

SignBOX Light

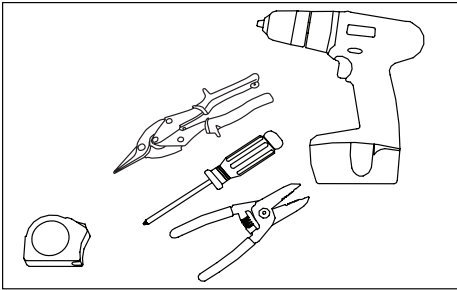
Retrofit Guide for 701946-CWSBL

Scope: This procedure is designed to aid in the installation of the SLOANLED SignBOX Light illumination product and power supply products. Skilled tradespeople familiar with general construction, electrical and sign installation techniques should perform 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 the products described, nor is it intended to provide safety instruction for those installing the product.

THE FIELD INSTALLATION OF THIS LED RETROFIT KIT INTO A SECTIONAL SIGN IS SUBJECT TO THE ACCEPTANCE OF LOCAL INSPECTION AUTHORITY.

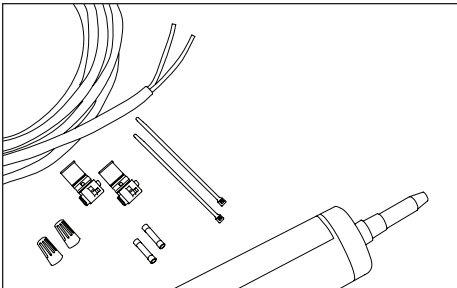
CAUTION: TURN OFF POWER TO THE SIGN BEFORE INSPECTING OR REMOVING EXISTING LIGHT SOURCE. THE POWER MUST REMAIN OFF WHILE INSTALLING THE LED RETROFIT KIT.

THE UL CLASSIFICATION MARK ON THIS LED RETROFIT KIT REQUIRES THE KIT TO BE INSTALLED IN A UL LISTED SIGN ONLY.



Tools Required

Measuring tape, wire strippers, drill, screwdriver, and sheet metal sheers/snips.



Supplies Required

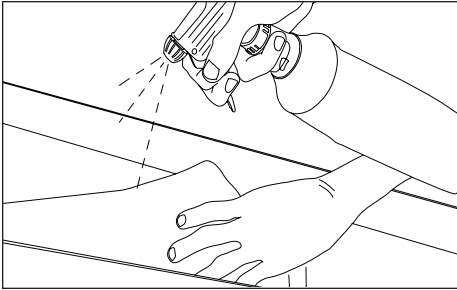
Wire nuts, IDC connectors or butt splices. Optional PLTC cable, cable ties, screws and silicone.

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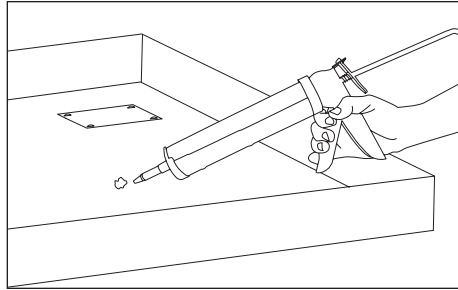
Remove Existing Fluorescent Tubes

1. Have a licensed electrician disconnect and remove all ballasts.
2. Remove existing fluorescent tubes and all standoffs to leave an empty sign box/cabinet.

NOTE: ALL MATERIALS REMOVED MUST BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL LAWS.

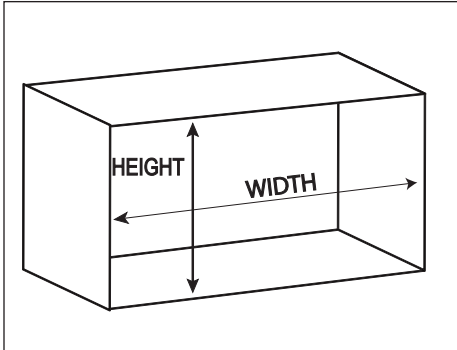


3. Using a non-oil based cleaner, clean inside surface of sign. (Be sure to clean any mounting surfaces with alcohol for proper tape adhesion if tape is being used).



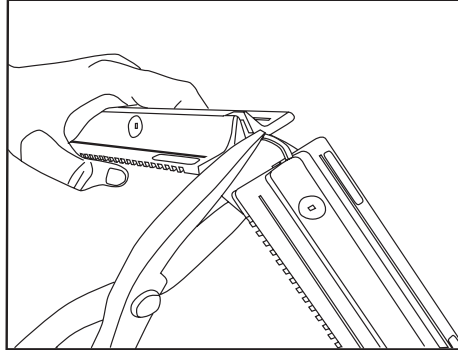
4. Any existing holes in sign that will not be used for new installation should be patched to avoid water damage to building and sign. Openings smaller than 1/2 in (13 mm) diameter may be sealed with non-hardening outdoor caulk. Openings larger than 1/2 in (13 mm) diameter require a metal patch secured by screws or rivets and caulked with non-hardening outdoor caulk.

Layout

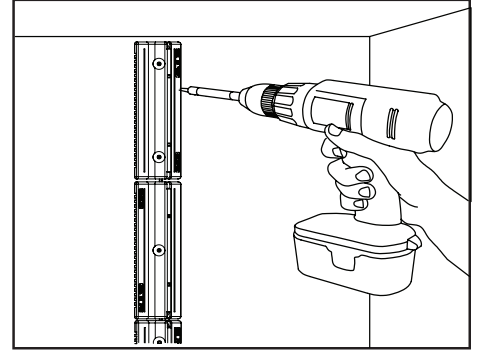


5. Measure sign box height and width. Use layout guidelines and power supply capacity table to determine amount of SignBOX Light modules and power supplies required.

Mount SignBOX Strips



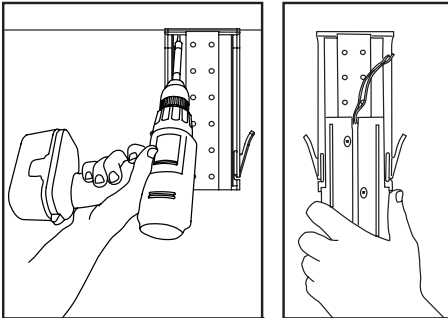
- 6a. Cut strips to necessary length. Strips may be cut every 6 in (152 mm) between plastic modules. If necessary, use SBL couplers to join 2 shorter strips to achieve desired length.



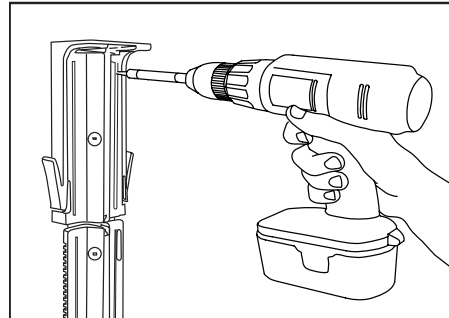
- 6b. Mount SignBOX Light modules to back of sign box using either double stick tape (not included), rivets, or #8 (M4) pan head self-tapping sheet metal screws anywhere along module grooves.

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Double-sided Signs



7. Mount end brackets to structural supports of sign box/cabinet. Cut strips to necessary length. Strips may be cut every 6" (152 mm) between plastic modules. If necessary, use SBL couplers to join two shorter strips to achieve desired length. **(CAUTION: Field cut edges may be sharp.)** Snap modules into mounting brackets on both sides (from step 2a) until strip is taut.



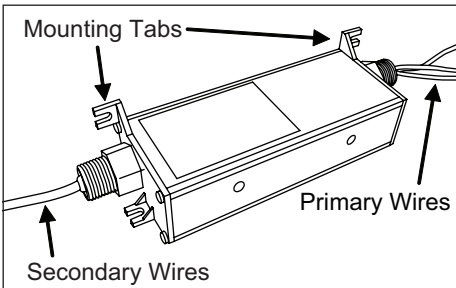
8. Secure modules to brackets with #8 (M4) pan head self-tapping sheet metal screws anywhere along module grooves.

Structural support guidelines for SignBOX Light

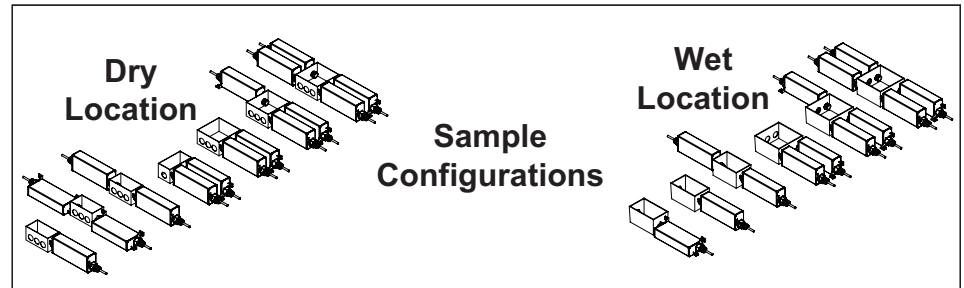
Vertical mounting: space supports at even intervals, but no further apart than 8 ft (2.4 m)

Horizontal mounting: space supports at even intervals, but no further apart than 6 ft (1.8 m)

Install Power Supply



Identify primary wires, secondary wires and location of mounting tabs.



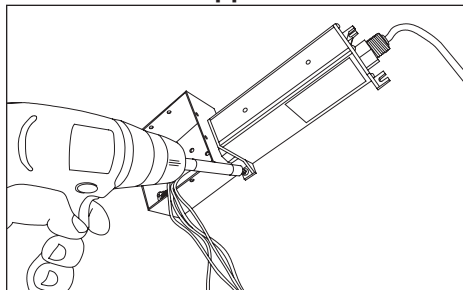
Configure power supplies: Secure power supplies to junction box using ½ in (13 mm) locknuts. Power supplies may be joined together in a wide array of configurations. Power supplies may be mounted in dry, damp, or wet locations. For wet locations use a junction box that is UL Listed for wet locations. For dry locations use any UL Listed junction box.

NOTE: Power supply operating temperature is -40° C to 60° C. To ensure adequate ventilation, it is recommended mounting power supplies without a secondary enclosure. Space power supplies by standard knockout locations ¾ in (19 mm) minimum. If secondary enclosure is used (transformer can), power supply spacing to other heat producing components must have 4 in (102 mm) of space on each side and 2 in (51 mm) minimum to top of enclosure. Ensure power supplies are not overloaded by verifying output current is less than 5 DC Amps. It is recommended to use photo-cells or timing device to make sure power supplies are off during day light hours, when sign illumination is not needed. Higher daytime temperatures and unnecessary operation may shorten power supply lifetime.

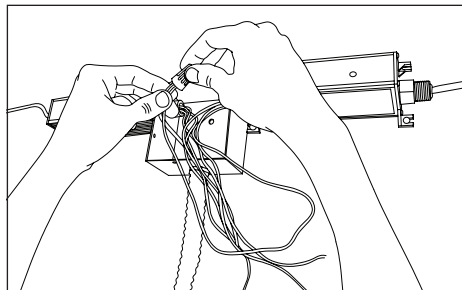
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Mount Power Supplies

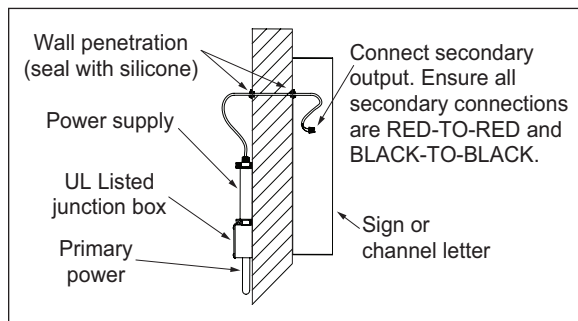
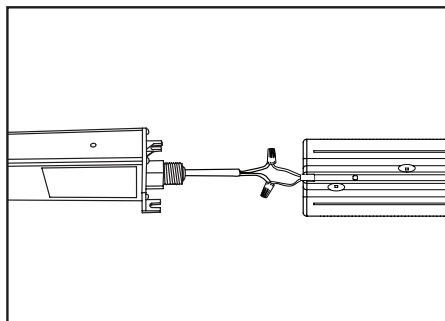
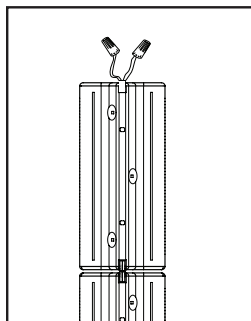


Units may be mounted in any orientation using mounting tabs.



Connect Primary:
CAUTION! Have a licensed electrician connect primary.

Connect Modules to Power Supply



Using UL listed electrical connectors, daisy chain strips as required and connect to power supply. Cap all unused wires. Strips may be daisy chained in series or parallel configurations. (NOTE: All connections must be RED-TO-RED AND BLACK-TO-BLACK)

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.

12 VDC Power Supply Capacity Table for SignBOX Light

Power Supply	Part # (Each)	Input		Output		Maximum modules per power supply
		Nominal Input Voltage	Input Current	Power Output	Output Current	
Self-Contained 20 W	701680	120-240 V	0.55 A	20 W	1.5 A	10
60C1 60 W	701507-60C1	100-277 V	0.80 A	60 W	4.5 A	32
60W1 60 W	701507-60W1	100-240 V	0.85 A			
60W2 60 W	701507-60W2	100-277 V	0.80 A			
MODW(E) 60 W	701507-MODW(E)	100-240 V	1.00 A			
MOD277 60 W	701507-MOD277	277-347 V	0.50 A			
120D1 120 W	701507-120D1	100-277 V	1.70 A	60 W × 2	4.5 A × 2	32 × 2
All footage based on 90% of rated capacity				Power used per foot (Meter) in Watts:		1.6 W (5.2)

NOTE: Each 12 V circuit must be limited to 5 A (60 W) or less. For North American installations, a power supply that meets NEC Class 2 specifications is required.

Extension of Power Supply Leads

If longer lead wire from power supply to LED modules is needed, an extension can be used. Extension should be kept as short as possible (under 15' (4.6 m) for 18 AWG (1.02 mm) PLTC or under 50' (15.2 m) for 14 AWG (1.63 mm) PLTC).



US patents and foreign patents pending

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