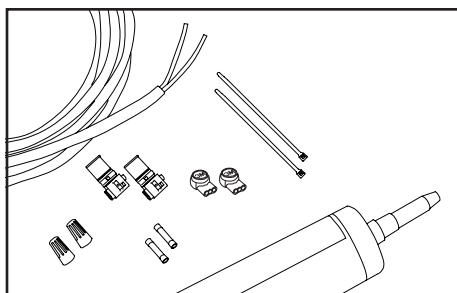
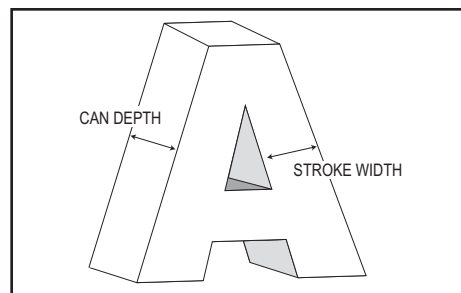


1. **Tools required:** Measuring tape, wire strippers. Optional: Drill, screwdriver.



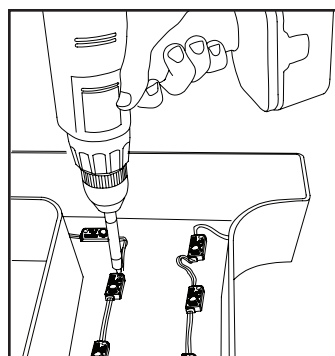
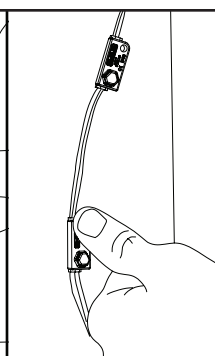
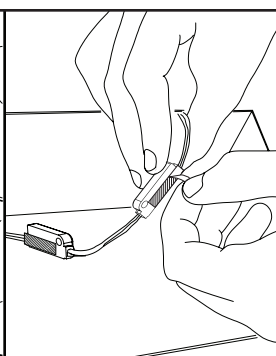
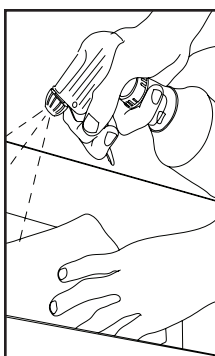
2. **Supplies required:** PLTC cable, wire nuts, IDC connectors or butt splices with appropriate safety agency markings, and cable ties. Optional: Screws and silicone.



3. **Layout:** To populate sign, refer to V180 density guidelines, test, or contact your SloanLED Representative for recommendations.

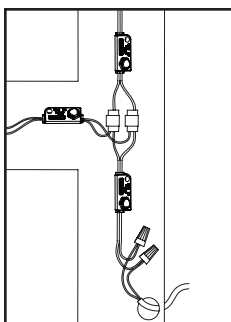
Note regarding IP68:

Modules must be mounted in enclosed sign cabinet/box. This product is not suitable for immersion or direct exposure to water for extended periods of time.

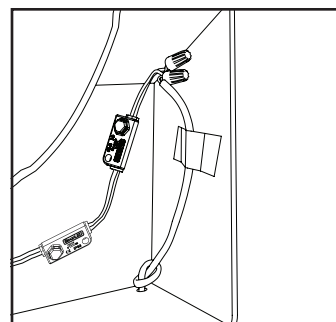
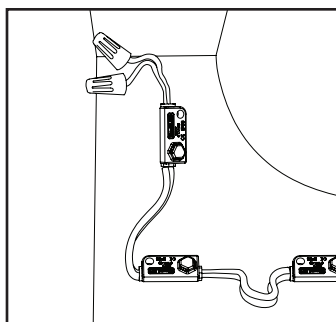


4. **Peel and stick:** Clean inside sign with rubbing alcohol and allow to dry. Using predetermined layout and LED placement from Step 3, remove tape backing and stick modules into place. Ensure modules are firmly attached. **CAUTION:** When handling modules, avoid pressing down directly on top of LEDs.

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.



WARNING: Check Polarity: All connections must be RED-TO-RED (+) and BLACK-TO-BLACK (-). Reverse polarity connections may damage the LEDs and will void product warranty.

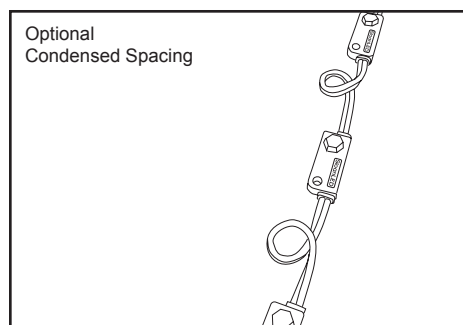


6. **Connections:** Modules may be connected in series or parallel.

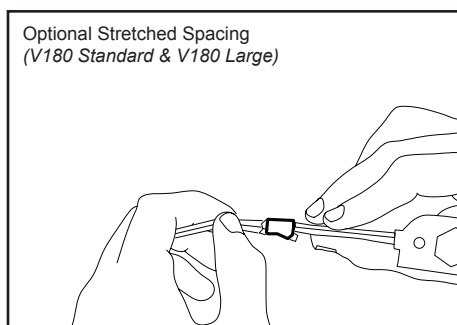
7. **Cap all unused wires:** The strand of modules should not be looped to create a closed circuit.

8. **Connect power supply to first module on string:** See power supply install guide for more information regarding power supply installation.

Installation Guide for 701269-WLP2-MB, 701269-6WMG2-MB, 701269-(X)WSG1-MB, 701269-(X)WLG1-MB, 701269-(X)WLG2-MB



Optional condensed spacing: If sign requires modules to be condensed from natural wire spacing, loop wires as shown to avoid wires creating shadows on sign face.



Optional stretched spacing: If desired, module spacing for V180 Standard and V180 Large can be extended. To release stretched spacing, grip wire between modules (do not pull on modules) and gently pull apart releasing extra wire.

NOTE: Do not release stretched spacing if part temperature is lower than 5° C.

12 VDC Power Supply Capacity Chart

		Input		Output		Maximum feet (meters) / modules			
Power supply	Part number	Nominal input voltage	Input current	Power output	Output current	V180 Mini	V180 HB Mini	V180 Standard (natural spacing)	V180 Large (natural spacing)
Self-Contained 20 W	701680	100-240 V	0.3 A	20 W	1.5 A	23 (7,0)/57 modules	15 (4,7)/30 modules	13 (3,9)/32 modules	7.5 (2,3)/15 modules
60C1 60 W	701507-60C1	100-277 V	0.7 A	60 W	4.5 A	69 (21,0)/173 modules	46 (14,0)/92 modules	39 (11,9)/98 modules	22.5 (6,9)/45 modules
MODW 60 W (North America) / MODWE 60 W (Europe)	701507-MODW / 701507-MODWE	100-240 V	1.0 A						
MOD277 60 W	701507-MOD277	277-347 V	0.5 A						
Power used per foot (meter) in watts						0.78 (2,56)	1.18 (3,86)	1.38 (4,53)	2.4 (7,88)

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-BLACK.
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 V180 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	V180 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.

V180 is covered by US patent 6,932,495 and US and foreign patents pending.

