FlexiBRITE

Installation Guide

FlexiBRITE is a UL recognized low voltage, long life, and flexible alternative to neon lighting. FlexiBRITE is available in Ruby Red, Citrus Orange, Noviol Gold, Emerald Green, Bromo Blue, and Snow White in 2' (0.6 m) and 10' (3 m) lengths. All colors run on 12 VDC.

Tools Required
1. Wire stripper
2. Measuring tape
3. Drill
4. Screw driver or rivet tool
5. Utility knife - 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 mounting clips (Bags of twenty-five [25], **SloanLED P/N 701572-25**)
7. FlexiBRITE mounting track (Box of ten [10] 5' tracks, **SloanLED P/N 701456-10**)
8. FlexiBRITE end caps (Box of ten [10])
    For use with SloanLED P/N 701499-X-X, end cap P/N 701597-R-10
    For use with SloanLED P/N 701499C-X-X, end cap P/N 701597-C-10
    For use with SloanLED P/N 701499D-X-X, end cap P/N 402213-10
9. FlexiBRITE 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
FlexiBRITE 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 tighter than a 12" (309 mm) radius out of plane, twisting FlexiBRITE or stretching FlexiBRITE can damage lighting circuit board and cause non-warranty failure. MISE EN GARDE! Pliage du FlexiBRITE plus serré qu'un rayon de 12 "(309 mm) hors du plan, torsion du FlexiBRITE ou étirement FlexiBRITE peut endommager le circuit imprimé d'éclairage et provoquer une défaillance hors garantie.**
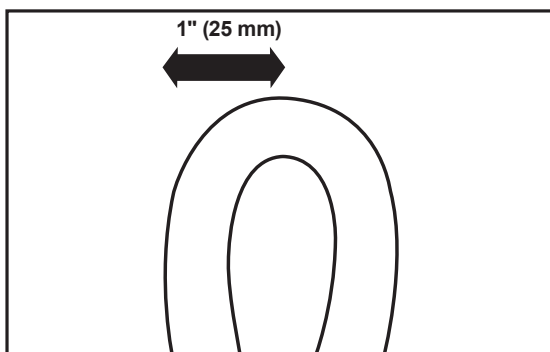
In plane bend as small as 1" (25 mm)
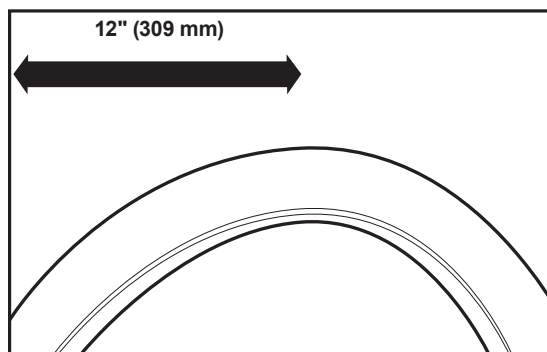
Out of plane bend - 12" (309 mm) radius or greater

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Cutting FlexiBRITE
FlexiBRITE 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 in Ruby Red, Citrus Orange, and Noviol Gold have cut lines on 2" (51 mm) increments. FlexiBRITE in Emerald Green, Bromo Blue, and Snow White FlexiBRITE have cut lines on 1.5" (38 mm) increments. Use a sharp utility knife to make a clean cut. **All ends must be sealed**. Wherever possible use 10' (3 m) lengths for longer runs, and 2' (0.6 m) lengths for shorter runs to minimize number of joints that have to be sealed.

Connecting FlexiBRITE
When connecting FlexiBRITE 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 extrusion.* Both parallel and series connections of FlexiBRITE 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
FlexiBRITE can be mounted to any surface that will accommodate conventional fasteners.
FlexiBRITE mounting track is recommended for straight runs of flexibrite. The mounting track comes in boxes of ten (10) 5' (15 m) pieces (**SloanLED P/N 701456-10**). For script letters and free form shapes use FlexiBRITE mounting clips (**SloanLED P/N 701572-25** 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 using butt splice connectors and coat these connections with liquid electrical tape or silicone. When pressing FlexiBRITE into mounting track, a little soapy water back of FlexiBRITE tubing will lubricate it and help it push in.

Mounting clips: Place mounting clips wherever necessary to shape FlexiBRITE 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 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)
Ruby Red, Citrus Orange, and Noviol Gold FlexiBRITE 10' (3 m) and 2' (0.6 m) lengths do not come with end caps already applied. **Apply end caps to all exposed ends.**
**Any exposed ends without end caps will lead to failure of FlexiBRITE.**
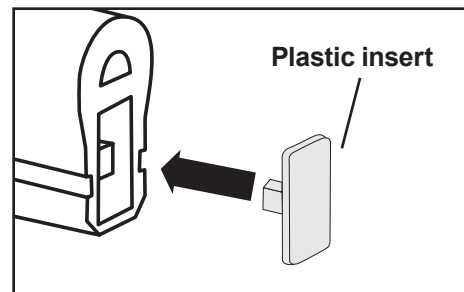
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Sealing Exposed Ends - Required for Outdoor Applications

2" (50 mm): Ruby Red, Citrus Orange, Noviol Gold

**1.5" (38 mm): Emerald Green, Bromo Blue, Snow White**
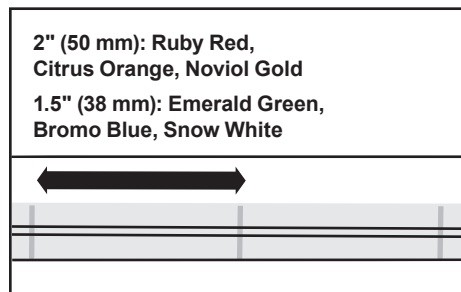
1. FlexiBRITE cut marks are on side of extrusion. Cut marks every 2" (50 mm): Ruby Red, Citrus Orange, and Noviol Gold. Cut marks every 1.5" (38 mm): Emerald Green, Bromo Blue, and Snow White. Any cut section will light provided there are wires for power hook-up.
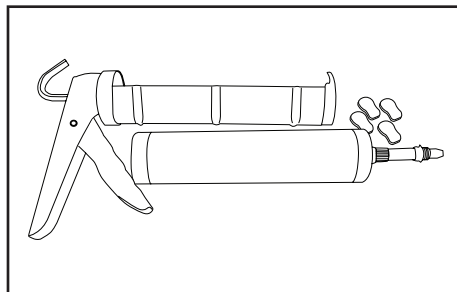

2. Gather required tools, clear Dow Corning 737 silicone sealant or equivalent, and necessary end caps. Refer to **Standard Hardware and Supplies** (#8) on page 1.


Plastic insert

3. **FlexiBRITE Emerald Green, Bromo Blue, and Snow White only:** Plastic insert (shipped with product) MUST be installed at field cut end prior to applying end cap and silicone.


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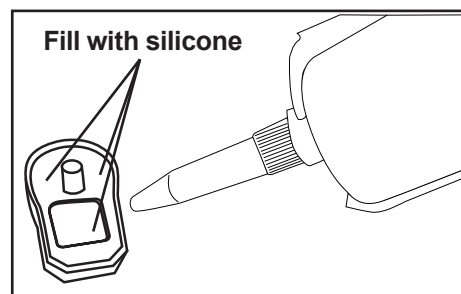
4. Apply silicone to inside of end cap to be bonded. Ensure that enough is used to cover entire surface area of inside of end cap and at least half of its depth.
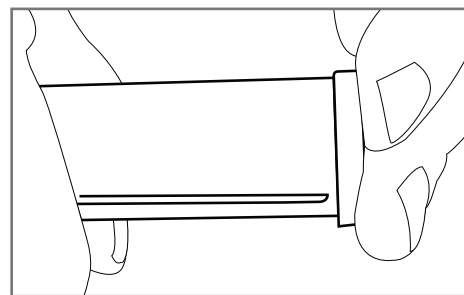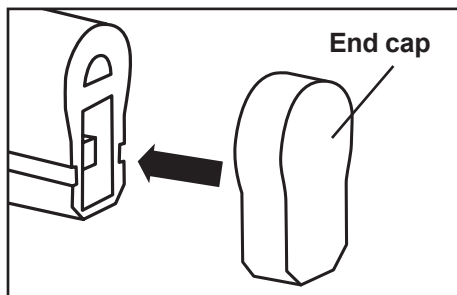

End cap

5. Press end cap onto end of FlexiBRITE 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.*
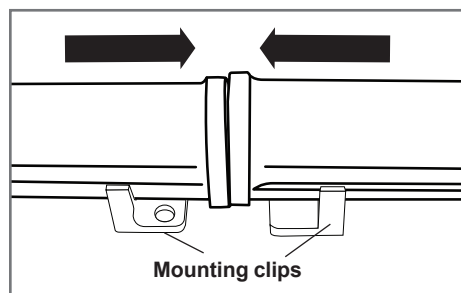
Mounting clips

6. Butt ends together and use mounting clips as needed to keep them lined up. *NOTE: 10 ft (3.0 m) kit includes twenty-five (25) mounting clips, 2 ft (0.6 m) kit includes six (6) mounting clips.*
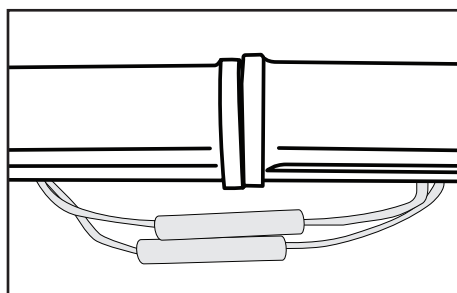
7. Use UL Listed butt splices to complete electrical connection to next piece of FlexiBRITE or power supply if needed. Seal connection with liquid electrical tape or silicone.
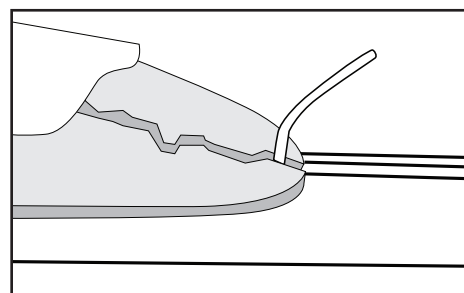

8. **Trim Open Wires:** Any wire loops that have been cut, but are not being used for an electrical connection must be trimmed flush with extrusion and covered with a bead of silicone.
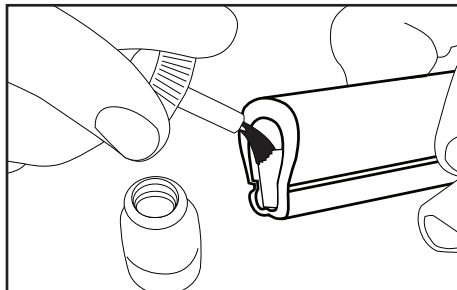
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## Optional Joint Sealing - for Indoor Applications Only

For indoor applications that require a seamless joint, follow procedure below.

2" (50 mm): Ruby Red, Citrus Orange, Noviol Gold

**1.5" (38 mm): Emerald Green, Bromo Blue, Snow White**
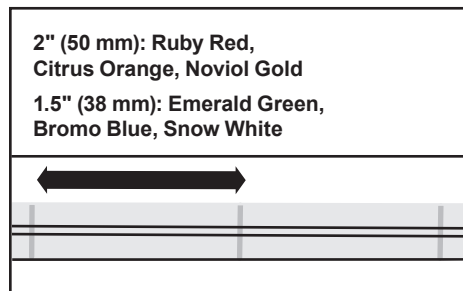
1. FlexiBRITE cut marks are on side of extrusion. Cut marks every two inches: Ruby Red, Citrus Orange, and Noviol Gold. Cut marks every one inch: Emerald Green, Bromo Blue, and Snow White. Any cut section will light provided there are wires for power hook-up.


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**).
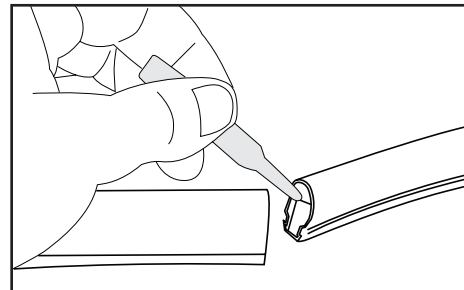
3. Apply a layer of glue to face of one piece of FlexiBRITE (**Joint kit: SloanLED P/N 701491-FB**).
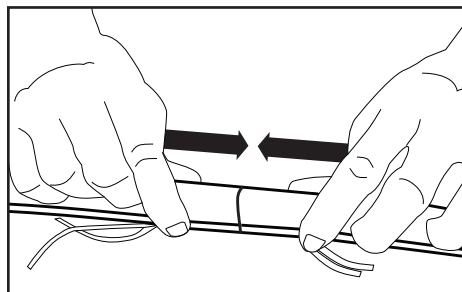
4. Align and press pieces firmly together, hold for 30 seconds until glue dries. Bond must be sealed around entire perimeter.
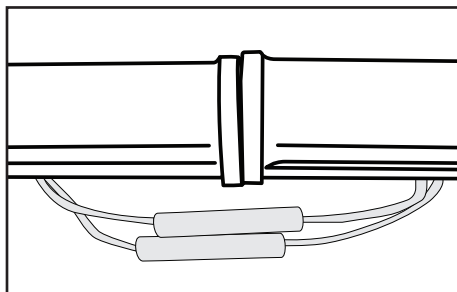
5. Use UL Listed butt splices to complete electrical connection to next piece of FlexiBRITE or power supply if needed. Seal connection with liquid electrical tape or silicone.
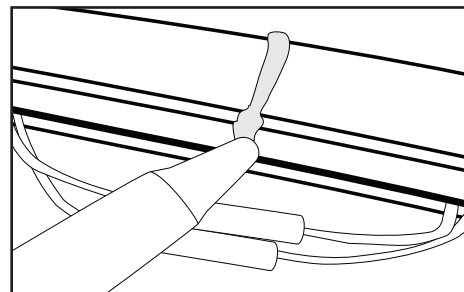
6. Seal joint with clear silicone. Gaps in seal at this joint will allow moisture to enter and may cause modules to fail.

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.

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Power Supply Connection

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

12 VDC Power Supply Capacity Chart

Power output	Maximum feet (meters)
	All colors
20 W	6 (2)
25 W (EU/ROW ONLY)	8 (2.44)
30 W (EU/ROW ONLY)	10 (3.0)
60 W	20 (6)
2 × 60 W	20 (6) × 2
2 × 75 W (EU/ROW ONLY)†	25 (7.6) × 2
100 W (EU/ROW ONLY)	N/A*
Power used per ft (m) in watts	2.8 W (9.2)

Capacities based on 90% of power supply output.

NOTE: Refer to "*SloanLED Power Supply Guide for Sign Products*" for appropriate 12 V power supply models.

* Cannot be used due to power supply output current exceeding maximum wire and/or connector ampacity.

† Must split load at power supply output to prevent exceeding maximum wire/module ampacity of 5A per single leg.

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 FlexiBRITE 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 FlexiBRITE 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.

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Troubleshooting:

Entire Sign or leg with FlexiBRITE does not light after complete installation.	Check connection from power supply lead to FlexiBRITE 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 12.0 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 FlexiBRITE leg lights, but entire leg does not light or lights intermittently.	The primary cause of a portion of a FlexiBRITE 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 FlexiBRITE does not light, but rest of length lights.	FlexiBRITE 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 FlexiBRITE is lighting, remove and replace segment, or replace length with a new one.

FlexiBRITE Part #	Description	FlexiBRITE Part #	Description
701499-R-10	10' (3 m) Ruby Red	701499D-G-10	10' (3 m) Emerald Green
701499-R-2	2' (0.6 m) Ruby Red	701499D-G-2	2' (0.6 m) Emerald Green
701499C-O-10	10' (3 m) Citrus Orange	701499D-B-10	10' (3 m) Bromo Blue
701499C-O-2	2' (0.6 m) Citrus Orange	701499D-B-2	2' (0.6 m) Bromo Blue
701499C-Y-10	10' (3 m) Noviol Gold	701499D-W-10	10' (3 m) Snow White
701499C-Y-2	2' (0.6 m) Noviol Gold	701499D-W-2	2' (0.6 m) Snow White

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

The most common way FlexiBRITE is labeled for UL is for it to be used as a UL Recognized Sign Component. FlexiBRITE 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.

Customer service and technical support

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