



### 12V LED Tube install

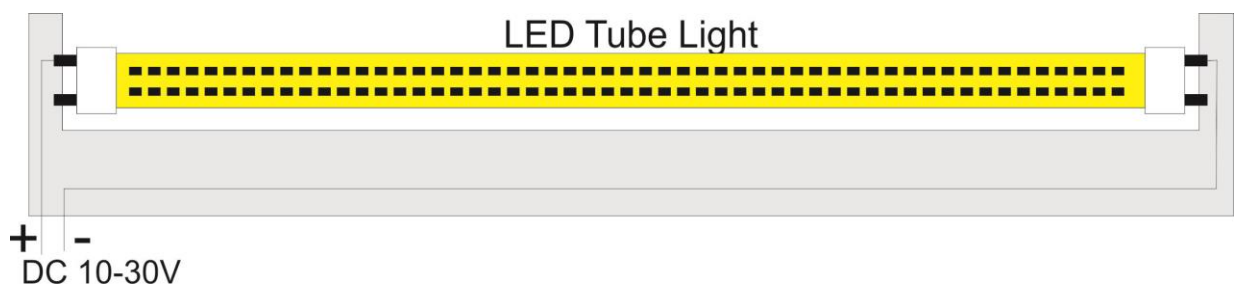
**DO NOT USE on 110/120V AC FIXTURES! LOW Voltage ONLY**

**Most Ballast in 12V RV/Marine will also Damage the Tube, so remove the Ballast**

**WARNING !!! - Danger - Risk Of Shock - Disconnect Power Before Installation.**

### 12V DC Wring with a LED Driver

Remove the old Ballast, Connect 12V DC Positive to one end, negative to the other end.



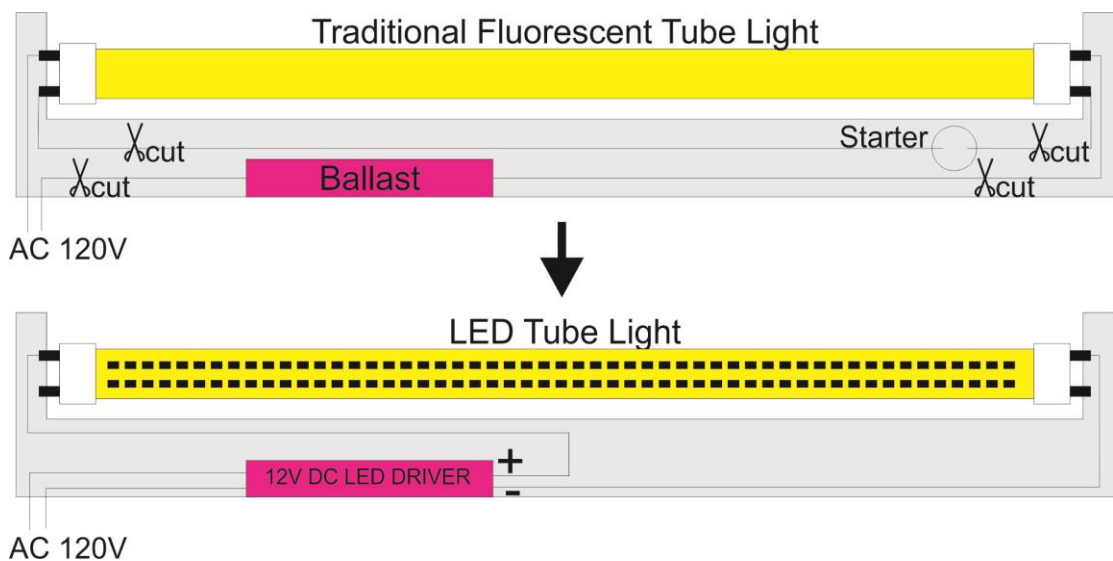
### 120V AC Wring with a LED Driver

If your Fixture is 120V AC, then a suitable 12V DC driver will be required, i.e illuminous EV-12V-1000-12D (12V DC, 12W LED Driver)

Step 1: Remove ballast and starter where applicable, and the corresponding wires including branch circuit wires and ballast wires.

Step 2: Simply, Connect the L & N AC120V to the input of the 12V DC Driver (i.e illuminous EV-12V-1000-12D)

The output 12V DC from the driver connects to the ends of the T8 Tube, Positive to one end, negative to the other end.



## 12V ONLY conversion with NO Ballast Required – i.e Lightco 179 Fixture Example



### Removing the OLD Ballast

- 1) Drill out the rivets in the top cover
- 2) Drill out the rivets holding the PCB
- 3) Cut the wires – remove the PCB

### Fitting the illuminous LED tube

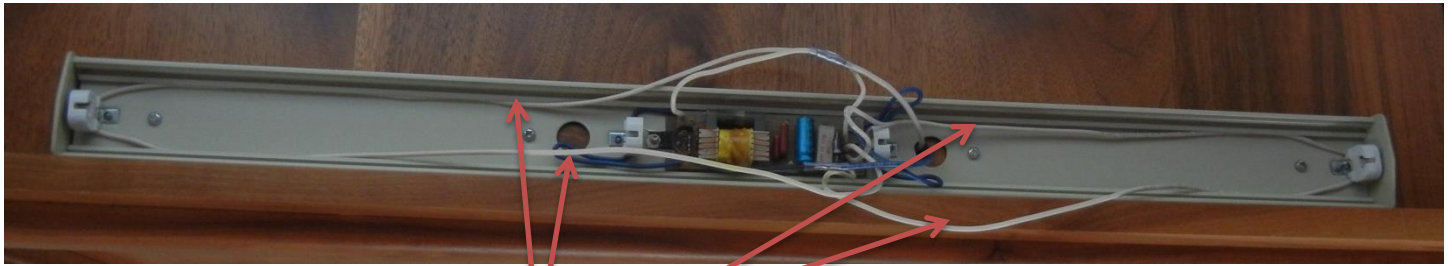
- 1) You Only need 1 wire to each Socket at each end of the Tube. Some Fixtures have 2 Wires, some have 1 wire to each socket. Pick One.
- 2) Each tube has 2 pins each end, you ONLY need to connect to ONE of the pins on each end, pick either one ! One end is Positive, the other end is GND / Negative
- 3) Change the wiring to look like this:



- a) Wire One End to Positive (just one Wire from each End Socket)
- b) Wire the other end to Negative (just one wire from each Socket)



**12V ONLY conversion with NO Ballast Required Thin-Lite 1724 example**

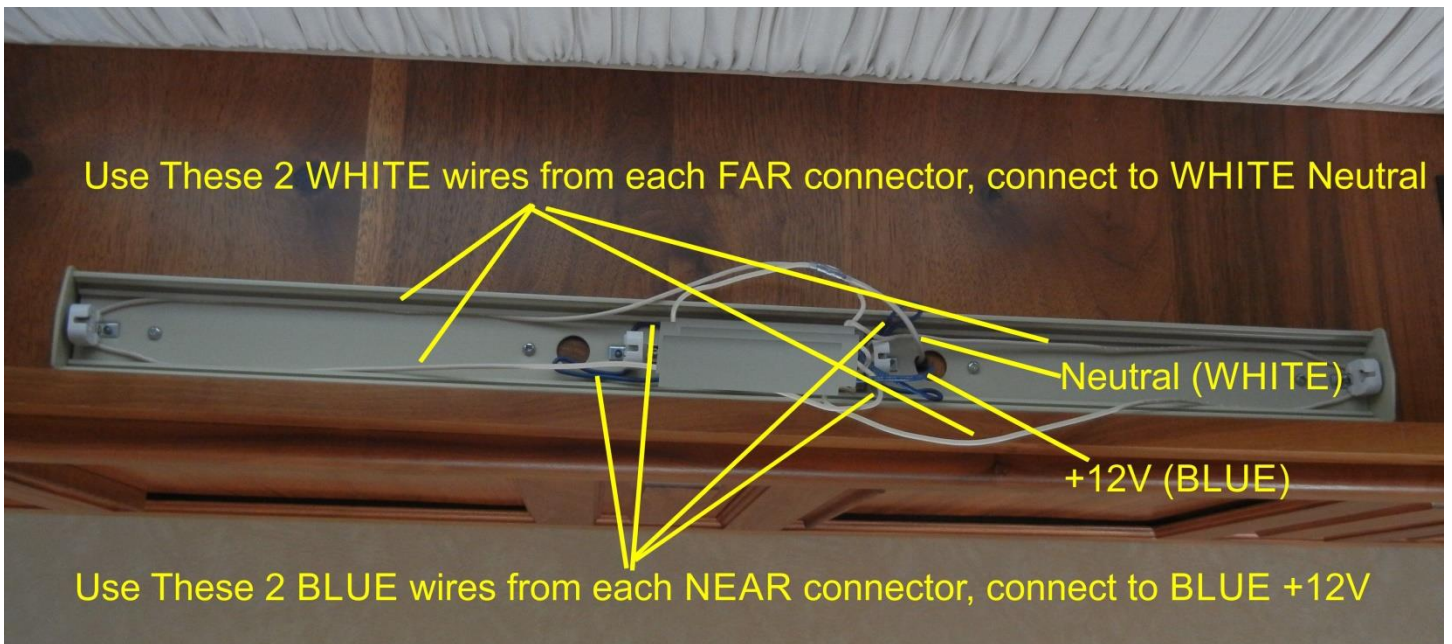


**Removing the OLD Ballast**

- 4) Remove cover, expose the Ballast (PCB in the middle)
- 5) Drill out the rivets holding the Ballast PCB (or leave in, unconnected)
- 6) Cut the wires – remove the PCB

**Fitting the illuminous LED tube**

- 4) You Only need 1 wire to each Socket at each end of the Tube. Some Fixtures have 2 Wires, some have 1 wire to each socket. Pick One (This fixture has 2 wires, you can use 1, or both. If one, then sap off the unused wire with a wire nut).
- 5) For the Tube, One end is Positive, the other end is GND / Negative
- 6) Change the wiring to look like this:



- c) Wire One End to Positive (just one or 2 Wire from each End Socket)
- d) Wire the other end to Negative (just one or 2 wire from each Socket)