FlexiBRITE^{24}

Installation Guide

FlexiBRITE^{24} is a UL recognized low voltage, long life, and flexible alternative to neon lighting. FlexiBRITE^{24} is available in Ruby Red, Citrus Orange, Noviol Gold, Emerald Green, Bromo Blue, and Snow White in 4.9-ft (1.5-m) and 19.7-ft (6-m) lengths. All colors run on 24 VDC.

Tools Required

1. Wire stripper
2. Measuring tape
3. Drill
4. Screw driver or rivet tool
5. Utility knife or pipe cutter (tube cutter) – new or very sharp blade is critical

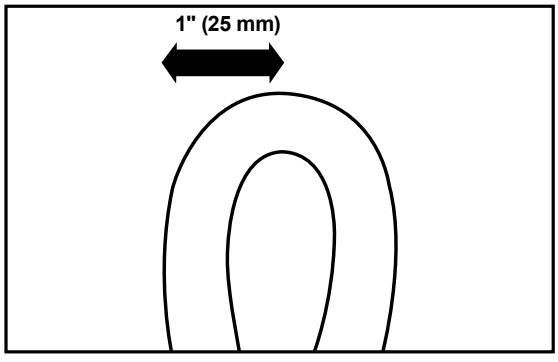
Standard Hardware and Supplies (UL listing may be required on certain items)

1. Butt splice connectors, 18-22 AWG (Bags of twenty-five [25], **SloanLED P/N 701386-25**)
2. #6 Pan head screws or 1/8" rivets for mounting clips or track (Length and thread type depend on mounting surface, masonry inserts may be needed for brick or concrete walls)
3. Outdoor rated clear Silicone sealant.
4. AWG # 18, two (2) conductors, PVC jacketed, NEC type Power Limited Tray Cable (PLTC) with UL listing. (100' Roll is **SloanLED P/N 400299-1200**)
5. AWG # 14, two (2) conductors, PVC jacketed, NEC type Power Limited Tray Cable (PLTC) with UL listing. (100' Roll is **SloanLED P/N 400301**)
6. FlexiBRITE^{24} mounting clips (Bags of twenty-five [25], **SloanLED P/N 402888-25**)
7. FlexiBRITE^{24} mounting track (Box of ten [10] 4.9-ft (1.5-m) tracks, **SloanLED P/N 402889-10**)
8. FlexiBRITE^{24} end caps (Bag of ten [10])
   Use SloanLED P/N 402884-10 with 701499E-W-X
   Use SloanLED P/N 402884-C-10 with 701499E-(COLOR)-X
9. FlexiBRITE^{24} Joint kit for sealing joints on indoor installations (Kit contains Loctite primer # 770, Loctite glue # 406, **SloanLED P/N 701491-FB**)
10. Conduit and J-Boxes for power supply installation as needed. (Appropriate UL listing is required.)

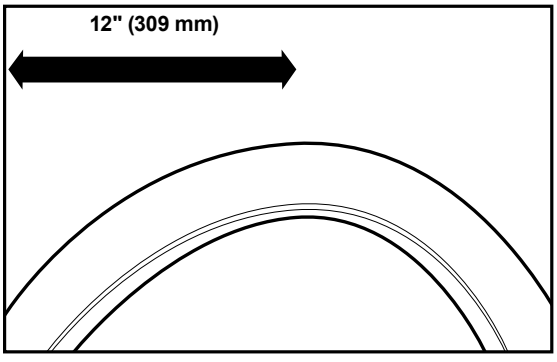
Bending FlexiBRITE^{24}

FlexiBRITE^{24} can bend in plane as tight as a 1" (25 mm) radius, and bend out of plane in a 12" (309 mm) radius or larger.

CAUTION! Bending FlexiBRITE^{24} tighter than a 12" (309 mm) radius out of plane, twisting FlexiBRITE^{24} or stretching FlexiBRITE^{24} can damage lighting circuit board and cause non-warranty failure. MISE EN GARDE! Pliage du FlexiBRITE^{24} plus serré qu'un rayon de 12" (309 mm) hors du plan, torsion du FlexiBRITE^{24} ou étirement FlexiBRITE^{24} peut endommager le circuit imprimé d'éclairage et provoquer une défaillance hors garantie.



In plane bend as small as 1" (25 mm)



Out of plane bend - 12" (309 mm) radius or greater

SloanLED®
A Principal Industries Company

Cutting FlexiBRITE[24]
FlexiBRITE[24] can be cut to shorter lengths. All cut pieces can be used provided cut is made on cut line and each section has a set of wires for power hook up. Cut Marks are black lines that can be seen through one side of extrusion. FlexiBRITE[24] has cut lines on 1.97" (50 mm) increments. Use a sharp blade to make a clean cut. **All ends must be sealed**. Wherever possible use 19.7-ft (6-m) lengths for longer runs, and 4.9-ft (1.5-m) lengths for shorter runs to minimize number of joints that have to be sealed.

Connecting FlexiBRITE[24]
When connecting FlexiBRITE[24] pieces together ensure that polarity is correct by connecting Red-to-Red and Black-to-Black. ***NOTE: Hold wires finger tight when stripping. If wires are not held in place they may break free from FlexiBRITE[24] extrusion.*** Both parallel and series connections of FlexiBRITE[24] are allowable as long as maximum allowable total length is not exceeded.

Trim open wires
Any wire loops that have been cut, but are not being used for an electrical connection must be trimmed flush with extrusion and covered with a bead of silicone.

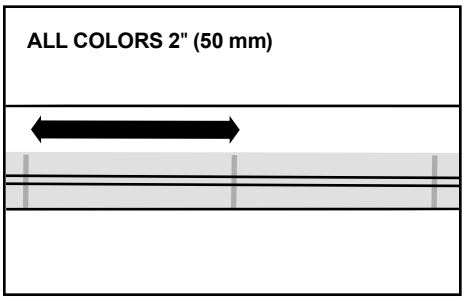
Mounting FlexiBRITE[24]
FlexiBRITE[24] can be mounted to any surface that will accommodate conventional fasteners.
FlexiBRITE[24] mounting track is recommended for straight runs of FlexiBRITE[24]. The mounting track comes in boxes of ten (10) 4.9-ft (1.5-m) pieces (**SloanLED P/N 402889-10**). For script letters and free form shapes use FlexiBRITE[24] mounting clips (**SloanLED P/N 402888-25** in bags of twenty-five [25]).

Mounting track: Cut mounting track to required lengths and fasten to surface with #6 pan head screws.
Make all electrical connections for FlexiBRITE[24] using butt splice connectors and coat these connections with liquid electrical tape or silicone. When pressing FlexiBRITE[24] into mounting track, a little soapy water on back of FlexiBRITE[24] tubing will lubricate it and help it push in.

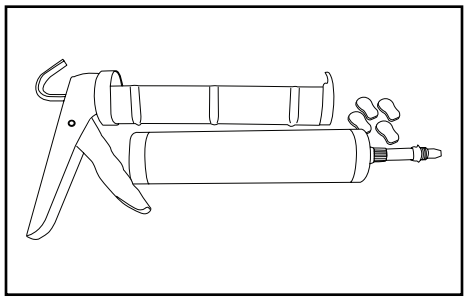
Mounting clips: Place mounting clips wherever necessary to shape FlexiBRITE[24] to desired contour. Fasten clips to mounting surface using #6 pan head screws or 1/8" rivets. For added security, a clear chain tie can be used with mounting clips to cinch FlexiBRITE[24] into place (**SloanLED P/N 701653-100**, in bags of one hundred [100]).
NOTE: Clear chain ties are not UV stable, thus for indoor use only.

Sealing exposed ends (REQUIRED for outdoor applications)
Apply end caps to all exposed ends. Any exposed ends without end caps will lead to failure of FlexiBRITE[24].

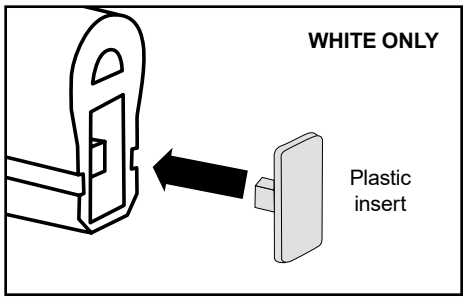
Sealing Exposed Ends - Required for Outdoor Applications



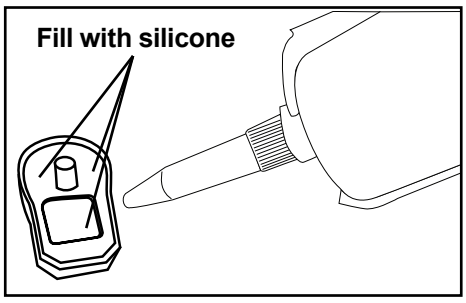
1. FlexiBRITE[24] cut marks are on side and bottom of extrusion. Cut marks are spaced every 1.97" (50 mm).
   Any cut section will light provided there are wires for power hook-up.

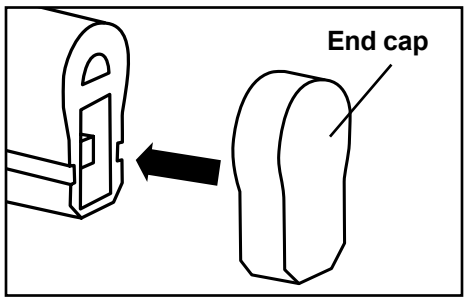


2. Gather required tools, clear Dow Corning 737 silicone sealant or equivalent, and necessary end caps. Refer to **Standard Hardware and Supplies** (#8) on page 1.

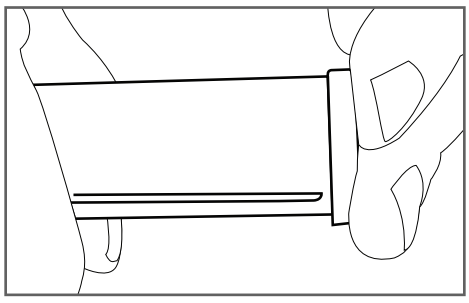


3. **FlexiBRITE[24] White only:**
   Plastic insert (shipped with product) MUST be installed at field cut end prior to applying end cap and silicone.

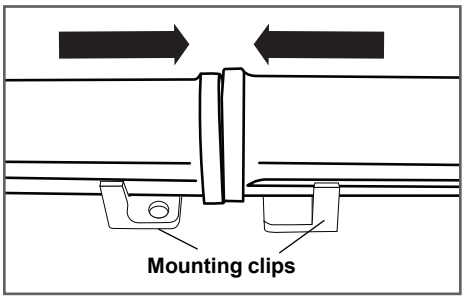




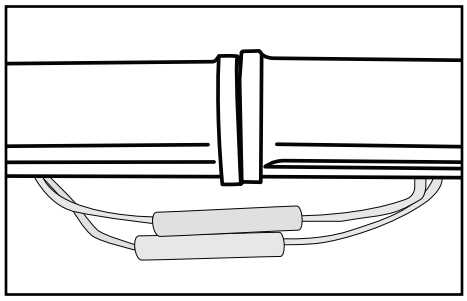
4. Apply silicone to inside of end cap to be bonded. Ensure that enough is used to cover entire surface area of inside of end cap and at least half of its depth.



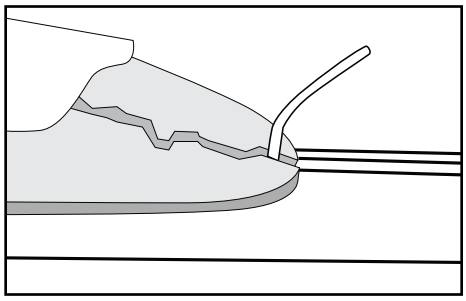
5. Press end cap onto end of FlexiBRITE[24] extrusion, clean off silicone residue and allow to cure. ***NOTE:*** *Silicone will take at least 24 hours to fully cure. It can cure in place on an installation as long as it is not disturbed while curing.*



6. Butt ends together and use mounting clips as needed to keep them lined up.

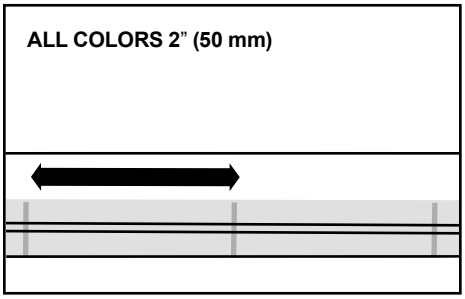


7. Use UL Listed butt splices to complete electrical connection to next piece of FlexiBRITE[24] or power supply if needed. Seal connection with liquid electrical tape or silicone.

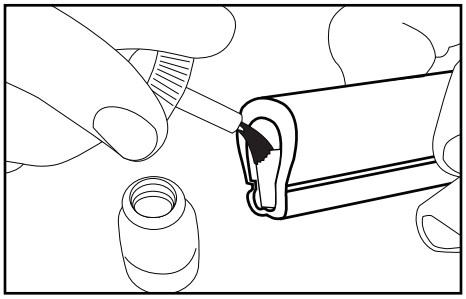


8. **Trim Open Wires:** Any wire loops that have been cut, but are not being used for an electrical connection must be trimmed flush with extrusion and covered with a bead of silicone.

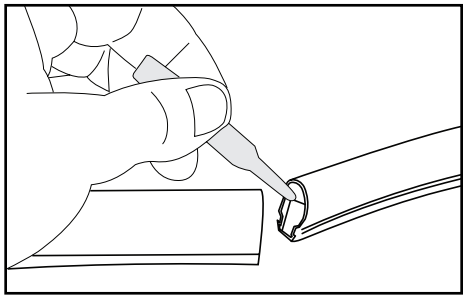
Optional Joint Sealing - for Indoor Applications Only
For indoor applications that require a seamless joint, follow procedure below.



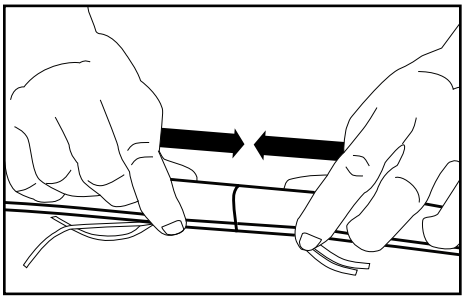
1. FlexiBRITE[24] cut marks are on side and bottom of extrusion. Cut marks are spaced every 1.97" (50 mm) .
   Any cut section will light provided there are wires for power hook-up.



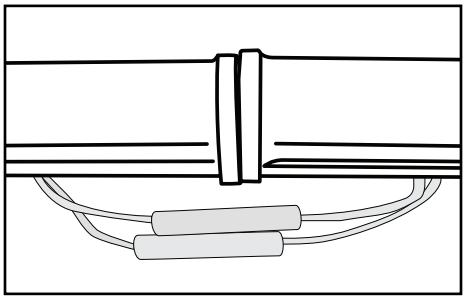
2. Coat face of both pieces to be bonded together with primer. Any area not primed, will not bond. Primer will dry in less than 15 seconds and is active for 1 hour (Joint kit: **SloanLED P/N 701491-FB**).



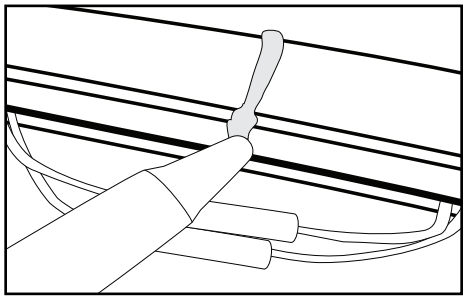
3. Apply a layer of glue to face of one piece of FlexiBRITE[24] (**Joint kit: SloanLED P/N 701491-FB**).



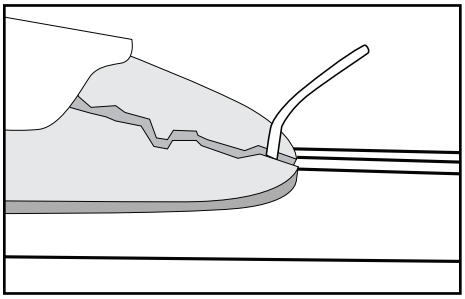
4. Align and press pieces firmly together, hold for 30 seconds until glue dries. Bond must be sealed around entire perimeter.



5. Use UL Listed butt splices to complete electrical connection to next piece of FlexiBRITE[24] or power supply if needed. Seal connection with liquid electrical tape or silicone.



6. Seal joint with clear silicone. Gaps in seal at this joint will allow moisture to enter and may cause failures.



7. **Trim Open Wires:** Any wire loops that have been cut, but are not being used for an electrical connection must be trimmed flush with extrusion and covered with a bead of silicone.

Power Supply Connection
Connect output on power supply to beginning of FlexiBRITE24 leg. Connect red wire of power supply output to any available red wire on FlexiBRITE24 leg and connect black wire of power supply output to any available black wire on FlexiBRITE24 leg. SloanLED power supplies have Class 2 DC outputs.

24 VDC Power Supply Capacity Chart

	Maximum feet (meters)
Power output	**All colors**
30 W **(EU/ROW ONLY)**	9.8 (3)
60 W	19.7 (6)
96 W	31.5 (9.6)
3 × 96 W	3 × 31.5 (9.6)
100 W	32.8 (10)
150 W **(EU/ROW ONLY)**	49.2 (15)

Capacities based on 90% of power supply output.
NOTE: Refer to "***SloanLED Power Supply Guide for Sign Products***" for appropriate 24 V power supply models.

Scan QR code to download **SloanLED Power Supply Guide for Sign Products**

https://sloanled.com/PowerSupplyGuideForSignProducts

It is recommended that current be checked on each power supply output after loading is complete. Current drawn by each leg should not exceed current rating on power supply label. If measured current does exceed rated current, reduce length of FlexiBRITE24 on that leg until current is below rated output.

Routing Secondary Wires
When wiring secondary outputs of power supply, all routing through walls must be sealed with outdoor rated caulk to protect sign and building from water damage and cable from chafing. The PLTC used for power supply leads and jumpers can be routed through walls, inside and outside without conduit. It is recommended that all connections be enclosed in a UL listed junction box with strain relief.

Extension of Power Supply Leads
If a longer lead wire from power supply to FlexiBRITE24 chain is needed, an extension can be used. The extension should be kept as short as possible (under 15 ft [4.6 m] for 18 AWG UL Listed PLTC or under 50 ft [15 m] for 14 AWG UL Listed PLTC).

WARNING: CHECK POLARITY
After all wire routing is complete and lighting modules are connected to power supply, RECHECK POLARITY OF ALL CONNECTIONS. They must be RED-TO-RED and BLACK-TO-BLACK throughout entire system. Reverse polarity connections may damage LEDs and void product warranty.

NOTE: For power supply installation instructions check manual packaged with your power supply or check online at SloanLED.com.

Troubleshooting:

Entire Sign or leg with FlexiBRITE24 does not light after complete installation.	Check connection from power supply lead to FlexiBRITE24 chain. Make sure polarity of connections made at power supply lead and at any jumper wire connection is correct. All connections should be RED-to-RED and BLACK-to-BLACK.
Still does not light.	Using a voltmeter check output voltage of power supply. Output voltage should be 24.0 VDC ± 0.5 VDC. If there is no output voltage, have a licensed electrician check input voltage. Make sure power supply is hooked up correctly and getting primary power. If power supply is hooked up correctly and getting primary power and there is still no output voltage, replace power supply with a new one.
The beginning of a FlexiBRITE24 leg lights, but entire leg does not light or lights intermittently.	The primary cause of a portion of a FlexiBRITE24 leg not lighting or lighting intermittently is a bad connection between length that lights and length that doesn't light. Check this connection and ensure correct polarity.
Small segment of a length of FlexiBRITE24 does not light, but rest of length lights.	FlexiBRITE24 is designed so if one segment fails, it will not cause entire sign or leg to go out. If one segment is not lighting, but remainder of length of FlexiBRITE24 is lighting, remove and replace segment, or replace length with a new one.

FlexiBRITE24 Part #	Description
701499E-R-20	19.7 ft (6 m) Ruby Red
701499E-R-5	4.9 ft (1.5 m) Ruby Red
701499E-O-20	19.7 ft (6 m) Citrus Orange
701499E-O-5	4.9 ft (1.5 m) Citrus Orange
701499E-Y-20	19.7 ft (6 m) Noviol Gold
701499E-Y-5	4.9 ft (1.5 m) Noviol Gold

FlexiBRITE24 Part #	Description
701499E-G-20	19.7 ft (6 m) Emerald Green
701499E-G-5	4.9 ft (1.5 m) Emerald Green
701499E-B-20	19.7 ft (6 m) Bromo Blue
701499E-B-5	4.9 ft (1.5 m) Bromo Blue
701499E-W-20	19.7 ft (6 m) Snow White
701499E-W-5	4.9 ft (1.5 m) Snow White

UL Labeling:
FlexiBRITE24 is also a UL Recognized Sign Component under UL48 File #E215393.

The most common way FlexiBRITE24 is labeled for UL is for it to be used as a UL Recognized Sign Component. FlexiBRITE24 is a UL Recognized Sign Component and Power Supplies provided by SloanLED are UL Recognized Sign Components. When they are properly installed in a sign by a UL sign shop, the shop can apply its UL label to the whole assembly.

E215393

Customer service and technical support

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