



## INSTALLATION AND SAFETY INSTRUCTIONS

**IMPORTANT: Read before installing the lamps. Retain for future reference.**

- THIS DEVICE IS NOT INTENDED FOR USE WITH EMERGENCY EXITS.
- TYPE B LAMP – intended for operation in luminaires with traditional fluorescent-type lampholders wired directly to the branch circuit. This includes both factory-wired luminaires as well as those converted for this purpose under a retrofit program. Make certain power is OFF before starting the installation or attempting any maintenance.
- Risk of fire/electric shock. If not qualified, consult a licensed electrician.
- CAUTION - RISK OF ELECTRIC SHOCK. DO NOT USE IF OUTER LAMP ENVELOPE IS DAMAGED OR BROKEN.
- WARNING - RISK OF FIRE OR ELECTRIC SHOCK. LED RETROFIT KIT INSTALLATION REQUIRES KNOWLEDGE OF A LUMINAIRE'S ELECTRICAL SYSTEM. IF NOT QUALIFIED, DO NOT ATTEMPT INSTALLATION. CONTACT A QUALIFIED ELECTRICIAN.
- WARNING - RISK OF FIRE OR ELECTRIC SHOCK. INSTALL THIS KIT ONLY IN THE 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.
- 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.
- NOT FOR USE WITH LIGHT DIMMERS.
- INSTALLERS SHOULD NOT DISCONNECT EXISTING WIRES FROM LAMP HOLDER TERMINALS TO MAKE NEW CONNECTIONS AT LAMP HOLDER TERMINALS. INSTEAD INSTALLERS SHOULD CUT EXISTING LAMP HOLDER LEADS AWAY FROM THE LAMP HOLDER AND MAKE NEW ELECTRICAL CONNECTIONS TO LAMP HOLDER LEAD WIRES BY EMPLOYING APPLICABLE CONNECTORS.
- 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.
- Input Voltage: 120-277VAC 50/60Hz
- Ambient Operating Temp.: -4°F~ 113°F (-20°C~45°C)
- Locating Rating: Suitable for Dry/Damp Locations
- Enclosed Rated: Yes

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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.

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Item No.	Minimum Lamp Compartment Dimensions 【Length x Width x Height】 [Inch]	Maximum Lamps in Luminaire	Lampholder-to-Lampholder Spacing [Inch]
39643A 39644A	24.41 x 18.50 x 3.54	6	1.38
39645A 39646A	48.03 x 18.50 x 3.54	6	1.38
39648A 39649A	36.22 x 18.50 x 3.54	6	1.38

## INSTALLATION & OPERATING INSTRUCTIONS

Move the switch to desired CCT. The CCT should not be adjusted while powered on.

### New Installation

- **Single-ended:** Connect the L/N wires to the pins of the end cap close to the silver label. NOTE: Power is only applied to the endcap close to the silver label. Do not apply power to the other endcap; the lamp will not function. Only use a non-shunted lampholder. See Figure 1.

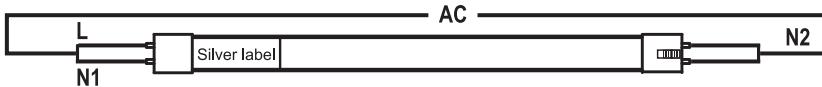


Figure 1



Shunted Lampholder

- **Double-ended:** Connect the L wire to the pins of the endcap close to the silver label. Connect the N wire to the pins of the other endcap.



### Retrofit Installation

- **Single-ended:**

NOTE: Power is only applied to the endcap close to the silver label. Do not apply power to the other endcap; the lamp will not function. Use only a non-shunted lampholder. See Figure 1.

**STEP 1:** Turn power OFF.

**STEP 2:** Remove existing fluorescent lamps and diffuser (if applicable).

**STEP 3:** Open ballast compartment cover, cut the wires and remove the ballast. Disconnect starter (if applicable).

**STEP 4:** Connect the L/N wire to the lampholder, and insulate the unused wires.

**STEP 5:** Close compartment cover and make sure live parts are not accessible. Visibly adhere the modified luminaire label inside the luminaire.

**STEP 6:** Install the LED lamp and make sure the endcap close to the silver label is connected to the lampholders with L/N wires, then cover the diffuser (if applicable).

**STEP 7:** Turn power ON and verify that the lamps are working correctly. If not, immediately turn power off and contact a qualified electrician.

• **Double-ended**

**STEP 1:** Turn power OFF.

**STEP 2:** Remove existing fluorescent lamps and diffuser (if applicable).

**STEP 3:** Open ballast compartment cover, cut the wires and remove the ballast. Disconnect starter (if applicable).

**STEP 4:** Connect the L wires to the lampholders, connect the N wires to the lampholders and insulate the unused wires.

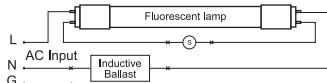
**STEP 5:** Close compartment cover and make sure live parts are not accessible. Visibly adhere the modified luminaire label inside the luminaire.

**STEP 6:** Whether you use a shunted or non-shunted lamp holder, install the LED lamp and make sure the silver label end must be L (line) for DE use and connect the wires, then cover the diffuser (if applicable).

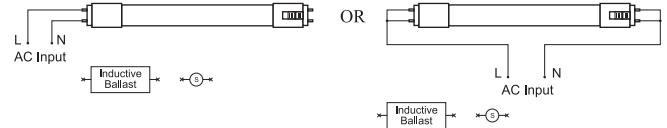
**STEP 7:** Turn power ON and verify that the lamps are working correctly. If not, immediately turn power off and contact a qualified electrician.

a. Retrofit luminaire with inductive ballast.

1) Disconnect the wires between the starter and ballast according to the figure below.

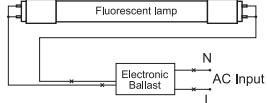


2) Connect two wires to the branch circuit L and N according to the figure below.

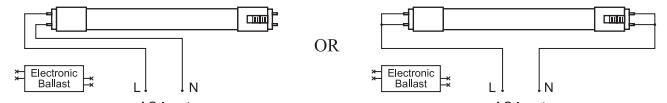


b. Retrofit luminaire with an electronic ballast.

1) Disconnect the wires between the tombstone and ballast according to the figure below.

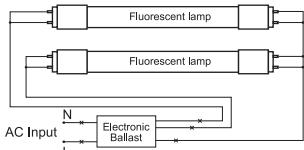


2) Connect two wires to the branch circuit L and N according to the figure below.

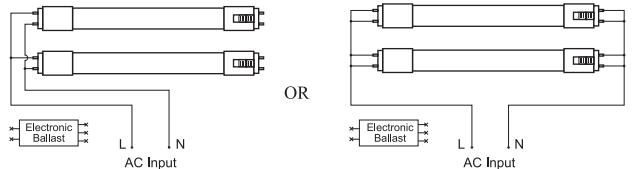


c. Retrofit luminaire with two lamps and one electronic ballast.

1) Disconnect the wires between the tombstone and ballast according to the figure below.

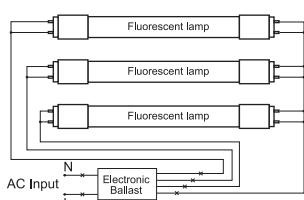


2) Connect two wires to the branch circuit L and N according to the figure below.

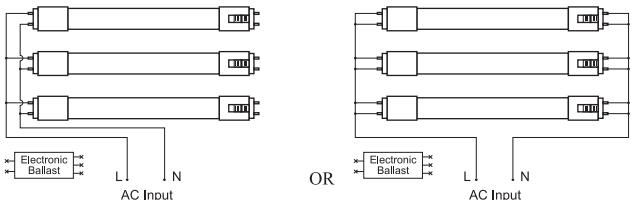


d. Retrofit luminaire with three lamps and one electronic ballast.

1) Disconnect the wires between the tombstone and ballast according to the figure below.

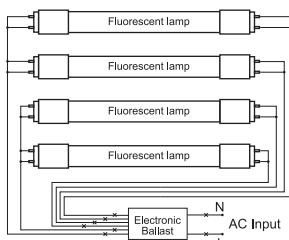


2) Connect two wires to the branch circuit L and N according to the figure below.



e. Retrofit luminaire with four lamps and one electronic ballast.

1) Disconnect the wires between the tombstone and ballast according to the figure below.



2) Connect two wires to the branch circuit L and N according to the figure below.

