



LightCloud LED Linear T8 Tube Ballast Bypass User Guide

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Lightcloud®

LED Linear T8 Tube Ballast Bypass
LCBT8-18-48P-8TW-SD-BYP-SS

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LED Linear T8 Tube Ballast Bypass

Welcome
Hello,

Lightcloud Blue is a Bluetooth mesh wireless lighting control system that allows you to control RAB’s various compatible devices. With RAB’s patent-pending Rapid Provisioning technology, devices can be quickly and easily commissioned for residential and large commercial applications using the Lightcloud Blue mobile app. Each device in a system can communicate with any other device, eliminating the need for a Gateway or Hub and maximizing the control system’s reach.

Product Features

- Direct Connect LED, No Gateway or Hub required
- Wire directly to Line Voltage, bypass the ballast
- Wireless control from your mobile device
- On/off and dimming
- Color tuning
- Wireless remote control
- Create custom scenes
- Lived-in look vacation mode
- Sensor compatible
- Schedules and automations
- SmartShift™ automated circadian schedule

<div>Direct Connect LED, No Gateway or Hub required</div> <div>Wire directly to Line Voltage, bypass the ballast</div> <div>Wireless control from your mobile device</div> <div>On/off and dimming</div> <div>Color tuning</div> <div>Wireless remote control</div> <div>Create custom scenes</div> <div>Lived-in look vacation mode</div> <div>Sensor compatible</div> <div>Schedules and automations</div> <div>SmartShift™ automated circadian schedule</div>	<div>Catalog Number:</div> <div>LCBT8-18-48P-8TW-SD-BYP-SS</div> <div>Model Number:</div> <div>LCBT8-18-48P-8TW-SD-BYP-SS</div> <div>Electrical:</div> <div>18W, 2200lm</div> <div>120-277Vac</div> <div>50/60Hz</div> <div>Construction:</div> <div>Lamp Base: G13</div> <div>Retrofit application includes these items:</div> <div>Installation Instructions, LED Lamps (Max. 4), Luminaire</div> <div>Marking Labels.</div>
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Safety Information

- Not suitable for use with dimmers and sensors unless specifically designed for RAB Lightcloud Blue lamps.
- This device is not intended for use with emergency exits.
- Only use the control provided with or specified by these instructions to control this lamp.

This lamp will not operate properly when connected to a standard (Incandescent) dimmer or dimming control.
- **WARNING** – Risk of fire or electric shock. LED Retrofit Kit installation requires knowledge of luminaires electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.
- **WARNING** – Risk of fire or electric shock. 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 kit does not exceed the input rating of the luminaire.
- 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.
- **WARNING** – To avoid potential fire or shock hazard, do not use this retrofit kit in luminaires employing shunted bi-pin lampholders. 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

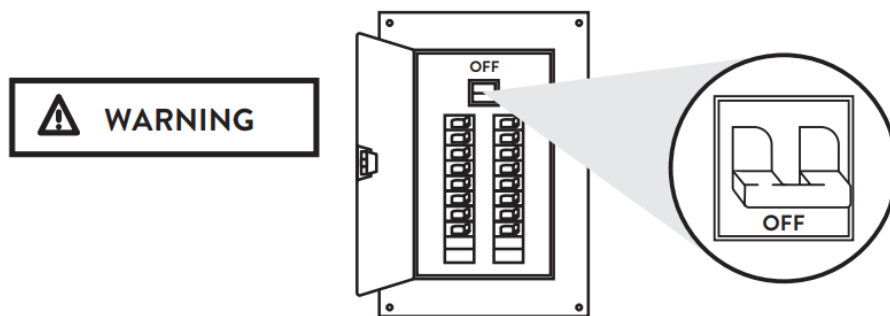
designation may be in the form of a statement pertaining to the ballast itself, or may be combined with the marking for the lamps with which the ballast is intended to be used, for example F40T12/IS. For more information, contact the LED luminaire retrofit kit manufacturer.

- 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.
- Installers should examine all parts that are not intended to be replaced by the retrofit kit for damage and replace any damaged parts prior to installation of the retrofit kit.

Installing your Lightcloud Blue Lamp

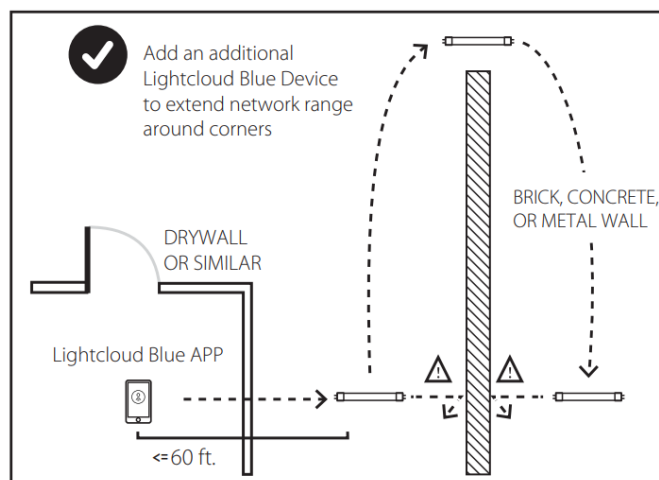
1. Turn off power

- Place the wall switch in the off position.
- Turn off the main power at the breaker panel or remove the fuse from the fuse box.



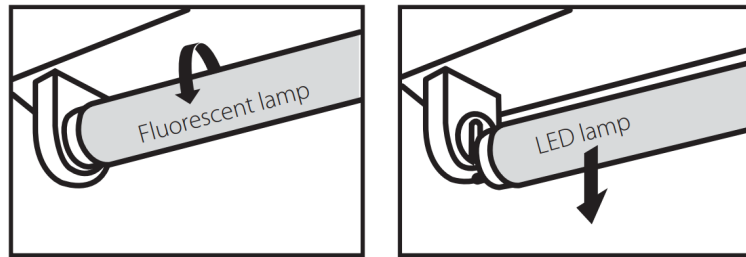
1a Find a suitable location

- Lightcloud Blue devices should be positioned within 60 ft. of each other.
- Building materials such as brick, concrete and steel construction may require additional Lightcloud Blue devices to extend around an obstruction.



2. Remove lens or diffuser (if applicable)
3. Remove existing fluorescent lamps from the luminaire (Fig.1)

Fig: 1



4. Wire LED T8 directly to line voltage. Use the below wiring diagram based on current ballast wiring configuration for guidance.

Note:

The ballast wiring represents typical configuration.}

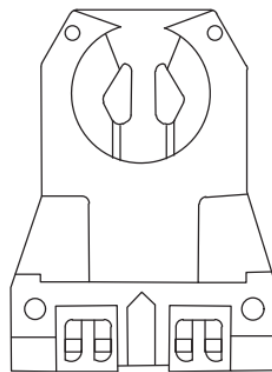
The actual ballast wiring varies according to ballast model.

It is not needed to change socket (if in good condition) to operate double ended lamps, regardless of the type of sockets. Please make sure one side of fixture is connected to Live (L) and the other side to Neutral (N).

4a Single-ended wiring

CAUTION: Use only non-shunted lampholders for single-ended wiring installation.

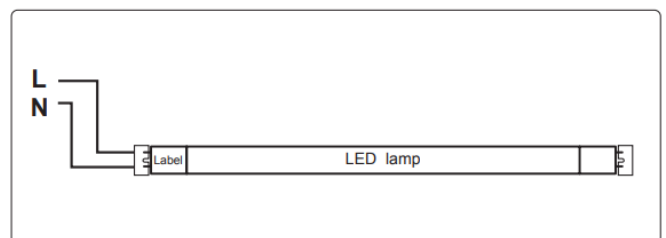
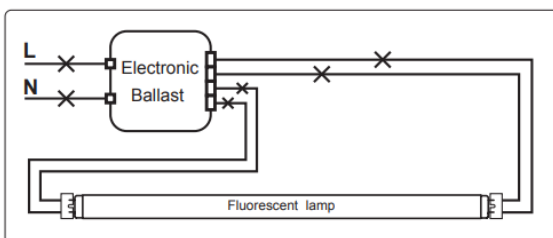
Do not perform single-ended wiring installation of product in a fixture with shunted lampholders (found in all fixtures using instant start ballasts). If the existing lampholders are shunted, please refer double-ended wiring installations below. Make new connections directly to lampholder terminal as shown.



Non-shunted
lamp sockets

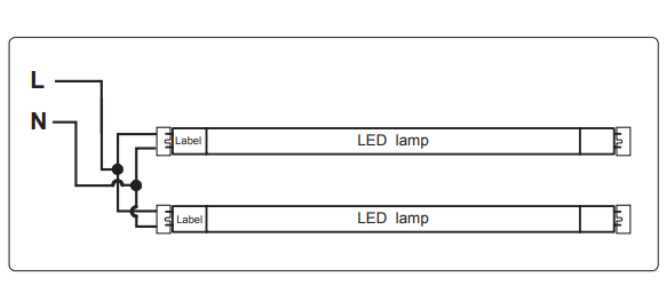
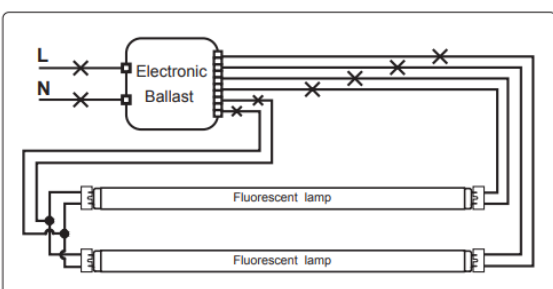
Retrofit luminaire with 1 lamp

Program Start or Rapid Start



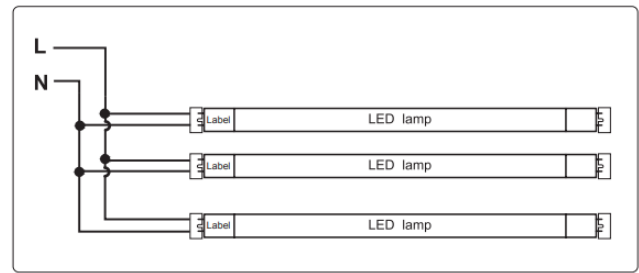
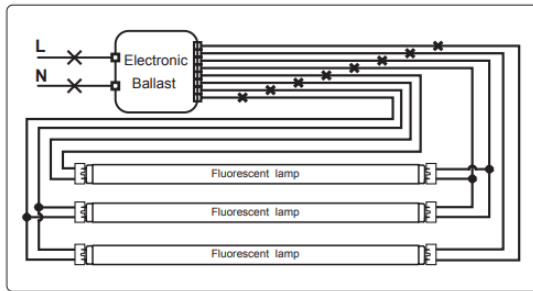
Retrofit luminaire with 2 lamps

Program Start or Rapid Start



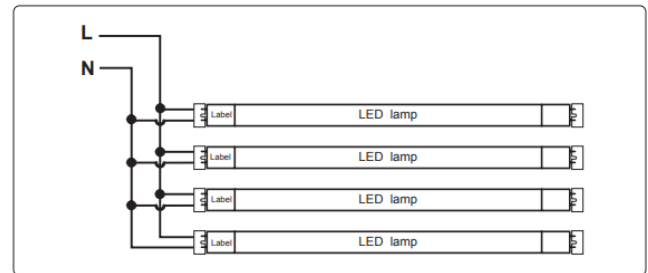
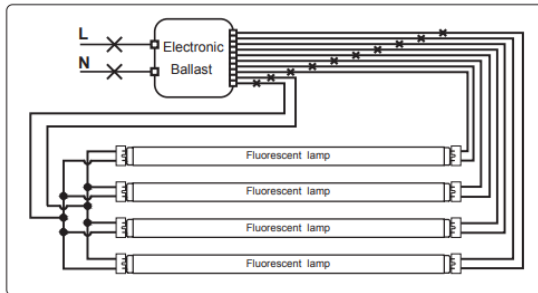
Retrofit luminaire with 3 lamps

Program Start or Rapid Start



Retrofit luminaire with 4 lamps

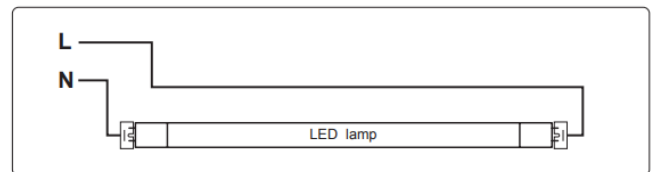
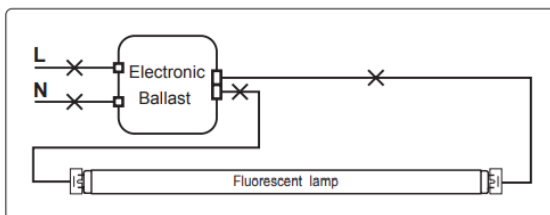
Program Start or Rapid Start



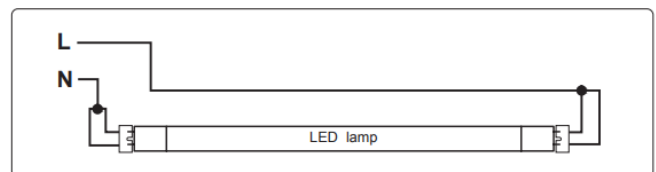
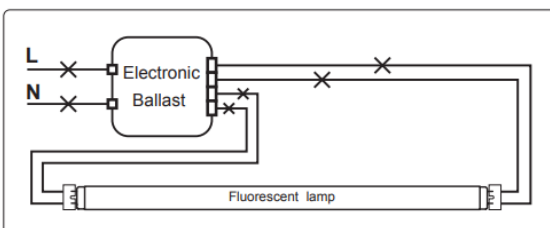
4b Double-ended wiring

Retrofit luminaire with 1 lamp

Instant Start

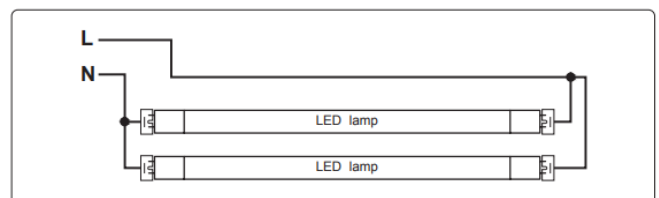
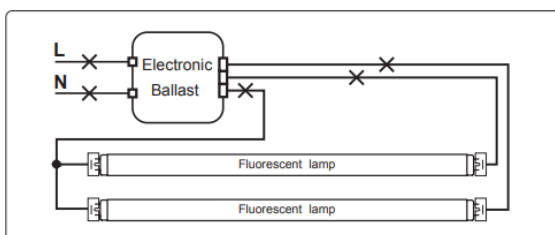


Program Start or Rapid Start

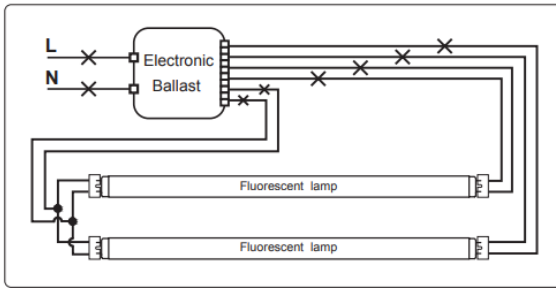


Retrofit luminaire with 2 lamps

Instant Start

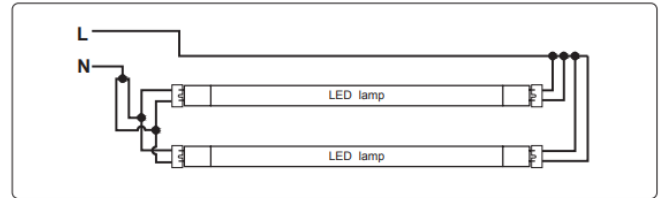
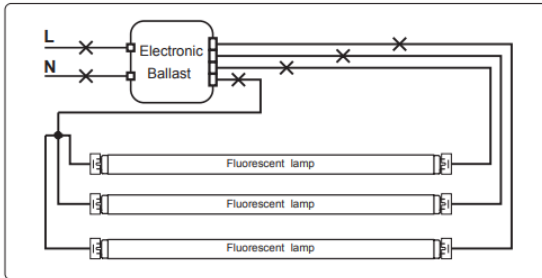


Program Start or Rapid Start

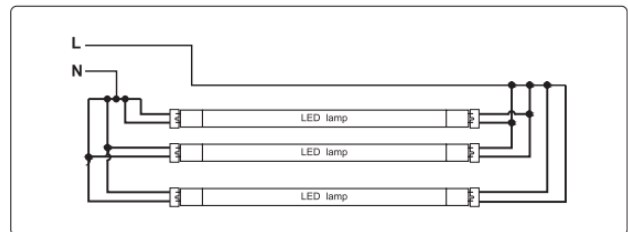
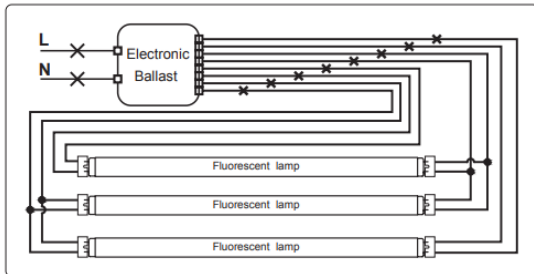


Retrofit luminaire with 3 lamps

Instant Start



Program Start or Rapid Start



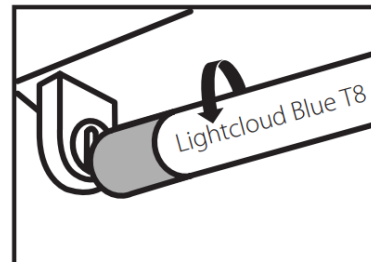
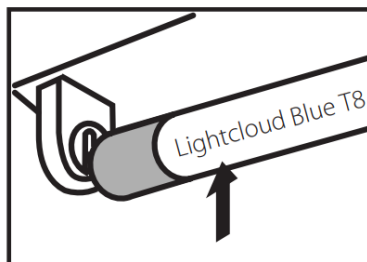
Minimum lamp compartment dimensions

Model Number	MINIMUM LAMP COMPARTMENT DIMENSIONS		
LCBT8-18-48P-8S S-SD-BYP	Lamp compartment of luminaire overall dimensions, (Length x Width x Height)	Maximum lamps in luminaire	Lamp side-to-side spacing
	123 x 51 x 12 (cm) (4.84 x 2.01 x 0.47 (inch))	4	8.5 (cm) (0.33 (inch))

- Bring LED lamp to luminaire and insert lamp pins into luminaire lamp holders.

Rotate LED lamp until lamp locks in place. Ensure that the LED lamp front points away from the back of the luminaire. (Fig.2)

Fig: 2




- Place lens or diffuser back in place (if applicable)


* For more in-depth wiring diagrams for specific ballast types and number of lamps please visit rablighting.com

Controlling your Lightcloud Blue Device

1. Confirm your device is connected and powered on.
2. Download the Lightcloud Blue app from the Apple® App Store or Google® Play store.



3. Launch the App and create an account. 

4. Tap the “add device” icon in the app to start connecting devices. 
5. Follow the remaining steps in the app. Create areas, groups, and scenes to organize and control your devices.
6. You're all set!

Setting Device to Pairing Mode

If your Lightcloud Blue lamp is already paired, you can reset it by using the below methods.

Method 1: Delete from App

Open the app and access the device settings for the paired device.

Be sure that the lamp is online and select “Delete”.

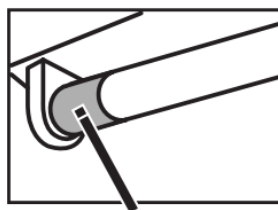
Method 2: Manual

Power the lamp off and on 5 times consecutively. Do not allow more than 2 second to elapse between switching. The lamp will flash 3 times, then reset to 100% brightness at default CCT.



Method 3: Rapid Reset Tool

The rapid reset process must be done by professional electricians qualified by RAB. Reach out to your RAB sales manager to request a Rapid Reset Tool. The tool simply needs to be placed directly on the small Lightcloud logo on downlight for 2 seconds. The downlight will flash 3 times, then reset to 100% brightness at default CCT.



Functionality

Configuration

All configuration of Lightcloud Blue products may be performed using the Lightcloud Blue app.

Emergency default

If communication is lost, the Lightcloud Blue lamps may fall back to a specific state, such as turning the Lightcloud Blue lamps on.

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support@lightcloud.com

[**Warning:** Any wires not in use must be capped off or otherwise insulated.]

FCC Information:

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.

Note: This device has been tested and found to comply with the limits for Class B digital devices pursuant to Part 15 Subpart B, of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To comply with the FCC's RF exposure limits for general population / uncontrolled exposure, this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.

Such modifications could void the user's authority to operate the equipment.

CAUTION: Changes or modifications to this equipment not expressly approved by RAB Lighting may void the user's authority to operate this equipment.



Lightcloud®

Lightcloud Blue is a Bluetooth mesh wireless lighting control system that allows you to control RAB's various compatible devices. With RAB's patent-pending Rapid Provisioning technology, devices can be quickly and easily commissioned for residential and large commercial applications using the Lightcloud Blue mobile app. Each device in a system can communicate with any other device, eliminating the need for a Gateway or Hub and maximizing the control system's reach.

Learn more at www.rablighting.com

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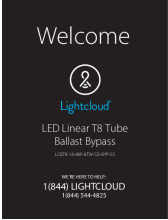

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Documents / Resources

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References

- [R Welcome to RAB](#)
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Manuals+.