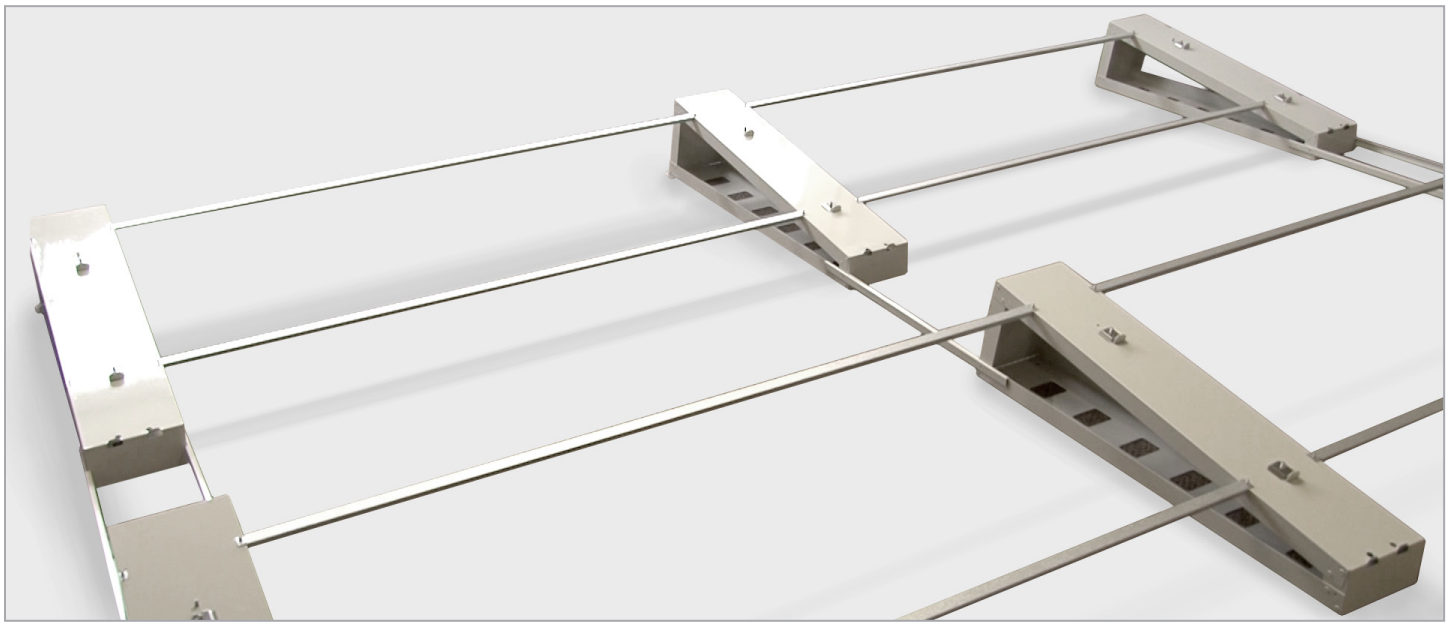
SOLAR
MOUNTING SOLUTIONS

INSTALLATION GUIDE

5° & 10° End of Panel Clamping Ballasted Roof Racking System



UL Version 2011B • Instructions For Racking End Clamp Ver 1.3
Patents Pending

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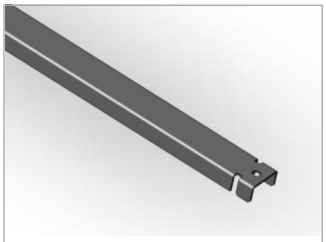
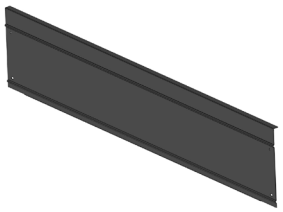
INCLUDED PARTS

Mid Row Support

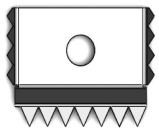
End-of-Row Support



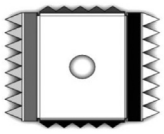
Center Brace



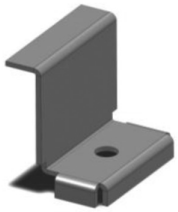
Deflector



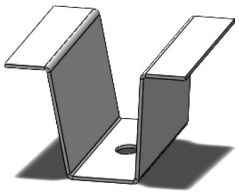
End Grounding Clip



Mid Grounding Clip

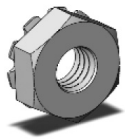


End Clamp

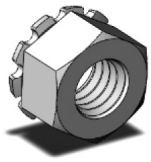


Mid Clamp

Row-to-Row Spacer



10-32
Stainless Steel KEPS Nut

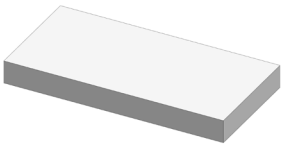


5/16-18
Stainless Steel KEPS Nut

10-32 x 1/2"
Stainless Steel Hex Cap Screw

INSTALLER PROVIDED PARTS

WEEBL-6.7
(Provided by Installer)



8" x 16" NOM
Concrete Ballast Block

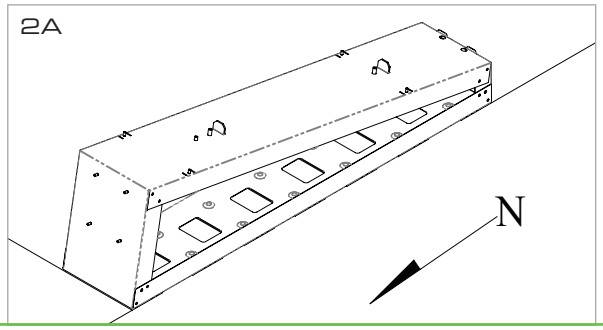
FAST AND EASY ASSEMBLY

INSTALLATION

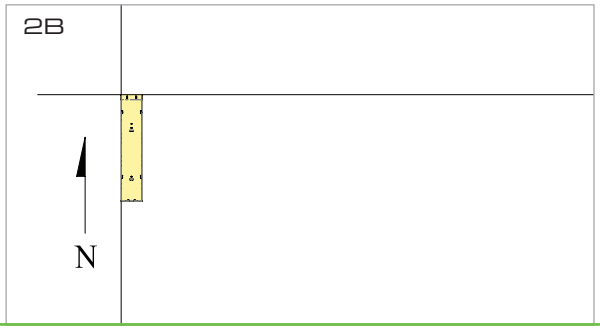
1 Snap chalk lines for the north and east or west edges per plan.

2 Place the North end of the first ***End-of-Row Support*** along your chalk lines in either the North-East or North-West corner of the array. The ***End-of-Row Support*** has an extra 1/4-20 stud for the ***WEEBL-6.7 lug*** as shown in diagram 2A.

2A

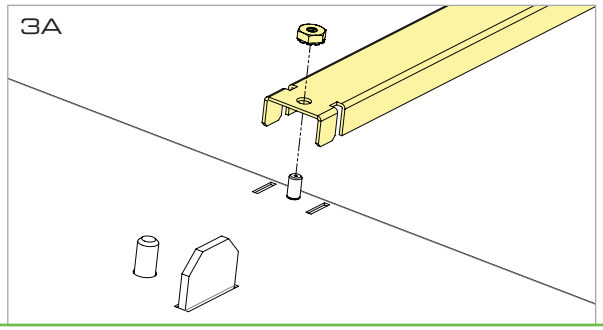


2B

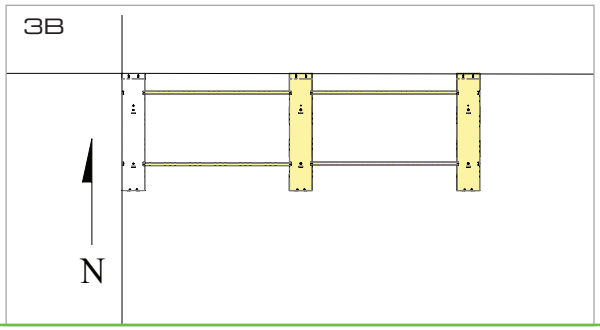


3 Add (l) ***Mid Row Support*** using (2) ***Center Braces*** to establish the spacing between them. Secure the ***Center Braces*** using (4) of the provided ***10-32 Stainless Steel KEPS nuts***; torque nuts to 28 in-lbs. Continue the row by adding another ***Mid Row Support***, (2) ***Center Braces*** and (4) nuts. Repeat until only one more support is required to finish the row, that last support will be an ***End-of-Row Support***. If there is a break in the row, use an ***End-of-Row Support*** on both sides of the opening.

3A

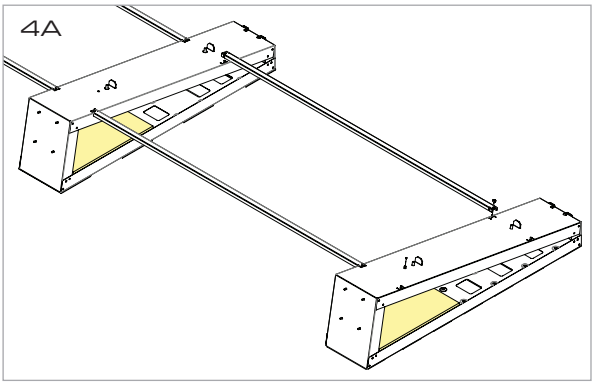


3B



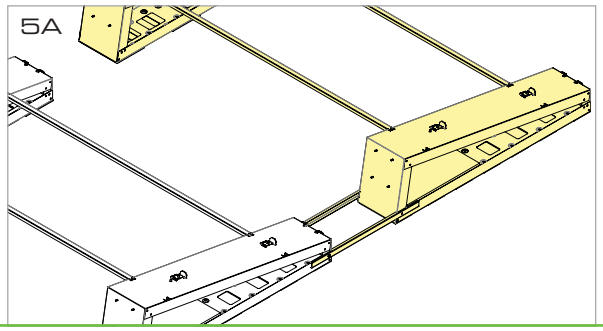
4 Add ballast into the ***End-of-Row Supports*** and the ***Mid Row Supports*** as required. Ballast to be placed inside the supports as shown in diagram 4A.

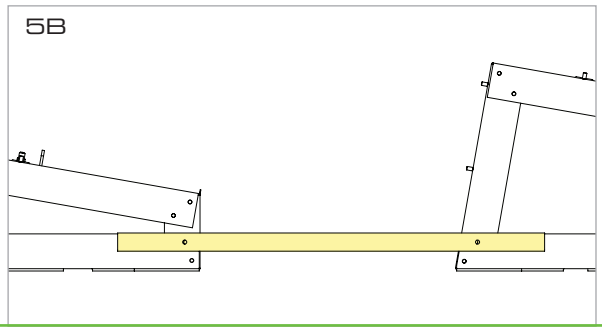
4A



5

Begin building the next row south, as in steps 2 through 4, using the ***Row-to-Row Spacer*** as required establishing the location of the row. Number and location of spacers determined by engineering drawing. Attach each ***Row-to-Row Spacer*** using two of the ***10-32 x 1/2 Stainless Steel Hex Cap Screw*** tightening each to 28 in•lbs of torque.



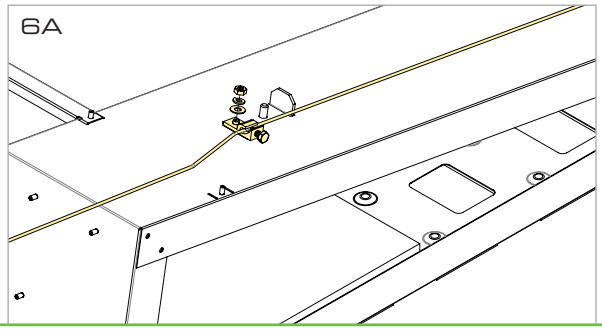


6

At the end of every row and at breaks within a row, install a ***WEEBL-6.7 lug*** with the stainless flat washer, split lock washer and nut provided with ***WEEBL-6.7 lug*** as shown in the figure 6A. Torque ***¼-20 nut*** to 10 ft•lbs. Run a copper equipment grounding conductor to each lug from row to row and between ***End-of-Row Supports*** at breaks in rows and torque bolt to 7 ft•lbs.

IMPORTANT: WEEBL 6.7 rated for one 14 AWG to 6 AWG or two 10 AWG, two 12 AWG.

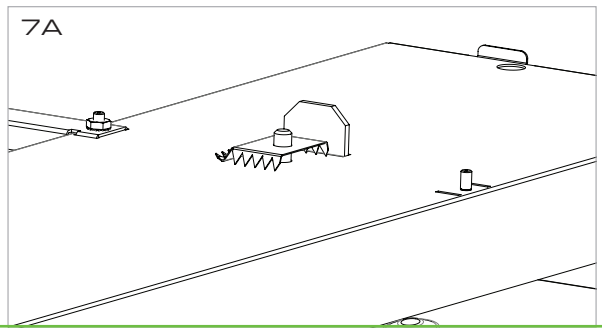
NOTE: Equipment grounding conductor size and quantity must be based on local and National Electrical Codes (NEC). Article 690, 250.



7

Place the *End Grounding Clips* on the threaded studs located on the *End-of-Row Supports*. Make sure the clips are oriented like shown in diagram 7A for proper grounding of the solar panel to the rack.

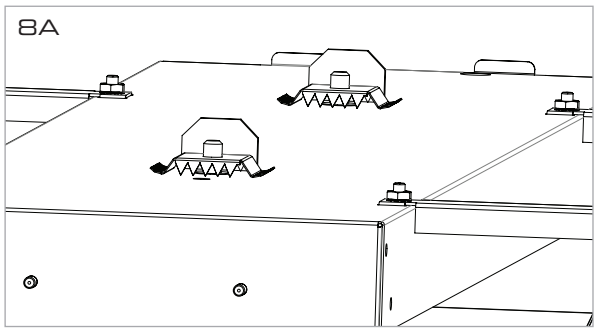
NOTE: The End Grounding Clips are sharp, handle with care to avoid injury.



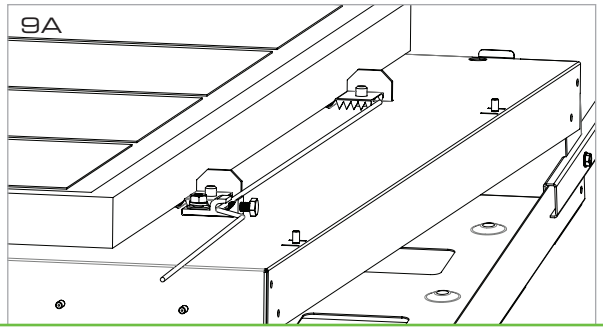
8

Place the *Mid Grounding Clips* on the threaded studs located on the *Mid Row Supports*. Make sure the clips are oriented like shown in diagram 8A for proper grounding of the solar panel.

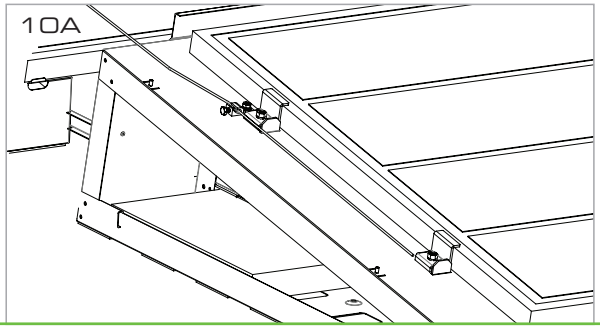
NOTE: The Mid Grounding Clips are sharp, handle with care to avoid injury.



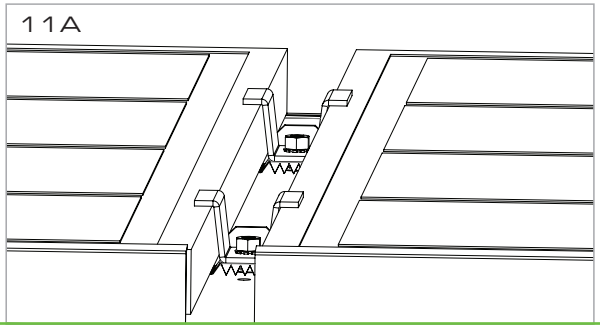
9 Install solar panels on to the racking system making sure that the sharp upward pointing teeth of the ***End Grounding Clip*** and the ***Mid Grounding Clip*** are under the edge of the panel.



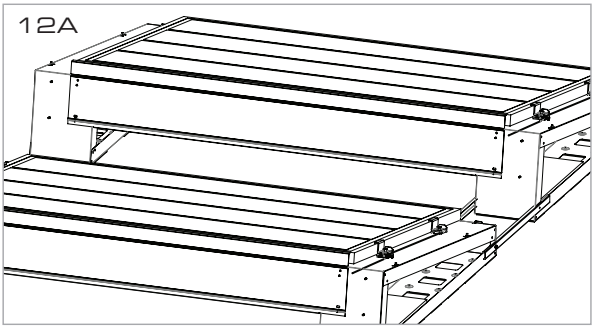
10 After installing the solar panels, place the ***End Clamp*** on the ***End Grounding Clip*** located on the ***End-of-Row Support***. Add the ***5/16-18 Stainless Steel KEPS Nuts*** and tighten to 13 ft•lbs.



11 After installing the ***End Clamps***, place (2) of the ***Mid Clamps*** on the 5/16-18 studs located on the ***Mid Row Supports***. Add the ***5/16-18 Stainless Steel KEPS Nut*** and tighten to 13 ft•lbs. Repeat step 10 at end of row.



12 Add the ***Deflector*** and (4) ***10-32 Stainless Steel KEPS Nuts*** to all modules. Torque nuts to 28 in•lbs.



SAFETY INFORMATION

NOTICE

- Solar Mounting Solutions ballasted flat roof PV racking system is designed to be used with PV modules that have been certified and listed to UL 1703.
- A minimum of one ballast block per support is required, unless instructed otherwise by engineering layout.
- Stainless steel can seize. Apply anti-seize compound, avoid spinning on at a high rate of speed, and keep hardware out of the sun before installation.
- NOTE: The End Grounding Clips and Mid Grounding Clips are sharp, handle with care to avoid injury.

FIRE SAFETY

- This assembly is to be mounted over a fire resistant roof covering rated for the application.
- Consult your local authority for guidelines and requirements for building or structural fire safety.
- Roof constructions and installations may affect fire safety of a building: improper installation may create hazards in the event of a fire.

GROUNDING

- For grounding and bonding requirements of completed system please refer to regional and national safety and electricity standards.

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