

SLOANLED

*Flexi***BRITE**

INSTALLATION GUIDE

Product covered in this guide:

FlexiBRITE:	<u>Part Number</u>	<u>Description</u>
	701499-R	Red FlexiBRITE
	701499-O	Orange FlexiBRITE
	701499-Y	Yellow FlexiBRITE
	701499-G	Green FlexiBRITE
	701499-B	Blue FlexiBRITE
	701499-W	White FlexiBRITE

SloanLED **(888) 747-4LED** **www.SloanLED.com**

Attention!

Scope: This procedure is designed to aid in the installation of SLOANLED's FlexiBRITE product.

Skilled trades people that are familiar with general construction, electrical and sign installation techniques should do the installation.

Licensed electricians should provide all installation and hook-up of both the primary input and secondary outputs of the Power Supply.

All installation and hook-up should be done in accordance with all national and local codes.

In no way is this document intended to construe warranty or fitness of use of the products described, nor is it intended to provide safety instruction for those installing the product.

THE FIELD ASSEMBLY OF THIS SECTIONAL SIGN IS SUBJECT TO THE ACCEPTANCE OF LOCAL INSPECTION AUTHORITY.

LES ENSEIGNES MODULAIRES MONTEES SUR PLACE PEUVENT ETRE VERIFIEES EN TOUT TEMPS PAR LE SERVICE D'INSPECTION LOCAL.

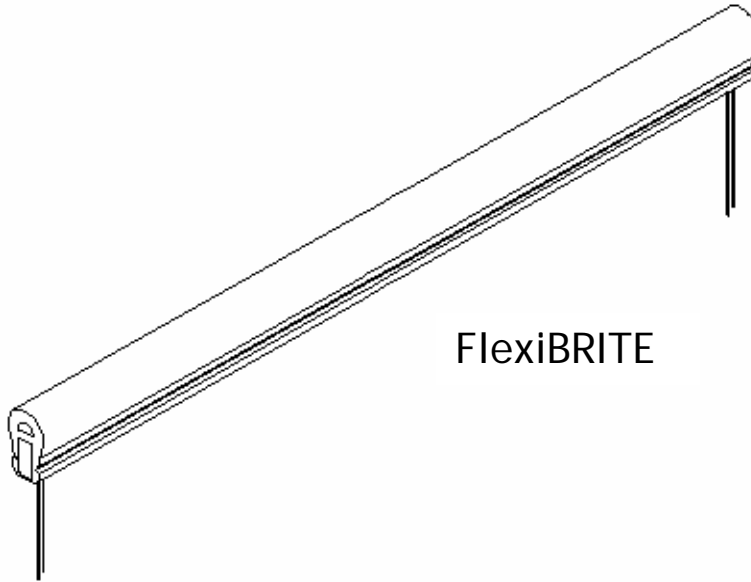
CAUTION: TURN OFF ALL INTEGRAL DISCONNECTS BEFORE SERVICING (IF INTEGRAL DISCONNECTS ARE NOT PROVIDED, TURN OFF POWER TO THE SIGN BY OTHER MEANS i.e. TURN OFF THE CIRCUIT BREAKER OR REMOVE THE FUSE AT THE SERVICE PANEL).

ATTENTION: METTRES HORS TENSION TOUS LES SECTIONNEURS INTEGRES AVANT D'ENTREPRENDRE LE DEPANNAGE

Attention!

FlexiBRITE

FlexiBRITE is a UL listed low voltage, long life, and flexible alternative to neon lighting. The light source for FlexiBRITE is the Light Emitting Diode (LED). LED technology allows FlexiBRITE to provide excellent color and brightness in a safe, low voltage circuit (12 Volts DC). FlexiBRITE is a robust, easily installed product designed for a long life of safe, maintenance free operation.



FlexiBRITE. All colors operate on 12 VDC and can be run on the same power supply.

Tools Required

1. Wire stripper
2. Measuring Tape
3. Drill
4. Screw Driver or Rivet Tool
5. Utility knife (New/Sharp Blade)

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

1. Butt Splice Connectors, 18-22AWG (SloanLED P/N 701368)
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, 2 conductor, PVC jacketed, NEC type Power Limited Circuit Cable (PLCC) with UL Listing. (100' Roll is SloanLED part number 400299-1200)
5. AWG # 14, 2 conductors, PVC jacketed, NEC type Power Limited Circuit Cable (PLCC) with UL Listing. (100' Roll is SloanLED part number 400301)
6. FlexiBRITE Mounting Clips (SloanLED P/N 701572)
7. FlexiBRITE Mounting Track (SloanLED P/N 701456).
8. Conduit and J-Boxes for power supply installation as needed (Appropriate UL listing is required)

FlexiBRITE Layout and Mounting

FlexiBRITE can be mounted to any surface that will accommodate conventional fasteners.

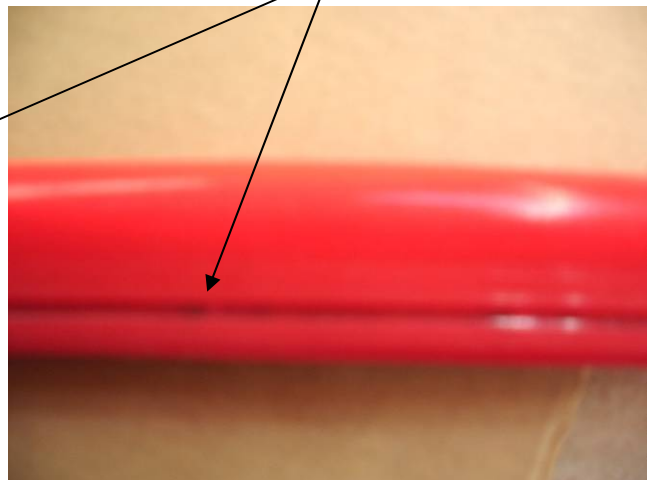
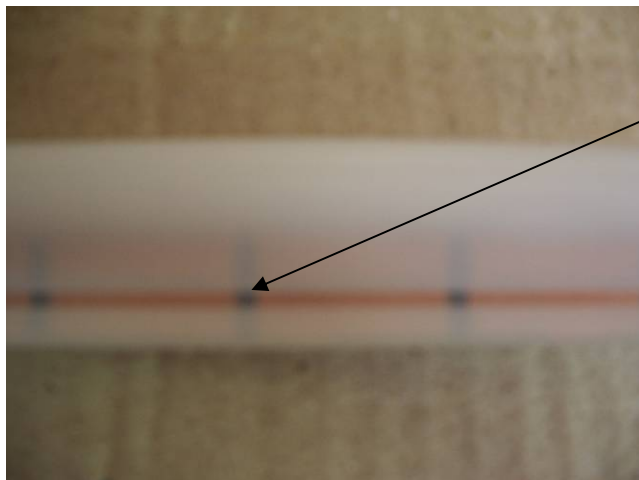
FlexiBRITE can bend in plane as tight as a 1" radius. FlexiBRITE can bend out of plane in a 6" radius or larger. **CAUTION!! Bending FlexiBRITE tighter than a 6" radius out of plane, twisting FlexiBRITE or stretching FlexiBRITE can damage the lighting module and cause non-warranty failure.**

If FlexiBRITE is to be used as perimeter lighting on a building, use the architectural drawings or a field survey of the building to determine where FlexiBRITE is to be installed. Determine the length of each side of the building or single continuous straight run where FlexiBRITE will be installed. Break these lengths into sections of 20 feet or less. (See power supply capacity chart on page 6.)

Wherever possible, use 10' sections (701449-X-10). This will result in a minimum of joints. Where shorter lengths are necessary, use 2' sections (701449-X-2) OR FlexiBRITE can be cut to shorter lengths. Cut Marks are black lines that can be seen through one side of the extrusion. Red, Orange and Yellow FlexiBRITE have cut lines on 2" increments. Blue, Green and White FlexiBRITE has cut lines on 1" increments. As long as the cut is made on the cut line and the section has a set of wires for power hook up, the section will light up to the cut line. **Use a sharp utility knife to make a clean cut. All ends must be sealed – see end cap instructions.**



Cutting aide: The FlexiBRITE lengths have black marks visible through the side to show where cuts can be made.



When connecting various lengths of FlexiBRITE together ensure that the polarity is correct. Connect red wire to red wire, and black wire to black wire only. *(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 the maximum allowable total length is not exceeded.

Once the layout for FlexiBRITE has been completed, cut FlexiBRITE mounting track (SloanLED P/N 701456) 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 the mounting track, a little soapy water on the back of the FlexiBRITE module will lubricate it and help it push in.

FlexiBRITE is also ideal for projects requiring bends such as script letters or decorative signage. For these applications, or wherever a curved section is required, it is recommended that FlexiBRITE mounting clips (SloanLED P/N 701572) be used. Place mounting clips wherever necessary to shape the FlexBRITE to the desired contour. Fasten the clips to the mounting surface using #6 pan head screws or 1/8" rivets. For added security, a clear chain tie (SloanLED P/N 701653) can be used with the mounting clips to cinch FlexiBRITE into place.

Joints and End caps:

Joints for indoor: Follow instruction on page 9 of 10 of this document.

End caps for Indoor: Follow instruction on page 8 of 10 of this document.

Joints for Outdoors: Install end caps on each of the FlexiBRITE lengths per instruction on page 8 of 10 of this document. Butt them together and use mounting clips as needed to keep them lined up. (See photo below)

End caps for outdoors: Follow instruction on page 8 of 10 of this document.



Warning: Any exposed ends and Joints must be sealed properly. Exposed ends will lead to failure of the FlexiBRITE module. See pages 8 and 9 for instructions.

Power Supply Connection

Connect the output on the power supply to the beginning of FlexiBRITE leg. Connect the red wire of the power supply output to any available red wire on the FlexiBRITE leg and connect the black power supply output wire to any available black FlexiBRITE wire. SloanLED power supplies have Class 2 DC outputs. For reliability and performance the following loading is not to be exceeded.

Power Supply Capacities:

Power Supply	Part # (Each)	Power Output	Maximum Number of Feet (Meters)
			FlexiBRITE (all colors)
Self Contained 20	701680	20 Watts	6 (2)
Modular 60	701507-MOD	60 Watts	20 (6)
Modular 60-277	701507-MOD277	60 Watts	20 (6)
Quad 240*	701494	240 Watts	80 (24.5)
Power Used per Foot (Meter) in Watts			2.8 (9.2)

*Quad 240 has four output legs; footages expressed are total (divide by four for footage per leg)

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

NOTE: If any power supply output leads are left unused, the two wires in the PLCC lead must be left individually capped with wire nuts inside a UL Listed junction box, race way or sign housing.

Routing Secondary Wires

When wiring the secondary outputs of the power supply, all routing through walls must be sealed with outdoor rated caulk to protect the sign and building from water damage and the cable from chafing. The PLCC 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 the power supply to FlexiBRITE chain is needed, an extension can be used. The extension should be kept as short as possible (under 15 feet for 18 AWG UL Listed PLCC or under 50 feet for 14 AWG UL Listed PLCC).

WARNING: CHECK POLARITY:

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

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

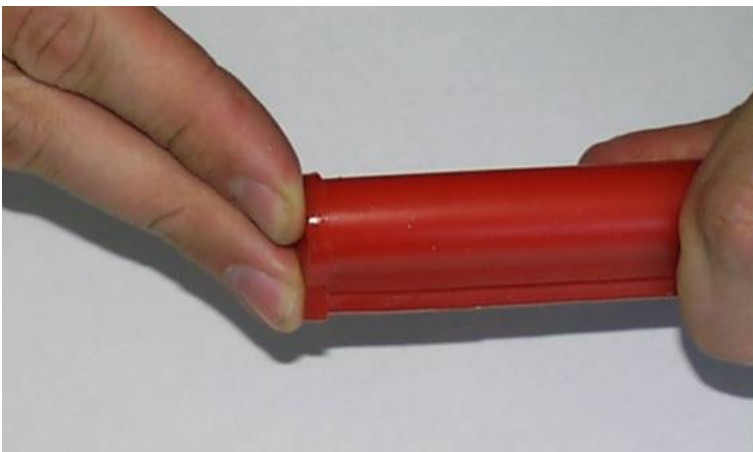
FlexiBRITE

End Cap Quick Guide - Sealing Exposed Ends



Step 1. Gather required tools, clear Dow Corning 737 silicone sealant or equivalent, and necessary end caps.

Step 2. Apply silicone to inside of end cap to be bonded. Ensure that enough is used to cover entire surface area of the inside of the end cap and at least half of its depth.



Step 3. Press end cap onto end of FlexiBRITE extrusion, clean off silicone residue and allow curing.

NOTE: Silicone will take at least 24 hours to fully cure. It can cure in place on an installation as long as it will not be disturbed while it is curing.

FlexiBRITE

Joint Kit Quick Guide - Sealing Joints



1. Cutting

There are black lines visible through one side of the FlexiBrite extrusion. Red, Orange, and Yellow have them on 2" increments. Blue, Green, and White have them on 1" increments. The black lines are the cut lines. FlexiBrite can be cut on any of these lines and will light up to the line as long as the section has wires for power hook up.



2. Priming

To make a FlexiBRITE joint, coat the face of both pieces to be bonded together with Primer. Any area not primed, will not bond. The primer will dry in less than 15 seconds and is active for 1 hour. If 1 hour passes and the surfaces have not been glued, reprime before gluing.



3. Glue

Apply a layer of glue to the face of one piece of FlexiBRITE.



4. Press Together and Hold

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



5. Electrical Connection

Use UL Listed butt splices to complete the electrical connection to the next piece of FlexiBRITE or the power supply if needed.



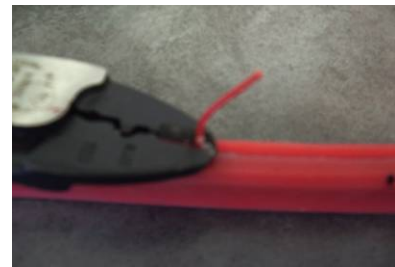
6. Seal Connection

Seal the butt splice connections with Liquid Electrical Tape or Silicone.

Seal the joint of the FlexiBRITE Modules with Clear silicone. If there are any gaps in the seal at this joint, moisture will enter and cause the modules to fail.



7. Seal Joint



8. Trim Open Wires

NOTE: If any of the wire loops have been cut, but are not being used for an electrical connection, do not leave them open. Trim them off flush with extrusion and cover them with a bead of silicone.

Trouble Shooting Guide

Entire Sign or leg with FlexiBRITE does not light after complete installation.

-Check the connection from the power supply lead to the FlexiBRITE chain. Make sure the polarity of the connections made at the 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 the output voltage of the power supply. The output voltage should be 12.0VDC +or- 0.5VDC. If there is no output voltage, have a licensed electrician check input voltage. Make sure the power supply is hooked up correctly and getting primary power. If the power supply is hooked up correctly and getting primary power and there is still no output voltage, replace the power supply with a new one.

The beginning of a FlexiBRITE leg lights, but the 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 the length that lights and the length that doesn't light. Check this connection and ensure correct polarity.

Small segment of a length of FlexiBRITE does not light, but the rest of length lights.

FlexiBRITE is designed so if one segment fails, it will not cause the entire sign or leg to go out. If one segment is not lighting, but the remainder of the length of FlexiBRITE is lighting, remove and replace the segment, or replace length with a new one.

UL Labeling:

FlexiBRITE is a UL Listed product under UL 48 File # E242746.

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. The FlexiBRITE is a UL Recognized sign component and the 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.