

SINGLE END POWERED LED TUBE INSTALLATION GUIDE



RETROFIT/INSTALLATION INFORMATION

FEATURES

- Sturdy high-shock, vibration-resistant construction with high-power SMD LEDs and rotatable end caps.
- No UV; no mercury; no ballast required.
- Longer life than incandescents & fluorescents with over 50% savings in energy consumption.
- Solid-state, constant-current with UL testing standards.
- Operation in accordance with UL testing standards.
- Available in 2, 3, 4, 5, 6 and, 8-foot lengths and milky or clear lenses.









INSTALLATION NOTES




- These instructions can be used to install Single End Powered (SEP) LED tube lamps into a properly wired luminaire / troffer.
- LED Tube operates using any voltage from 120VAC to 277VAC.
- LED Tube is not intended for use with emergency exit fixtures, emergency exit lights or battery backup devices.
- LED Tube is powered from one end (SEP); the other end is NOT live and only serves to secure and mount the LED Tube in the sockets. Verify that the luminaires is properly set up for this style of LED Tube before inserting into luminaire (modify luminaire if necessary.)
- A Retrofitted Luminaire label is included with your LED Tube. This decal must be placed in a prominent locations on the luminaire so that it is visible when replacing and LED Tube. If the luminaire is modified for LED Tube use and has label, the new label may be discarded.
- The LED Tube fits in any T-Series medium Bi-Pin (T8/T10/T12) socket. Lamp holder sockets do not need to be replaced unless damaged or missing. Lamp holder must be separated internally for proper wiring of the LED Tube. Refer to installation diagrams below.
- The LED Tube may be used in open or enclosed surface or recessed (Type-IC) luminaires.
- If retrofitting an existing luminaire with LED Tube(s), the initial luminaire retrofit wiring changes shall be performed by a qualified electrician.
- Shunted lamp holders are found only in fluorescent luminaires with Instant-Start ballasts. These ballasts are labeled "Instant Start" or "I.S." or designated as "IS" on the ballast markings, for example F40T12/IS. for more information, contact your Truly Green Solutions representative.
- The LED Tube Is not for use in luminaires controlled by a dimmer.

SAFETY INFORMATION (READ CAREFULLY)

WARNINGS

-  **WARNING—Risk of fire or electric shock. Do not use this retrofit kit in luminaires employing shunted bi-pin lampholders.**
-  **WARNING—Risk of fire or electric shock. Do not alter, relocate, or remove wiring, lampholders, ballasts or any other electrical component. If necessary, contact a qualified electrician for assistance.**
-  **WARNING—To prevent wiring damage or abrasion, do not expose wiring to exposed edges of sheet metal or other sharp objects.**
-  **WARNING—Always disconnect power for your safety when performing the luminaire modification steps below! In some cases, it may be necessary to test the power feed with the power connected, only connect the power when doing testing, then disconnect the power from ther luminaire when performing the steps below.**
-  **WARNING—Always follow local and regional National Electrical Codes (NEC). NEC provides information on proper procedures, safety guidelines, proper tools, connection methods and specifications on materials.**
-  **Truly Green Solutions cannot and will not be liable any modifications or results of modifications to electrical devices or luminaires, These instructions are provided as a reference. By using the 'instructions' included, you are solely responsible for following all applicable electrical safety procedures, codes, methods and materials. If you are unsure about any electrical modification or installation, please consult a licensed electrician or electrical contractor in your area.**

CAUTIONS

-  **CAUTION— Risk of Shock. Use in Dry Locations Only.**
-  **Do NOT install an LED Tube into a fluorescent luminaire containing a ballast and/or starter. The ballast and/or starter must be removed prior to installation.**
-  **Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation.**

Due to advancements in technology, specifications are subject to change without notice.

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WARNING: READ INSTRUCTIONS BEFORE INSTALLING

Disconnect all power sources to the fixtures before installing.

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INSTALLATION INSTRUCTIONS

STEP 1 – DISCONNECT POWER TO LUMINAIRE

- Disconnect power to luminaire or circuit (if possible). Ensure all power is off using a voltmeter or other method.

STEP 2 – REMOVE EXISTING TUBE LAMPS

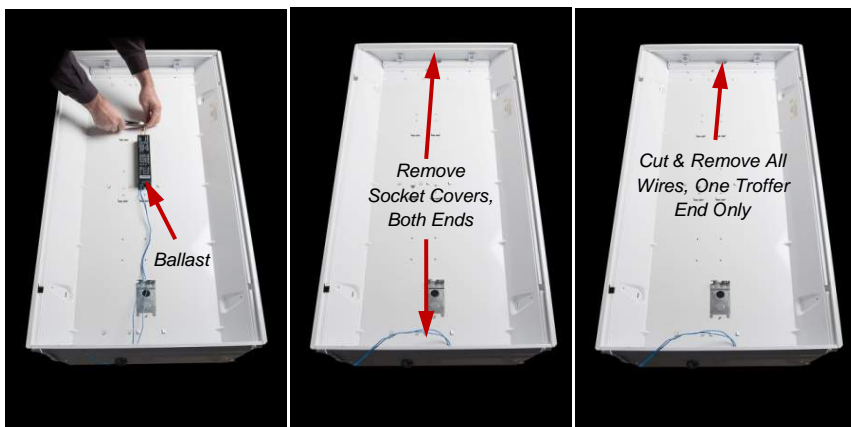


a) Remove Lens b) Tube Lamps Removed c) Remove Ballast Cover

- Remove troffer lens, if present.
- Remove existing fluorescent or LED tube lamps by rotating one quarter turn and sliding each lamp out.
- Remove ballast cover. (Cover may be secured with screws or tabs.)

NOTE: When installing these LED tube lamp(s) in a previously retrofitted luminaire with a single-end power source, do not remove ballast cover and skip to step 4 below.

STEP 3 – MODIFY EXISTING FLUORESCENT LUMINAIRE



a) Cut Ballast Wires b) Remove Socket Covers c) Remove Wires, One End

- Cut all ballast wires as close to ballast as possible, and then choose one of the following options:
 - Unscrew screw(s) and remove ballast from luminaire, then reinsert original screw(s) into ballast mounting hole(s).**OR**
 - Abandon and leave ballast in its original mounting location.
- Remove lamp-holder (socket/tombstone) covers from both ends of luminaire. (Covers may be secured with screws or tabs.)
- Cut and remove all wires from the sockets at ONE END of luminaire. (Only one side of luminaire needs wired sockets.)

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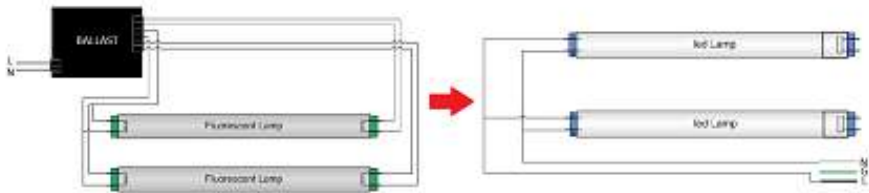
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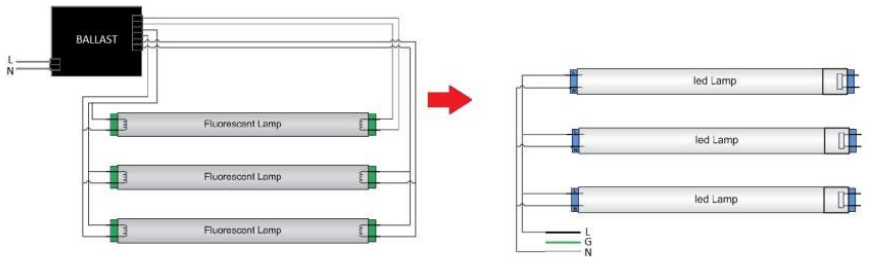


STEP 3 (CON'T) – MODIFY EXISTING FLUORESCENT LUMINAIRE



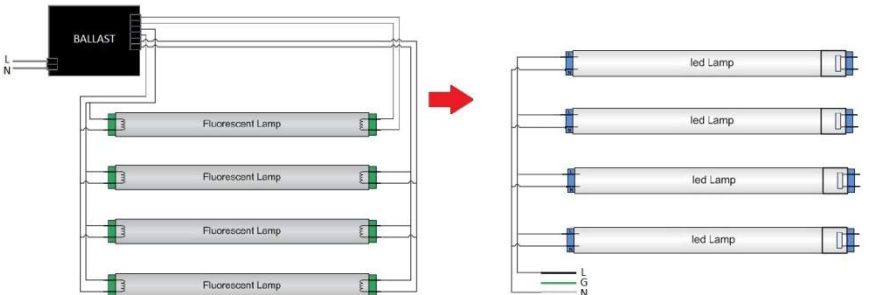
d) Typical Wiring Before Retrofit

e) Wiring After Retrofit



d) Typical Wiring Before Retrofit

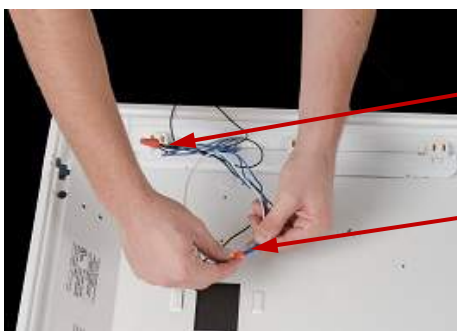
e) Wiring After Retrofit



d) Typical Wiring Before Retrofit

e) Wiring After Retrofit

- d) Ensure that powered sockets are wired according to diagrams e) "Wiring After Retrofit," which depicts 2, 3, and 4 foot tube SEP.
- e) Cut and Strip approximately 1/2" of insulation from the free ends of the hot (black) and neutral (white) socket wires.
- f) Splice the hot and neutral incoming power leads which the corresponding hot and neutral socket wires using the appropriate wire nuts.
- g) See Photo f) "Splicing Wires" below.
CAUTION: Make sure the hot and neutral wires are correctly identified.
Secure all fasteners, clips and wire (use electrical tape if necessary) and reinstall socket covers at both ends of the troffer.
- h) Apply warning label in high visibility area of the fixture.



L = Load Wires
(Typically Black)

N = Neutral Wires
(Typically White)

f) Splicing Wires

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STEP 4 – INSTALL LED TUBE(S)



a) Install LED Tube Lamp b) Replace Ballast Cover c) Replace Troffer Lens

- a) Read label on the LED tube lamp to ensure that power end of the LED is aligned with the powered luminaire socket, then insert single-end powered LED lamp in the normal way by sliding the pins into both tombstone sockets and gently rotating a quarter turn until LED tube locks in place. LED lamp is now fully installed.

CAUTION: Don't attempt to make adjustments to end-cap angle after LED tube lamps is securely mounted in sockets, since this could cause misalignment of bi-pin connectors and malfunction or accidental detachment of lamp.

- b) Repeat above step for all LED tube lamps.
c) Replace ballast cover.
d) Replace troffer lens, if present.

STEP 5 – RESTORE POWER TO LUMINAIRE & TEST

- Restore power to circuit/luminaire and test light. If necessary, adjust position of LED tubes, and enjoy your new Truly Green Solutions LED Tube Light!

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