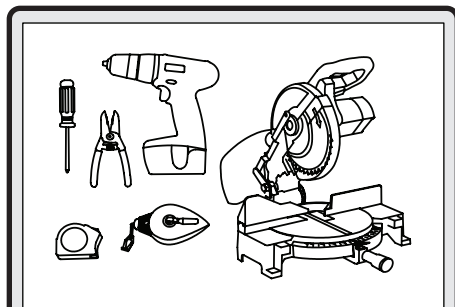


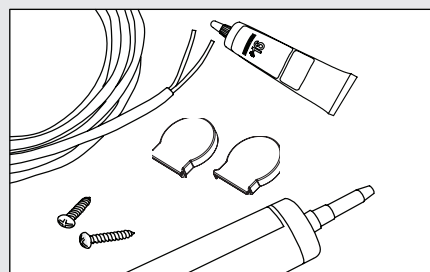
SHELL MINI REDBAR



Installation Guide for 701996-4WRY(X)1-(1400, 2700)-24

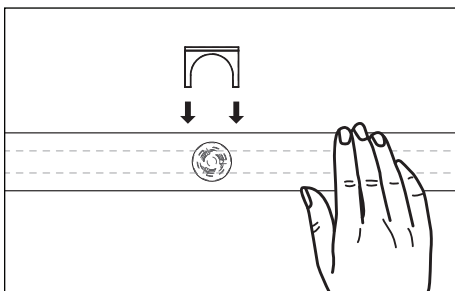


Tools required: Cordless drill, drill bits, #2 Phillips driver bits, wire stripper, measuring tape, chalk line, marking pens, miter saw (for custom cut lengths), Multi-meter.



Supplies required: Field end cap kit, M4 (#8) pan head, phillips screws with appropriate thread for mounting surface, silicone sealant, 0.75 mm² (18 AWG) sunlight resistant and wet location rated PLTC cable, electrical connectors suitable for 0.75 mm² (18 AWG) - 0.5 mm² (20 AWG) wire.

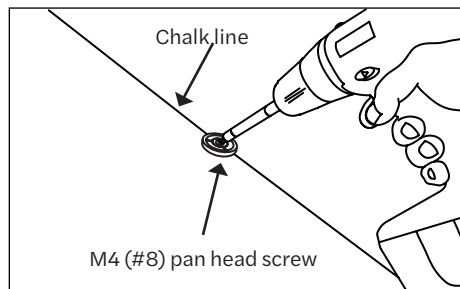
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to view the
installation video.



2. Secure section in place: Once section is in its final position, locate a mounting button behind mounted Shell Mini Redbar section as near as possible to center of section.

- Secure all center brackets **AFTER** positioning all Shell Mini Redbar sections and connecting secondary wires
- Shell Mini Redbar should be centered on each ACM panel wherever possible
- Do not install buttons on drill holes on any visible portion of canopy

Mounting



Install mounting buttons:

Snap a chalk line on surface for mounting.

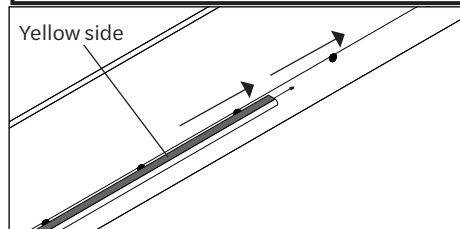
Straight sections: Space mounting buttons min. 1.6" (40 mm) from each end of Shell Mini Redbar section.

Straight and corner sections:

Space remaining mounting buttons every 17.2" (437 mm) on center throughout the length of each section. Do not space buttons more than 19.7" (500 mm) apart.

1. Mounting methods:

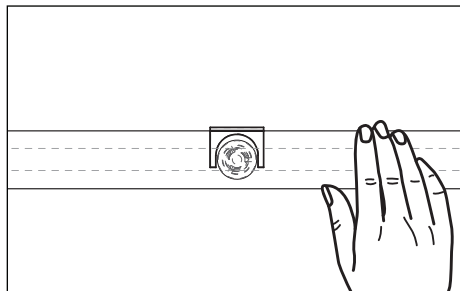
NOTE: Leave a 0.4" (10 mm) gap between 106-in. (2.7-m) long pieces to allow for expansion at warmer temperatures.



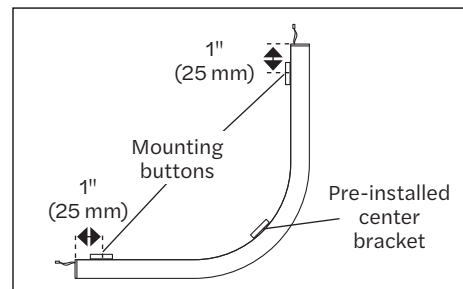
Method 1 – Slide sections into place:

Strongly recommended for temperatures under 40°F (4.5°C).

Slide straight sections onto mounting buttons with yellow side facing up. Ensure buttons and mounting track are fully engaged. Space all sections 0.4" (10 mm) apart. If custom length is needed, refer to cutting instructions below.



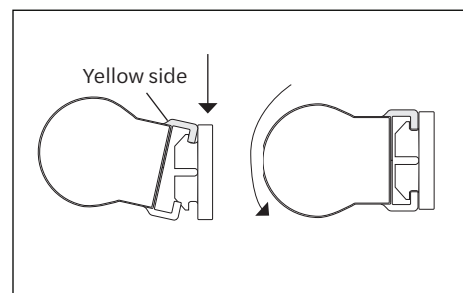
Using included center bracket, position so it captures mounting button behind extrusion. Use Weld-On #16 to bond bracket to top (yellow side) of mounting track. **NOTE:** Failure to use center bracket may cause sections to move over time.



Install mounting buttons:

Corner bends: Space mounting buttons 1" (25 mm) from each end of Shell Mini Redbar section.

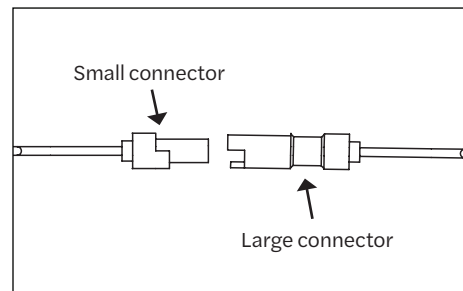
Pre-installed center bracket must be fastened **AFTER** corner section is attached to mounting buttons.



Method 2 – Snap sections into place:

Recommended when sliding is not possible

Set top (yellow side) track into mounting button. Press down to ensure track is seated. Keep yellow track engaged in button and gently rotate the extrusion downwards to snap into place.



3. Connect pieces together: Make sure tab is aligned with locking clip. Once connected, hide wires at back of extrusion in mounting track.

CAUTION: To maintain end cap integrity and prevent water penetration around wires, DO NOT pull or tightly bend wires or allow tension between wire connections. **ATTENTION:** Pour maintenir l'intégrité du capuchon d'extrémité et empêcher la pénétration d'eau autour des fils, NE PAS tirer ou plier fermement les fils ou permettre la tension entre les connexions des fils.

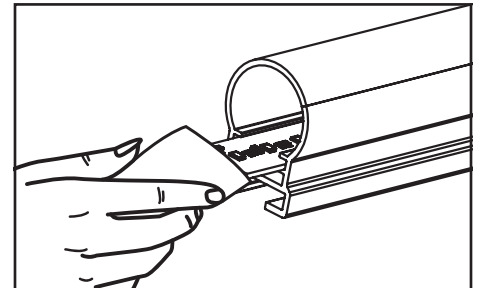
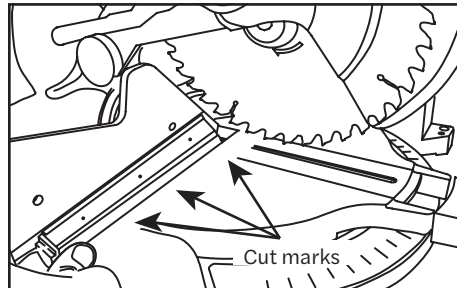
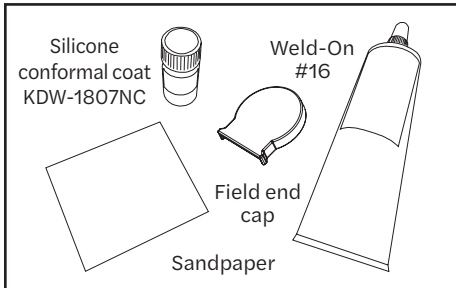
SHELL MINI REDBAR



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Field Cuts

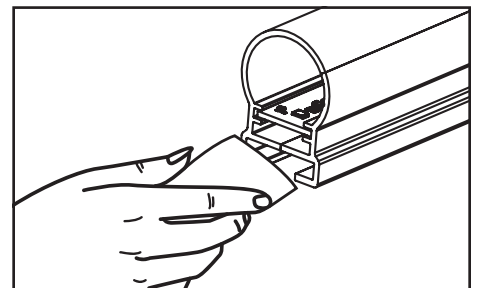
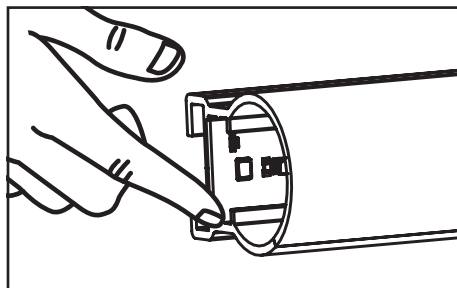
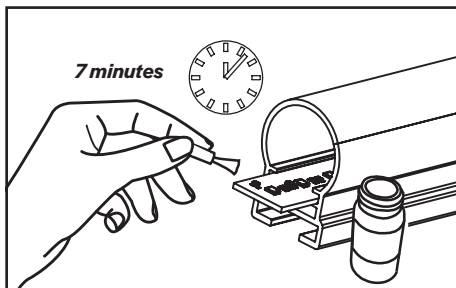
WARNING: Failure to strictly follow these instructions may subject the installer or others to personal injury. Failure to strictly follow these instructions will also void the manufacturer's warranties and may cause risk of fire, product damage, damage to property and injury to persons. Please read all warnings contained below and follow all instructions carefully. **AVERTISSEMENT:** Le non-respect de ces instructions peut exposer l'installateur ou d'autres personnes à des blessures. Le non-respect de ces instructions annulera également les garanties du fabricant et peut entraîner des risques d'incendie, d'endommagement du produit, de dommages matériels et de blessures corporelles. Veuillez lire tous les avertissements ci-dessous et suivre attentivement toutes les instructions.



1. **Gather materials:** Sandpaper, Weld-On #16, Silicone conformal coat KDW-1807NC (for sealing edge of LED board), and acrylic (field) end-cap.

2. **Cut Shell Mini Redbar:**
Sections can be cut in the field in approximate 2" (50 mm) increments on cut marks. After cutting, both pieces will illuminate. Note which connector will remain on piece planned for installation. To cut a section, measure length from end to cut mark nearest required length. Use a power miter saw to ensure a straight 90° cut. Use a sharp blade to ensure a smooth clean cut.

3. **Debur LED Board and Extrusion:**
Gently pull LED board out of tube about 0.25" (6 mm). Debur cut-end of LED board and extrusion with enclosed sandpaper. Make sure to remove all debris from LED board and Shell Mini Redbar extrusion.



4. **Seal end of LED board with conformal coat:**
Brush KDW-1807NC conformal coat onto cut edge of LED board to seal from moisture. Allow to dry for 7 minutes. Do not apply conformal coat to cut edge of extrusion or end-cap.

5. **Push PCB back into extrusion:**
After conformal coat has dried for at least 7 minutes, press circuit board as far into tube as it will go.

6. **Clean extrusion:** Ensure end of extrusion is clean and free of any foreign material. If any conformal coat adhered to the extrusion, gently sand off. Avoid sanding edge of LED board.

WARNING: Avoid getting conformal coat on end of extrusion. Conformal coat will interfere with end-cap bond.

AVERTISSEMENT: Évitez d'appliquer une couche conforme à la fin de l'extrusion. Une couche conforme interférera avec l'adhérence de l'embout.

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to view the
installation video.

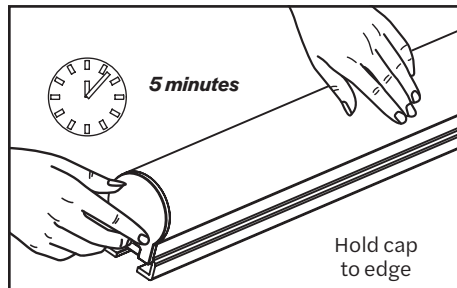
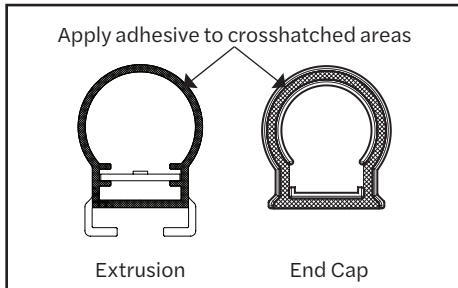


SHELL MINI REDBAR



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Field Cuts (cont.)



WARNING: It is important to follow and review the safety instructions and MSDS for Weld-On #16 solvent cement packaging and KDW-1807NC silicone conformal coat. Follow all safety instructions on Weld-On #16 packaging.

Silicone conformal coat KDW-1807NC MSDS available from Principal Sloan by request.

Weld-On #16 MSDS available at <http://www.ipscorp.com/>

7. **Apply Weld-On #16:** Apply Weld-On #16 in a generous continuous bead to cut end of Shell Mini Redbar extrusion and bonding surface on end-cap. See diagram above. Do not use silicone or other solvents/adhesives.

8. **Fit end-cap to cut edge:** After applying Weld-On #16, immediately press the end-cap onto the extrusion. Ensure that the end-cap is aligned, covers entire extrusion opening, and is completely seated against extrusion. Apply pressure to end-cap for 5 minutes. Strong tape can be used to maintain pressure on the end-cap for the curing period.

WARNING: Field end-cap must create a water tight seal. All debris must be removed to promote a good end-cap bond and to avoid electrical failure. Use of other types of saws and/or use of a dull blade may lead to chipping or cracking of the extrusion or create a cut that cannot be sealed resulting in product failure. Ensure extrusion bonding surface is clean. Contaminants or any adhesive other than Weld-On #16 on this surface may lead to poor bonding, water ingress, and product failure. Product failures resulting from failure to strictly follow field cut instructions are not covered by any product warranty.

SAFETY WARNING: Failure of field end-cap to maintain a water tight seal may lead to water ingress and product failure. Product failures of this type could result in electrical shock and/or fire and damage to the product and materials which may come in contact with the product. Electrical shocks may cause injury. **AVERTISSEMENT DE SÉCURITÉ:** Le non-respect du capuchon d'extrémité sur site pour maintenir un joint étanche à l'eau peut entraîner une pénétration d'eau et une défaillance du produit. Les pannes du produit de ce type peuvent entraîner un choc électrique et / ou un incendie et endommager le produit et les matériaux qui peuvent entrer en contact avec le produit. Les chocs électriques peuvent provoquer des blessures.

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SHELL MINI REDBAR



Installation Guide for 701996-4WRY(X)1-(1400, 2700)-24

24 VDC Power Supply Capacity Table for Shell Mini Redbar

Part number	Input		Output		Loading
	Nominal input voltage	Input current	Output power	Output current	
24 VDC Power Supply with Arc Detection (701895-24C1) [†]	100-277 V	1.4 A	96 W	4 A max.	Up to 70 ft (21.3 m)

NOTE: When mixing 106" (2.7 m) and 54.8" (1.4 m) on same power supply, simply add all power requirements for respective lengths of each product.

Actual number of power supplies needed may vary based on how materials are distributed across project.

* Ensure load on each power supply output does not exceed 3.75 A.

[†] Wet location power supply: Refer to install guide for configurations.

Troubleshooting:

One complete length of Shell Mini Redbar does not light.	Check for loose connections, wires, or connectors. If stick shows signs of damage or water ingress, replace stick.
More than one length of product does not light.	Most likely a connection problem. Check connections where product stops lighting. Another cause could be that power supply is overloaded and secondary output circuit protection is engaged. Check how many feet/meters of product are on each leg of power supply. Check output current of power supply. Check individual sticks. If any stick shows signs of damage or water ingress, replace stick.
One ~2" (50 mm) section is dark within a tube.	Problem inside product. Replace entire Shell Mini Redbar unit. Call Principal Sloan for return and replacement instructions.
After cutting, product does not light.	Check all connections to ensure connectors are mated and fully seated. Still does not light: Possible short within product. Ensure no wires are crossed and no exposed copper is bridged.
Shell Mini Redbar is dim.	Power supply is most likely overloaded. Remove section of Shell Mini Redbar until full brightness is achieved. Check output current of power supply.



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Customer service and technical support

principalsloan.com

325.227.4577

3490 Venture Dr., San Angelo, TX 76905

