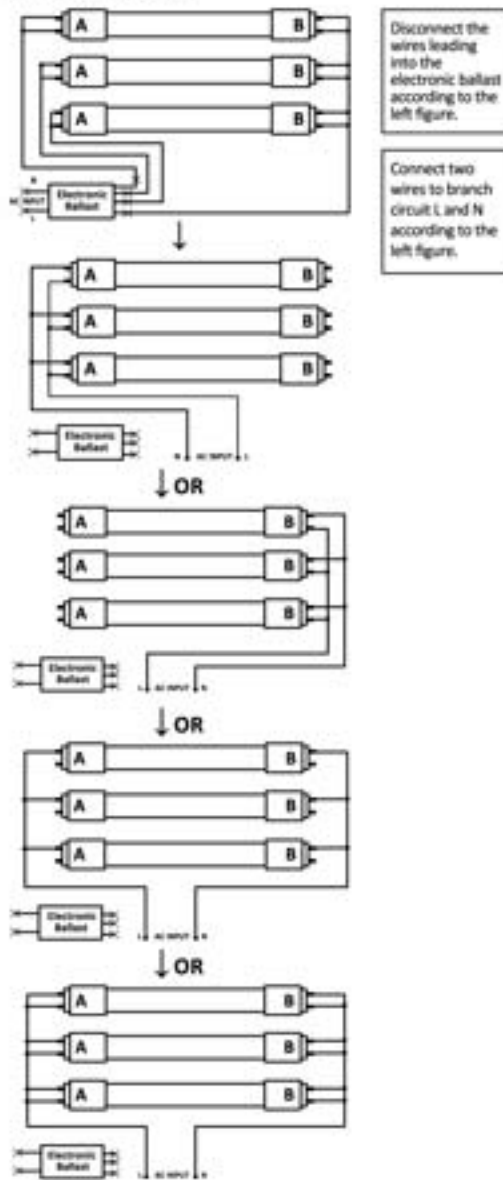
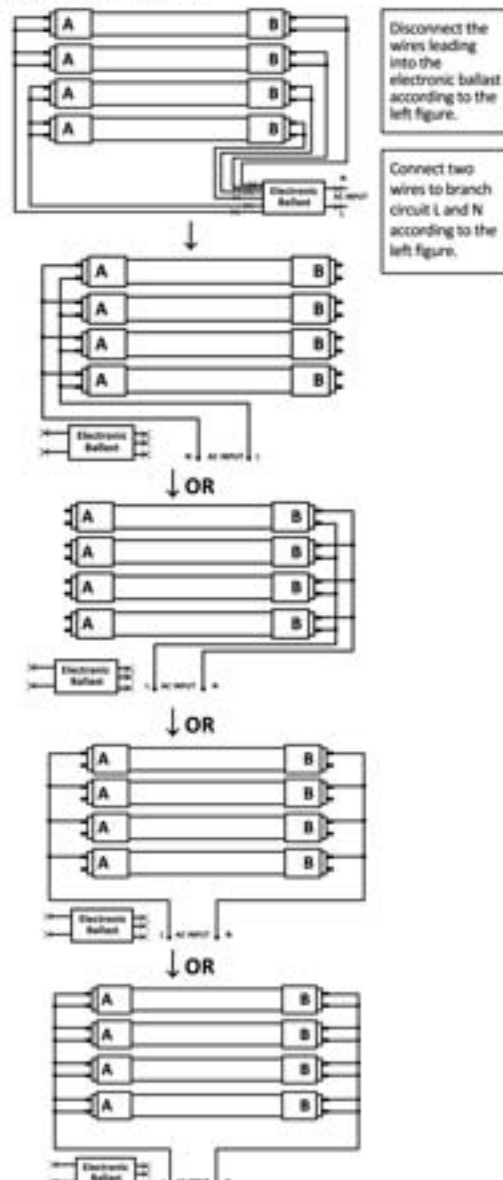


d. Retrofit luminaire with three lamps and one electronic ballast



e. Retrofit luminaire with four lamps and one electronic ballast



4. INSERT LED TUBES

- Read label on the LED tube to ensure the power end of LED is aligned with powered tube socket, then insert LED lamp in the normal way by sliding pins into sockets and rotating a quarter turn until LED tube locks in place.
- LED lamps are now fully installed.
- Replace troffer lens, if present.
- 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 light!

Ballast Compatibility List

MANUFACTURER	PART NUMBER	MANUFACTURER	PART NUMBER
GE	GE132MAX-H/ULTRA	ESPEN	VE2P32MWHPE 11067
GE	GE132MAX-L/ULTRA	ESPEN	VE2P32MWHPE 11068
GE	GE232-MV-PS-H	ESPEN	VE2P32MWHPE 11069
GE	GE232-MVPS-L	ESPEN	VE2P32MWHPE 11080
GE	GE232-MVPS-N	ESPEN	VE3P32MWHPE 11056
GE	GE232MAX-L/ULTRA	ESPEN	VE3P32MWHPE 11070
GE	GE232MAX-G-N	ESPEN	VE3P32MWHPE 11083
GE	GE259MAX-G-N	ESPEN	VE4P32MWHPE 11072
GE	GE259MAX-G-N-DIYB	ESPEN	VE4P32MWHPE 11086
GE	GE332MAX-L/ULTRA	UNIVERSAL	B232UNVEL-N
GE	GE332MAX-N/ULTRA	UNIVERSAL	B232UNVHP-N
GE	GE332-MVPS-L	UNIVERSAL	B232PUNVHE-B
GE	GE432-120-RES	UNIVERSAL	B332UNVHP-A
GE	GE432-120RES-B	UNIVERSAL	B432UNVHE-A
GE	GE432MAXPV/ULTRA	UNIVERSAL	B432UNVHP-A
GE	GE432MAX-L/ULTRA	UNIVERSAL	B432PUNVHE-A
GE	GE432MAX-G-N	KEYSTONE	KTEB-22B-1-TP-PH-SL/B
GE	GE432MAXG-N-DIYL	KEYSTONE	KTEB-232RIS-1-TP-SL/J
GE	GE232-MV-N	KEYSTONE	KTEB-232-UV-IS-N-P
PHILIPS ADVANCE	IOPA-1P32-N	KEYSTONE	KTEB-332-UV-IS-N-P
PHILIPS ADVANCE	ICN-2P32-N	KEYSTONE	KTEB-432RIS-1-TP-SL
PHILIPS ADVANCE	IOP-2P32-N	KEYSTONE	KTEB-432-UV-IS-N-P
PHILIPS ADVANCE	IOP-2P59-N	HOWARD INDUSTRIES	EP2/32IS/MV/MC/HE
PHILIPS ADVANCE	ICN-3P32-N	HOWARD INDUSTRIES	EPL2/32IS/MV/MC/HE
PHILIPS ADVANCE	IOPA-3P32-LW-N	HOWARD INDUSTRIES	EPL3/32IS/MV/SC/HE
PHILIPS ADVANCE	ICN-4P32-N	HOWARD INDUSTRIES	EPL4/32IS/MV/SC/HE
PHILIPS ADVANCE	IOP-4P32-SC	PLUSRITE	BAF232IS/MV
PHILIPS ADVANCE	IOP-4P5P32-LW-SC	PLUSRITE	BAF332IS/MV
PHILIPS ADVANCE	REB-4P32-SC	PLUSRITE	BAF432IS/MV
PHILIPS ADVANCE	VEL-4P32-SC	DAMAR	16888
OSRAM SYLVANIA	QHE 1X32TB/UNV ISL-SC	DAMAR	3654C
OSRAM SYLVANIA	QHE 1X32TB/UNV ISN-SC	HALCO	EP232IS/MV/HE
OSRAM SYLVANIA	QTP 2X32TB/UNV ISN-SC	HALCO	EP432IS/L/MV/HE
OSRAM SYLVANIA	QHE 2X32TB/UNV PSN-MC	ROBERTSON	ISU232TB120 3P20116
OSRAM SYLVANIA	QHE 2X32TB/UNV PSX-MC	ROBERTSON	IEA432TB120N 3P20135
OSRAM SYLVANIA	QHE 2X59TB/UNV ISL-SC	SUNLITE	40155-SU-58/232/MV
OSRAM SYLVANIA	QHE 2X59TB/UNV ISN-SC	EIKO	PM-2X32TB-UNV-IS
OSRAM SYLVANIA	QTP 2X59TB/UNV ISN-SC	ACT	ACT4P32ISUNVE
OSRAM SYLVANIA	QTP 4X32TB/UNV ISN-SC		
OSRAM SYLVANIA	QHE 4X32TB/UNV PSX-SC		

***The LED T8 lamps and the compatible ballasts shown on the chart, have been tested internally by the lamp manufacturer only and not the ballast manufacturer. We are continually testing our LED lamps on various popular ballasts. We will continue to update this list as additional models are tested. If the ballast does not appear on this list, it does not necessarily mean the model is not compatible with the LED T8 lamps. It may just be that the model has not been tested yet. Please contact us about ballasts that are not shown on this list.

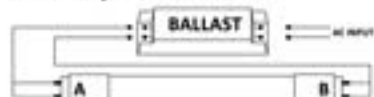
INSTRUCTION MANUAL

Dual-mode T8 LED Tube

Please keep this Quick Installation Guide for future reference. Modifications to the product void the Warranty. Suitable to replace fluorescent lamps as specified on the product label.

TYPE A

Assembly introduction:



Installation Guide:

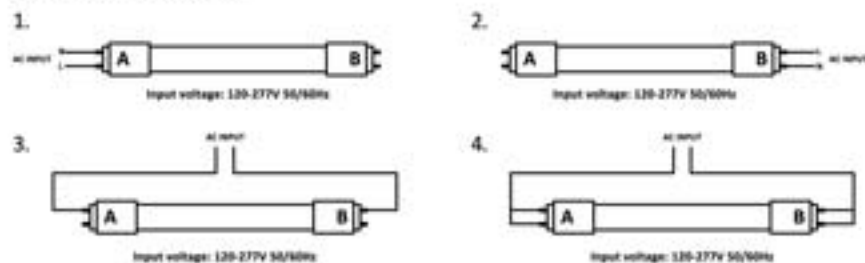


Instructions:

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, please check specifications for the most current ballast compatibility list, if no match, please insert led tubes according to below type B installation instructions.

TYPE B

Assembly introduction:



Note:the tube can work with either one side power input or double side power input

Installation Guide:

Instructions:

1. DISCONNECT POWER OF LUMINAIRE

Disconnect power to luminaire or circuit (if possible). Ensure all power is off by using a voltmeter or other method to confirm.

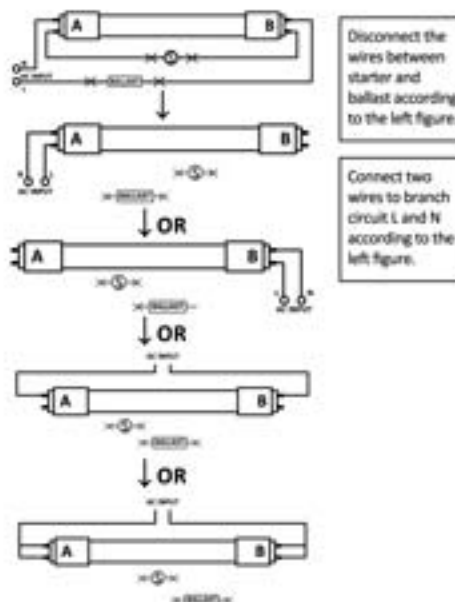


2. REMOVE EXISTING TUBE LAMP(S)

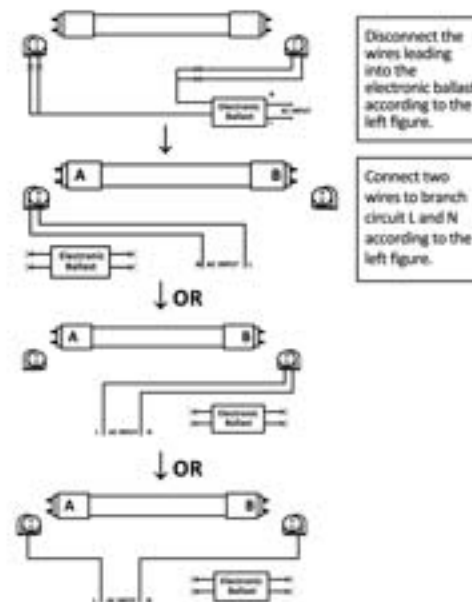
- a. Remove troffer lens, if present.
- b. Remove existing fluorescent by rotating one quarter turn and sliding lamp(s).
- c. Remove ballast cover. (Cover may be secured with screws or tabs)

3. RETROFIT LUMINAIRE

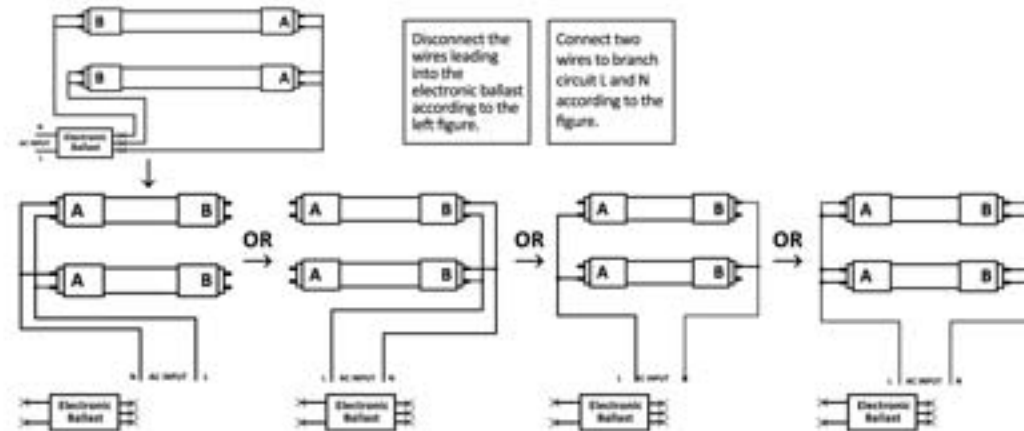
a. Retrofit luminaire with inductive ballast



b. Retrofit luminaire with electronic ballast



c. Retrofit luminaire with two lamps and one electronic ballast



MARKINGS/ INSTALLATION INSTRUCTION /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. 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.
- f. 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.
- g. 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.
- h. This retrofit kit is accepted as a component of a luminaire where the suitability of the combination shall be determined by authorities having JURISDICTION.