



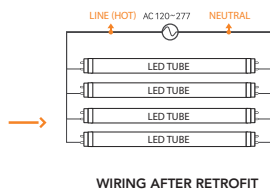
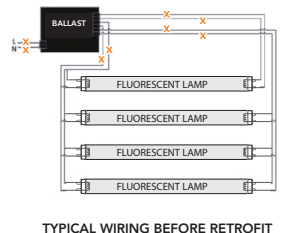
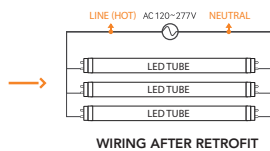
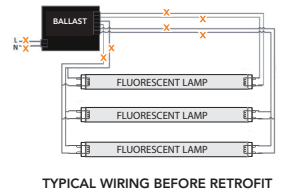
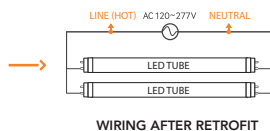
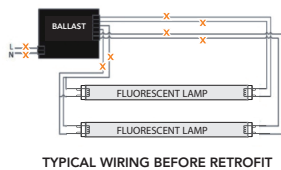
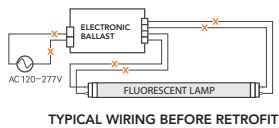
IMPORTANT SAFETY INSTRUCTIONS  
 READ AND FOLLOW ALL INSTRUCTIONS  
 SAVE THESE INSTRUCTIONS

THIS TUBE CAN BE INSTALLED WITH OR WITHOUT A FLUORESCENT BALLAST. PLEASE FOLLOW THE CORRECT INSTRUCTION SECTION BELOW BASED ON THE METHOD OF INSTALLATION.

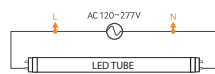
### INSTRUCTIONS FOR BALLAST BYPASS INSTALLATION (LINE VOLTAGE INSTALLATION)

**NOTE:** THE REMPHOS TOTALTUBE G2 IS DESIGNED TO OPERATE FROM "DOUBLE ENDED" LINE VOLTAGE 120-277V AC ONLY! TUBE WILL NOT OPERATE WITH "SINGLE SIDED" POWER.

#### A RETROFIT LUMINAIRE WITH ELECTRONIC BALLAST

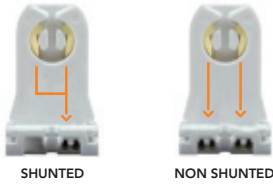


#### B RETROFIT LUMINAIRE WITH MAGNETIC OR INDUCTIVE BALLAST

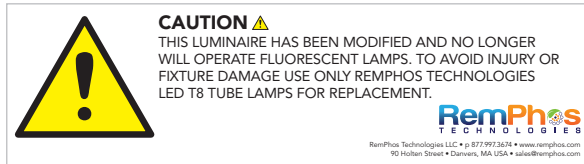


1. SWITCH OFF POWER BEFORE BEGINNING INSTALLATION.
2. Remove fixture cover or diffuser and the fluorescent lamps.
3. Open/remove wiring compartment cover.
4. Cut remaining wires connected to the ballast. Remove ballast if necessary or entomb in place.
5. Can be used in either shunted or non-shunted G13 bi-pin sockets (see diagram C)
6. Ensure that sockets are wired according to the "Wiring After Retrofit" diagrams based on your 1L, 2L, 3L or 4L configurations (see diagram A).
7. Splice the hot and neutral incoming power leads with the corresponding hot and neutral socket wires using the appropriate wire nuts.
8. Secure all fasteners, clips and wires (use electrical tape if necessary) and reinstall socket covers at both ends of troffer.
9. Apply provided caution label (see diagram D) in a place where the label will be visible to maintenance staff. Label is required by UL.
10. Insert the LED tube into the lamp holders and twist 90° to secure in place. See diagram (E) for the SMARTSENSE®-TLED Switch. Once LED tube is twisted properly into position, STEP 1 on diagram E is complete.
11. Press the SMARTSENSE®-TLED switches labeled STEP 2 on diagram E.
12. Replace wiring compartment cover.
13. RESTORE POWER

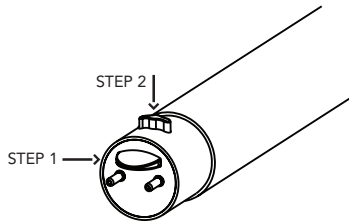
**C SOCKETS**  
(EITHER OF THESE SOCKETS STYLES ARE ACCEPTABLE)



**D REQUIRED CAUTION LABEL**



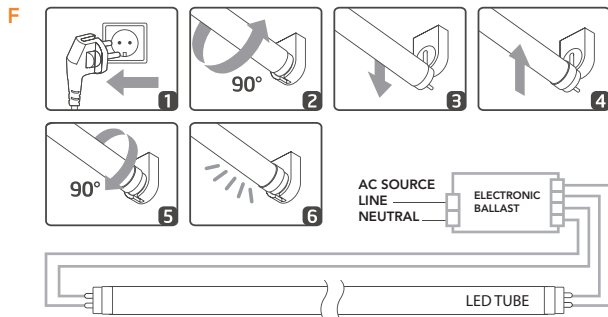
**E SMARTSENSE-TLED SWITCH**



The SMARTSENSE-TLED Switch is designed to allow the LED tube to be installed into a fixture wired for double sided line voltage power. The switch ensures that no electricity is able to flow from one end of the tube to the other before all 4 switches are pressed in. Wiring the fixture to double sided line voltage power (opposed to single sided) ensures that if maintenance personnel ever attempts to reinstall a fluorescent lamp into the sockets wired for line voltage, the fluorescent lamp will simply not illuminate. There are no safety concerns.

**INSTRUCTIONS FOR BALLAST COMPATIBLE INSTALLATION**

**NOTE:** THE BALLAST COMPATIBLE LIST CAN BE UPDATED WITHOUT PRIOR NOTICE. BE SURE TO CHECK THE BALLAST COMPATIBILITY GUIDE FOR THE MOST UP-TO-DATE INFORMATION.



1. SWITCH OFF THE POWER BEFORE BEGINNING INSTALLATION.
2. Remove the fluorescent lamp from the luminaire by turning it 90°.
3. Insert the LED tube into the lamp holders
4. Twist the LED tube 90° to secure in place. See diagram E for the SMARTSENSE®-TLED Switch. Once LED tube is twisted properly into position, STEP 1 on diagram E is complete. Press the SMARTSENSE®-TLED switch labeled STEP 2 on diagram E.
5. RESTORE POWER.

## DIMENSIONS

**NOTE:** BEFORE RETROFIT, PLEASE CONFIRM THE LUMINAIRE IS LARGER THAN THE DEFINED DIMENSIONS BELOW.  
SPACING BETWEEN TUBES SHOULD BE MIN OF 2 INCHES.

Minimum luminaire dimension: length x width (inches)

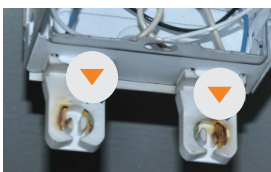
MODEL	1L LED TUBE	2L LED TUBES	3L LED TUBES	4L LED TUBES
24IN	24 x 1	24 x 2	24 x 3	24 x 4
36IN	36 x 1	36 x 2	36 x 3	36 x 4
48IN	48 x 1	48 x 2	48 x 3	48 x 4

### WARNINGS

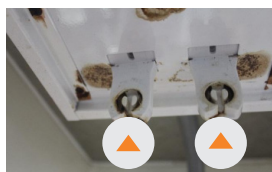
1. THIS DEVICE IS NOT INTENDED FOR USE WITH EMERGENCY EXITS.
2. RISK OF FIRE OR ELECTRIC SHOCK. LED RETROFIT KIT INSTALLATION REQUIRES KNOWLEDGE OF LUMINAIRE'S ELECTRICAL SYSTEMS. IF NOT QUALIFIED, DO NOT ATTEMPT INSTALLATION. CONTACT A LICENSED ELECTRICIAN.
3. RISK OF FIRE OR ELECTRIC SHOCK. INSTALL THIS KIT ONLY IN LUMINAIRES THAT HAVE THE CONSTRUCTION DIMENSIONS SHOWN IN THE TABLE AND WHERE THE INPUT RATING OF THE RETROFIT KIT DOES NOT EXCEED THE INPUT RATING OF THE LUMINAIRE.
4. DO NOT ALTER OR MAKE ANY HOLES IN AN ELECTRICAL ENCLOSURE OR ELECTRICAL COMPONENTS DURING KIT INSTALLATION.
5. TO PREVENT WIRING DAMAGE OR ABRASION, DO NOT EXPOSE WIRING TO EDGES OF SHEET METAL OR OTHER SHARP OBJECTS.
6. THIS RETROFIT KIT IS ACCEPTED AS A COMPONENT OF A LUMINAIRE WHERE THE SUITABILITY OF THE COMBINATION SHALL BE DETERMINED BY AUTHORITIES HAVING JURISDICTION.
7. 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.

### CAUTIONS

1. Not compatible with products equipped with dimmer, battery backup and/or emergency ballasts.
2. Do not touch the tube with wet hands when power is on.
3. Do not disassemble, repair or alter personally.
5. Do not use in overly damp locations. Avoid applications where lamp can get wet.
6. For use only with UL Listed IC or NON-IC Recessed Mount Fluorescent Luminaires with or without Diffuser.
7. LED Tubes must be operated within an ambient fixture temperature of -4°F(-20° C) and 113°F (45° C)
8. Test lamp in the fixture to assure proper LED lamp operation and confirm ballast compatibility before installing large quantities.
9. Damaged lamp holders must be replaced before installing LED T8 Lamps (G)
10. Ensure that lamp sockets are clean and free from any debris or contamination. If lamp holders are contaminated, it is recommended to replace the lamp sockets. (H)
11. Lamp holders must be secured firmly to the fixture. Use the lamp holders that are recommended by the fixture manufacturer. (I)
12. Verify the alignment of the sockets along the length of the fixture to ensure that the T8 LED lamp is making a good snug contact with their respective lamp holders. Over time, an incorrect alignment can cause the lamp to come loose. A tight fit is better than a loose one. (J)



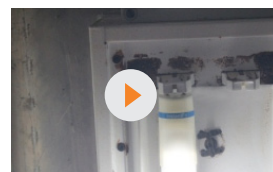
G



H



I



J