# SloanLED Prism
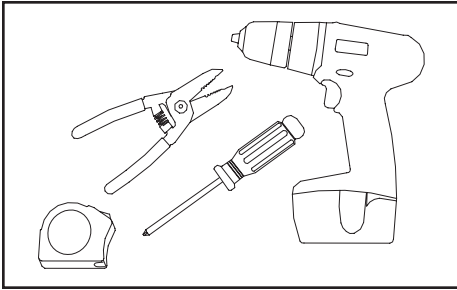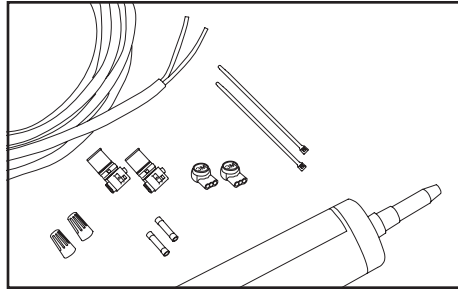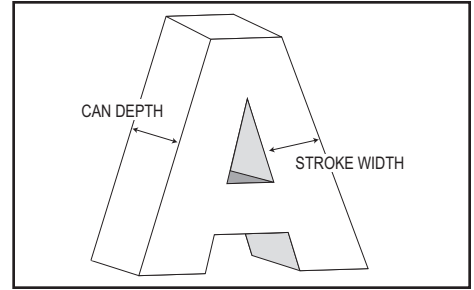
Installation Guide for 701269-(XX)(Y)J(Z)-MB

1. **Tools required:** Measuring tape, wire strippers. Optional: Drill, screwdriver.

2. **Supplies required:** PLTC cable, wire nuts, IDC connectors or butt splices with appropriate safety agency markings, and cable ties. Optional: Screws and silicone.

3. **Layout:** To populate sign, refer to SloanLED® Prism density guidelines, test, or contact your SloanLED Representative for recommendations.

CAN DEPTH

STROKE WIDTH

**NOTE:** *Modules must be mounted in an enclosed sign. This product is not suitable for immersion or direct exposure to water for extended periods of time.*
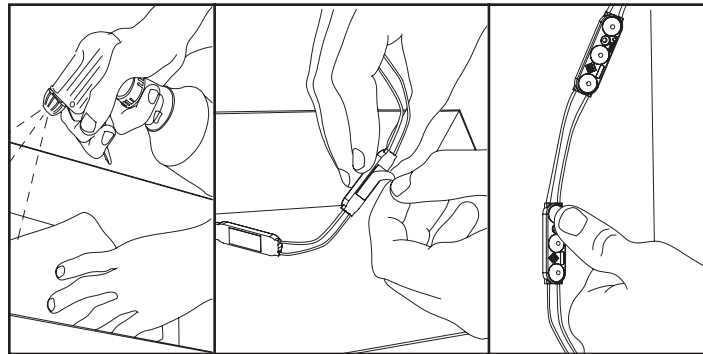
4. **Peel and stick:** Clean inside sign with rubbing alcohol and allow to dry. Using predetermined layout and LED placement from Step 3, remove tape backing and stick modules into place. Ensure modules are firmly attached. **NOTE:** If installing SloanLED Prism Nano, and installing in a narrow channel, tape may be unnecessary. Other means of securing strip (sealant, vinyl, etc.) are also acceptable.
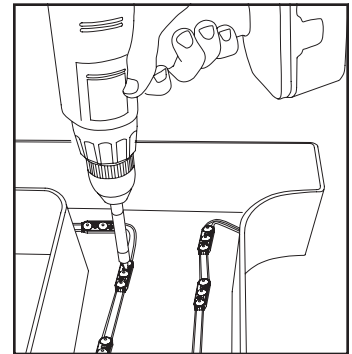
5. **Fasteners:** If desired, modules can be secured with #6 (3.5 mm) pan head sheet metal screws or 1/8 in (3 mm) aluminum rivets. **NOTE:** If installing SloanLED Prism Nano, skip this step.
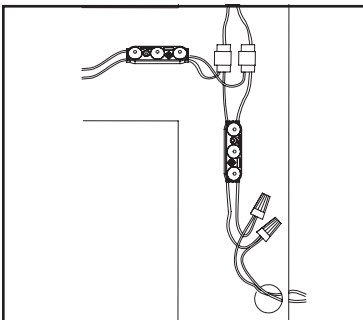
**WARNING:**
**Connect Red striped wire of LED modules (+) to Red wire of power supply (+). Connect White wire of LED modules (-) to Black wire of power supply (-). Reverse polarity connections may damage LEDs and will void product warranty.**

6. **Connections:** Modules may be connected in series or parallel.
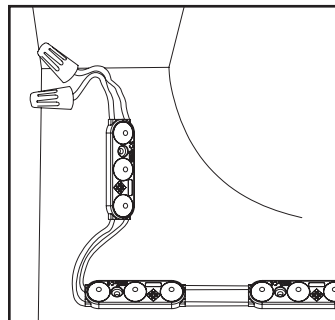
7. **Cap all unused wires:** The strand of modules should not be looped to create a closed circuit.
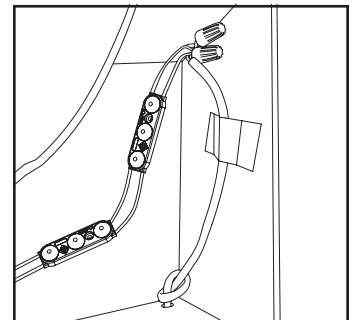
8. **Connect power supply to first module on string:** See power supply install guide for more information regarding power supply installation. **NOTE:** For SloanLED Prism Nano, to avoid significant line loss, do not use more than 6.56 ft (2.0 m) in series (see diagram on page 2 of this install guide).

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Leaders in LED Technology

# SloanLED Prism

Installation Guide for 701269-(XX)(Y)J(Z)-MB



19.7 ft (6.0 m) / 150 modules max.

6.56 ft (2.00 m) / 50 modules max.

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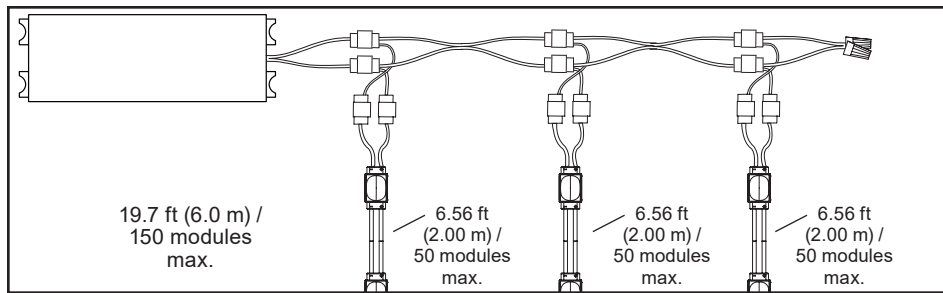
**NOTE:** For SloanLED Prism Nano, to avoid significant line loss, do not use more than 6.56 ft (2.0 m) / 50 modules in series.

## 12 VDC Power Supply Capacity Chart

| | | Input | | Output | | Maximum feet (meters) / modules | | | | | | | |
| | | | | | | SloanLED Prism | | | | SloanLED Prism Mini | | SloanLED Prism HO | SloanLED Prism Nano |
| Power supply | Part number | Nominal input voltage | Input current | Power output | Output current | White 7100 K, 6500 K, 5700 K, 5000 K, 4000 K, 3000 K (1.5/ft, 4.9/m) | White 6500 K (1/ft, 3.3/m) | Red, Orange, Yellow, Green, Blue (1.5/ft, 4.9/m) | Red (2/ft, 6.6/m) | White 7100 K, 6500 K, 5000 K, 4000 K, 3000 K (1.5/ft, 4.9/m) | Red, Green, Blue (1.5/ft, 4.9/m) | White 6500 K, 5000 K (0.8/ft, 2.6/m) | White 7200 K, 6500 K, 5000 K, 4000 K, 3000 K (7.6/ft, 25/m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Self-Contained 20 W | 701680 | 100–240 V | 0.55 A | 20 W | 1.5 A | 10 (3.3)/ 16 mods | 16 (4.8)/ 16 mods | 16.6 (5.1)/ 25 mods | 12.5 (3.8)/ 25 mods | 21.3 (6.5)/ 32 mods | 26.7 (8.1)/ 40 mods | 12.5 (3.8)/ 10 mods | 6.6 (2)/ 50 mods |
| Compact 12/25 W* | 410174 | 100–277 V | 0.40 A | 25 W | 1.9 A | 13.3 (4)/ 20 mods | 20 (6.1)/ 20 mods | 20.7 (6.3)/ 31 mods | 15.5 (4.7)/ 31 mods | 26.7 (8.1)/ 40 mods | 33.3 (10.2)/ 50 mods | 16.3 (4.9)/ 13 mods | 8.1 (2.5)/ 62 mods |
| 60C1 60 W | 701507-60C1 | 100–277 V | 0.80 A | 60 W | 4.5 A | 32 (9.8)/ 48 mods | 48 (14.6)/ 48 mods | 50 (15.2)/ 75 mods | 37.5 (11.4)/ 75 mods | 64.0 (19.5)/ 96 mods | 80.0 (24.4)/ 120 mods | 40.0 (12.2)/ 32 mods | 19.7 (6)/ 150 mods |
| 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 | 2 × 60 W | 2 × 4.5 A | 2 × 32 (9.8)/ 48 mods | 2 × 48 (14.6)/ 48 mods | 2 × 50 (15.2)/ 75 mods | 2 × 37.5 (11.4)/ 75 mods | 2 × 64.0 (19.5)/ 96 mods | 2 × 80.0 (24.4)/ 120 mods | 2 × 40.0 (12.2)/ 32 mods | 2 × 19.7 (6)/ 150 mods |
| | | | | | **Power used per foot (meter) in watts** | 1.69 W (5.54) | 1.13 W (3.71) | 1.08 W (3.55) | 1.44 W (4.72) | 0.85 W (2.78) | 0.68 W (2.23) | 1.34 W (4.41) | 2.74 W (9) |

\* For sign applications, only certified for use outside of U.S. and Canada.

**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, i.e., under 15 ft for 18 AWG UL Listed PLTC (4.6 m for 1 mm² PLTC) or under 50 ft for 14 AWG UL Listed PLTC (15.2 m for 2.5 mm² PLTC).

## Troubleshooting

| NOTE: A licensed electrician should perform all applicable steps. | |
|---|---|
| Entire sign or leg does not light after complete installation | Check connection from power supply lead to first module. Make sure polarity of connections made at the power supply lead and any jumper wire is correct. Power supply outputs should be connected RED-TO-RED and BLACK-TO-WHITE. |
| Still does not light | Check output voltage of power supply using a voltmeter. The output voltage should be DC 12.0 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 the modules don't light, there may be a short in the secondary wiring. Check all connections and cap all loose wires. |
| The beginning of a leg lights, but the entire leg does not light or lights intermittently | The primary cause of a portion of a SloanLED Prism leg not lighting or lighting intermittently is a bad connection or reverse polarity connection between the modules that light and the modules that don't light. Check this connection. |
| One module does not light, but all others in the leg light | SloanLED Prism is designed so if one module fails, it will not cause the entire sign or leg to go out. If one module does not light, but all others in the leg do, replace this module with a new one. |

SloanLED Prism is covered by US patent 6,932,495 and US and foreign patents pending.

Use the online SloanLED Layout Estimator to get a quick SloanLED Prism design and material estimate for your sign. **Visit product page for details.**

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