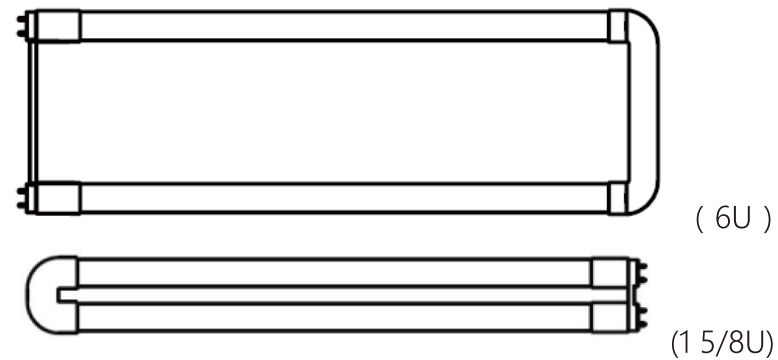


INSTALLATION GUIDE
U-Bend Type A+B LED T8 Lamp

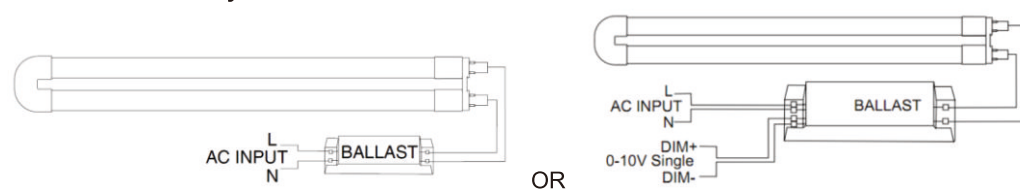


Please keep this Quick Installation Guide for future reference.
Modifications to the product void the Warranty.
Suitable to replace fluorescent lamps as specified on the product label.

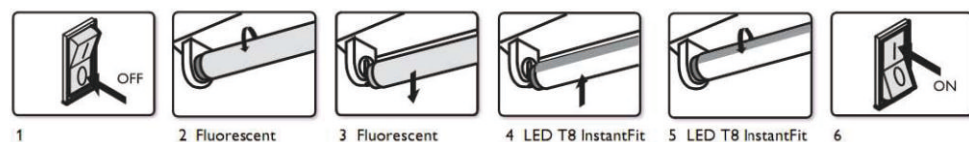
MARKINGS/WARNING:

- Risk of fire or electric shock. When work with electronic ballast please check the compatible list first! If you do not find your ballast on the list then please bypass the fixture, or please contact us! Do not install the LED tube with the ballast which not on the ballast compatible list, risk of firing!
- 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.
- 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
- To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
- 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.
- 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.
- This retrofit kit is accepted as a component of a luminaire where the suitability of the combination shall be determined by authorities having JURISDICTION.
- If the tube is installed as Type B, the luminaire, once modified as retrofit fixture, will no longer operate fluorescent lamps.

TYPE A -Assembly introduction:



Type A-Installation Guide:

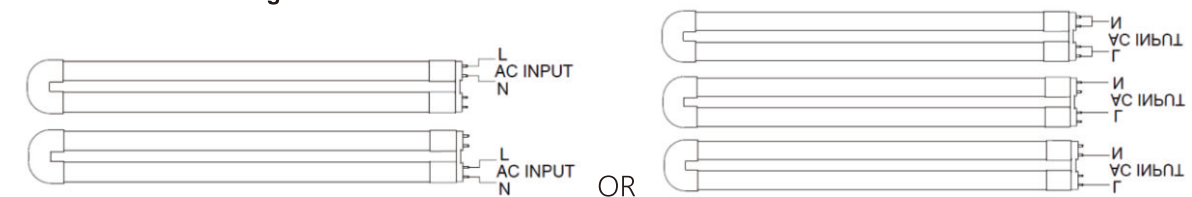


Instructions

- Switch-off power to the luminaire.
- Remove diffuser (if provided).
- Remove the existing fluorescent lamps from the luminaire.
- Install the LED tube lamp.
- Install diffuser (if removed in step 2)
- Switch on power to the luminaire.
- 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.

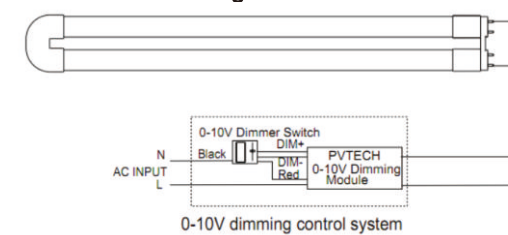
TYPE B Rewiring diagram:

Case 1 Without dimming



Voltage Input: AC120-277V 50/60Hz

Case 2 With dimming



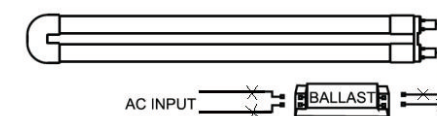
Voltage Input: AC120-277V 50/60Hz

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

Type B-Installation Guide:

Instructions

- 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.
- REMOVE EXISTING U-bend LAMP(S)
 - Remove troffer lens, if present.
 - Remove existing fluorescent by rotating one quarter turn and sliding lamp(s)
 - Remove ballast cover. (Cover may be secured with screws or tabs)
- RETROFIT LUMINAIRE
 - Retrofit luminaire with inductive ballast
 - Disconnect the wires between starter and ballast according to the below figure.



- Connect two wires to branch circuit L and N according to the TYPE B Rewiring diagram.
- 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.
- 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!

U-bend Type A+B Ballast Compatibility list

No.	Brand	Model No.	Start Type
1	ACT	ACT3P32ISUNVE	Instant Start
2	ACT	ATC4P32ISUNVE	Instant Start
3	DAMAR	1688B	Instant Start
4	DAMAR	1688D	Instant Start
5	DAMAR	3654C	Instant Start
6	EIKO	PM-2X32T8-UNV-IS	Instant Start
7	ESPEN	VE232MVHIPLE	Instant Start
8	ESPEN	VE2P32MVHIPE 11068	Instant Start
9	ESPEN	VE2P32MVHIPHE 11069	Instant Start
10	ESPEN	VE332MVHIPLE	Instant Start
11	ESPEN	VE3P32MVHIPE 11070	Instant Start
12	ESPEN	VE3P32MVHIPLE 11056	Instant Start
13	ESPEN	VE4P32MVHIPE 11072	Instant Start
14	ESPEN	VE4P32MVHIPLE 11057	Instant Start
15	ESPEN	VEL-4P32-SC	Instant Start
16	ESPEN	VEL100BN-4C	Instant Start/ Dimming
17	ESPEN	VEL30BN-2C-10V	Instant Start/ Dimming
18	ESPEN	VEL30BN-2C-10V(White)	Instant Start/ Dimming
19	ESPEN	VEL50BN-2C	Instant Start/ Dimming
20	ESPEN	REZ-2S32-SC	Programmed Start
21	ESPEN	REZ-3S32-SC	Programmed Start
22	ESPEN	VE2P32MVHPPE 11080	Programmed Start
23	ESPEN	VE4P32MVHPPE 11086	Programmed Start
24	GE	GE132MAX-G-N	Instant Start
25	GE	GE132MAX-H/Ultra	Instant Start
26	GE	GE-132-MV-N	Instant Start
27	GE	GE232-120RES-B	Instant Start
28	GE	GE232MAX-G-N	Instant Start
29	GE	GE232MAX-G-N-DIYB	Instant Start
30	GE	GE232MAXG-N-DIYL	Instant Start
31	GE	GE232MAX-L/ULTRA	Instant Start
32	GE	GE-232-MV-N	Instant Start
33	GE	GE332MAX-G-H	Instant Start
34	GE	GE332MAX-G-N	Instant Start
35	GE	GE332MAX-G-N-DIYB	Instant Start
36	GE	GE332MAXP-N/ULTRA	Instant Start
37	GE	GE432MAX-G-N	Instant Start
38	GE	GE432MAXG-N-DIYL	Instant Start
39	GE	GE432MAX-L/Ultra	Instant Start
40	GE	GE432MAX-N/Ultra	Instant Start
41	GE	GE432MAXP-L/ULTRA	Instant Start
42	GE	GE132-MVPS-H	Programmed Start
43	GE	GE-132-MV-PS-L	Programmed Start
44	GE	GE232-MV-PS-H	Programmed Start
45	GE	GE232-MVPS-L	Programmed Start
46	GE	GE232-MVPS-N	Programmed Start
47	GE	GE-232-MV-PS-N	Programmed Start
48	GE	GE-232-MVPS-XL	Programmed Start
49	GE	GE240RES120-4PK	Programmed Start
50	GE	GE240RES120-B	Programmed Start
51	GE	GE332-MVPS-L	Programmed Start
52	GE	GE-332-MVPS-XL	Programmed Start
53	HALCO	EP2/32IS/MV/MC/HE	Instant Start
54	HALCO	EP232IS/MV/HE	Instant Start
55	HALCO	EP332IS/L/MV/HE	Instant Start
56	HALCO	EP332IS/MV/HE	Instant Start
57	HALCO	EP4/32IS/MV/MC/HE	Instant Start
58	HALCO	EP432IS/L/MV/HE	Instant Start
59	HALCO	EPL2/32IS/MV/MC/HE	Instant Start
60	HALCO	EPL3/32IS/MV/SC/HE	Instant Start

61	HALCO	EPL4/32IS/MV/MC/HE	Instant Start
62	KEYSTONE	KTEB-232RIS-1-TP-SL/J	Instant Start
63	KEYSTONE	KTEB-232-UV-IS-N-P	Instant Start
64	KEYSTONE	KTEB-332-UV-IS-N-P	Instant Start
65	KEYSTONE	KTEB-432RIS-1-TP-SL	Instant Start
66	KEYSTONE	KTEB-432-UV-IS-N-P	Instant Start
67	OSRAM SYLVANIA	QHE 3X32T8/UNV HT-SC	Instant Start
68	OSRAM SYLVANIA	QHE 3XLEDT8/UNV-ISN-SC	Instant Start
69	OSRAM SYLVANIA	QHE 4X32T8/UNV ISN-SC	Instant Start
70	OSRAM SYLVANIA	QHE 4XLEDT8/UNV-ISN-SC	Instant Start
71	OSRAM SYLVANIA	QHE 1X32T8/UNV ISL-SC	Instant Start
72	OSRAM SYLVANIA	QHE 1X32T8/UNV ISN-SC	Instant Start
73	OSRAM SYLVANIA	QHE 2X32T8/UNV ISL-SC-1	Instant Start
74	OSRAM SYLVANIA	QTP 2X59T8/UNV ISN-SC	Instant Start
75	OSRAM SYLVANIA	QTP 3X32T8/UNV ISN-SC	Instant Start
76	OSRAM SYLVANIA	QTP 4X32T8/UNV ISN-SC	Instant Start
77	OSRAM SYLVANIA	QHE 3X32T8/UNV-PSN-SC	Programmed Start
78	OSRAM SYLVANIA	QHE 4X32T8/UNV PSX-SC	Programmed Start
79	OSRAM SYLVANIA	QHE 2X32T8/UNV PSN-MC	Programmed Start
80	OSRAM SYLVANIA	QHE 2X32T8/UNV PSX-MC	Programmed Start
81	OSRAM SYLVANIA	QTP 2X32T8/UNV ISN-SC	Programmed Start
82	PHILIPS ADVANCE	ICN-1P32-N	Instant Start
83	PHILIPS ADVANCE	ICN-2P32-N	Instant Start
84	PHILIPS ADVANCE	ICN-3P32-N	Instant Start
85	PHILIPS ADVANCE	ICN-4P32-N	Instant Start
86	PHILIPS ADVANCE	IOP-2P32-HL-N	Instant Start
87	PHILIPS ADVANCE	IOP-2P32-LW-N	Instant Start
88	PHILIPS ADVANCE	IOP-2P32-N	Instant Start
89	PHILIPS ADVANCE	IOP-2P59-N	Instant Start
90	PHILIPS ADVANCE	IOPA-1P32-LW-N	Instant Start
91	PHILIPS ADVANCE	IOPA-2P32-LW-N	Instant Start
92	PHILIPS ADVANCE	IOPA-2P32-N	Instant Start
93	PHILIPS ADVANCE	IOPA-3P32-LW-N	Instant Start
94	PHILIPS ADVANCE	IOPA-3P32-LW-SC	Instant Start
95	PHILIPS ADVANCE	IOPA-3P32-N	Instant Start
96	PHILIPS ADVANCE	IOPA-4P32-LW-N	Instant Start
97	PHILIPS ADVANCE	IOPA-4P32-N	Instant Start
98	PHILIPS ADVANCE	REB-4P32-SC	Instant Start
99	PHILIPS ADVANCE	ICN-2S40-N	Programmed Start
100	PHILIPS ADVANCE	IOP-2PSP32-N	Programmed Start
101	PHILIPS ADVANCE	IOP-4PSP32-SC	Programmed Start
102	PHILIPS ADVANCE	RELB-2S40-N	Programmed Start
103	PLUSRITE	BAF232IS/MV	Instant Start
104	PLUSRITE	BAF332IS/MV	Instant Start
105	PLUSRITE	BAF432IS/MV	Instant Start
106	PLUSRITE	BAF232PS/MV	Programmed Start
107	ROBERTSON	IEA432T8120N 3P20135	Instant Start
108	SUNLITE	40155-SU-SB/232/MV	Instant Start
109	ULTRASAVE	UT 232347	Instant Start
110	UNIVERSAL	B232IUNV-C	Instant Start
111	UNIVERSAL	B232IUNVEL-N	Instant Start
112	UNIVERSAL	B232IUNVHEH-A	Instant Start
113	UNIVERSAL	B232IUNVHP-N	Instant Start
114	UNIVERSAL	B332IUNVEL-A	Instant Start
115	UNIVERSAL	B332IUNVHE-A	Instant Start
116	UNIVERSAL	B332IUNVHP-A	Instant Start
117	UNIVERSAL	B432IUNVHE-A	Instant Start
118	UNIVERSAL	B432IUNVHP-A	Instant Start
119	UNIVERSAL	B232PUNVHE-B	Programmed Start
120	UNIVERSAL	B432PUNVHE-A	Programmed Start

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 If you do not find your ballast on the list then please bypass the fixture, or please contact us!
 Do not install the LED tube with the ballast which not on the ballast compatible list, risk of firing!