

## Installation Guide: UL Type-B SEP T8 LED Tube Lamp



SEP T8 LED Tube Lamp Example

### Contents:

Carefully open the box and check contents. Contact Revolution Lighting if any items are missing.		
Qty. #	SEP T8 LED TUBE LAMP(S) [SKU #: (as ordered)]	SEP T8 LED Tube Lamp(s)
Qty. 1	“LUMINAIRE POWER SOURCE SOCKET” LABEL [SKU #: 300325]	This decal must be placed at the base of the powered LED tube socket on the LED-modified luminaire so that it is visible when replacing an LED tube. The arrow should point in the direction of the powered socket (only one label per retrofitted luminaire required at powered end).
Qty. 1	“RETROFITTED LIGHT LUMINAIRE” LABEL [SKU #: 300220]	This decal must be placed in a prominent location on the LED-modified luminaire so that it is visible when replacing an LED tube (only one label per retrofitted luminaire required).
Qty. 1	SEP T8 LED TUBE LAMP INSTALLATION GUIDE [SKU #: 300567 v01]	Provides information necessary to retrofit a luminaire for a non-rotatable SEP LED tube or replace an SEP LED tube in an existing retrofitted luminaire.

### Installation Notes & Precautions:

- **Read all precautions, warnings, instructions contained in this document.**
- These instructions can be used to install up to four SEP T8 LED tube lamps into a properly wired luminaire/troffer.
- Before installing lamps, verify that luminaire tombstone spacing matches the lamp length.
- Installation should be performed by a qualified electrician or installer.
- Operating voltages: 120-277VAC
- **CAUTION: Wire-up the fixture to match circuit voltage used. (See Step 4 below.)**
- 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 socket. Verify that the luminaire is properly set up for this style of LED Tube before inserting into luminaire (modify luminaire if necessary).
- **WARNING: Do not use shunted lamp sockets when rewiring fixture for SEP LED tube lamps.**
- Shunted lamp sockets 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 Revolution Lighting representative.
- This light source is not intended as an emergency exit fixture or light.
- A “Retrofitted Luminaire” label is included with your LED tube. This decal must be placed in a prominent location on the luminaire so that it is visible when replacing an LED tube. If the luminaire is already modified for LED tube use and has a label, the new label may be discarded.
- The LED tube fits into any T-Series Medium Bi-Pin (T8/T10/T12) socket. Lampholder sockets do not need to be replaced unless they are shunted, damaged, or missing. Lampholders must be separated internally for proper wiring of the LED tube. Refer to installation diagrams.
- The LED tube may be used in open or covered/lensed 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.
- The LED tube is not for use in luminaires controlled by a dimmer.

### STEP 1 – Turn Off Power



- Disconnect power to installation site.  
**WARNING: Ensure that all power is off using a voltmeter or other method.**

### STEP 2 – Prepare Fixture for Retrofit



- Remove troffer lens, if present.
- Remove existing fluorescent or LED tube lamps by rotating one quarter turn and sliding each lamp out. Dispose of fluorescent lamps per job/company site rules and regulations.
- 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 5 below.**
- Examine the integrity and wiring of each tombstone socket. Replace all worn/damaged sockets. Replace shunted sockets with non-shunted ones.  
**WARNING: Do not use shunted lamp sockets when rewiring fixture for SEP LED tube lamps.**

### STEP 3 – Bypass Ballast

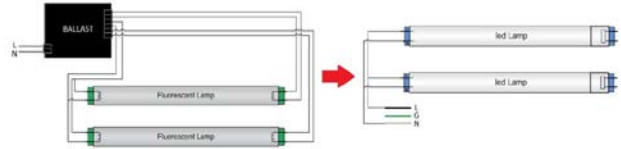


- Cut all ballast wires as close to ballast as possible, then choose one of the following two options:
  - Unscrew screw(s) and remove ballast from luminaire, then reinsert original screw(s) into ballast mounting hole(s).

OR

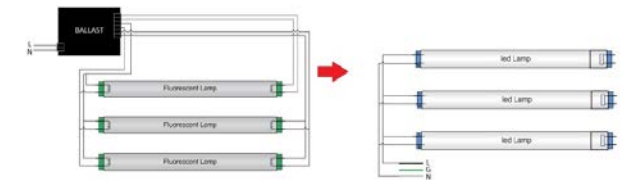
- Abandon and leave ballast in its original mounting location.
- Remove lamp-holder (socket/tombstone) covers from both ends of luminaire. (Covers may be secured with screws or tabs.)
- Cut and remove all wires from the sockets at ONE END of luminaire. (Only one side of luminaire needs wired sockets.)

### STEP 4 – SEP Tube Wiring



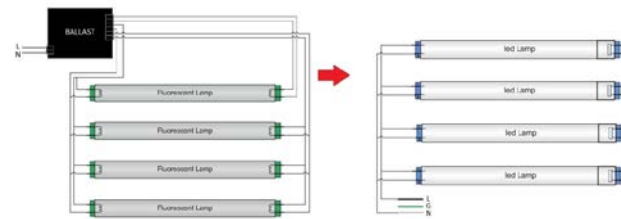
Wiring Before Retrofit

Wiring After Retrofit



Wiring Before Retrofit

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Wiring After Retrofit

- If you have ordered one of RVL's SEP Socket Retrofit Kits, remove existing powered tombstones at this time and install tombstone retrofit kit per instructions.
- Wire existing sockets according to the above diagrams labeled "Wiring After Retrofit," which depict 2-, 3-, and 4-tube SEP configurations.
- Cut and strip approximately 1/2" of insulation from the free ends of the hot (black) and neutral (white) socket wires.
- Splice the hot and neutral incoming power leads with the corresponding hot and neutral socket wires using the appropriate wire nuts.
- Secure all fasteners, clips, and wires (use electrical tape if necessary) and reinstall socket covers at both ends of troffer.
- Apply supplied label SKU #300325 with arrow pointing to wired sockets of troffer, indicating modified power socket.
- Apply Retrofitted Luminaire Label SKU #300220 on inside of luminaire housing near one end of housing, next to powered sockets. Ensure that the label will not be covered by any cover pieces, trim pieces, or other items. If necessary, clean the area where label will be placed before affixing the self-adhesive label.

#### STEP 5 – Insert LED Tube Lamps, etc.



- Read label on the LED tube lamp to ensure that powered 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.
- Repeat above step for all LED tube lamps.
- Replace ballast cover.
- Replace troffer lens, if present.







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#### STEP 6 – Turn On Power






- Switch power back on.

### Warnings:

-  **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 the testing, then disconnect the power from the luminaire when performing the steps below.
-  **WARNING** – Always follow local and regional NEMA Electrical codes. NEMA codes provide information on proper procedures, safety guidelines, proper tools, connection methods, and specifications on materials.
-  **WARNING** – Revolution Lighting Technologies, Inc. cannot and will not be liable for any modifications or results of modifications to electrical devices or luminaires. These instructions are provided as a reference. By using the included instructions, 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.
-  **WARNING** – To avoid potential fire or shock hazard, do not use this retrofit kit in luminaires employing shunted bi-pin lampholders when tube lamp is wired for SEP operation. 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 it 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.

### Cautions:

-  **CAUTION** – Risk of Shock. Use in Dry or Damp Locations Only.
-  **CAUTION** – 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.
-  **CAUTION** – Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation.