk of Electric Shock. Do not use where directly exposed to water!
5. Not for use with dimmers.
6. This device is not intended for use with emergency exit fixtures or emergency exit lights.
7. Do not install in a raceway or luminaire marked for through branch wiring.
8. Do not use in conjunction with any type of ballast or driver. LED T8 Tubes are designed for 100-277V AC, 60Hz input only.
9. Do not use detergents, abrasive brushes or pads to clean the polycarbonate cover.

### **FUTURE LAMP REPLACEMENT**

LTF-T8-XXWXXXX Series retrofits (4-foot LED T8 Tubes) are available from LTF Lighting, LLC. Contact or visit [www.LTFlighting.com](http://www.LTFlighting.com) to find a local distributor.



[www.LTFlighting.com](http://www.LTFlighting.com)

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**NON-SHUNTED SOCKET INSTALLATION AND FIXTURE MODIFICATION - To replace fluorescent lamps with LED T8 Tubes, the wiring must be retrofit according to the following instructions. To ensure a complete and safe installation of the LED Tubes, strictly follow this installation guide.**

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

Note: The “live end” of the LED T8 Tube is marked with red sticker/label. See Figure 1.

#### I. GUIDELINE FOR RETROFIT OF INDUCTIVE AND ELECTRONIC FLUORESCENT FIXTURES:

1. Determine which end of the luminaire will receive AC power. This will be the “live end”. The opposite end will be the “dead end”.
2. **Be sure power is shut off at source!** Remove lens or diffuser, where applicable.
3. Remove the fluorescent lamps and properly dispose of them since they contain mercury.
4. Open the ballast cover to expose the fluorescent ballast.
5. Cut the wires on either side of the starter (if applicable) and the ballast as shown in Figure 2, referring to INDUCTIVE or ELECTRONIC example, depending on the luminaire type. **Do not remove the starter and ballast.** They must remain in place since their removal could create openings in the luminaire housing.
6. Using 18-gauge solid copper wires, connect to branch circuit (L = Line and N = Neutral) as shown in Figure 3.
7. Using 18-gauge solid copper wire, connect ground wire (from AC supply) to ground screw or if already attached, confirm the connection is solid.
8. Replace the ballast cover.
9. **IMPORTANT: Install the fixture modification label “This luminaire has been modified and can no longer operate the originally intended lamp” inside the fixture in an easily visible location to anyone changing lamps,** possibly on the cover over the wiring channel. See Figure 4.
10. Install the LED tubes, rotating pins in the “tombstone” sockets until fully seated. Replace the lens/diffuser, where applicable.
11. After the LED tubes are installed and lens/diffuser is in place, restore the power at the circuit breaker and turn the lights on.

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Figure 1

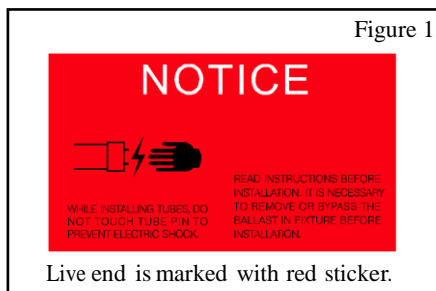


Figure 4

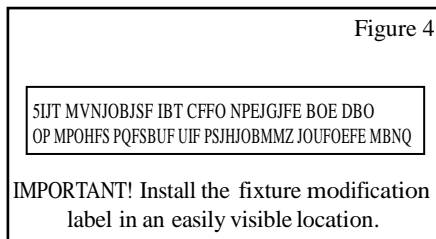
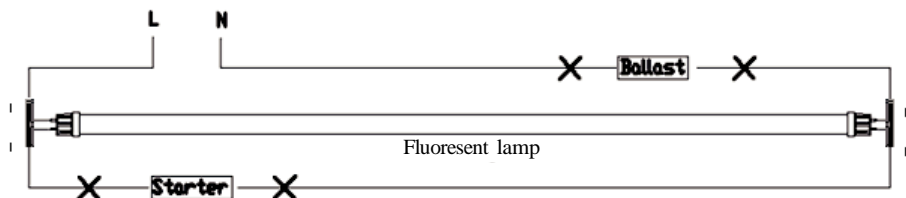


Figure 2

NOTE: These are the branch circuit (L = Line and N = Neutral) wiring examples BEFORE retrofit.

#### INDUCTIVE EXAMPLE WITH STARTER AND BALLAST:



#### ELECTRONIC EXAMPLE WITH BALLAST ONLY (NO STARTER):

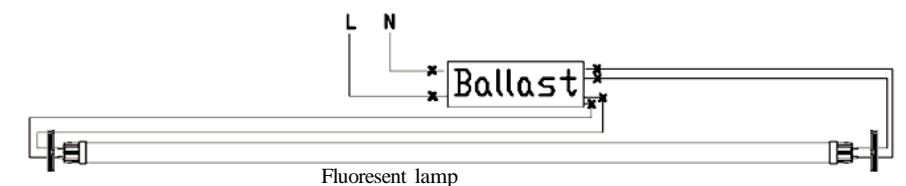
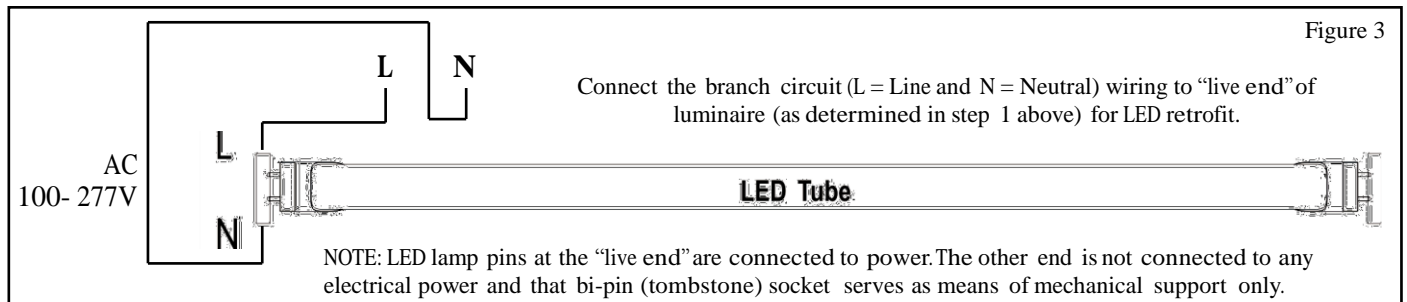


Figure 3



THE END RETROFIT LUMINAIRE HAS BEEN MODIFIED AND CAN NO LONGER OPERATE THE ORIGINAL INTENDED LAMP(S).

Model Number	LED Qty	Voltage	Hz	Wattage	Input Current
LTF-T8-18W1200-XX	110	100-277V AC	60	18W	150mA
LTF-T8-22W1200-XX	132	100-277V AC	60	22W	182mA

