



Compatible Ballast List Tested On:

1	GE	GE132MAX-G-347	71	EIKO	PM-4X32T8-UNV-IS
2	GE	GE-132-MV-N	72	HALCO	EP232IS/MV/HE
3	GE	GE132MVPS-H	73	HALCO	EP432IS/MV/MC/HE
4	GE	GE132MAX-H/Ultra	74	HALCO	EP432ISUNVE
5	GE	GE240PS-MV-N	75	DAMAR	1688B
6	GE	GE232-120RES-B	76	DAMAR	1688D
7	GE	GE259MAX-G-N	77	DAMAR	3654C
8	GE	GE232-MV-N	78	PLUSRITE	BAF232IS/MV
9	GE	GE232MAX-G-N	79	PLUSRITE	BAF332IS/MV
10	GE	GE232MAX-G-N-DIYB	80	ACT	ACT3P32ISUNVE
11	GE	GE259MAX-G-N-DIYB	81	ACT	ATC4P32ISUNVE
12	GE	GE332MAX-G-N-DIYB	82	ULTRASAVE	UT232347
13	GE	GE332MAX-G-H	83	ROBERTSON	ISL432T8HEMV 3P20160
14	GE	GE332MAXP-H-42T			
15	GE	GE432MAXP347-N			
16	GE	GE432MAX-G-N			
17	GE	GE432MAXP-H/ULTRA			
18	GE	GE432MAXG-N-DIYL			
19	PHILIPS ADVANCE	REZ-2S32-SC			
20	PHILIPS ADVANCE	ICN-1P32-N			
21	PHILIPS ADVANCE	ICN-2P32-N			
22	PHILIPS ADVANCE	IOPA-2P32-LW-N			
23	PHILIPS ADVANCE	IOP-2PSP32-LW-N			
24	PHILIPS ADVANCE	IOPA-2P32-N			
25	PHILIPS ADVANCE	IOP-2P32-HL-N			
26	PHILIPS ADVANCE	IOP-2PSP32-N			
27	PHILIPS ADVANCE	IOP-2P59-N			
28	PHILIPS ADVANCE	IOPA-3P32-N			
29	PHILIPS ADVANCE	ICN-3P32-N			
30	PHILIPS ADVANCE	IOPA-4P32-N			
31	PHILIPS ADVANCE	ICN-4P32-N			
32	PHILIPS ADVANCE	REB-4P32-SC			
33	PHILIPS ADVANCE	VEL-4P32-SC			
34	OSRAM SYLVANIA	QTP 2X32T8/UNV ISN-SC			
35	OSRAM SYLVANIA	QHE 2X32T8/UNV ISN-SC			
36	OSRAM SYLVANIA	QHE 2X32T8/UNV PSN-MC			
37	OSRAM SYLVANIA	QTP 3X32T8/UNV ISN-SC			
38	OSRAM SYLVANIA	QHE 3XLED32T8/UNV ISN-SC			
39	OSRAM SYLVANIA	QHE 3X32T8/UNV ISH HT-SC			
40	OSRAM SYLVANIA	QHE 3X32T8/UNV PSN-SC			
41	OSRAM SYLVANIA	QHE 4XLED32T8/UNV ISN-SC			
42	OSRAM SYLVANIA	QHE 4X32T8/UNV ISN-SC			
43	OSRAM SYLVANIA	QTP 4X32T8/UNV ISN-SC			
44	UNIVERSAL	B232IUNVHP-N			
45	UNIVERSAL	B232PUNVHE-B			
46	UNIVERSAL	B232IUNVHEH-A			
47	UNIVERSAL	B332IUNVHE-A			
48	UNIVERSAL	B332IUNVHP-A			
49	UNIVERSAL	B332IUNVEL-A			
50	UNIVERSAL	B432IUNVHP-A			
51	UNIVERSAL	B432PUNVHE-A			
52	UNIVERSAL	B432IUNVHE-A (A0001)			
53	UNIVERSAL	B432IUNVHE-A (51376510-D)			
54	UNIVERSAL	B432IUNVHE-A (1418CU4101B)			
55	ESPEN	VE2P32MVHIPE 11068			
56	ESPEN	VE2P32MVHIPHE 11069			
57	ESPEN	VE2P32MVHPPE 11080			
58	ESPEN	VE3P32MVHIPE 11070			
59	ESPEN	VE4P32MVHPPE 11086			
60	ESPEN	VE4P32MVHIPE 11072			
61	ESPEN	VE4P32MVHIPHE 11073			
62	ESPEN	VE432120MIP			
63	HOWARD INDUSTRIES	EP2/32IS/MV/MC/HE			
64	HOWARD INDUSTRIES	EPL2/32IS/MV/MC/HE			
65	HOWARD INDUSTRIES	EPH4/32IS/MV/SC/HE			
66	KEYSTONE	KTEB-232-UV-IS-N-P			
67	KEYSTONE	KTEB-332-UV-IS-N-P			
68	KEYSTONE	KTEB-432-UV-IS-N-P			
69	EIKO	PM-2X32T8-UNV-IS			
70	EIKO	PM-3X32T8-UNV-IS-H			

Installation Instruction T8 4FT TYPE A+B Tube Light

ENSURE POWER SUPPLY IS OFF WHEN HANDLING ANY ELECTRICAL EQUIPMENT.



**Ballast Compatibility List must be checked prior to installation.
See www.comm-led.com for ballast compatibility on model.**

- Read and Understand the detailed Installation Instructions before installing the LED T8 Tube Light.
- LED T8 Tube Lights are designed to work with Electronic/Magnetic Ballasts (Check the Ballast Compatibility List) or AC Direct Wire. Works with Single-end (either side) and/or Double-end Power Input. Risk of Fire or Electric Shock. Read and Understand all Installation Instructions before installing LED T8 Tube Lights. Use in Dry or Damp locations only. Do not use where directly exposed to water or weather. Non-submergible (not water tight).
- Disable all Power to the Fixture before Inspection, Installation, or Removal. Failure to do so will create a Hazardous and Fatal Working Environment.
- Do Not Make or Alter any Open Holes in an Enclosure of Wiring or Electrical Components during Installation.
- Do Not Open – No User Serviceable Parts inside.

Warning

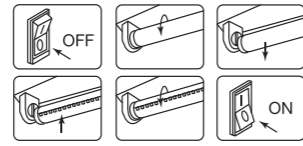
- a. Risk of Fire or Electric Shock. LED Retrofit Kit Installation requires knowledge of Luminaires Electrical Systems. If not Qualified, DO NOT attempt Installation. Contact a Qualified Electrician.
- b. Risk of Fire or Electric Shock. Install this Kit only in the Luminaires that have the construction 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.
- c. DO NOT make or alter any open holes in an enclosure of Wiring or Electrical Components during Kit Installation
- d. To prevent Wiring Damage or Abrasion, DO NOT Expose Wiring to edges of Sheet Metal or other Sharp Objects.
- e. 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.
- f. For a Linear Tubular LED Lamp Conversion, there shall be text or a Diagram showing how the supply Connections were made to the Lampholders so the correct Connections will be made to the Lamp when the Lamp is Installed or Replaced.
- g. This Retrofit Kit is accepted as a component of a Luminaire where the suitability of the combination shall be determined by Authorities having JURISDICTION.

Note: If the Tube is installed as Type B, the Luminaire, once modified as a Retrofit Fixture, will no longer operate Fluorescent Lamps. Not Suitable for Use with Dimmer.

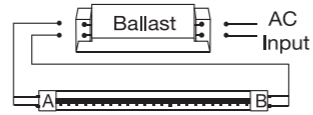
TYPE A-(With Fluorescent Ballast) Instructions:

1. Switch-off Power to the Luminaire.
2. Remove Diffuser (if provided).
3. Remove the existing Fluorescent Lamps from the Luminaire.
4. Install the LED Tube Lamp.
5. Install Diffuser (if removed in step 2)
6. Switch on Power to the Luminaire.
7. Before Installation, check Specifications for the most Current Ballast Compatibility List. If not Compatible, insert LED Tubes according to Type B Installation Instructions.

Type A Installation Guide:

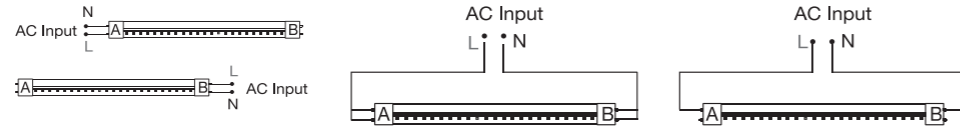


TYPE A - Assembly Introduction:



TYPE B-(Direct to Power 120/277v connection) Introduction:

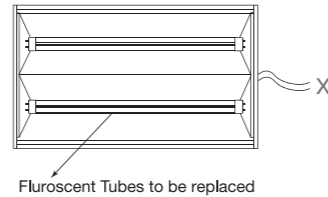
Note: The Tube can work with either Single-end Power Input or Double-end Power Input



Instructions: Type B Installation Guide:

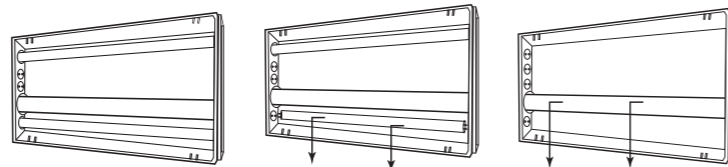
1. DISCONNECT POWER TO LUMINAIRE

Disconnect Power to Luminaire or Circuit (if possible). Ensure all Power is OFF by using a Voltmeter or other approved method to confirm.

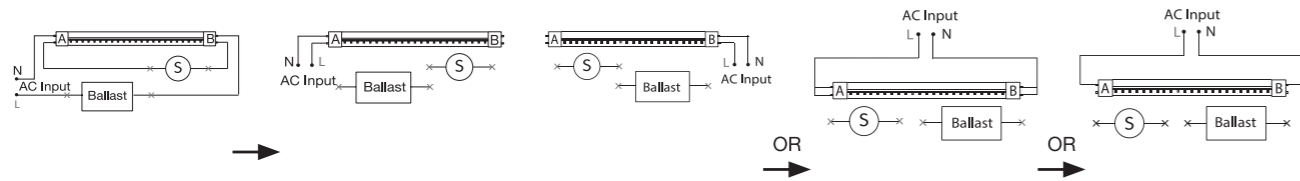


2. REMOVE EXISTING TUBE LAMP(S)

- a. Remove Troffer Lens, if present.
- b. Remove existing Fluorescent Tube by Rotating One-quarter turn and sliding Lamp(s)
- c. Remove Ballast Cover. (Cover may be secured with Screws or Tabs).



3 a. RETROFIT LUMINAIRE - Retrofit Luminaire with Inductive Ballast

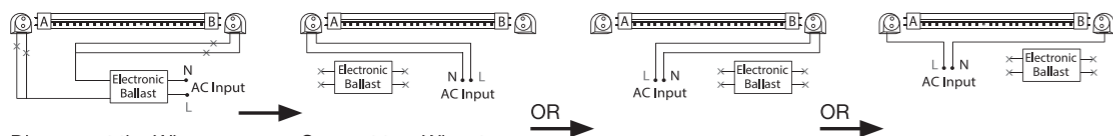


Disconnect the Wires between Starter and Ballast according to the figure above.

Connect two Wires to Branch Circuit L and N according to the figure above.

Disconnect the Wires between Starter and Ballast according to the figure above.

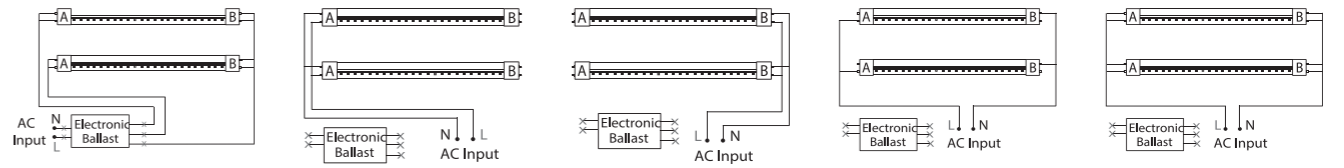
3 b. RETROFIT LUMINAIRE - Retrofit Luminaire with Electronic Ballast



Disconnect the Wires between Ballast according to the figure above.

Connect two Wires to Branch Circuit L and N according to the figure above.

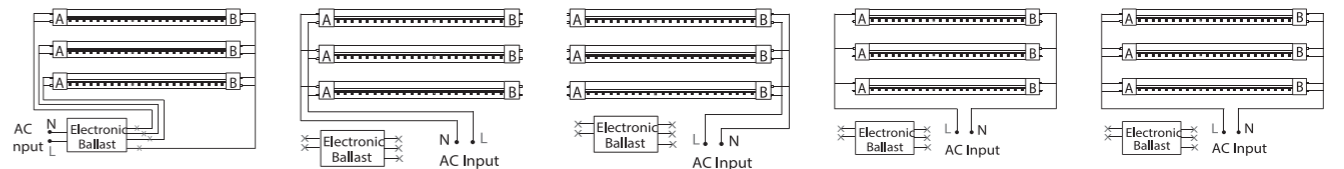
3 c. RETROFIT LUMINAIRE -Retrofit Luminaire with Two Lamps and One Electronic Ballast



Disconnect the Wires between Ballast according to the figure above.

Connect two Wires to Branch Circuit L and N according to the figure above.

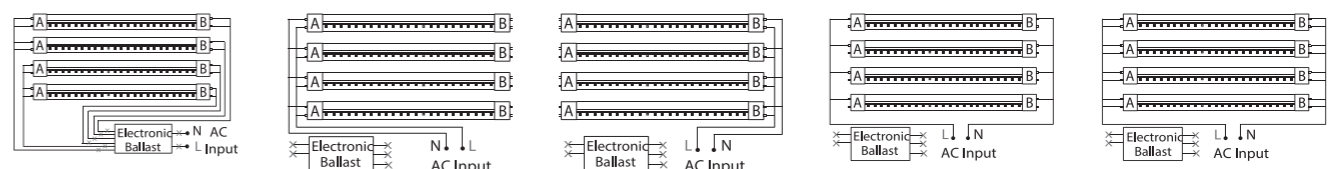
3 d. RETROFIT LUMINAIRE -Retrofit Luminaire with Three Lamps and One Electronic Ballast



Disconnect the Wires between Ballast according to the figure above.

Connect two Wires to Branch Circuit L and N according to the figure above.

3 e. RETROFIT LUMINAIRE -Retrofit Luminaire with Four Lamps and One Electronic Ballast



Disconnect the Wires between Ballast according to the figure above.

Connect two Wires to Branch Circuit L and N according to the figure above.

4. INSERT LED TUBES

- a. Ensure both the ends of the LED Tube are aligned with Socket, then insert LED Lamp in the normal way by sliding Pins into Sockets and rotating a quarter turn until the LED Tube locks in place.
- b. LED Lamps are now fully installed.
- c. Replace Troffer Lens, if present.
- d. After modification completed. Attach the Replacement Marking and Cautionary Label to a visible place on the Luminaire and keep it visible after installation.

5. RESTORE THE POWER OF LUMINAIRE

Restore Power to Circuit/Luminaire and test Light. If necessary, adjust position of LED Tube, and enjoy your new LED Tube!

Safety

- Do not remove the ground contact.
- Do not cover the luminaire, hang or fasten anything from it.
- Do not use fixture or lamp if there is any damage can be seen to the product.
- Do not use a fixture where water has entered the housing.
- Do not operate if any smoke, steam or crackling noises can be seen or heard from the luminaire.
- Avoid installation in any areas where there is a risk of heavy mechanical loads.
- Do not place any material over the lens or LED diode/chip.
- Do not clean using any solvent based abrasive or aggressive product.
- Light engines/LED'S and other light sources may heat up, please take care when handling the products.
- LED's are sensitive to electrostatic discharge. Do not touch the surface of the LED module.
- Do not connect to a temporary electricity supply, this may damage the electronics.
- Keep away from children.