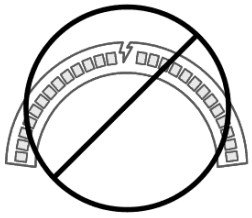
# FlowReach Long Run 4.5 - LOW VOLTAGE LED TAPE LIGHT
## Installation Instructions

| MODEL | INPUT | POWER | MAX RUN PER FEED | PER 96 W OUTPUT @ 80% | CUT | RATING | WIRING |
|---|---|---|---|---|---|---|---|
| FL-R45-24 | 24V DC, Class 2 | 4.5 W/ft | 49.2 ft / 15 m | 17.1 ft | Every 1.97" (50 mm, 7 LEDs) | IP20 | 2-wire: V+ / V- |

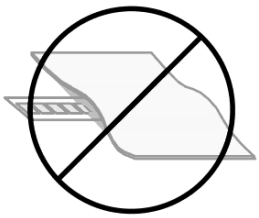
## ATTENTION: *Please read all instructions before installation*

### DO NOT CONNECT 24V DC TAPE LIGHTS DIRECTLY TO 120V AC POWER

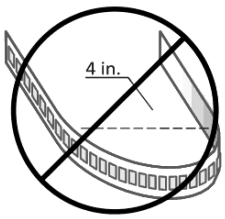
- Always ensure power supply connection to electrical circuit is disconnected before working on it.
- Product to be installed and serviced by a qualified, licensed electrician.
- Always install in accordance with local and national electrical code regulations.
- Do not power on LED Strip until entire tape is removed from reel.
- Do not exceed the maximum run of this product: **49.2 ft (15 m) per power feed** (221 W at 4.5 W/ft). Each maximum run requires a dedicated power feed from the driver.
- Use only with Class 2 power supply unit. A full 49.2 ft run draws 221 W, more than one Class 2 output can deliver (96 W): divide it into electrically separate sections of no more than 17.1 ft, cut at a cut point, and feed each section from its own Class 2 output. Never connect two driver outputs in parallel.
- Ensure power supply voltage is compatible with tape product (Input Voltage: **24VDC**).
- Do not overload the 24V DC power supply. Load each driver to no more than **80%** of its rated wattage (a 96 W driver carries up to 76.8 W, or 17.1 ft of this tape). Overloading the power supply may cause shorting, overheating, and possibly fire.
- Do not install where diodes can be exposed to direct sunlight as this can damage the diodes, reduce their operational life span and alter their operational characteristics.
- FlowLite LED Tape Light is designed to be cut at designated cut points only (**every 1.97" (50 mm, 7 LEDs)**). Cutting anywhere other than the cut points will result in damage to the Tape Light.
- Do not cut LED Strip with power connected.
- Do not fold, crease, twist, or bend LED Strip at sharp angles.
- Follow diagram to connect Secondary Voltage wires to power supply.
- Do not install the product in a location where the ambient temperature is outside the listed ambient temperature range of the product. Failure to do so could result in damage to the tape light and may alter the tape light's operational characteristics.
- **IP20 dry location only.** For damp or wet locations specify a FlowLite IP54 or IP67 tape.
- Refer to Power Chart on the spec sheet to ensure LED Strip length is suitable for power supply.
- Diagrams for representation only and not to scale.
- Do not modify or disassemble this product beyond instructions or the warranty will be void.
- Failure to follow safety warnings, and installation instructions will void the warranty.



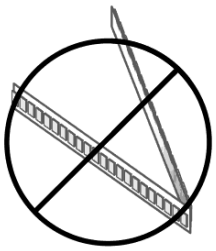
DO NOT BEND LED TAPE LIGHT ON A HORIZONTAL PLANE.



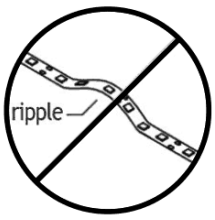
DO NOT COVER TAPE LIGHT WITH ANY MATERIALS.



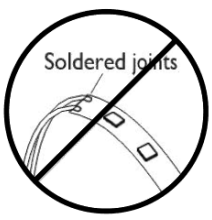

DO NOT BEND LED TAPE LIGHT TO A DIAMETER LESS THAN 4”



DO NOT FOLD, CREASE, OR TWIST LED TAPE LIGHT.



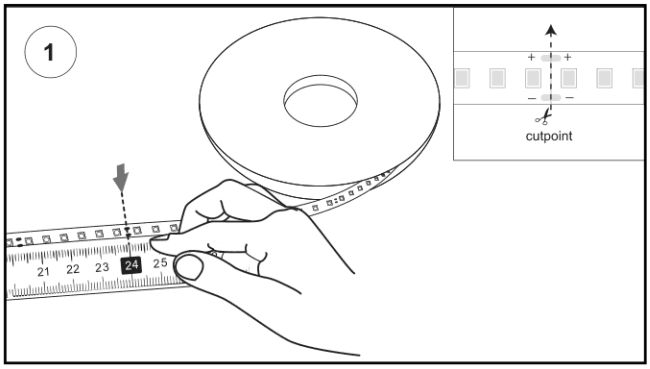

WHEN REMOVING BACKING & LAYING LED TO SURFACE AVOID INSTALLING WITH RIPPLES & BENDING OVER 90°.




AVOID SHARP BENDS OR BENDING NEAR 1” ON THE SOLDER JOINTS.



DO NOT POWER TAPE LIGHT WHILE ATTACHED TO SPOOL OR TIGHTLY COILED.




Measure and cut LED strip to desired length: simply cut the LED strip with scissors along the cut point. Cut points on this tape are every **1.97" (50 mm, 7 LEDs)**. Never exceed **49.2 ft per power feed**.

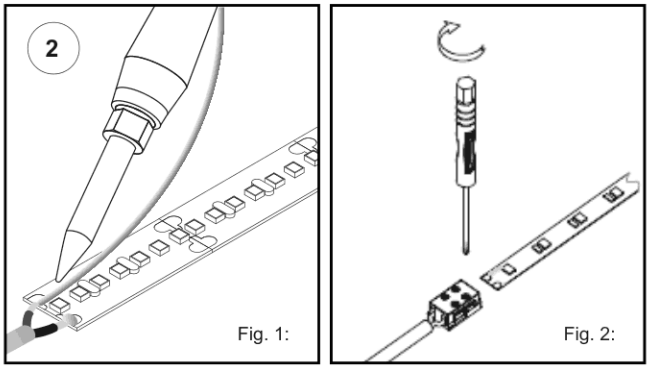
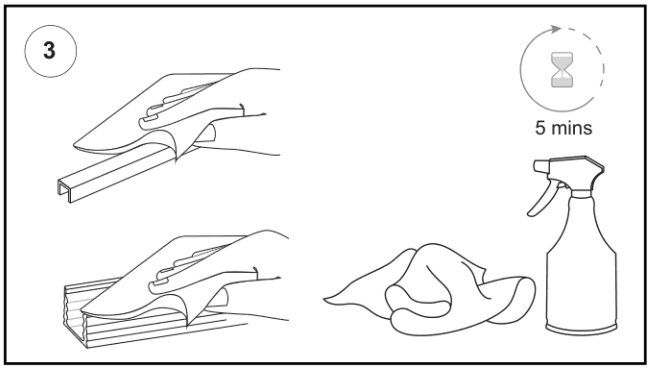


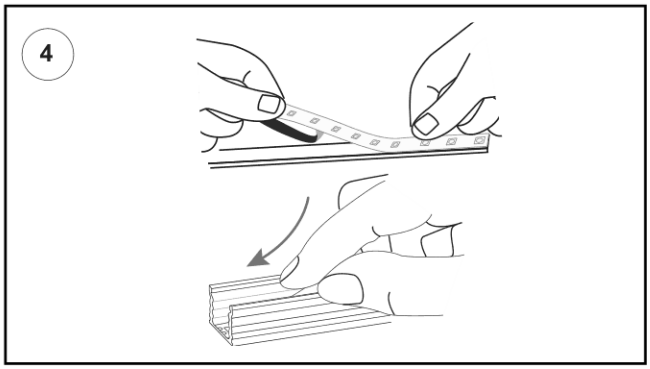

**Fig. 1:** Solder lead wire onto solder pad. Confirm wires are matched up correctly (+ to +, - to -) before soldering.

**Fig. 2:** Insert the exposed contacts at the end of the LED Strip into the connector. Gently tighten the screw.

***NOTE: Recommended soldering iron temperature of 600°-650°F for lead-free solder.***



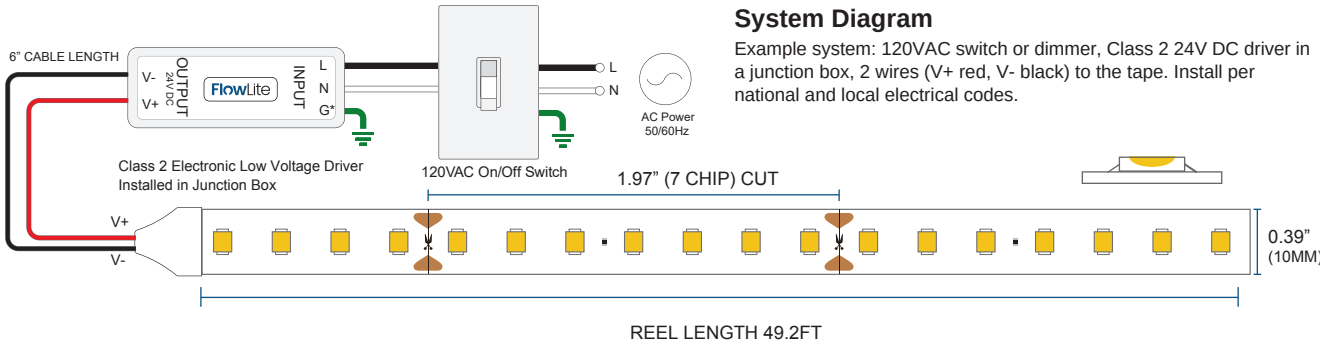

Using a 50/50 alcohol mix thoroughly clean the surface of the extrusion and the multi-tray surface. Allow time to dry (about 5 minutes).




Gently place LED in extrusion/tray. Begin peeling back protective liner to expose adhesive. Adhere LED strip to cleaned smooth non-porous mounting surface by removing the liner in short increments. Apply firm pressure to the bonding surface. This will reduce the chances of dust and debris contaminating the adhesive. The smallest amount of exposed adhesive is the best case.

## System Diagram

Example system: 120VAC switch or dimmer, Class 2 24V DC driver in a junction box, 2 wires (V+ red, V- black) to the tape. Install per national and local electrical codes.




## Troubleshooting

**Tape light does not light up**

- Make sure the DC power supply is turned on and receiving power.
- Confirm you have maintained correct polarity (+ to + and - to -) when joining tape lights as well as when connecting to the 24V DC power supply.
- Check all light connections and any switch or dimmer connections from the power supply to the tape lights.
- Consider testing with a multimeter to ensure tape light is receiving 24V DC power.

**Only part of the tape light is lit**

- Check connections to the part of the tape light that is not lit.
- Confirm you have maintained correct polarity when joining tape lights as well as when connecting to the 24V DC power supply.
- If only 1 LED series is out, cut out and remove the damaged LED group and splice together tape lights or replace with new LED section.

**Tape lights blink on, then go off**

- Your power supply is not adequate for the length of tape lights you are powering. Install a higher wattage power supply (loaded to 80% or less) or reduce watts used by shortening the lengths of your tape lights.

**LEDs farthest from the power supply are noticeably dimmer**

- This is the result of voltage drop. Decrease the length of the 24V DC power feed wires or use thicker power feed wires between the 24V DC power supply and the lighting tapes. (See the "Voltage Drop" section on the spec sheet.)
- Check if you exceed the listed maximum run of the product (49.2 ft per feed).

FlowLite reserves the right to change specifications without notice.