



# INSTALLATION AND OPERATING INSTRUCTIONS

T804BD0641E LS4T814B241K

**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.

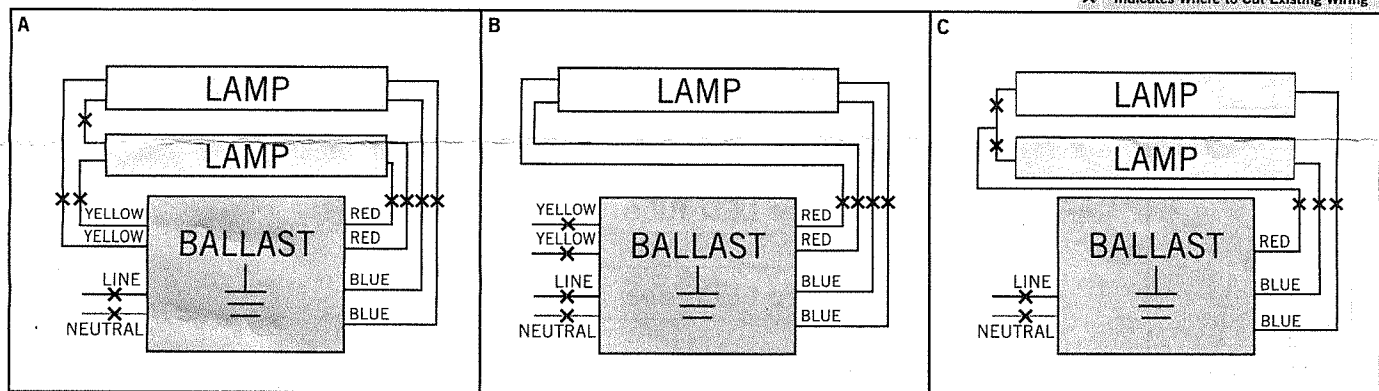
**CAUTION:** Not rated for use in Vapor Tight style fixtures. Do not install in vapor tight style fixtures. Doing so will void the warranty.

## Instructions for Single-Ended Wiring Installation

### Removing Existing Fluorescent System

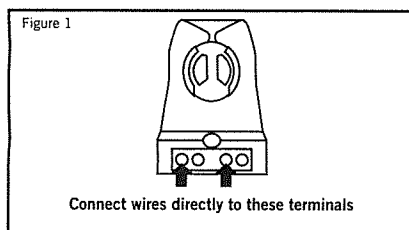
1. Disconnect power from fixture.
2. Remove fluorescent lamp(s).
3. Remove lens and wiring compartment, if applicable.
4. Cut all wires connected to the ballast as shown below.
5. Identify what type of lampholders are in fixture. Single-Ended wiring installations of TCP tubes require non-shunted G13 lampholders.

### Typical Ballast Configurations

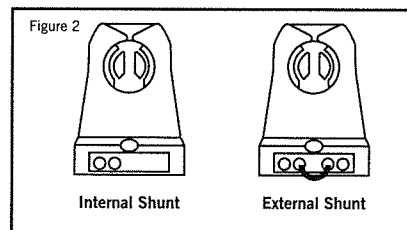


**CAUTION:** Use only non-shunted lampholders for Single-Ended wiring installations. Do not perform Single-Ended wiring installation of product in a fixture with shunted lampholders (found in all fixtures using instant start ballasts). If the existing lampholders are shunted, and Single-Ended wiring is desired, remove and replace them with non-shunted lampholders (or remove the external shunt if applicable). Make new connections directly to lampholder terminals as shown in Figure 1 below.

### Typical Non-Shunted Lampholder



### Typical Shunted Lampholders





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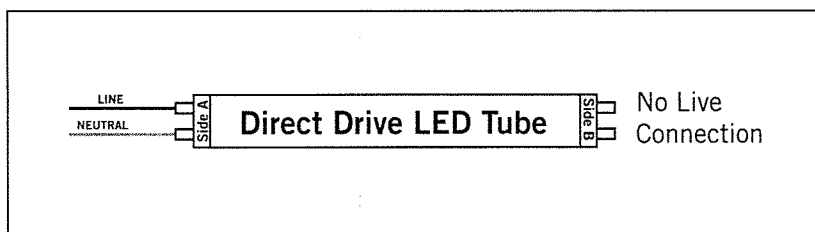
### Installing the Lamps

**NOTE:** For Single-Ended wiring installations, power is only applied to endcap labeled Side A. DO NOT apply power to Side B.

- I. Confirm that power is still disconnected from fixture.
- II. Make sure fixture is properly grounded.
- III. Follow step 1 for single lamp application or steps 2 & 3 for multiple lamp application, based on the number of lamps in the fixture:

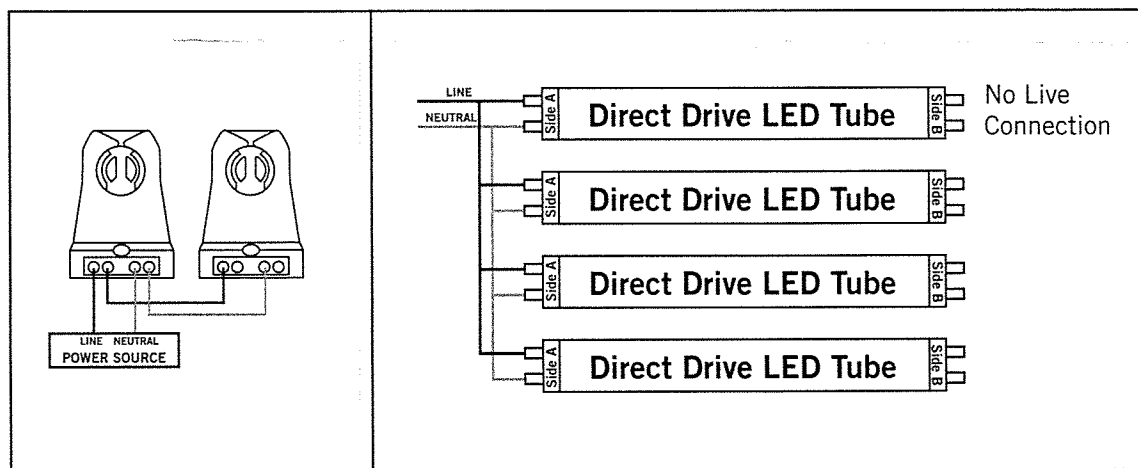
#### Single Lamp

1. On the Side A lampholder, connect line (L) and neutral (N) AC wires to the corresponding pins marked (L) and (N) on the endcap. If only one lamp is being installed, proceed to step 4.



#### Multiple Lamps

2. Follow the steps above for single lamp connection to connect the first lamp.
3. Connect the terminals on the powered lampholder on the first lamp to the matching terminals on the powered lampholder on the second lamp with line and neutral wires as shown below. Continue daisy-chain connection for each additional lamp.



4. Complete all electrical connections with appropriate connectors/wire nuts as needed, per all local and national electrical codes.

**NOTE:** There should not be any exposed wires from sockets left unconnected.

5. Replace wiring compartment cover.
6. Install all of the TCP tubes, making sure Side A is installed in the lampholders wired to the line and neutral. Install LED tubes so that the LEDs are pointed in the proper direction for illumination, and install any lens or diffuser as applicable.
7. Apply power to fixture and check for illumination.

## Instructions for Double-Ended Wiring Installation

### Removing Existing Fluorescent System

1. Disconnect power from fixture.
2. Remove fluorescent lamp(s).
3. Remove lens and wiring compartment, if applicable.
4. Cut all wires connected to the ballast as shown in Diagrams A, B, and C on Page 1.
5. Identify what type of lampholders are in fixture. Double-Ended wiring installations of TCP tubes can be used with shunted G13 or no shunted G13 lampholders(with instructions to externally shunt). See Figures 1 and 2 on page 1.



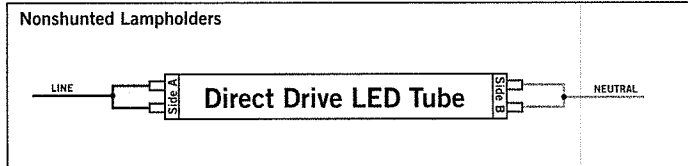
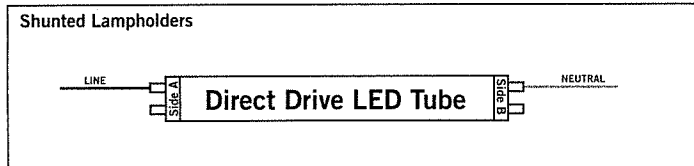
## INSTALLATION AND OPERATING INSTRUCTIONS

### Installing the Lamps

- I. Confirm that power is still disconnected from fixture.
- II. Make sure fixture is properly grounded.
- III. Follow step 1 for single lamp application or steps 2 & 3 for multiple lamp application, based on the number of lamps in the fixture:

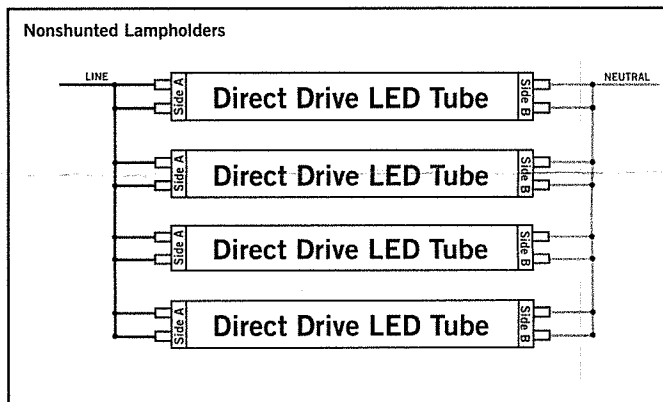
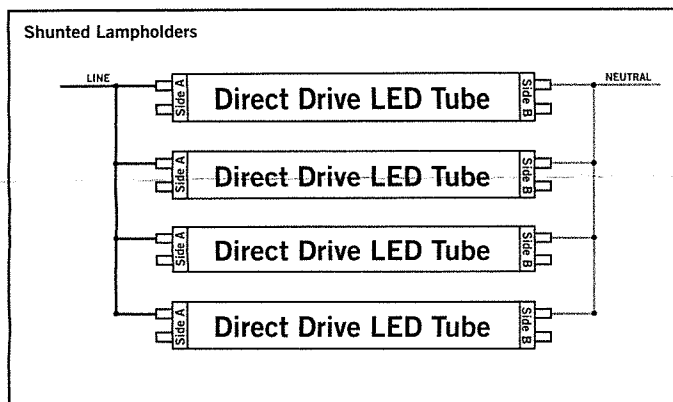
#### Single Lamp

1. From AC wires, connect line (L) to Side A lampholder and neutral (N) to Side B lampholder. If only one lamp is being installed, proceed to step 4.



#### Multiple Lamps

2. Follow the steps above for single lamp connection to connect the first lamp.
3. Connect the terminals from the first lamp to the matching terminals on the lampholder of the second lamp with line and neutral wires as shown below. Continue daisy-chain connection for each additional lamp.



4. Complete all electrical connections with appropriate connectors/wire nuts as needed, per all local and national electrical codes.

**NOTE: There should not be any exposed wires from sockets left unconnected.**

5. Replace wiring compartment cover.
6. Install all of the TCP tubes. Install LED tubes so that the LEDs are pointed in the proper direction for illumination, and attach the Luminaire Marking Label to the luminaire install any lens or diffuser as applicable.
7. Apply power to fixture and check for illumination.

### Safety and Electrical Parameters Continued

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 undesired operation.

1. These LED tubes are intended for lighting systems only.
2. These LED tubes are for indoor use only. Maximum ambient temperature must not exceed 45°C (113°F).
3. Avoid use in sunlight, abnormal heat, or moist / condensing environments.
  - Working temperature : -20°C~45°C (-4°F~113°F)
  - Working humidity : 30%~85%
  - Storage temperature : -40°C~65°C (-40°F~149°F)
  - Storage humidity : 10%~90%
4. These LED tubes are not intended to be repaired by the user, manufacturer, or service personnel in any case of failure.
5. These LED tubes are constructed such that they do not rely upon the luminaire enclosure for protection against accidental contact with live parts.
6. These LED tubes are intended to be used in dry or damp locations only.
7. These LED tubes are not for use with dimmers.
8. These LED tubes are not intended for use with emergency exit fixtures of any type.
9. These tubes are intended to be installed in the same orientation as the fluorescent tubes they are replacing.



## INSTALLATION AND OPERATING INSTRUCTIONS

### **IMPORTANT SAFETY INSTRUCTIONS**

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

The retrofit kits including Installation Instructions, LED Lamp, Luminaire Marking Labels.

The T8 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 14 cm minimum; Or retrofit surface mounted listed fluorescent luminaires without diffuser for maximum six lamps with lamp to lamp distance 5.5 cm minimum.

The products are intended to be used in dry and damp locations only.

The wiring configuration of the products is "BE", meaning "Both Ends" (power applied to both ends of the lamp simultaneously).

**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 or electric shock. The electrical rating of these products are 120-277Vac. The installer must determine that they have 120-277V at the luminaire before installation.

**WARNING** - Risk of fire or electric shock. LED Retrofit Kit 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. Install this kit only in the 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.  
Do not remove ballast from fixture due to UL requirements.

Installers should not disconnect existing wires from lamp holder terminals to make new connections at lamp holder terminals. Instead installers should cut existing lamp holder leads away from the lamp holder and make new electrical connections to lamp holder lead wires by employing applicable connectors.

**WARNING** : For Single-Ended wiring installations:

To avoid potential fire or shock hazard, do not use this retrofit kit in luminaires employing shunted bi-pin lampholders. Note: Shunted lampholders 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.

**CONSULT A QUALIFIED ELECTRICIAN TO ENSURE CORRECT BRANCH CIRCUIT CONDUCTOR**

**THIS RETROFIT KIT IS ACCEPTED AS A COMPONENT OF A LUMINAIRE WHERE THE SUITABILITY OF THE COMBINATION SHALL BE DETERMINED BY AUTHORITIES HAVING JURISDICTION.**

**DO NOT USE WITH DIMMERS.**

**RISK OF ELECTRIC SHOCK – USE IN DRY AND DAMP LOCATION ONLY.**

**THIS DEVICE IS NOT INTENDED FOR USE WITH EMERGENCY EXITS.**

Replace with TCP T80415C\*\*E,  
where \*\* indicates color temperature.  
Order at [www.tpci.com](http://www.tpci.com).