



## 4 FT. TYBE A+B HYBRID LED T8 TUBE

### WARNING, CAUTION, SAFETY AND INSTALLATION INSTRUCTIONS

#### WARNING

- Installation, service, and maintenance of luminaires should be performed by a qualified licensed electrician.
- This LED retrofit installation requires knowledge of luminaires and electrical systems. If not qualified, do not attempt the installation, and contact a qualified electrician.
- Before installation, examine all parts that are not intended to be replaced by the lamp for damage and replace any damaged parts prior to installation of the lamp.
- There are lamps, operation instructions, and field applied double-ended or single-ended labels in this retrofit kit.
- If the lamp or luminaire exhibits undesirable operation (buzzing, flickering, etc.), immediately turn off the power, remove the lamp from the luminaire, and contact the manufacturer.
- For single-ended power input: To avoid potential fire or shock hazard, do not use this lamp in luminaires employing shunted bi-pin lamp holders. 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 may be combined with the marking for the lamps with which the ballast is intended to be used, for example F40T12/IS. Contact the manufacturer for additional information.

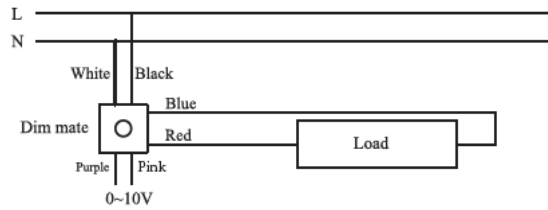
#### CAUTION

- Not for use as emergency lighting.
- Do not install this lamp in a pre-heat luminaire.
- Do not use if outer lamp envelope is damaged or broken.
- In plug-and-play mode, this lamp only operates on electronic ballast. If the lamp does not light when the fixture is turned on, remove the lamp from the fixture and contact the lamp manufacturer or a qualified electrician.
- Installation does not require disconnecting existing wires from the lamp holder terminals to make new connections. Instead, proper installation involves cutting the existing lamp holder leads away from the lamp holder and making new electrical connections to the lamp holder lead wires by employing applicable connectors.
- Install this kit only in luminaires that have the construction features and dimensions shown in the photographs and/or drawings and where the input rating of the retrofit kits does not exceed the input rating of the luminaire.
- When installed as a plug-and-play lamp:
  - LED T8 lamp for use only with products described and installed in accordance with the product specifications. This lamp is to be operated with a fluorescent electronic ballast.
  - This product may cause interference to radio equipment and should not be installed near maritime safety communications equipment or other critical navigation or communication equipment operating between 0.45-30 MHz.
  - Only use in place of the fluorescent lamps specified on the label.
- When installed as a ballast bypass lamp:
  - Only use dimmers provided with or specified by these instructions to control the LED lamp. This tube will not operate properly when connected to a standard (incandescent) dimmer or dimming control. Only operate with specific dimmer PLTSPA manufactured by PLT Solutions.



# 4 FT. TYPE A+B HYBRID LED T8 TUBE

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- The lamps covered by this report are intended to retrofit surface mount, Type IC or non-IC recessed mounted Listed fluorescent luminaires that use a maximum of 2 tubular lamps. The minimum lamp compartment dimensions are tabulated below:

Model Number	Minimum Lamp Compartment Dimensions (Length x Width x Height) [in]	Max No.	Lamp-to-lamp Spacing [in]
PLTSP32314 PLTSP32315	47.64 x 20.87 x 3.94	4	3.54

## NOTICE

- Suitable for damp locations.
- This lamp 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 electrical in accordance with the applicable and appropriate electrical codes. The installation guide does not supersede local or national regulations for electrical installations.
- Do not clean the lamp with corrosive chemicals.

## Installation Instructions

### Plug-and-Play Mode

*Type A Lamp – intended for direct substitution of a fluorescent lamp and operates from the integral ballast without any modifications to the luminaire.*

<ol style="list-style-type: none"> <li>Make sure that power is turned OFF.</li> <li>Remove the lens or diffuser (if applicable).</li> <li>Remove the existing fluorescent lamps from the luminaire.</li> </ol>	
<ol style="list-style-type: none"> <li>Place LED lamp in the luminaire and insert lamp pin into the luminaire lamp holders.</li> <li>Rotate LED lamp until it locks into place. Ensure that the LED lamp front points away from the back of the luminaire.</li> </ol> <p><b>NOTE:</b> Install one LED T8 replacement lamp for each fluorescent lamp removed.</p>	
<ol style="list-style-type: none"> <li>Put lens or diffuser back in place (if applicable).</li> <li>Turn power ON.</li> </ol>	



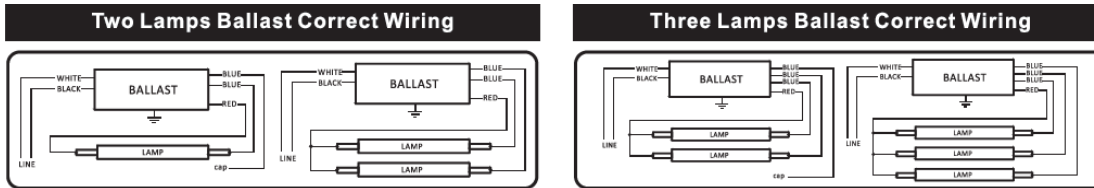
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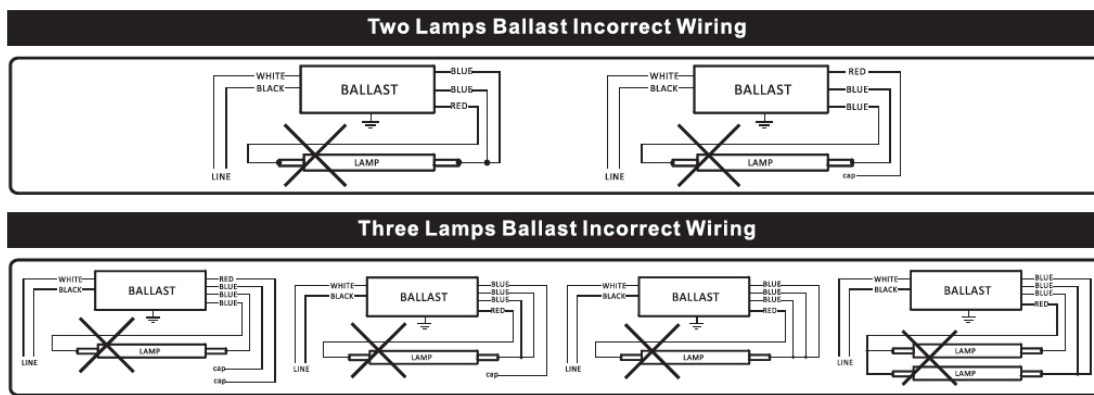
### Plug-and-Play Mode Wiring Diagrams

Type A Lamp – intended for direct substitution of a fluorescent lamp and operates from the integral ballast without any modifications to the luminaire.

#### Instant Start Ballast Wiring Diagram – CORRECT



#### Instant Start Ballast Wiring Diagram – INCORRECT

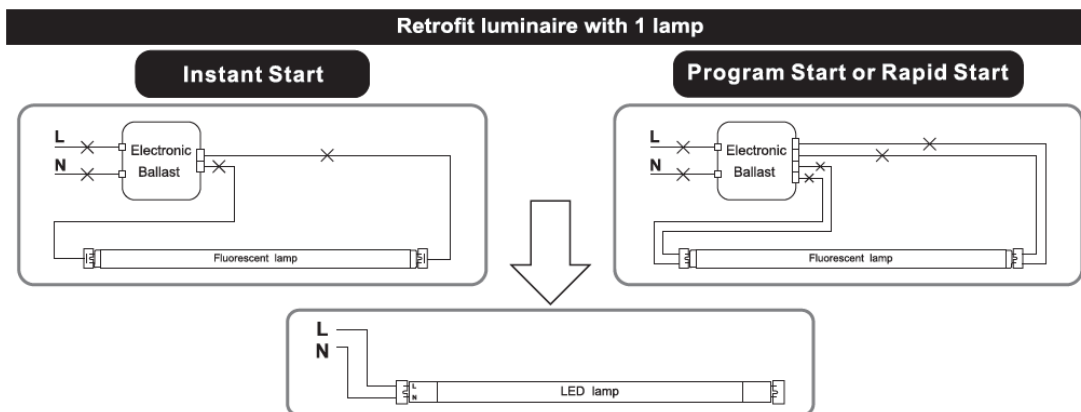


### Ballast Bypass Wiring Diagrams

Type B Lamp – Intended for operation in fixtures with traditional fluorescent-type lampholders wired directly to the branch circuit. This includes both factory-wired fixtures as well as those converted for this purpose under a retrofit program.

#### Single-ended Wiring

The below ballast wiring represents typical configurations. The actual ballast wiring varies according to the ballast model. The socket should be non-shunted.

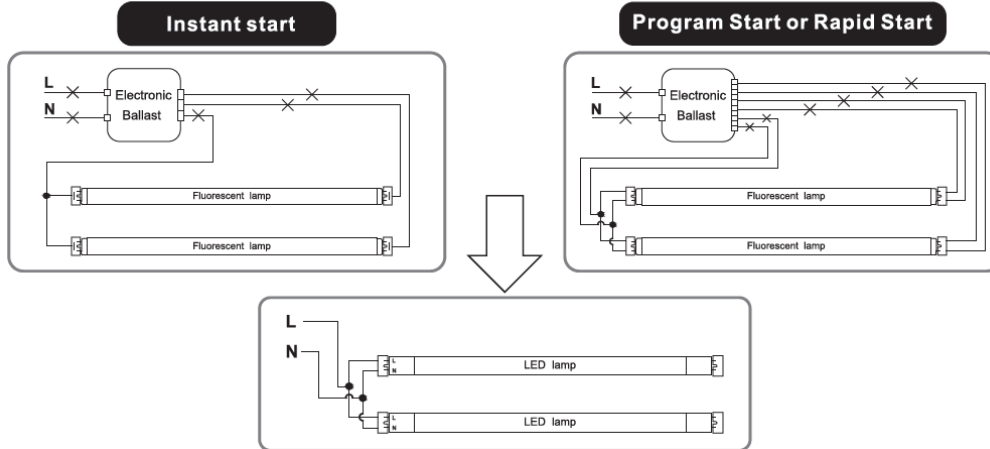




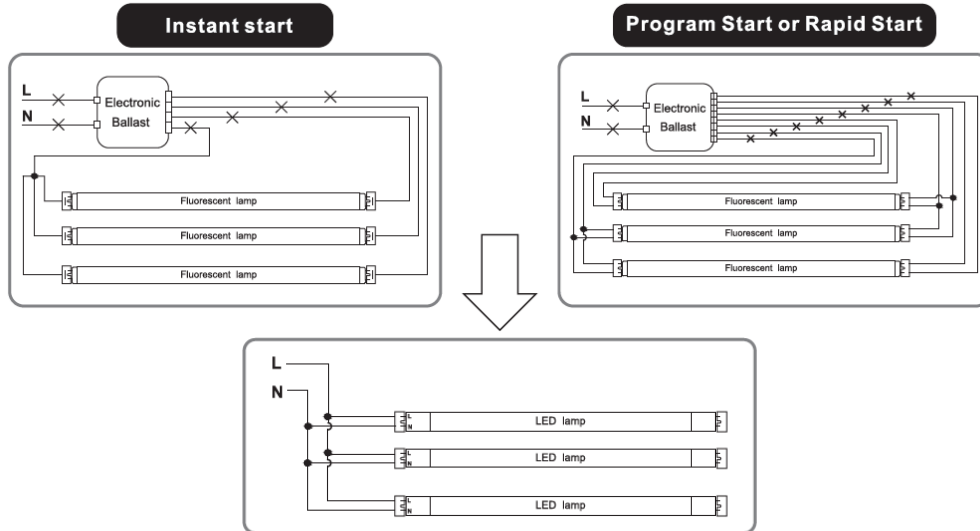
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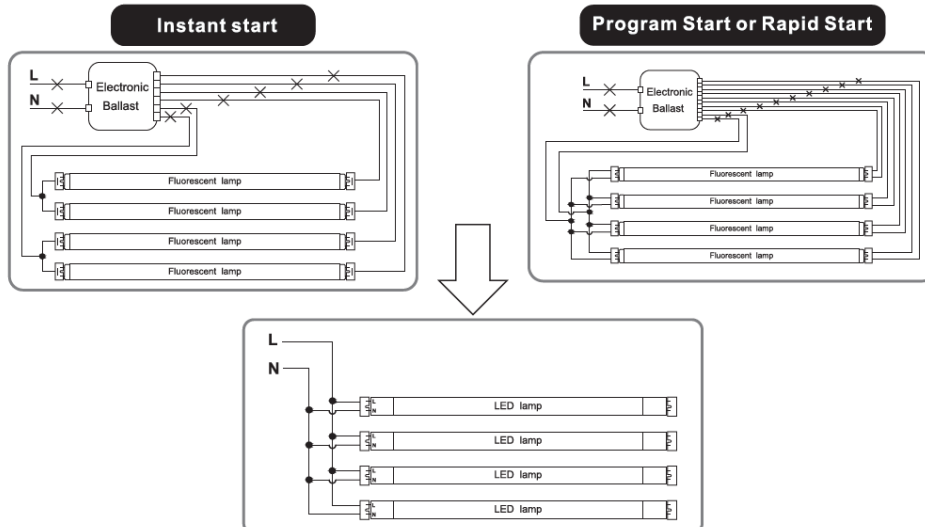
### Retrofit luminaire with 2 lamps



### Retrofit luminaire with 3 lamps



### Retrofit luminaire with 4 lamps





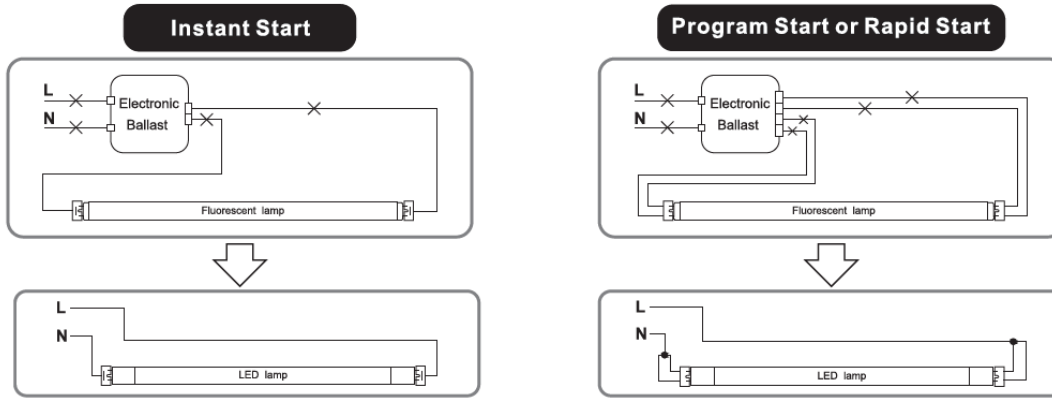
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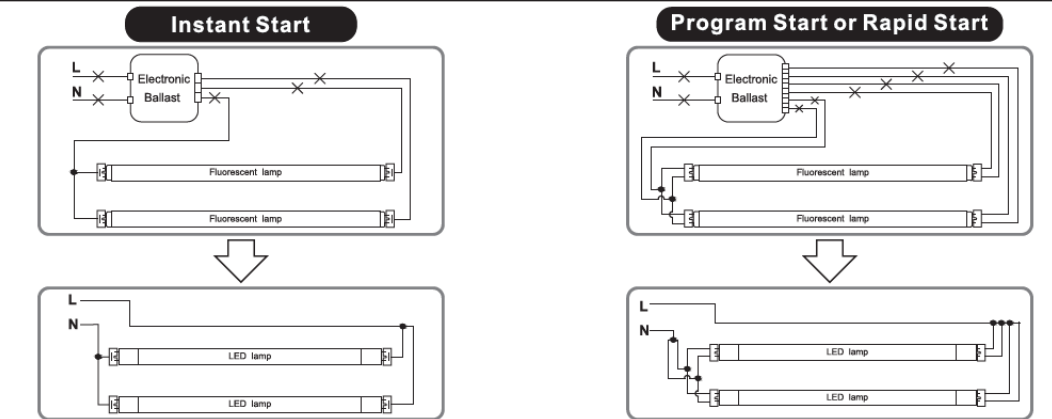
### Double-ended Wiring Instruction

The below wiring represents typical configurations. The actual ballast wiring varies according to the ballast model. You do not need to change the socket (if in good condition) to operate double-ended lamps, regardless of the type of sockets. Please make sure that one side of the fixture is connected to Live (L) and the other side to Neutral (N).

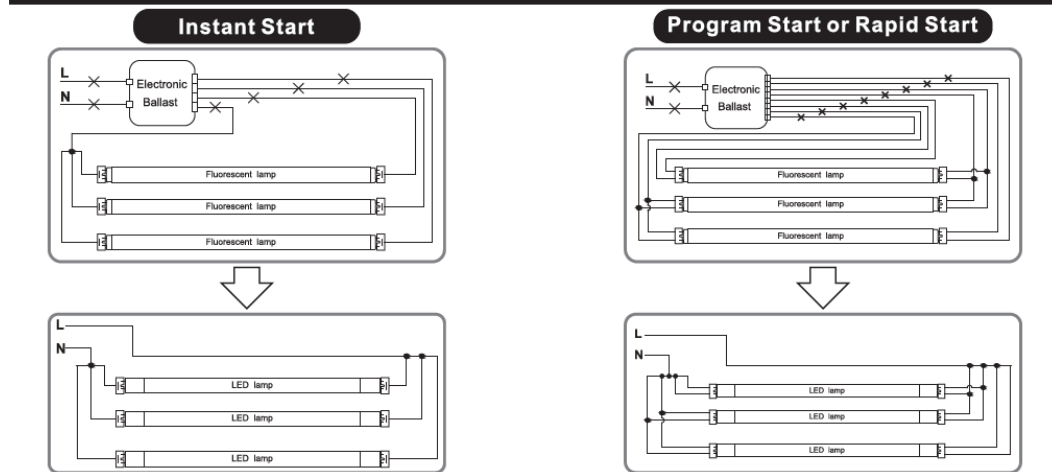
#### Retrofit luminaire with 1 lamp



#### Retrofit luminaire with 2 lamps



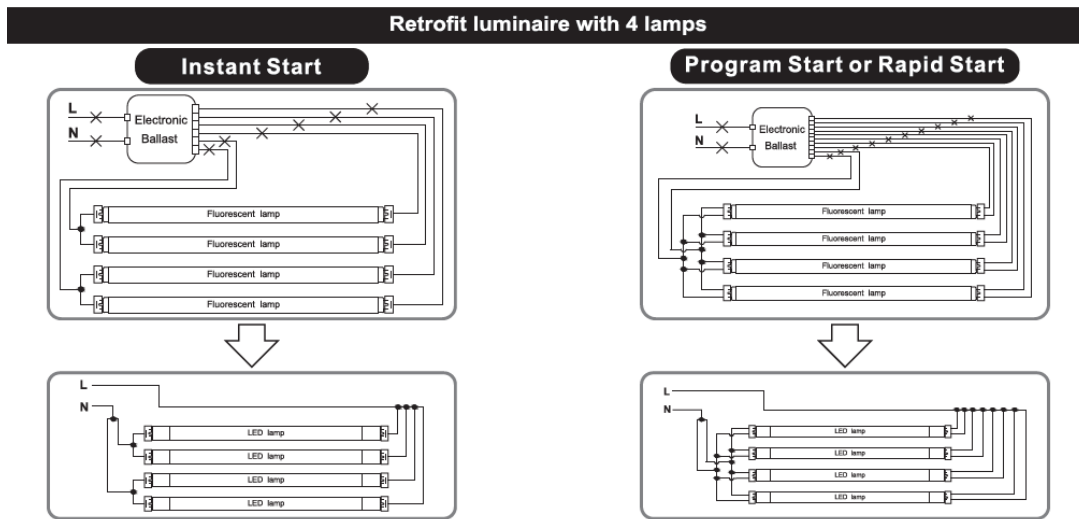
#### Retrofit luminaire with 3 lamps





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### FCC Warning

- When installed as a ballast bypass lamp, 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.

### ⚠ WARNING

- Before installing, servicing, or performing routine maintenance upon this equipment, follow these general precautions.
- To reduce the risk of death, personal injury, or property damage from fire, electric shock, falling parts, cuts/abrasions, and other hazards, read all warnings and instructions included with and on the fixture box and all fixture labels.
- Proper grounding is required to ensure safety.
- Power must be turned off at the breaker before installation or maintenance.
- 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.
- Wear gloves and eye protection at all times while installing, servicing, or performing maintenance on the luminaire, and avoid direct eye exposure to the light source while it is on.
- To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
- Do not install damaged product. Inspect luminaire for damage that may have occurred during transit. If damaged, contact the manufacturer immediately.
- These instructions do not purport to cover all details or variations in equipment nor to provide every possible contingency to meet in connection with installation, operation, or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's or owner's purposes, contact the manufacturer.



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#### **⚠ ADVERTENCIA**

- Antes de instalar, reparar o realizar el mantenimiento de rutina de este equipo, siga estas precauciones generales.
- Para reducir el riesgo de muerte, lesiones personales o daños a la propiedad por fuego, descarga eléctrica, caída de piezas, cortes / abrasiones y otros peligros, lea todas las advertencias y instrucciones incluidas con y en la caja del dispositivo y todas las etiquetas del dispositivo.
- Se requiere una conexión a tierra adecuada para garantizar la seguridad.
- Se debe apagar la energía en el disyuntor antes de la instalación o el mantenimiento.
- Este producto debe ser instalado de acuerdo con el código de instalación aplicable por una persona familiarizada con la construcción y operación del producto y los peligros involucrados.
- Utilice guantes y protección para los ojos en todo momento durante la instalación, el servicio o el mantenimiento de la luminaria, y evite la exposición directa de los ojos a la fuente de luz mientras está encendida.
- Para evitar daños o abrasiones en el cableado, no exponga el cableado a bordes de láminas de metal u otros objetos afilados.
- No instale un producto dañado. Inspeccione la luminaria en busca de daños que puedan haber ocurrido durante el tránsito. Si está dañado, comuníquese con el fabricante de inmediato.
- Estas instrucciones no pretenden cubrir todos los detalles o variaciones en el equipo ni proporcionar todas las posibles contingencias a cumplir en relación con la instalación, operación o mantenimiento. Si desea obtener más información o si surgen problemas particulares que no están suficientemente cubiertos para los propósitos del comprador o propietario, comuníquese con el fabricante.