

# DUAL POWER/DIRECT WIRE • 11.5W/18.5W

## INSTALL INSTRUCTIONS



**PLEASE FIND A QUALIFIED ELECTRICIAN FOR INSTALLATION. Please read the instructions before you install and use the luminaire.**

**GENERAL:** ALL ELECTRICAL CONNECTIONS MUST BE IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODE (N.E.C.) STANDARDS. IF YOU ARE UNFAMILIAR WITH PROPER ELECTRICAL WIRING CONNECTIONS OBTAIN THE SERVICES OF A QUALIFIED ELECTRICIAN. REMOVE THE TRIM FROM THE BOX AND MAKE SURE THAT NO PARTS ARE MISSING.

**WARNING** - Installation requires knowledge of luminaires electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.

**WARNING** - Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation.

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

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.

Not intended to be repaired by the user, manufacturer or service personnel in any case of failure.

The tube does not rely upon the luminaire enclosure for protection against accidental contact with live parts.

**WARNING** - Risk of fire or electric shock. Install this kit only in luminaries that have the construction features and dimensions shown in the photographs and/or drawings.

**WARNING:** For Single-ended wiring installation: 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.

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.

THE RETROFIT KIT IS ACCEPTED AS A COMPONENT OF A LUMINAIRE WHERE THE SUITABILITY OF THE COMBINATION SHALL BE DETERMINED BY AUTHORITIES HAVING JURISDICTION. PRODUCT MUST BE INSTALLED BY A QUALIFIED ELECTRICIAN IN ACCORDANCE WITH THE APPLICABLE AND APPROPRIATE ELECTRICAL CODES. THE INSTALLATION GUIDE DOES NOT SUPERSEDE LOCAL OR NATIONAL REGULATIONS FOR ELECTRICAL INSTALLATIONS.

**CAUTION:** The electrical rating of this product is 120-277V. Installer must confirm that there is 120-277V at the fixture before installation.

**CAUTION:** Do not look directly at the LED light source for extended time as over-exposure may cause harm to the eyes.

Intended for lighting systems only.

For indoor use only. Maximum ambient temperature must not exceed 45°C (113°F). Avoid use in sunlight, abnormal heat or moist/condensing environments.

Suitable for dry and damp locations only.

Not for use with dimmers.

Not for use with emergency exit fixtures.

Intended to be installed in the same orientation as the fluorescent tubes they are replacing.

**! WARNING DISCONNECT POWER BEFORE INSTALLING OR SERVICING.**

### SINGLE-ENDED WIRING INSTALLATION

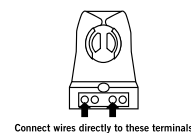
**CAUTION:** Use only non-shunted lampholders for single-ended wiring installations. Do not perform Single-Ended wiring installation of product in a fixture with shunted lampholders (found in all fixtures using instant start ballasts). If the existing lampholders are shunted, and Single-ended wiring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

1. Disconnect power from fixture.
2. Remove 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 2.
5. Identify what type of lampholders are in the fixture. Single-ended wiring installations of tubes requires non-shunted G13 lampholders.
6. If applicable, replace lampholders with non-shunted lampholders (with instructions to externally shunt). See Figure 1 and 2.

### INSTALLING LAMPS

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

### Typical Non-Shunted Lampholder



Connect wires directly to these terminals

Figure 1

### Typical Shunted Lampholder

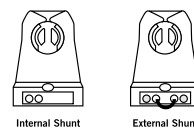


Figure 2

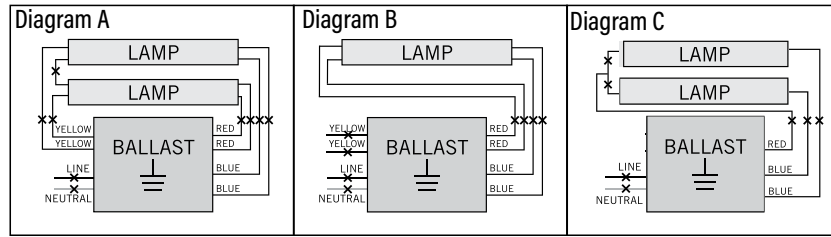
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## INSTALL INSTRUCTIONS



### Typical Ballast Configuration

X Indicates where to cut existing wires



### SINGLE LAMPS

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

### MULTIPLE LAMPS

- Follow the steps above for single lamp connection to connect the first lamp.
- 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. Connect daisy-chain connections for each additional lamp.
- 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.**

- Replace wiring compartment cover.
- 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.
- Apply power to fixture and check for illumination.

### DOUBLE-ENDED WIRING INSTALLATION

Removing existing fluorescent system:

- Disconnect power from fixture.
- Remove lamp(s).
- Remove lens and wiring compartment, if applicable.
- Cut all wires connected to the ballast as shown above in Diagrams A, B, and C.
- Identify what type of lampholders are in the fixture. Double-ended wiring installations of tubes can be used with shunted G13 or non-shunted G13 lampholders (with instructions to externally shunt). See Figure 1 and 2.

### INSTALLING LAMPS

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

### SINGLE LAMPS

1. From AC wired, 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

- Follow the steps above for single lamp connection to connect the first lamp.
- 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. Connect daisy-chain connections for each additional lamp.
- 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.**

- Replace wiring compartment cover.
- Install LED tubes so that the LEDs are pointed in the proper direction for illumination and install any lens or diffuser as applicable.
- Apply power to fixture and check for illumination.

