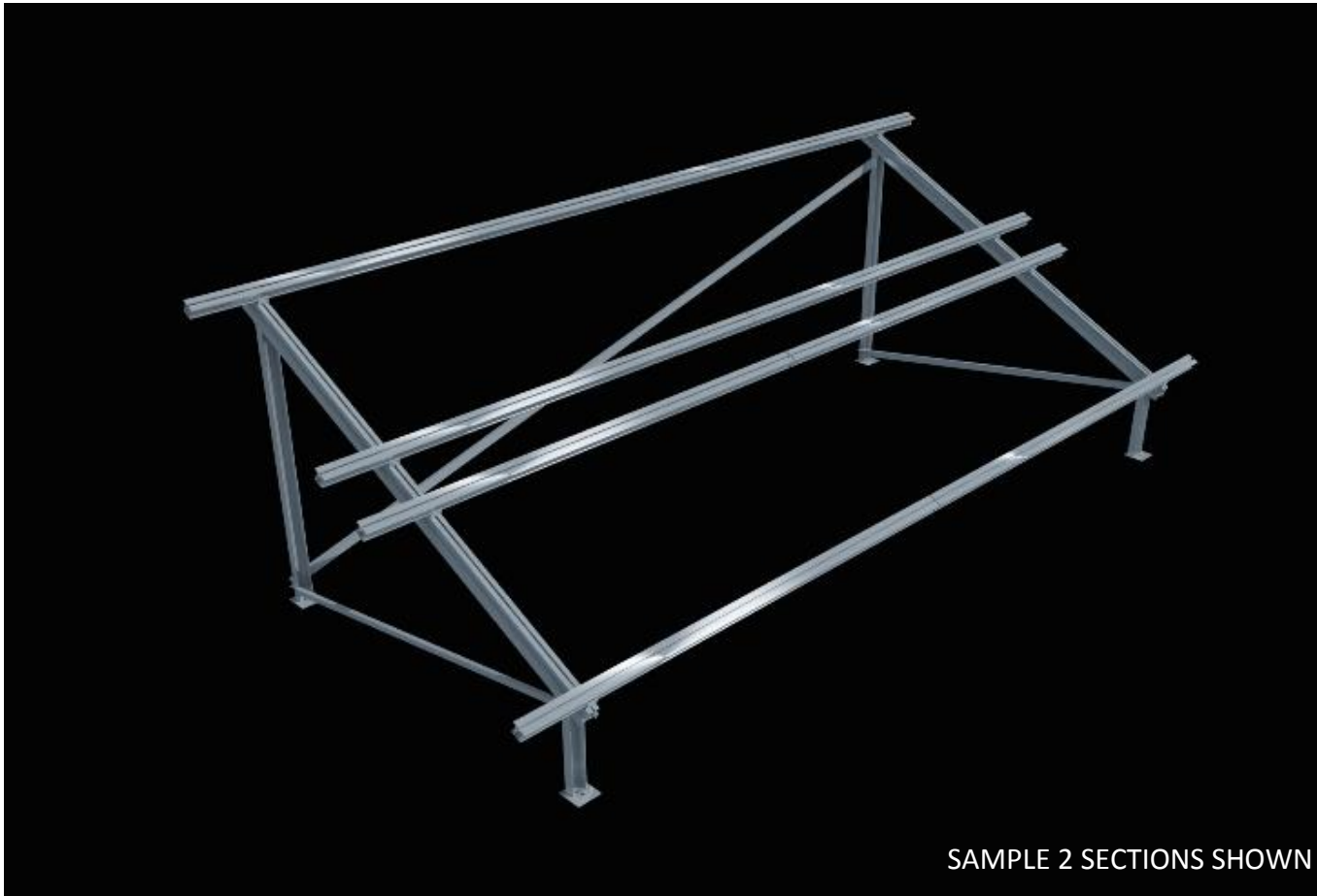


TOUGH TRAC™



SAMPLE 2 SECTIONS SHOWN

Continuous Array Portrait Small Installation Manual

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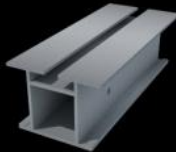

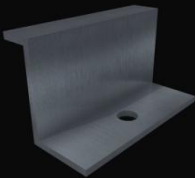
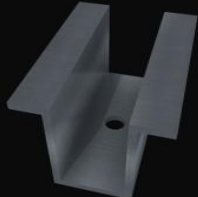
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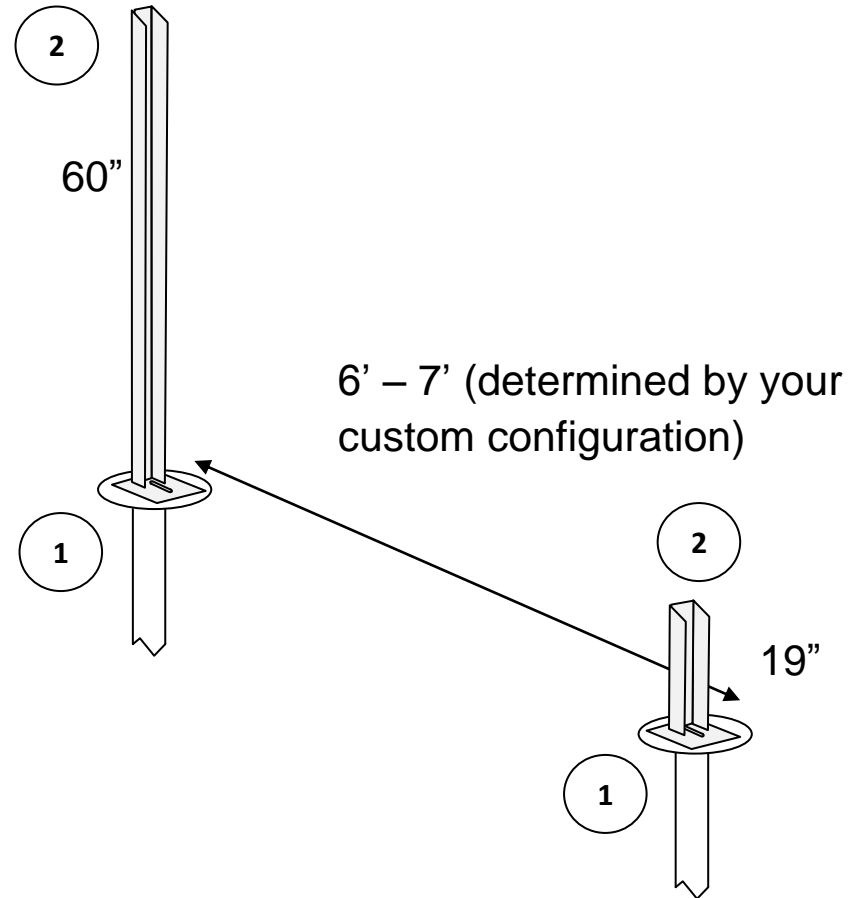
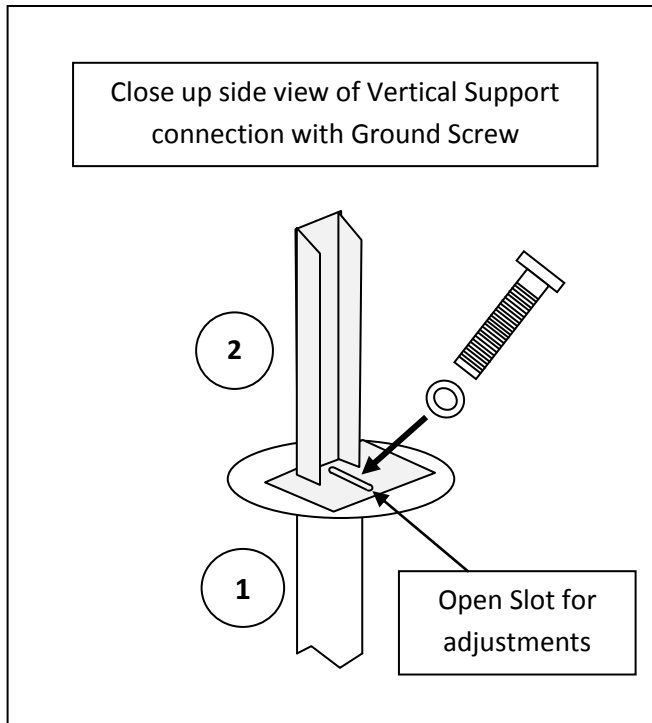
Installer Responsibilities

- Inquire and comply with all local, state, and national building codes that apply to this installation and solar panel installation.
- Consult and ensure that this mounting solution is appropriate for your particular installation.
- To use only TOUGH TRAC™ supplied parts for your installation. Substituting parts may void the warranty.
- Install temporary ballasts to all unfinished arrays to secure the system to the roof/ground to prevent movement or damage due to wind after work hours.
- Ensure all electrical connections are compliant to local electrical codes.

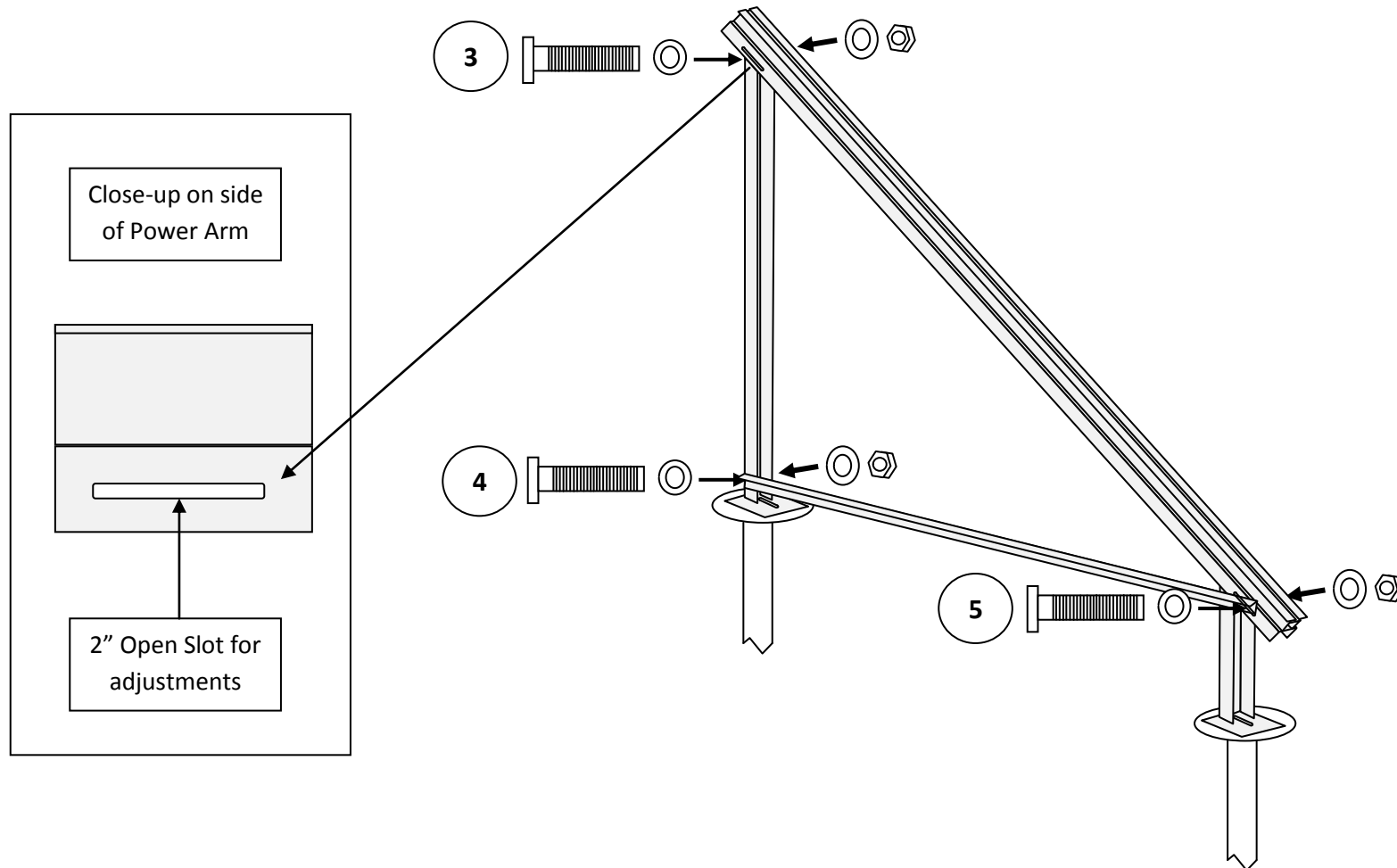
Parts supplied in your system (Stainless Steel Hardware not shown)

	<p>VERTICAL SUPPORTS (1) FRONT (1) REAR</p>		<p>Power Arm X 1</p>
	<p>SLIDE MOUNTS X 4</p>		<p>CROSS BRACE SIDE (1) REAR (1)</p>
	<p>HEAVY DUTY OR STANDARD RAIL</p>		<p>CONNECTOR TUBE</p>
	<p>TOP MOUNT END BRACKET</p>		<p>TOP MOUNT MID BRACKET</p>

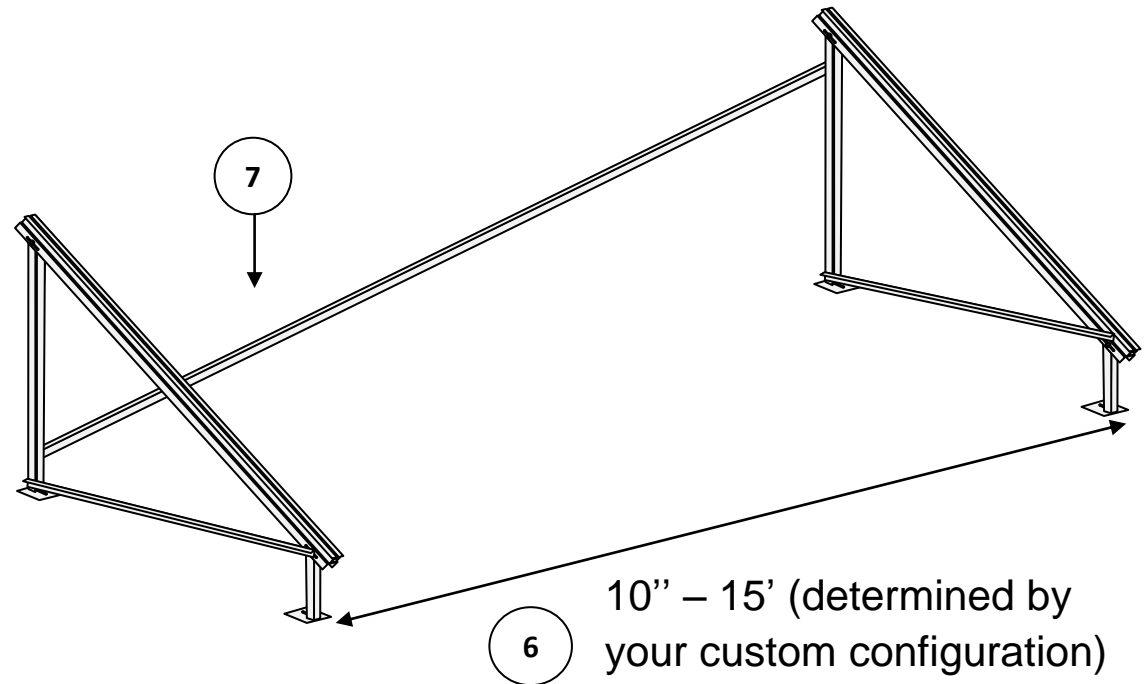
1. Ground Screws or Concrete Piers should be spaced 6' – 7' (based on your custom configuration) on center from front to back on a straight line.
2. Attach Vertical Supports w/ Base Plates to Ground Screws/Concrete Piers using recommended required bolts.



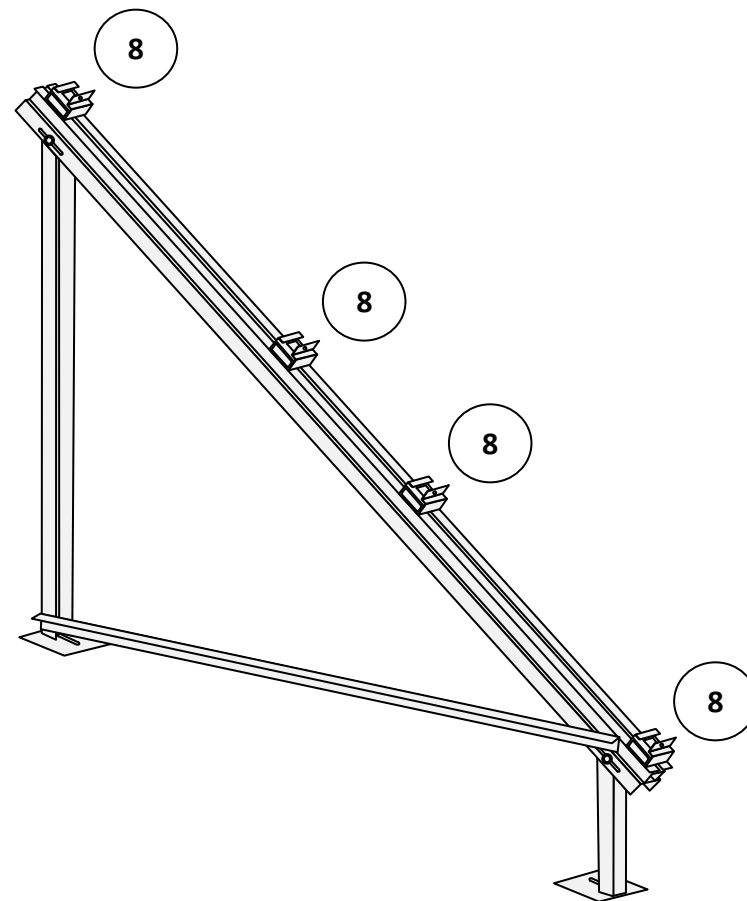
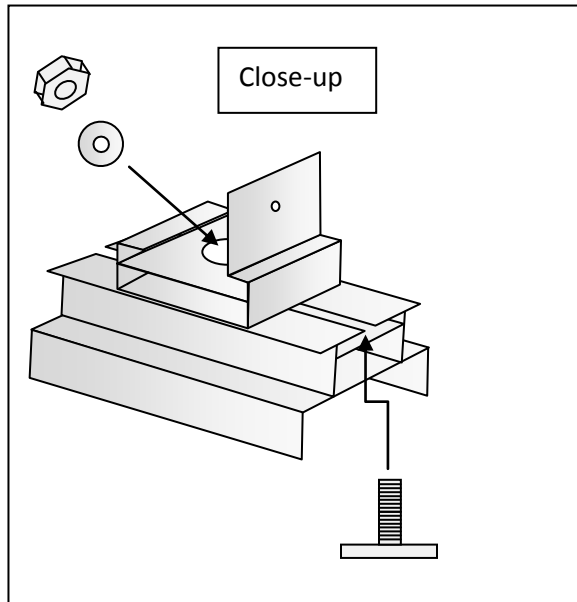
3. Attach Power Arm to Rear Vertical Support and fasten with $\frac{1}{4}$ " x 4" bolt, washers, and nut. There's a 2" open slot for adjustments to keep Power Arm aligned straight to the rest of the other sections.
4. Attach Side Cross Brace to Rear Vertical Support using $\frac{1}{4}$ " x 1" bolts, washers, and nuts.
5. Attach other end of Side Cross Brace to Power Arm and Front Vertical Support using $\frac{1}{4}$ " x 4" bolts, washers, and nuts. All three pieces share a common hole and bolt.



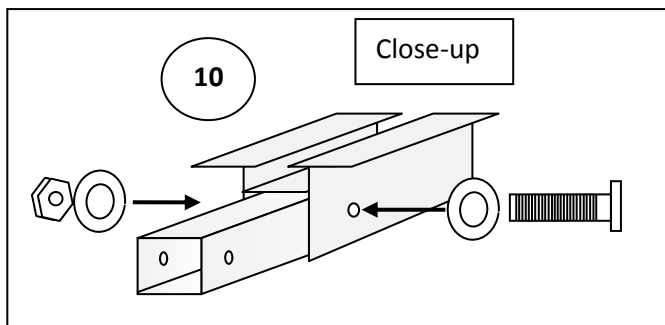
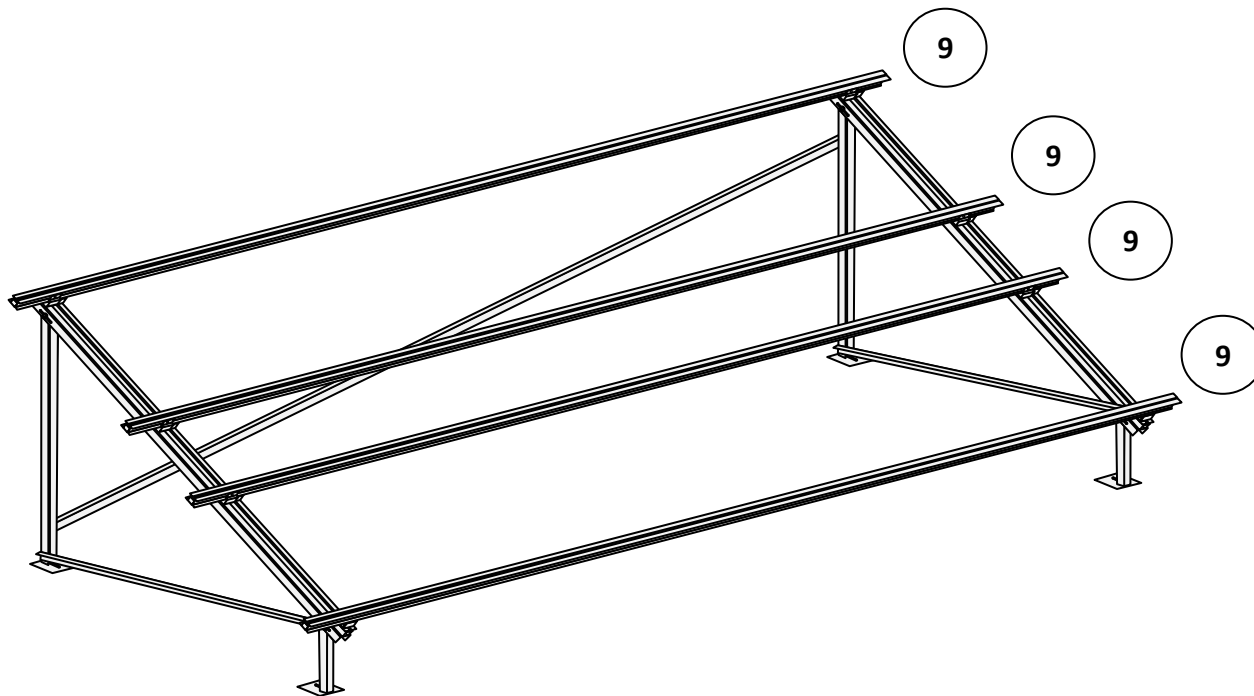
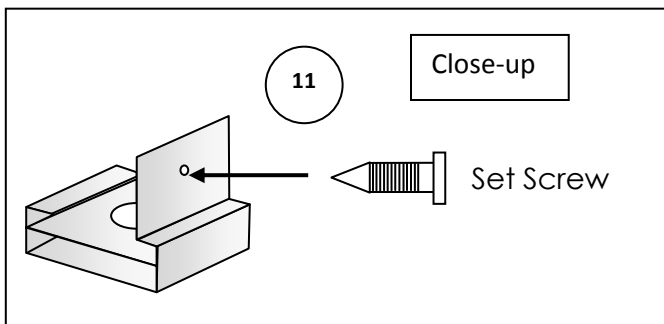
6. Continuous Array sections are to be installed 10' - 15' (determined by your custom configuration) on center.
7. Attach Rear Cross Brace to 2 sections Rear Vertical Supports using $\frac{1}{4}$ " x 1" bolts, washers, and nuts.



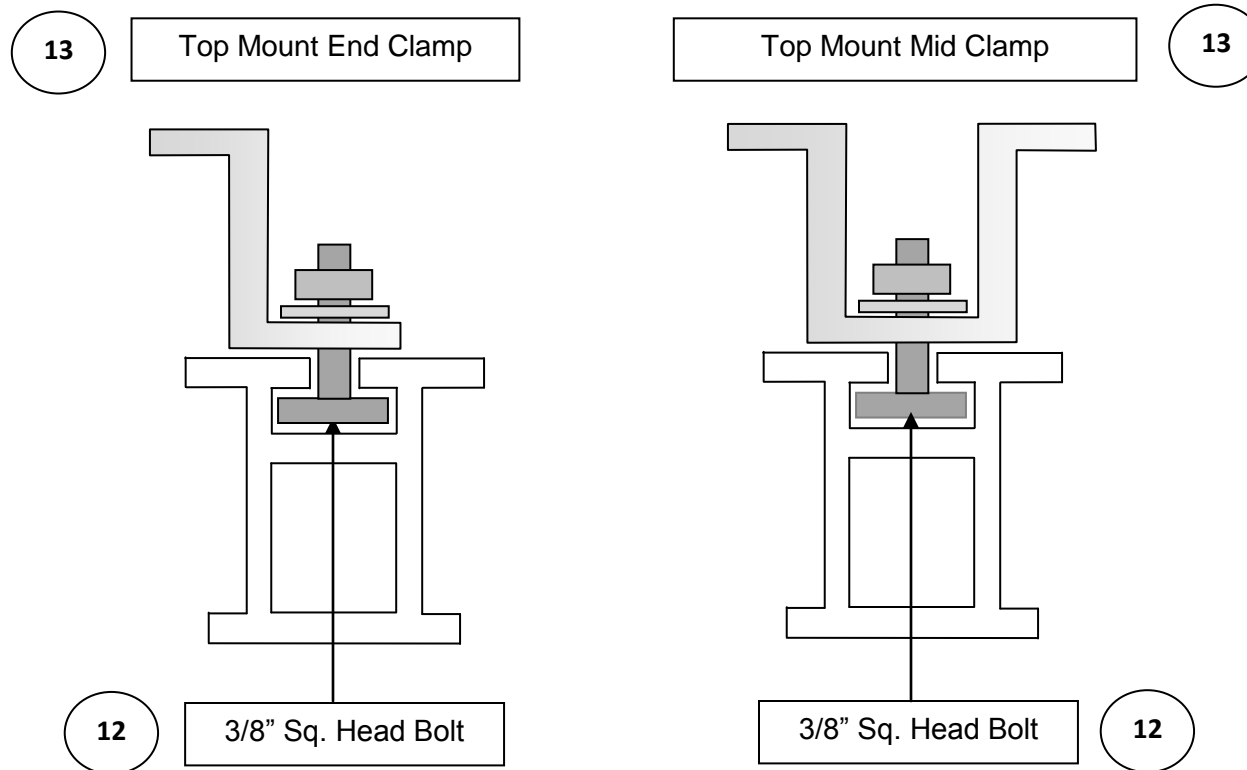
- Slide (4) 3/8" x 1" square head (7/8" x 7/8" x 3/16") machines bolts into Power Arm Slot and attach 4 Slide Mounts using washers and nuts.



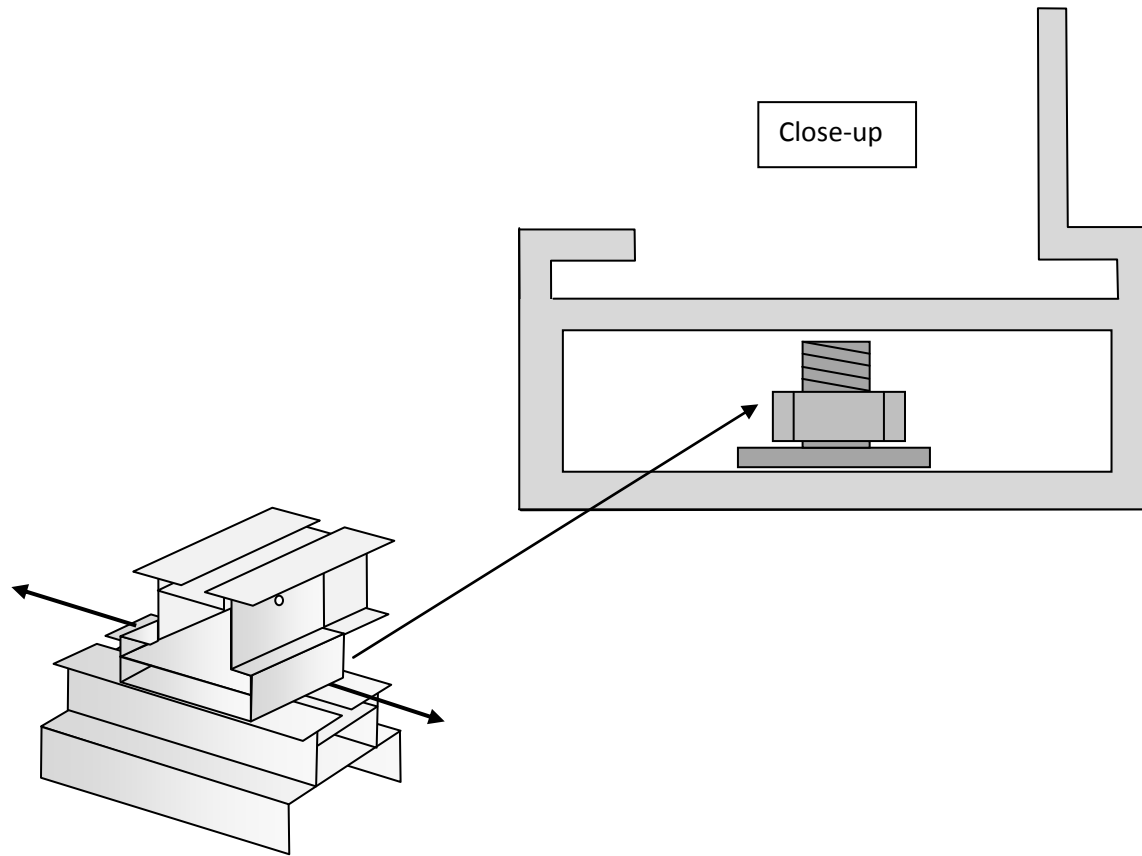
- 9. Slide TOUGH TRAC™ Rail into the Slide Mounts.
- 10. Use Connector Tubes to join Rails and fasten with 1/4" x 3" bolt, washers, and nut.
- 11. Fasten Set Screws to lock Rail.

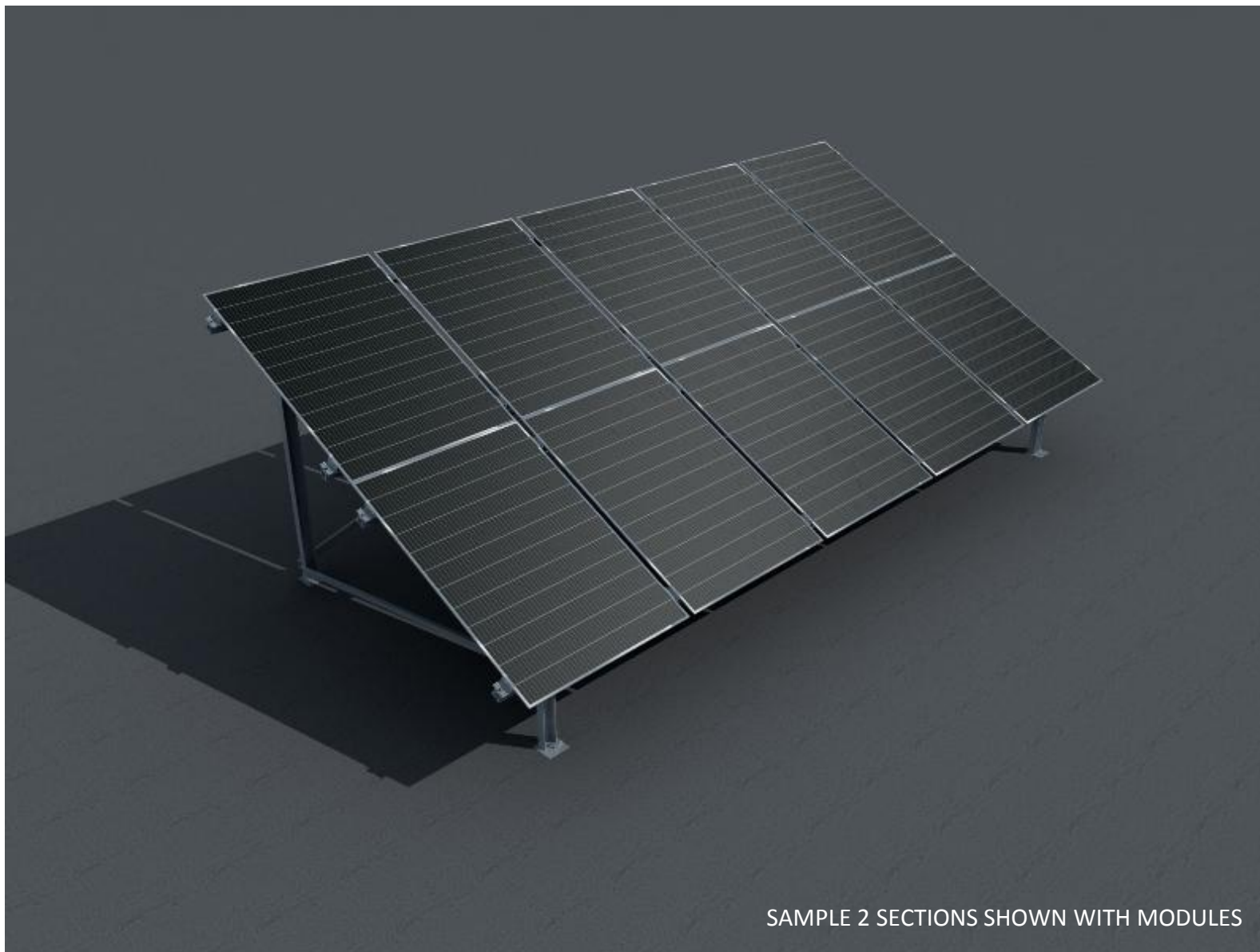


- Slide 3/8" x 1" Square Head Bolts (1 3/16" x 1 3/16" x 3/16") into each TOUGH TRAC™ Rail.
- Place panels on rail and attach Top Mount Clamps to secure panels. Place washer and tighten nut.



If the rail is already installed and an adjustment is needed to the Slide Mount, use an open wrench to loosen the 3/8" nut on the side of the Slide Mount.





20-year Limited Warranty

TOUGH TRAC™ warrants the original purchaser that each Solar Panel Mounting System ("Units") to be free from defects in materials and workmanship for a period of 20 years from the date of first purchase except for the anodized finish.

The Limited Warranty is considered VOID if TOUGH TRAC™ Units are not installed properly and not used for the purpose for which it is designed. TOUGH TRAC™ Limited Warranty does not cover Units that are damaged resulting from shipping, storage, and misuse or abuse during installation.

The Limited Warranty covers the cost of parts to repair or replace the Units to a proper working condition. Transportation and incidental costs associated with warranty items are not reimbursable. TOUGH TRAC™ Limited Warranty only covers its Units and under no circumstances be liable for indirect or consequential damages resulting from or related use by the original purchaser of the Unit.

All parts supplied for this system is made of 6000 series aluminum. All hardware including all bolts, nuts, and washers are made of Stainless Steel.