



Please read **all the instructions** before attempting installation

THE SMART8 IS CAPABLE OF EITHER UL TYPE-A WITH A BALLAST, OR TYPE-B FOR DIRECT WIRE WITH LINE AND NEUTRAL

Notice:

- The retrofit kit includes one (1) LED tube, one (1) installation instruction, and one (1) field-applied label.

Warnings:

- Risk of fire or electric shock – the electrical rating of this product is 120-277V, the installer must determine whether they have AC120-277V at the luminaire before installation.
- 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 drawings.
- Risk of fire or electric shock – do not use this kit in luminaires that employ shunted bipolar lamp holders (found in fixtures that use instant start ballasts).

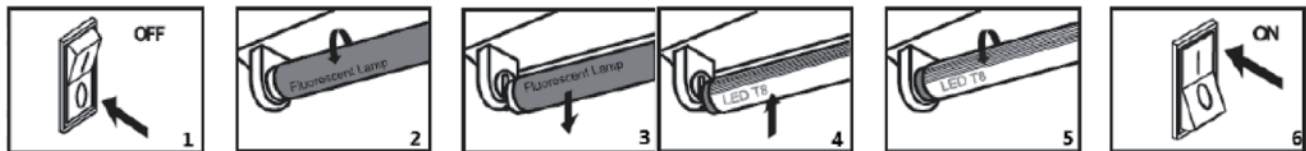
Warnings (continued):

- Risk of fire or electric shock – luminaires wiring, ballasts, or other electrical parts may be damaged when drilling for installation of retrofit kit hardware. Check for enclosed wiring and components.
- 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.
- Caution risk of fire - if the lamp or luminaire exhibits undesirable operation (buzzing, flickering, etc.), immediately turn off power, remove lamp from luminaire and contact manufacturer.
- Do not install this lamp in a pre-heat luminaire.
- This lamp only operates on electronic ballasts. If lamp does not light when the luminaire is energized, remove lamp from luminaire and contact lamp manufacturer or qualified electrician.
- This device is not intended for use with emergency exits or not for emergency lighting.

⚠ Direct replacement of fluorescent lamps (32W, 30W, 28W, 25W / 48T8)

- STEP 1: Disconnect power from fixture
 STEP 2: Remove diffuser (if necessary)
 STEP 3: Remove the existing fluorescent lamps from the luminaire
 STEP 4: Install the LED T8 replacement lamp
 STEP 5: Turn lamp to lock in place
 STEP 6: Switch on power to the luminaire

Figure 1



NOTE: Specifications are subject to change without notice.

⚠ Installation Instructions (For Use as LED Luminaire Conversion Retrofit Kit)

DANGER – RISK OF SHOCK - DISCONNECT POWER BEFORE INSTALLATION.

Attention:

- The retrofit kits include Installation Instructions, LED Lamp, Luminaire Marking Labels.
- The T8 LED tubes are intended to retrofit Listed surface mounted, type Non-IC or type IC recessed mounted fluorescent luminaires with or without diffuser for maximum four lamps with lamp to lamp distance 11 cm minimum; Or retrofit surface mounted Listed fluorescent luminaires without diffuser for maximum six lamps with lamp to lamp distance 5.5 cm minimum.

Attention (continued):

- The products are intended to be used in dry and damp locations only.
- Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation.
- 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.

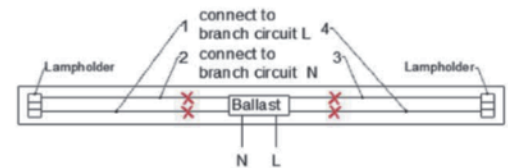
Electrical Ratings

Model Number	Input Ratings			Wattage (W)	Nominal Length (FT)
	Voltage (V)	Frequency (Hz)	Current (mA)		
LT8F4CW5/U5	120-277V	50/60Hz	158mA Max	8W 10W 12W 15W 18W	4FT
STEP 1: Shut OFF power work. STEP 2: Remove existing fluorescent tube(s) and diffuser (if applicable) and open the ballast cover. STEP 3: Disconnect luminaire supply wirings L and N to branch circuit as shown in Figure 2.				Figure 2 	
STEP 4: Original circuit as shown in Figure 3. Cut lamp holder leads "1, 2, 3, 4, L, N", then check whether the lamp holder is shunted. Cut as far away from the lamp holders to allow for longer lengths of wire at both lamp holders.				Figure 3 	

STEP 5: Check the lamp holders. If the lamp holders are shunted, go to STEP 6. If the lamp holders are not shunted, go to STEP 7. For "One End" wiring configuration only, "WARNING: To avoid potential fire or shock hazard, do not use this retrofit kit in luminaires employing shunted bi-pin lamp holders. 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."

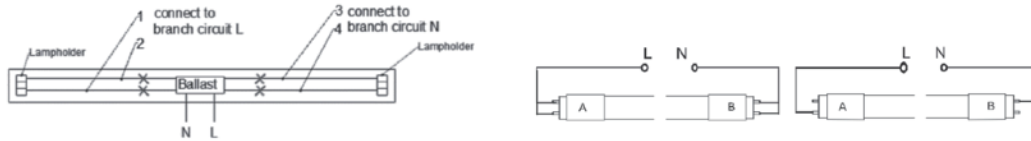
STEP 6: If the lamp holders are shunted, connect one lead from each lamp holder to branch circuit as follows, "Leads 3 and 4" connected to L; "Leads 1 and 2" connected to N as shown in Figure 4

Figure 4

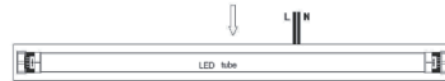


STEP 7: For "Both Ends" wiring, connect one lead from each lamp holder to branch circuit as follows, "Leads 1 and Leads 2" connected to L; "Leads 3 and Leads 4" connected to N. or "Leads 1" connected to L; "Leads 3" connected to N. as shown in Figure 5.

Figure 5



STEP 8: Attach the field-applied label to the luminaire. Install the ballast cover and diffuser (if applicable) back on luminaire, and LED T8 tube as show in Figure 6.



⚠ Ballast Compatibility List

Brand	Model Description	Brand	Model Description
GE	GE132MAX-G-N	GE	GE432MAXP-N+
GE	GE232MAX-N/ULTRA	GE	GE232MVPS-N-S30 2
GE	GE232MAX90-S60(2 Line on)	GE	GE232MVPS-N-S30 1
GE	GE232MAX90-S60(1 Line on)	GE	GE132MAX-L/ULTRA
GE	GE232MAX-G-N	GE	GE432-120RES-B
GE	GE232MAXP-N/ULTRA	GE	GE232-120RES-B
GE	GE232MAXP90-S60(2 Line on)	GE	GE232MAXP-N+
GE	GE232MAXP90-S60(1 Line on)	GE	GE232MAXP347-H
GE	GE232-120RESDIYB(Broken)	GE	GE332MAXP-N+
GE	GE432MAX-G-L	GE	GE332MAX347-H
GE	GE432MAX-G-N	GE	GE332MAXP347-N
GE	GE432MAXP-N/ULTRA	GE	GE232MAXP347-L
GE	GE232-120-RES	GE	GE232MAX-G-347
GE	GE432-120-RES	GE	GE432MAXP347-L
GE	GE432MAX347-N	GE	GE132MAXP-H/ULTRA
GE	GE432-MV-N/M	GE	GE432MAX-G-347
GE	GE232-MV-N/M	GE	GE332MAX-G-347
GE	GE132MAXP-N/ULTRA	GE	GE232MAXP90-V60
GE	GE-132-MV-N	GE	GE332MAXP90-S60 1
GE	GE332MAXP-N/ULTRA	GE	GE432MAX90-V60
GE	GE332MAX-G-N	GE	GE432MAX90-S60 2
GE	GE332MAX-G-H	GE	GE432MAX90-S60 1
GE	GE332MAX90-V60	GE	GE432MAXP347-H

Ballast Compatibility List

Brand	Model Description	Brand	Model Description
GE	GE232MAXP347-N	PHILIPS	REZ-2S32-SC
GE	GE432MVPS-H	PHILIPS	IZT-2S32-SC DIM OPEN
GE	GE432-MVPS-N	PHILIPS	IZT-2S32-SC DIM SHORT
GE	GE-232-MV-PS-N	PHILIPS	IZT-3S32-SC
GE	GE-232-MV-PS-H	PHILIPS	IZT-2S32-SC
GE	GE132-MVPS-H	PHILIPS	IOP-3PSP32-LW-SC
GE	GE132-MVPS-L	OSRAM	QHE 2X32T8/347 ISN-SC
GE	GE132MVPS-N-S30	OSRAM	QHE 2X32T8/UNV ISL-SC
GE	GE232PS347-L	OSRAM	QTP 2X32T8/UNV ISN-SC
GE	GE-332-MVPS-XL	OSRAM	QHE 1X32T8/UNV ISN-SC
GE	GE132MVPS-N-VO3	OSRAM	QHE 2X32T8/UNV ISN-SC
GE	GE232PS347-H	OSRAM	QHE 3X32T8/UNV ISL-SC
GE	GE-332-MVPS-H	OSRAM	QHE 3X32T8/UNV ISN-SC
GE	GE432PS347-N	OSRAM	QTP 3X32T8/UNV ISN-SC
GE	GE332PS347-N	OSRAM	QHE 4X32T8/UNV ISL-SC
GE	GE232PS347-N	OSRAM	QHE 4X32T8/UNV ISN-SC
GE	GE432MVPS-N-VO3	OSRAM	QHE 4X32T8/UNV PSN-SC
GE	GE432-MVPS-L	OSRAM	QHE 2X32T8/UNV/HDIM10/SC
GE	GE232MVPS-L-S30	HATCH	HL432BIS/UV/HE/W
GE	GE332-MVPS-N	HATCH	HL332AIS/UV/HE/W
GE	GE332-MVPS-L	HATCH	HL232BIS/UV/HE/W
GE	GE332MVPS-N-VO3	HATCH	HL432AIS/34/HEW
GE	GE232MVPSN-VO3	HATCH	HL232AIS/UV/HE/W
GE	GE332MVPSH-VO3	HATCH	HL232AIS/34/HE/W
GE	GE24ORES120-B	HATCH	HL432BPS/UV/HE/W
GE	GE232-120RES-B	HATCH	HL332BPS/UV/HE/W
GE	GE24OPSMVN-DIYB	HATCH	HL332CPS/UV/HE/W
GE	GE432-120RES-B	HATCH	HL332APS/UV/HE/W
GE	GE432MAXP-N+	HATCH	HL432APS/UV/HE/W
GE	GE332MAXP-N+	HATCH	HL232BPS/UV/HE/W
PHILIPS	ICN-2P32-N	HATCH	HL232APS/UV/HE/W
PHILIPS	IOP-2P32HL-SC	SYLVANIA	QTP 2X32T8/UNV ISN-SC
PHILIPS	IOPA-2P32HL-SC	SYLVANIA	QTP 2X32T8/UNV ISH-SC
PHILIPS	IOPA-3P32-SC	SYLVANIA	QTP 4X32T8/UNV ISN-SC
PHILIPS	GOPA-2P32-SC	SYLVANIA	QHE 3X32T8/UNV PSX-SC
PHILIPS	GOPA-4P32-SC	SYLVANIA	QTP 3X32T8/UNV PSX-SC
PHILIPS	IOP-4P32-N	SYLVANIA	QTP 4X32T8/UNV PSX-SC
PHILIPS	IOP-4PSP32-LW-SC	HOWARD	EP2/32IS/MV/MC/HE
PHILIPS	IOP-4PSP32-SC	HOWARD	EP3/32IS/MV/MC/HE
PHILIPS	IOP-3PSP32-SC	HOWARD	EP4/32IS/MV/MC/HE



⚙ Ballast Compatibility List

Brand	Model Description	Brand	Model Description
Universal	B432IUNVHE-A	ACCUPRO	AP-RC-232IP-120-1
Universal	B332IUNVHE-A	ACCUPRO	AP-232IP-UNV-M
Universal	B332IUNVHP-A	ACCUPRO	AP-RS-232IS-120
Universal	B132IUNVHE-N	ACCUPRO	AP-RS-232IS-120
Universal	B232IUNVHEH-A	ESPEN	VE432120MIP
Universal	B232IUNVHE-N	CDL	#E232120MRSLP
Universal	B232IUNVHP-N	ULTRASAVE	UT232347
Universal	B132IUNVEL-N	ULTRASAVE	UT432347