

# LED Retrofits and Fluorescent Snapback

## ThinkLite's Solution

The trend in commercial lighting to retrofit commercial spaces from traditional fluorescent lighting to energy efficient LED lighting is not only significant, it is growing. Commercial property managers and owners are embracing LED retrofits as the 'low hanging fruit' in energy efficiency. But, in this rush to retrofit, there are important long-term safety considerations.

## Bypassing the ballast

ThinkLite's LED retrofit solutions require a bypass of the fluorescent ballast. This is a best practice that ensures maximum energy savings, eliminates ballast maintenance over the life of the solution and erases any hazard potential that arises from using magnetic or electronic fluorescent ballasts with LED tubes.



However, in a fixture where the ballast has been bypassed, there is risk in the event that an LED tube is removed and a fluorescent tube is installed in its place. This is called fluorescent snapback. Only one end of the fluorescent lamp will be charged. This difference in charge potential at the two ends of the lamp will cause an electric shock to anyone handling the lamp while the fixture is switched on.

Unlike other LED products that feed the electric current from one end, ThinkLite lamps feed the current exactly the same way a fluorescent tube does, live on one end and neutral on the other, eliminating the need to rewire the fixture to accept the ThinkLite tube.

If a fluorescent tube is installed in a fixture that has been modified to power a ThinkLite LED tube, there will be absolutely no unsafe charge buildup on one end of the lamp. The fluorescent lamp will simply not turn on, a benign result to what could be a potentially dangerous situation.

## The ultimate safety measure

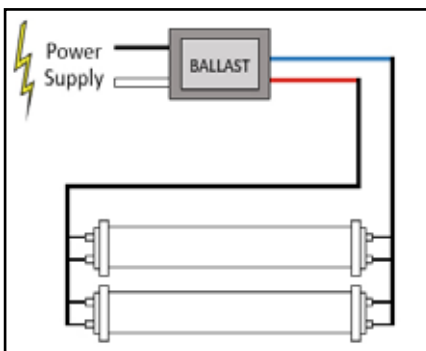
ThinkLite recently released the G90 retrofit kit, an all new and unique tombstone design, coupled with the proprietary ThinkLite G90 pin. These tombstones are easily installed into an existing fixture, and the pin is simply inserted with a twist and click into the tombstone.

When this retrofit kit is installed, it is impossible to replace the existing ThinkLite LED tubes with a traditional fluorescent tube because the fluorescent pins are incompatible with the tombstone.

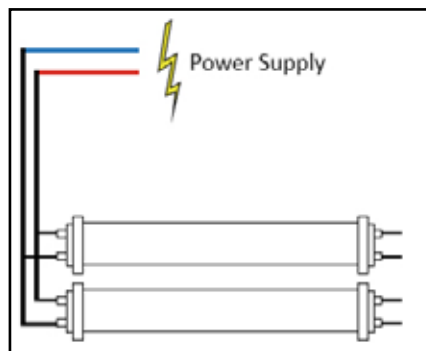
## Safety first

The fail-safe nature of the ThinkLite G90 tombstone is specifically designed to accept and conduct voltage at constant 120V, 277V, 347V and 480V. This makes ThinkLite the safest LED tube on the market today.

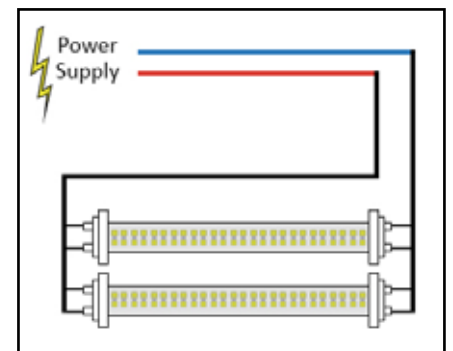
As with any good electrical practice, retrofitting fluorescent fixtures with ThinkLite UL approved LED solutions require strict adherence to the installation and safety instructions. When this is done, you are assured of safe and trouble-free LED illumination for years to come.



**Fluorescent System Wiring**



**Other LEDs Wiring**



**ThinkLite LED Wiring**