



COMBODRIVE X3

PLUG & PLAY OR LINE VOLTAGE COMPATIBLE



KT-LED15PST8-UXG-8CSJ-X3

T8 LED LAMP

DESCRIPTION

15W T8 U-Bend LED Lamp | Power Select | Color Select | High-Efficiency | Single- or Double-ended Wiring | Ballast and Line-Voltage Compatible

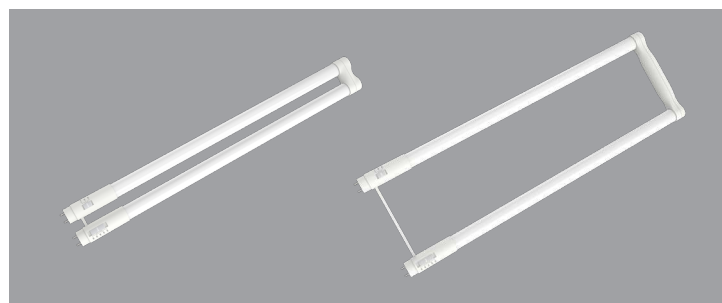


RoHS
Compliant



10 YEAR
LIMITED WARRANTY

LAMP TYPE: U-Bend
BULB TYPE: T8 LED
BASE TYPE: G13 (Medium Bi-Pin)
WATTAGE: 15/13/11.5W
COLOR TEMPERATURE: 3000/3500/4000/5000/6500K
COLOR RENDERING INDEX (CRI): > 80
WARRANTY: 10 Year Limited



PRODUCT FEATURES

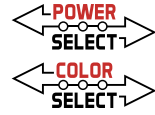
- Replacement for Conventional U-Bend Fluorescent Lamps
- Plug & Play application: Compatible with most instant- and programmed-start electronic T8 ballasts
- Bypass Ballast Application: 120-277 Line Voltage Wired Single- or Double-Ended
- Keystone Power Select technology (15/13/11.5W). Adjust power between 15/13/11.5W, changing lumen output to set high end trim.
- Keystone Color Select Technology (3000/3500/4000/5000/6500K)
- Frosted Lens Provides Diffuse Distribution and Eliminates Pixelation
- Over 50% More Energy Efficient than Standard U-Bend Fluorescent Lamps
- Environmentally Friendly: No Mercury Used
- UL Listed; Listed on DLC Qualified Products List
- Suitable for Dry and Damp Locations
- Operating Temperature: -20°C / -4°F to 45°C / 113°F
- 50,000+ Hour Lifetime
- Meets FCC Part 15, Class A
- NSF Listed: NSF/ANSI Standard 2 - Food Equipment
- Lamp is Dimmable in Type A Mode with a Compatible Ballast and in Type B Mode When Used with an Appropriate Dimming Accessory (Purchased Separately)

ELECTRICAL AND PERFORMANCE SPECIFICATIONS

CCT	Ballast-Compatible Application					Line-Voltage Application				Max THD	Power Factor	Beam Angle	
	Input Voltage	System Wattage*		Initial Lumens*		Input Voltage	Selectable Wattage	Initial Lumens	Efficacy				
		0.78BF	0.88BF	0.78BF	0.88BF								
3000K	Ballast Dependent	13.71W	15.77W	1806	2072	120-277V	15W	2100	140 lm/W	20%	0.9	U1G-150° U6G-210°	
								13W	1900				146 lm/W
								11.5W	1700				147 lm/W
3500K		13.72W	15.73W	1833	2108			15W	2100				140 lm/W
								13W	1900				146 lm/W
								11.5W	1700				147 lm/W
4000K		13.65W	15.64W	1868	2150			15W	2200				146 lm/W
								13W	2000				153 lm/W
								11.5W	1800				156 lm/W
5000K		13.65W	15.68W	1875	2162			15W	2200				146 lm/W
								13W	2000				153 lm/W
								11.5W	1800				156 lm/W
6500K	13.65W	15.65W	1855	2130		15W	2200	146 lm/W					
						13W	2000	153 lm/W					
						11.5W	1800	156 lm/W					

*Nominal values. Actual values may vary depending on electronic ballast used.

** Preset to 4000K CCT; Color Uniformity: CCT (Correlated Color Temperature) range as per guidelines outlined in ANSI C78.377-2017



KT-LED15PST8-UXG-8CSJ-X3

T8 LED LAMP

ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	-20°C/-4°F to 45°C/113°F
Storage temperature:	-40°C/-40°F to 85°C/185°F
Operating humidity:	≤65%

POWER SELECT (WATTAGE) ADJUSTMENT

- This fixture is equipped with field-adjustable Keystone Power Select technology
- Adjustable Wattage (15/13/11.5W).
- Adjust dip switch to desired setting (preset to 15W).



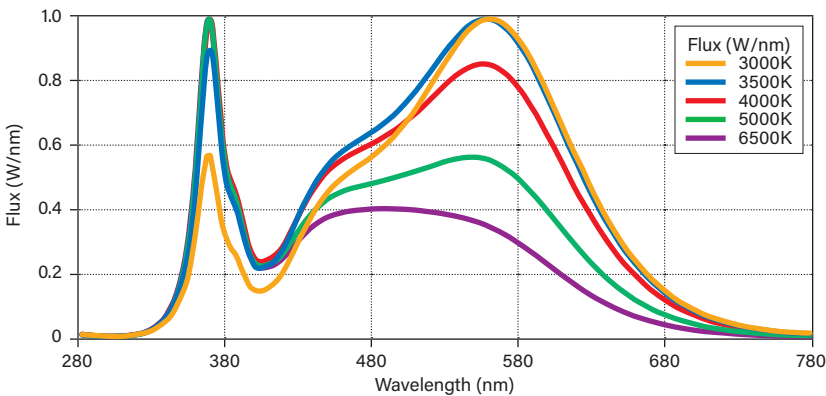
COLOR SELECT (CCT) ADJUSTMENT

- This fixture is equipped with field-adjustable Keystone Color Select technology
- Adjustable CCT (3000/3500/4000/5000/6500K).
- Adjust dip switch to desired setting (preset to 4000K CCT).

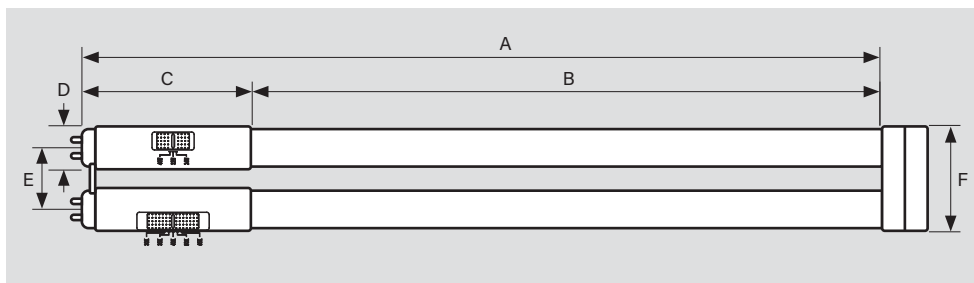


PHOTOMETRIC SPECIFICATIONS

SPECTRAL DISTRIBUTION



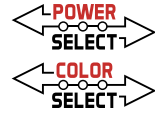
PHYSICAL SPECIFICATIONS



LAMP DIMENSIONS	U1G	U6G
A (Body Length)	21.36"	21.45"
B (Illuminated Length)	18.07"	18.16"
C (End Cap/Sticker Area)	3.29"	3.29"
D (Diameter)	0.99"	0.99"
E (Length Between Bi-Pins)	1.61"	5.98"
F (Body Width)	2.71"	7.07"

NOMINAL LENGTH: 24"

BASE TYPE: G13 (Medium Bi-Pin)



KT-LED15PST8-UXG-8CSJ-X3

T8 LED LAMP

INSTALLATION INSTRUCTIONS

DIRECT REPLACEMENT (WITH EXISTING BALLAST)

1. Turn power off.
2. Remove lens or diffuser, if applicable.
3. Remove existing fluorescent lamp(s) from the luminaire.
4. Install the LED replacement lamp(s), one lamp for each fluorescent lamp removed.*
5. Replace lens or diffuser back in place, if applicable.
6. Turn power back on.

* **Warning:** Check Keystone's Ballast Compatibility List before installation

BY-PASS REPLACEMENT (WITH BALLAST REMOVED)

- A. Disconnect power from fixture.
- B. Remove fluorescent lamps.
- C. Remove lens and wiring compartment, if applicable.
- D. Cut all wires connected to ballast (see **Figure A: Typical Ballast Configurations**).
- E. Identify what type of lamp holders are in fixture: non-shunted lamp holders or shunted lamp holders (see **Figure B: Lamp Holder Types**). Double-ended wiring installations of Keystone Combo Drive X3 tubes can be used with shunted G13 or non-shunted G13 lamp holders with instructions to externally shunt.

FIGURE A Typical Ballast Configurations

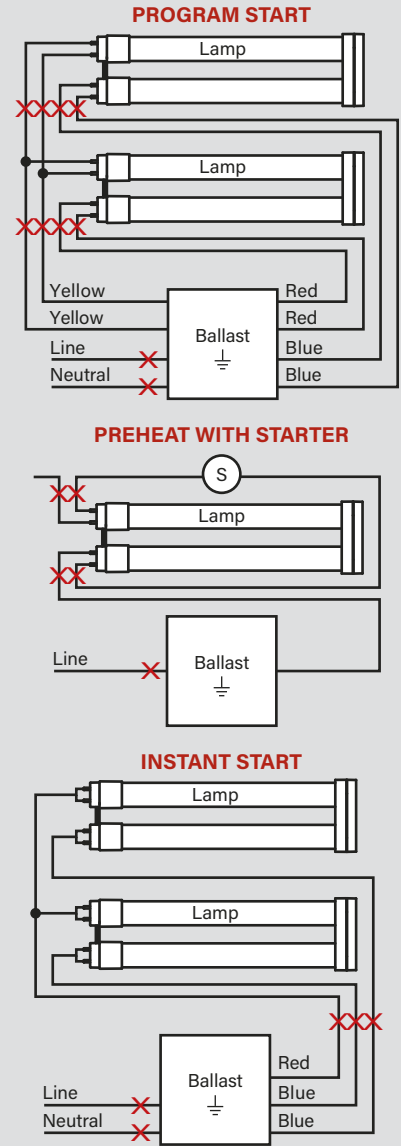
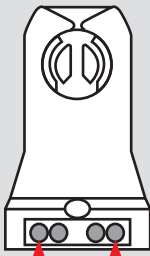


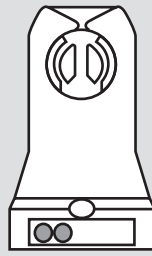
FIGURE B Lamp Holder Types

TYPICAL NON-SHUNTED LAMP HOLDER

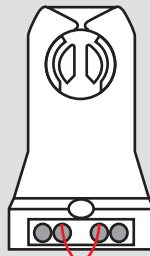


Connect wires directly to these terminals

TYPICAL SHUNTED LAMP HOLDER



Internal shunt

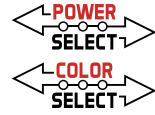


External shunt

Caution: For single-ended wiring use only non-shunted lamp holders.

For Single-ended wiring, do not install product in a fixture with shunted lamp holders (found in all fixtures using instant start ballasts). If the current lamp holders are shunted, remove them and replace them with non-shunted lamp holders. Make new connections directly to terminals as indicated above.

Keystone can provide any style replacement lamp holders. Call us at 800-464-2680.



KT-LED15PST8-UXG-8CSJ-X3

T8 LED LAMP

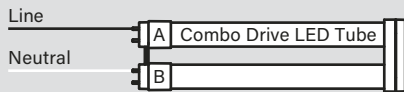
WIRING DIAGRAMS

DOUBLE-ENDED LINE VOLTAGE WIRING

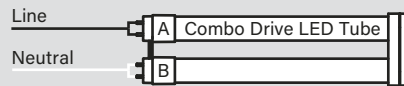
Single lamp

1. Follow steps A-C (see **By-Pass Replacement (with ballast removed)**, on page 3).
2. Cut all existing connections to ballast and remove ballast (see **Figure A**, on page 3, for typical ballast configurations).
3. Connect line voltage AC to both pins on Side A of the lamp (marked L and N) on the endcap as shown below; on Side B, connect line neutral AC wire to pins marked N on the endcap as shown below.

SHUNTED LAMP HOLDERS



NON-SHUNTED LAMP HOLDERS

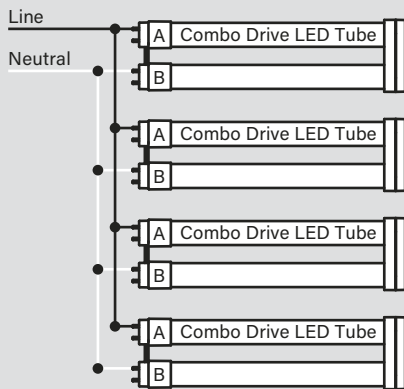


4. Complete all electrical connections with appropriate connectors/wire nuts as needed, per all local and national electrical codes. **Note:** there should not be any exposed wires from sockets left unconnected.
5. Replace wiring compartment cover.
6. Ensure that installed lamp is wired to line and neutral in the lamp holder and that lamp is facing proper direction for illumination.
7. Install lens or diffuser, if applicable.
8. Apply power to fixture and check for illumination.

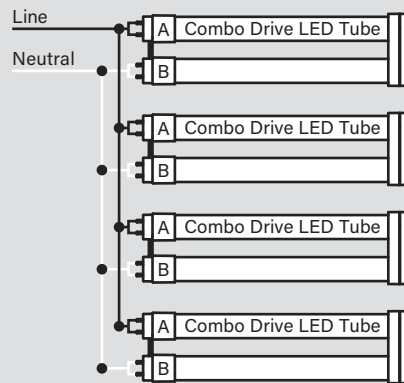
Multiple lamps

1. Follow steps A-C (see **By-Pass Replacement (with ballast removed)**, on page 3).
2. Cut all existing connections to ballast and remove ballast (see **Figure A**, on page 3, for typical ballast configurations).
3. Connect the terminals of the first lamp to the matching terminals of the second lamp with line and neutral wires. Continue daisy-chain connection for each additional lamp as shown below.

SHUNTED LAMP HOLDERS



NON-SHUNTED LAMP HOLDERS



4. Complete all electrical connections with appropriate connectors/wire nuts as needed, per all local and national electrical codes. **Note:** there should not be any exposed wires from sockets left unconnected.
5. Replace wiring compartment cover.
6. Ensure that installed lamp is wired to line and neutral in the lamp holder and that lamp is facing proper direction for illumination.
7. Install lens or diffuser, if applicable.
8. Apply power to fixture and check for illumination.

(Wiring Diagrams continued on next page)

KT-LED15PST8-UXG-8CSJ-X3

T8 LED LAMP

WIRING DIAGRAMS (continued)

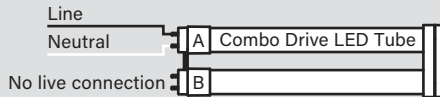
SINGLE-ENDED LINE VOLTAGE WIRING*

Note: For single-ended wiring installations, power is applied only to endcap labeled Side A.

Do NOT apply power to Side B.

Single lamp

- Follow steps A–C (see **By-Pass Replacement (with ballast removed)**, on page 3).
- Cut all existing connections to ballast and remove ballast (see **Figure A**, on page 3, for typical ballast configurations).
Note: Single-ended wiring requires non-shunted lamp holders (see **Figure B**, on page 3, for lamp holder types).
- On Side A of lamp holder, connect line voltage AC wire to pin marked L and connect line neutral AC wire to pin marked N on the endcap as shown below. Do not connect AC wires to Side B.

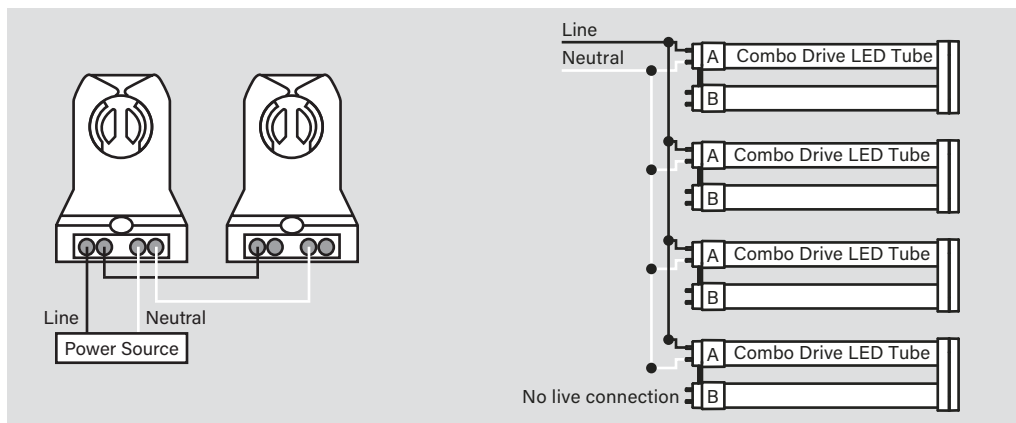


***Caution:** Use only non-shunted lamp holders for single-ended wiring installations. Do not perform single-ended wiring installation of product in a fixture with shunted lamp holders (found in all fixtures using instant-start ballasts). If the existing lamp holders are shunted and single-ended wiring is desired, remove and replace them with non-shunted lamp holders (or remove the external shunt, if applicable). Make new connections directly to lamp holder terminals as shown on this page).

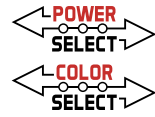
- Complete all electrical connections with appropriate connectors/wire nuts as needed, per all local and national electrical codes.
Note: there should not be any exposed wires from sockets left unconnected.
- Replace wiring compartment cover.
- Ensure that installed lamp is wired to line and neutral in the lamp holder and that lamp is facing proper direction for illumination.
- Install lens or diffuser, if applicable.
- Apply power to fixture and check for illumination.

Multiple lamps

- Follow steps A–C (see **By-Pass Replacement (with ballast removed)**, on page 3).
- Cut all existing connections to ballast and remove ballast (see **Figure A**, on page 3, for typical ballast configurations).
Note: Single-ended wiring requires non-shunted lamp holders.
- Connect the terminals of the first lamp to the matching terminals of the second lamp with line and neutral wires. Continue daisy-chain connection for each additional lamp as shown below. **Note:** Do not connect any wires to Side B of lamp holder.



- Complete all electrical connections with appropriate connectors/wire nuts as needed, per all local and national electrical codes.
Note: there should not be any exposed wires from sockets left unconnected.
- Replace wiring compartment cover.
- Ensure that installed lamp is wired to line and neutral in the lamp holder and that lamp is facing proper direction for illumination.
- Install lens or diffuser, if applicable.
- Apply power to fixture and check for illumination.



KT-LED15PST8-UXG-8CSJ-X3

T8 LED LAMP

ORDERING INFORMATION

ORDER CODE	CARTON QUANTITY	UPC	EASY CODE	DLC PRODUCT ID
KT-LED15PST8-U1G-8CSJ-X3	12 pcs	843654167305	WEA-26	S-F5YWMY
KT-LED15PST8-U6G-8CSJ-X3	12 pcs	843654167299	MWY-26	S-N9B2H0

CATALOG NUMBER BREAKDOWN

KT-LED15PST8-UXG-8CSJ-X3

1
2
3
4
5
6
7
8
9
10
11
12

- 1** Keystone Technologies
- 2** LED Lamp
- 3** Wattage
- 4** Power Select
- 5** Lamp Type
- 6** U-Bend
- 7** Nominal Width
- 8** Glass Construction
- 9** 80 CRI
- 10** Color Select
- 11** Color Select Designation
- 12** Combo Drive

- 9** Color Select Designation

J	3000/3500/4000/5000/6500K
---	---------------------------