

POLAR 2 NEON, BULK REELS



Instructions for P2-NF-SERIES 24V DC

WARNING: These products may represent a possible shock or fire hazard if improperly installed or attached in any way. Products should be installed in accordance with these instructions, current electrical codes, and/or the current National Electric Code (NEC). Use this rope light only with P2-NF-CONKIT-NP and 24V DC power supply. Any other power cord or feed may damage the fixture.

WARNINGS: READ ALL INSTRUCTIONS BEFORE YOU START:

CAUTION - To reduce risk of fire, electric shock, or injury to persons, pay close attention to this manual and stay within its guidelines when using this product. Before use, note that this product requires a 24V DC Driver. Ensure that the voltage of your power supply is compatible!

1. Do not cover this product as the covering may cause rope to overheat, melt, or ignite.
2. **Do not operate Polar 2 Neon while it is tightly coiled.**
3. Do not submerge flexible light in liquids, or use the product in the vicinity of standing water or other liquids.
4. Do not route the cord or Polar 2 Neon through walls, ceilings, doors, windows, or any similar part of the building structure.
5. Secure this flexible light using only the mounting clips provided or factory recommended mounting track (sold separately).
6. Do not secure this product or its cord with staples, nails, or like means that may damage the insulation.
7. Do not use if there is any damage to the PVC housing or power cord insulation. Inspect periodically.
8. Do not install on gates or doors, where subject to continuous flexing.
9. Do not install in tanks or enclosures of any kinds.
10. Follow instructions carefully when splicing Polar 2 Neon sections or attaching power cords. Ensure that all connections, including the end cap on the last segment, are properly installed with dielectric grease and shrink tube to preclude the entrance of water (outdoor applications).
11. Risk of fire. Do not replace attachment plug. Discard product if attachment plug is damaged.
12. 24V Polar 2 Neon can only be cut at 12" intervals as indicated by the cutting marks printed on the side of the PVC housing. Failure to cut at a cut mark, will result in a loss of light. **Before making any cuts or attaching any power cords or jumpers, be sure power source is disconnected!**
13. This product is designed for use by a qualified installer.
14. This product is for decorative use only. Not to be used by children as a toy. Keep out of reach of small children.
15. Do not exceed 65' maximum run distance in any single run.
16. Size your 24V DC driver appropriately for your run distance of Polar 2 Neon using 2.8W/ft as a guide. Be sure not to load your driver to 100% as this will reduce it's efficiency. An 80% load is recommended.

CAUTION - To reduce the risk of fire, electric shock, or injury to persons:

WARNING: When using outdoor portable lighting products, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury, including the following:

1. Use dielectric grease and shrink tube at all power connections, including end cap when using outdoors.
2. Use ground fault circuit interrupter (GFCI) protection on the circuit(s) or outlet(s) when using outdoors.
3. Use only wet location 24V DC drivers, per driver's instructions; or house driver inside a weatherproof enclosure.

CONNECTING POWER (See Figures 1, 2, 3, and 4)

NOTE: Do not exceed 65' maximum run distance in any single run.

1. Reels include one pre-attached power cord with no plug. See Figure 1.
2. Connect power cord to 24V DC power only. Determine the required length for the lighting application. Use the driver chart on the reverse to size the driver correctly. Cut the Neon following step 3 and Figure 2 on the reverse, then skip to step 9.

24V Polar 2 Neon consumes 2.8 watts/ft. **Do not exceed the maximum run distance of 65 feet.**

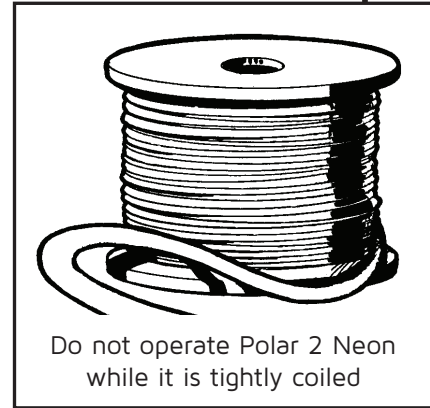
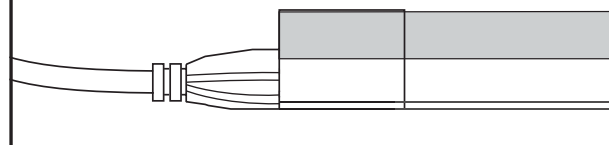


Figure 1



POLAR 2 NEON, BULK REELS

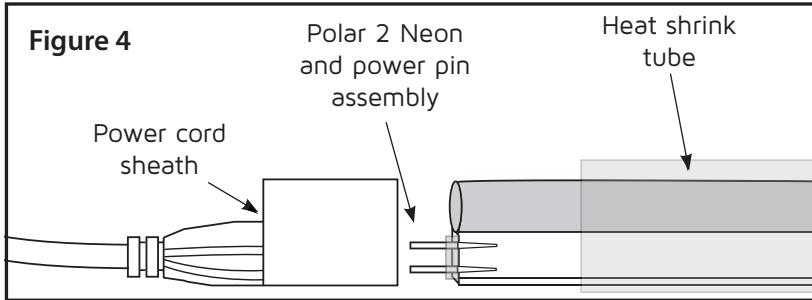
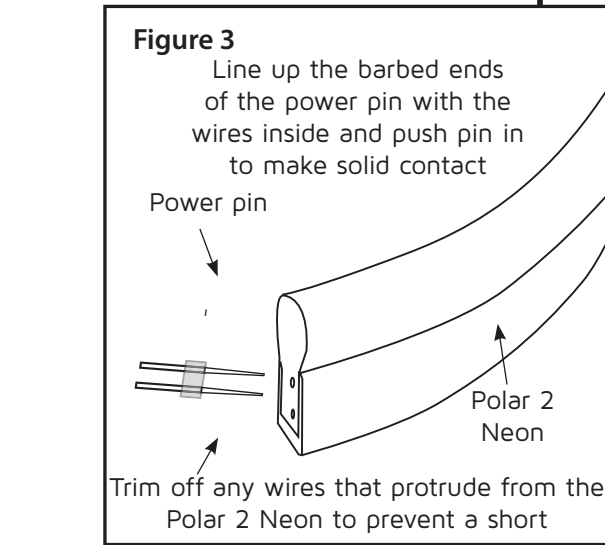
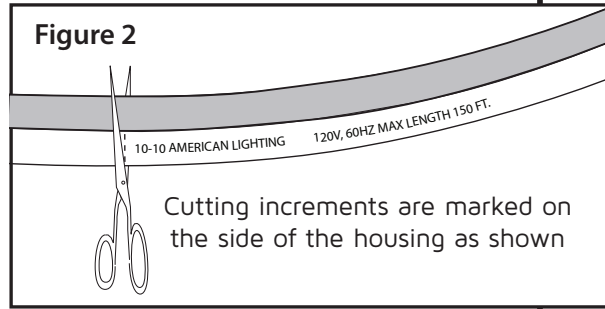


Instructions for P2-NF-SERIES
24V DC

CUTTING POLAR 2 NEON AND CONNECTING POWER CONNECTION KIT (See Figures 2, 3, and 4)

NOTE: Do not exceed 65' maximum run distance in any single run.

3. Cut the Polar 2 Neon squarely at the nearest cut mark using a sharp rope light cutting tool or shears. NOTE: Polar 2 Neon is wired in parallel with 12" cutting increments. Cutting anywhere other than the end/beginning of a cutting increment will damage an LED and/or internal wiring. (See Figure 2)
4. Holding the smooth pins of the power pin with a pair of pliers, line up the barbed pins with the two wires of the flexible light. Push barbed pins into Polar 2 Neon until flush, being sure to make solid contact with the flexible light's internal wires. (See Figure 3).
5. Slide the shrink tube over the assembly and onto the Polar 2 Neon.
6. Push the power cord sheath onto the assembly until fully seated.
7. Slide the heat shrink tube over the power cord sheath so that it is centered over the junction of the Polar 2 Neon and the power cord sheath. (See Figure 4).
8. When using splice kits and/or jumpers, follow steps 1-6 above, making connections in a similar manner.
9. Attach end cap to other end of flexible light to cover exposed dead end.



Wattage Ranges for Various Drivers and Applications

LED Driver

LED-DR30-24	3-27W (2-9 feet)
LED-DR60-24	6-54W (2-19 feet)
LED-DR100-24	10-90W (4-32 feet)
LED-DR150-24	15-135W (6-48 feet)

10% minimum and 90% maximum , non-dimming and dimming using Trulux single color controls

To power lengths greater than 48 feet, but less than 65 feet in a non-dimming application, use two LED-DR100-24 and attach to both ends of the continuous Neon, matching polarity

LED Driver

ELV-30-24	3-30W (2-10 feet)
ELV-45-24	3-45W (2-16 feet)
ELV-60J-24	3-60W (2-21 feet)
ELV-80J-24	3-80W (2-28 feet)

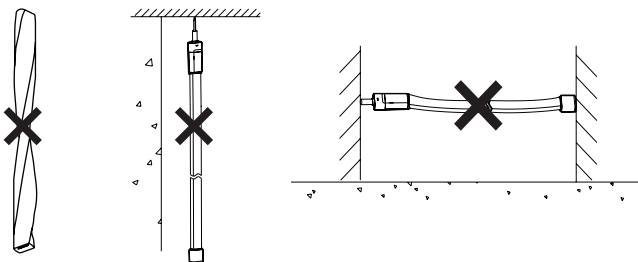
10% - 100% load , non-dimming

40% -100% dimming with most electronic low voltage dimmers

18-30W via most ELV/triac (7-10 feet)
27-45W via most ELV/triac (10-16 feet)
36-60W via most ELV/triac (13-21 feet)
48-80W via most ELV/triac (18-28 feet)

Mounting:

1. Make mounting clips using cut pieces of track (P2-NF-CLIP, sold separately) or for straight line applications, use P2-NF-TRACK-4 mounting track; or use a combination of methods. P2-NF-CHAN aluminum channel is also available (sold separately).
2. Make sure that the distance between any two parallel runs of lighting are at least 1/2" apart.
3. Gently press flexible light into track or clips so that it snaps into place.



DO NOT TWIST, HANG VERTICALLY, SUSPEND UNSUPPORTED IN THE MIDDLE OR BEND ALONG SHORT SIDE!