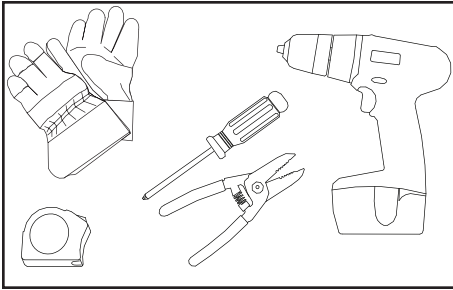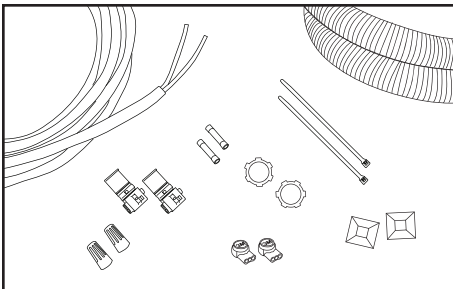# SignBOX RapidStick

Installation Guide for 701972-(C)WD(X)1

Tools required:

1. Measuring tape
2. Wire strippers
3. Gloves
4. Drill
5. Screwdriver

Supplies required:

1. UL Listed 18 AWG (1 mm²), 2 conductor, PVC jacketed, NEC type PLTC cable (can be purchased from SloanLED® in 100-foot (30.48-meter) rolls)
2. Cable tie downs (plastic with double-sided tape for mounting)
3. 4 in (101.6 mm) nylon zip ties
4. UL Listed wire nuts (IDEAL P/N #30-072 Blue) or appropriate UL Listed electrical connectors
5. Conduit and conduit connectors (water tight if necessary)
6. 1/2 in (13 mm) trade size locknuts

CAUTION: Turn off power to sign before inspecting or removing existing light source. Power must remain off while installing LED product.

ATTENTION : Coupez l'alimentation générale du panneau avant d'intervenir ou de retirer la source lumineuse existante. L'alimentation générale doit être coupée tout au long de l'installation du kit de remplacement en LED.

NOTE: All materials removed must be disposed of in accordance with applicable local, state, and federal laws.

WARNING check polarity: All connections must be RED-TO-RED (+) and BLACK-TO-BLACK (-). Reverse polarity connections may damage LEDs and will void product warranty.
AVERTISSEMENT vérifier la polarité: toutes les connexions doivent être ROUGE À ROUGE (+) et NOIR À NOIR (-). Les connexions à polarité inversée peuvent endommager les LED et annuler la garantie du produit.

Retrofit Installation

Scope: This procedure is designed to aid in installation of SloanLED's SignBOX™ RapidStick™ illumination product and power supply products. Skilled tradespeople familiar with general construction, electrical, and sign installation techniques should do the installation. Licensed electricians should provide all installation and hook-up of both primary and secondary input/outputs of power supply. All installation and hook-up should be done in accordance with all National and Local codes and permits. In no way is this document intended to construe warranty or fitness of use of products described, nor is it intended to provide safety instruction for those installing product.

Field installation of this LED retrofit kit into a sectional sign is subject to acceptance of local inspection authority. UL Classification mark on this LED retrofit kit requires kit to be installed in a UL Listed sign only.

Remove Existing Fluorescent Tubes

1. Make sure power is off. Have a licensed electrician disconnect and remove all ballasts.
2. Remove existing fluorescent tubes, leaving fluorescent lampholders in place.
3. Any existing holes in sign that will not be used for new installation should be patched to avoid water damage. Openings smaller than 1/2 in (13 mm) in diameter may be sealed with silicone. Openings larger than 1/2 in (13 mm) in diameter require a metal patch secured by screws or rivets and sealed with silicone. **Continue with step 2 of new installation.**
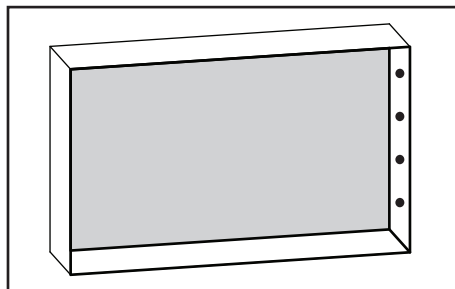
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SignBOX RapidStick
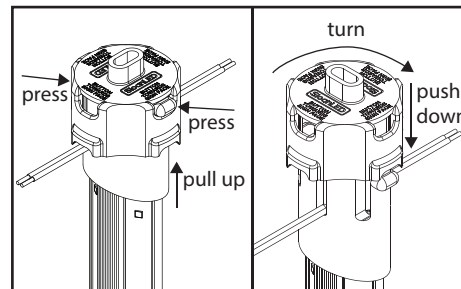
Installation Guide for 701972-(C)WD(X)1

New Installation
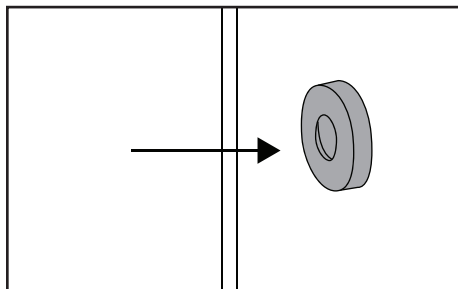
1. Install fluorescent lampholders 12 in (305 mm) center-to-center along returns of cabinet (see Layout Guidelines on bottom of this page).


2. Determine lengths and quantities of SignBOX RapidStick (see Power Supply capacity table on page 3).


3. Rotate end caps to align pegs with lampholders such that end cap buttons will be towards sign face. To rotate end caps, press buttons inward, pull up, rotate to desired position, then push down to lock in place.

Note: Lamps must be mounted in an enclosed sign. This product is not suitable for immersion or direct exposure to water for extended periods of time.
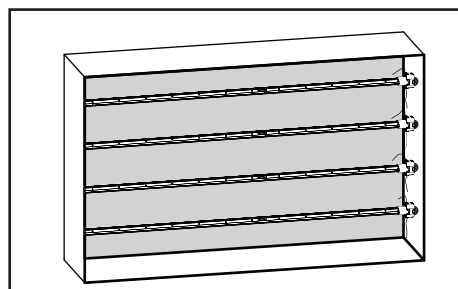

4. Insert SignBOX RapidStick into lampholders and verify end cap buttons are towards sign face. For easy wire connections, install all lamps in same direction so wires are on same end.
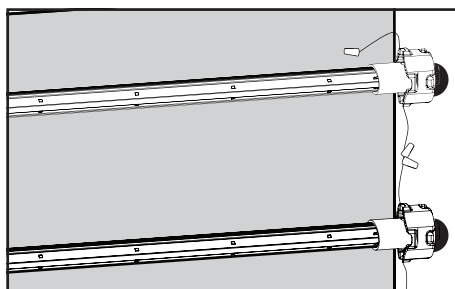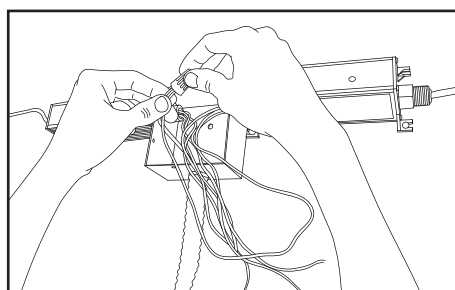

5. Connections: Product may be connected in series or parallel. End wires should be capped and not tied back to power supply. (NOTE: All connections must be RED-TO-RED (+) and BLACK-TO-BLACK (-)).
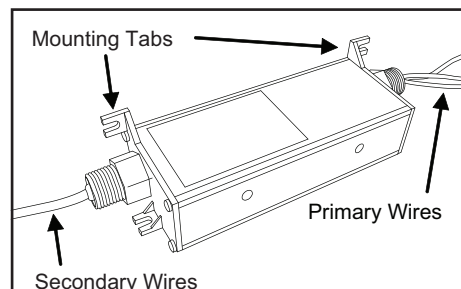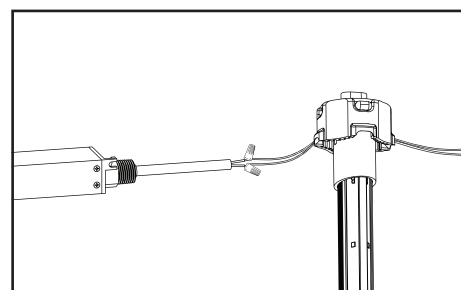

6. **Mount power supply:** Identify primary wires, secondary wires, and location of mounting tabs.
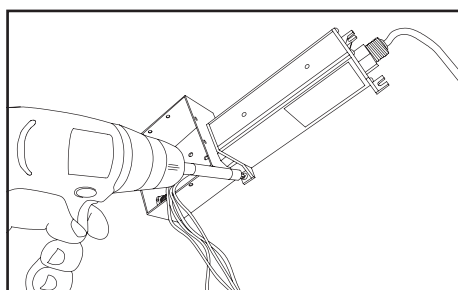
7. Units may be mounted in any orientation using mounting tabs.

8. **Connect primary: CAUTION!** Have a licensed electrician connect primary.

9. **Connect to power supply:** Using UL Listed electrical connectors, daisy chain product as required and connect to power supply.

Layout Guidelines

Mount SignBOX RapidStick in center of returns in double-sided cabinets. For best results, lamps should be ≥8 in (≥203 mm) from face of sign. It's recommended to test LED density in a sample cabinet to evaluate brightness, uniformity, and color. If you have questions or require assistance in testing, please contact your SloanLED Customer Service Representative.

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Leaders in LED Technology

SignBOX RapidStick

Installation Guide for 701972-(C)WD(X)1

Wall penetration (seal with silicone)
Power supply
UL Listed junction box
Primary power
Connect secondary output. Ensure all secondary connections are RED-TO-RED and BLACK-TO-BLACK.
Sign
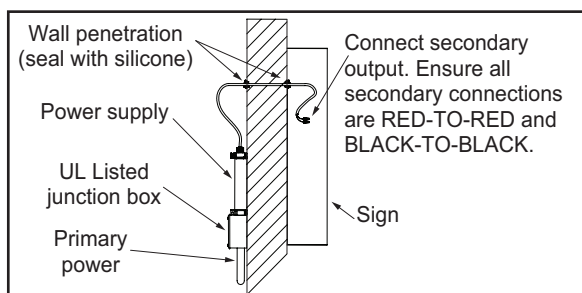
Secondary class 2 cables do not require conduit per NEC 2008 Articles 725.121 through 725.130. Seal all sign and wall penetrations with silicone to avoid water damage.

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

https://sloanled.com/PowerSupplyGuideForSignProducts

100 W 24 VDC Power Supply Capacity Chart

Power output	Maximum lamps per power supply											
	18 in (0.46 m)	24 in (0.61 m)	30 in (0.76 m)	36 in (0.91 m)	42 in (1.07 m)	48 in (1.22 m)	60 in (1.52 m)	64 in (1.63 m)	72 in (1.83 m)	84 in (2.13 m)	96 in (2.44 m)	120 in (3.05 m)
30 W (EU/ROW ONLY)	4 lamps	3 lamps	2 lamps	2 lamps	1 lamp	1 lamp	1 lamp	1 lamp	1 lamp	–	–	–
60 W	8 lamps	6 lamps	5 lamps	4 lamps	3 lamps	2 lamps	2 lamps	2 lamps	2 lamps	1 lamp	1 lamp	1 lamp
96 W	13 lamps	11 lamps	8 lamps	6 lamps	5 lamps	4 lamps	3 lamps	3 lamps	3 lamps	2 lamps	2 lamps	2 lamps
3 × 96 W	3 × 13 lamps	3 × 11 lamps	3 × 8 lamps	3 × 6 lamps	3 × 5 lamps	3 × 4 lamps	3 × 3 lamps	3 × 3 lamps	3 × 3 lamps	3 × 2 lamps	3 × 2 lamps	3 × 2 lamps
100 W	13 lamps	11 lamps	8 lamps	6 lamps	5 lamps	4 lamps	3 lamps	3 lamps	3 lamps	2 lamps	2 lamps	2 lamps
150 W (EU/ROW ONLY)	20 lamps	16 lamps	12 lamps	10 lamps	7 lamps	7 lamps	5 lamps	5 lamps	5 lamps	3 lamps	3 lamps	3 lamps
Power used per lamp in Watts:	6.6 W	8.1 W	11.1 W	13.4 W	17.6 W	19.1 W	25.7 W	27.2 W	27.7 W	36.8 W	41.2 W	41.4 W

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.

Extension of Power Supply Leads

If longer lead wire from power supply to LED product is needed, an extension can be used. Extension should be kept as short as possible, i.e., under 15 ft use 18 AWG UL Listed PLTC (4.6 m for 1 mm² PLTC) or under 50 ft use 14 AWG UL Listed PLTC (15.2 m for 2.5 mm² PLTC).

Troubleshooting

Entire box/cabinet or product does not light after complete installation.	Check connection from power supply lead to first lamp. Make sure polarity of connections made at power supply lead and any jumper wire is correct. Power supply outputs should be connected RED-TO-RED (+) and BLACK-TO-BLACK (-).
Still does not light.	Check output voltage of power supply using a voltmeter. Output voltage should be DC 24.0 V ± 0.5 V. If there is no output voltage, have a licensed electrician check input voltage. Make sure power supply is connected correctly and getting primary power. If power supply is connected properly and getting primary power and there is still no output voltage, try a different power supply.
Still does not light.	If power supply is getting primary power and lamps don't light, there may be a short in secondary wiring. Check all connections and cap all loose wires.
The beginning of a lamp lights, but entire lamp does not light or lights intermittently.	Primary cause of a portion of a lamp not lighting or lighting intermittently is a bad connection or reverse polarity connection between lamps that light and lamps that don't light. Check this connection.
One lamp does not light, but all others in cabinet light.	SignBOX RapidStick is designed so if one lamp fails, it will not cause entire box/cabinet to go out. If one lamp does not light, but all others do, replace this lamp with a new one.

E215393   E228569   241542   RoHS Compliant

US patents and foreign patents pending