



Parts Identifier List - (not to scale)

	<p>Double/Single Inner-Row Connection Box (Double: approximately 10')</p>
	<p>Box Splice Plates</p>
	<p>Struts</p>
	<p>Grounding Clips</p>
	<p>Bolts, Nuts, Star Washers necessary for complete SolarRac2 installation</p>

Installation Instructions

Only one grounding lug required per array - up to 660 panels! That is equivalent to 160 kW of 250 watt panels. Every joint (between two ballast trays) must have splice plate connected with bolt, nut and 2 star washers in order to maintain grounding. Leave a gap between inner-row connection boxes as designated on mechanical drawing. Each panel must have at least one grounding clip (included).

All nut, bolt, star washer assembly points must have a star washer on either side of the attachment point.



NOTES:

Install ballast blocks only after array is assembled to allow for ease of assembly of inner-row connection boxes. Recommended 4"x8"x16" solid CMU blocks. On large arrays, 68% of array requires ZERO ballast.

All parts are pre-drilled. Use 7/16" mag socket and open end wrench to tighten all connections. Torque spec for all bolts Minimum - 65 inch pounds; Maximum - 75 inch pounds.

Easiest assembly is to go row by row when attaching strut/module assembly to inner-row connection boxes. If you lay entire array of inner-row connection boxes out first and are off a couple of inches, moving trays into position on pre-drilled system is more difficult.

Installation Instructions – TEAM ONE

Use 7/16" mag socket and open end wrench to tighten all connections

1. To Begin TEAM ONE:

- Set string line North and South, East and West.
- Place first row of inner-row connection boxes in place leaving the appropriate gap between boxes. Refer to mechanical drawing for placement for double or single inner-row connection boxes.
 - Attach inner-row connection box splice straddling two boxes.
 - Position box splice over top of inner-row connection box equally between each box aligning predrilled holes (one on each inner-row connection box).
 - Attach bolt, nut and 2 star washers through each hole with star washer on either side of attachment point.
- Measure appropriate distance to next row using predetermined row spacing. (Using an unattached strut will allow for a quick gage of appropriate row spacing.) **NOTE: Inner-row connection pans are easiest to move before strut/panel assembly is attached and ballast is in place.**
- Place second row of inner-row connection boxes in place.
- Attach panel/strut assembly to outside lips on inner-row connection boxes aligning predrilled holes. Struts will rest on one north box and one south box.
 - Attach bolt, 2 star washers a nut into each hole. There will be one connection on shorter leg and two connections on longer strut. Place star washer on either side of attachment point.
- Continue to lay out inner-row connection boxes according to mechanical drawing going row by row with panel/strut assembly until array is complete!



Installation Instructions – TEAM TWO

Use 7/16” mag socket and open end wrench

1. Panel Connection with Grounding Clip:

- ❑ You will need 2 struts with mounting hardware for four (4) attachment points and one grounding clip per module.
- ❑ Lay module upside on a saw-horse protecting module.
- ❑ Align pre-drilled holes on strut to manufacturer’s recommended mounting holes.
- ❑ Attach Grounding Clip between panel and nut, bolt and star washer connection point. (**Grounding clip should be the same location on all modules to ensure every panel has one grounding clip.**)
- ❑ Connect all four (4) strut attachment points with bolt, nut and 2 star washers. Be sure to place star washer on either side of attachment point.

2. Inner-Row Connection Box Assembly:

- ❑ Flip module/strut assembly back to upright position
- ❑ Inner-Row Connection Box to struts
 - Place all modules with struts on to outer lip of inner-row connection box straddling two boxes.
 - Maintain appropriate gap between panels.
 - Align holes on struts to holes in the inner-row connection box; **one front connection; two back connections.**
 - Connect struts to inner-row connection box using bolt, nut and 2 star washers (providing grounding path) per connection. Place star washer on either side of attachment point.

