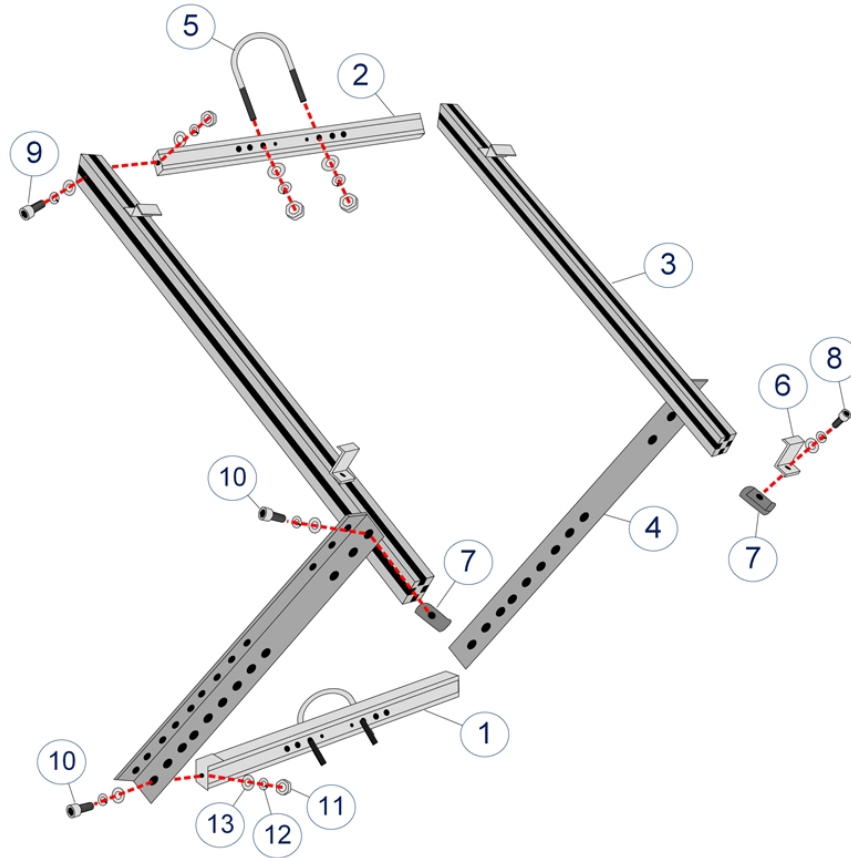


## Side of Pole Solar Panel Mount SOL-PLBR-SD



ITEM #	DESCRIPTION	QUANTITY
1	24" Aluminum Pole Crossbeam	1
2	20" Aluminum Pole Crossbeam	1
3	33" Aluminum T-Slot Incline Angle Bracket	2
4	24" Aluminum Adjustable Angle L-Bracket	2
5	Galvanized 4" U-Bolt Assembly	2
6	Aluminum Panel Z Clamp (30mm or 35mm)	4
7	Steel M8 Slot Nut	6
8	Stainless Steel M8*30 or M8*35 Hex Bolt	4
9	Stainless Steel M8*60 Hex Bolt	2
10	Stainless Steel M8*20 Hex Bolt	4
11	Stainless Steel M8 Nut	4
12	Stainless Steel M8 Spring Washer	14
13	Stainless Steel M8 Flat Washer	14

The Windy Nation Pole Bracket is the perfect solution to mount a solar panel to the side of any 2", 4", 6", or 8" diameter pole, allowing the tilt angle of the solar panel to be adjusted for optimum performance.

**CAUTION:**

Please read these instructions in entirety prior to beginning the installation.

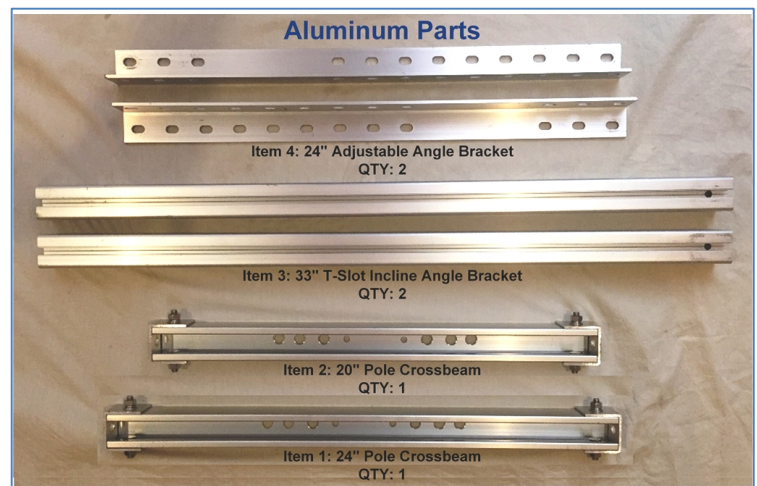
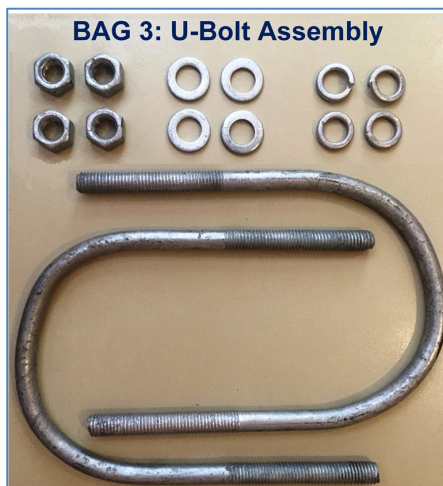
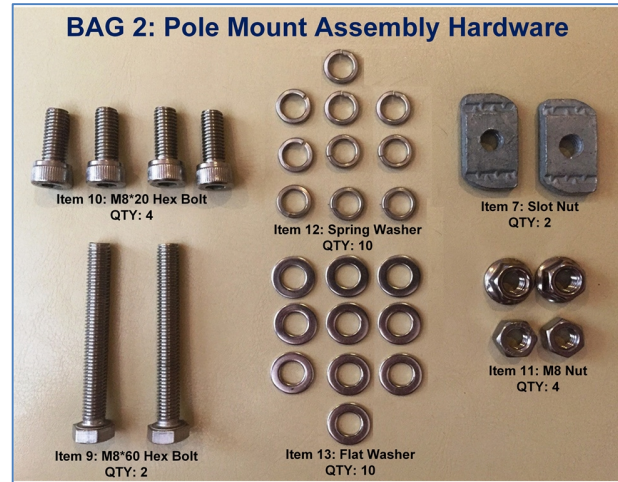
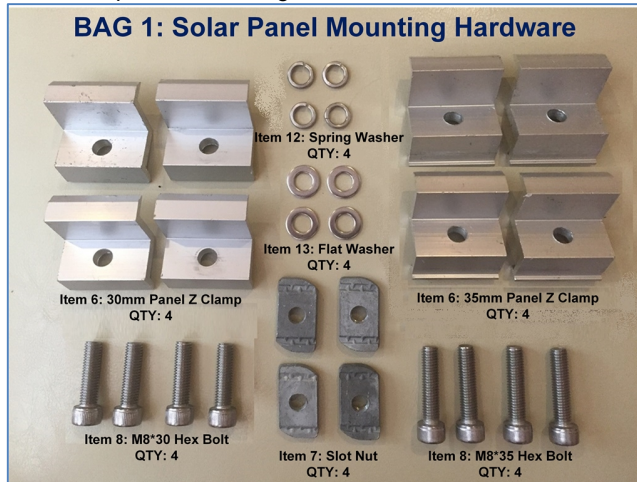
When solar panels are placed in light sources, they produce electrical energy and a voltage will appear on the output terminals. To avoid a shock hazard, keep the panel covered with a dark material during installation and avoid contact with the output terminals.

# Pole Bracket Manual

## Revision 1.0

### PART IDENTIFICATION

The Pole Bracket is delivered with three identified bags of hardware and six aluminum parts as shown below. Verify all parts have been received prior to installing the bracket.



### INSTALLATION

#### NOTE:

Ensure compliance with any local jurisdictions pertaining to the installation of solar panels prior to installing the solar bracket.

Verify that the pole that the solar bracket will be mounted to, is suitable to withstand a minimum of 50 pounds per square foot or 0.35 pounds per square inch.

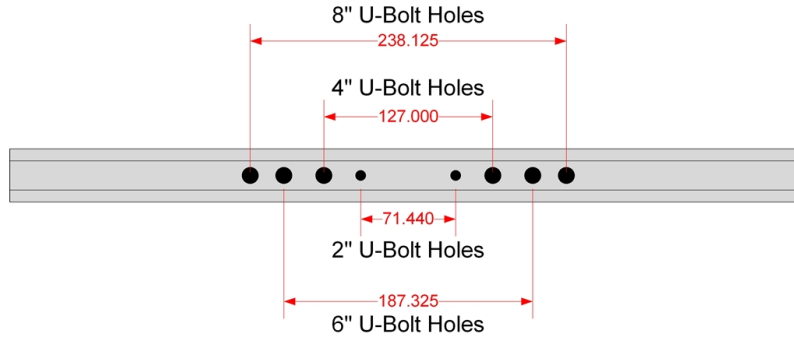
#### Required Tools

- 13mm or 1/2" open end wrench
- #6 Allen/Hex Key wrench

Select a mounting location for the solar panel that is clear of any obstructions and positioned to minimize the wiring distance between the solar panel and the charge controller.

Make sure the pole to be used for mounting is strong enough to handle the weight bearing load of the solar panels and is strong enough to provide support to the solar panel including wind loading.

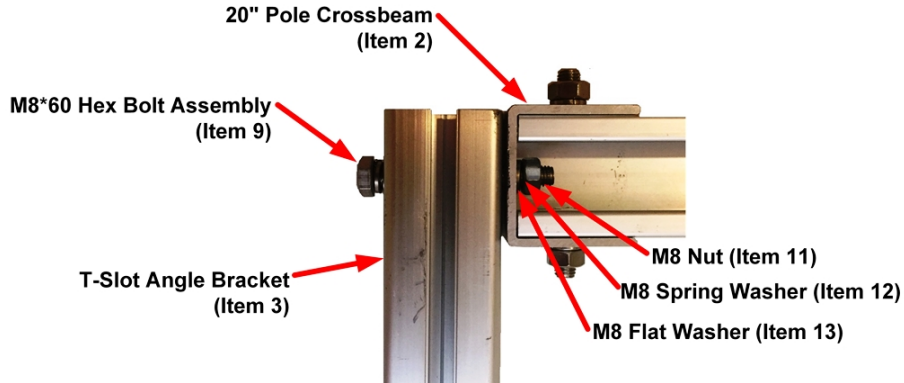
The crossbeams are pre-drilled with holes to accommodate standard 2", 4", 6" or 8" U-bolts but the kit only includes the U-Bolts for a 4" pole. For 2", 6", and 8" applications, the U-Bolts will need to be sourced separate.



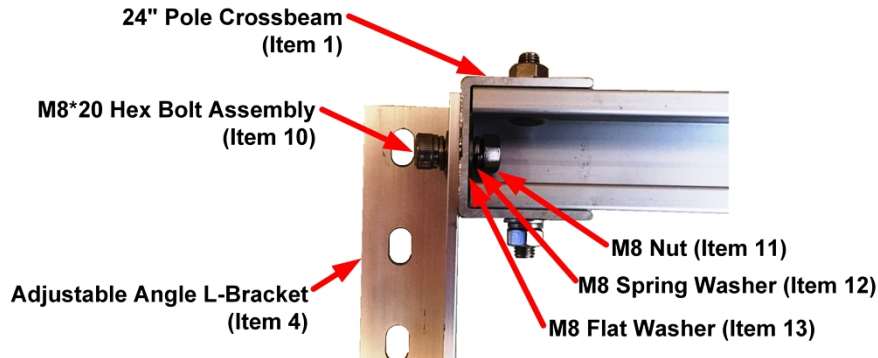
1. Locate hardware Bag 2 and pre-assemble all six Hex Bolts (Items 9 and 10) with a spring washer (Item 12) and flat washer (Item 13) as shown below.



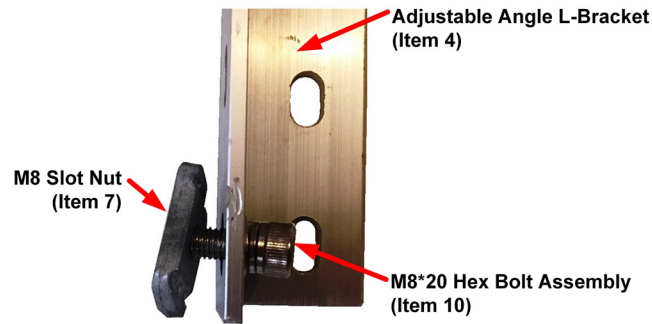
2. Secure the 33" T-Slot angle bracket (Item 3) to the 20" Pole Crossbeam (Item 2) using the M8\*60 bolt assembly (Item 9) and M8 nuts with washers (Items 11, 12, and 13), routing the bolt through the pre-drilled hole in the T-Slot bracket and the pre-drilled hole in the end cap of the crossbeam (pre-assembled); as shown below.



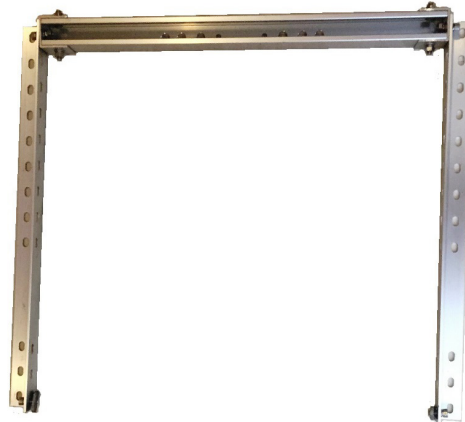
3. Repeat Step 2 for the other side of the crossbeam, using the second T-Slot angle bracket.
4. Secure the 24" adjustable angle L-bracket (Item 4) to the 24" Pole Crossbeam (Item 1) using the M8\*20 bolt assembly (Item 10) and M8 nuts with washers (Items 11, 12, and 13), routing the bolt through the pre-drilled hole in the angle L-bracket and the pre-drilled hole in the end cap of the crossbeam (pre-assembled); as shown below.



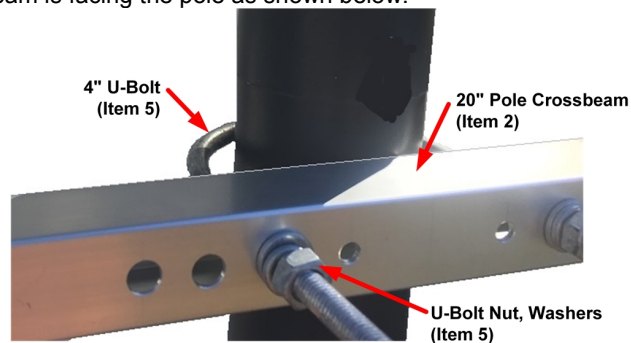
5. Repeat Step 4 for the other side of the crossbeam, using the second adjustable angle L-bracket.
6. Secure the M8 Slot Nut (Item 7) to 24" adjustable angle L-bracket (Item 4) using the M8\*20 bolt assembly (Item 10) and M8 nuts with washers (Items 11, 12, and 13), routing the bolt through the bottom pre-drilled hole in the angle L-bracket; as shown below.



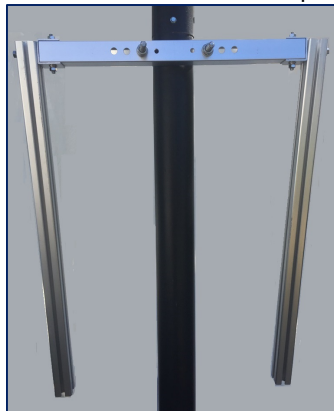
- Repeat Step 6 for the other adjustable angle L-bracket. The assembly should look as shown below.



- Secure the T-Slot / 20" Cross beam assembly from Steps 2-3 to the pole using one U-Bolt assembly (Item 5). Be sure the open cavity of the cross beam is facing the pole as shown below.

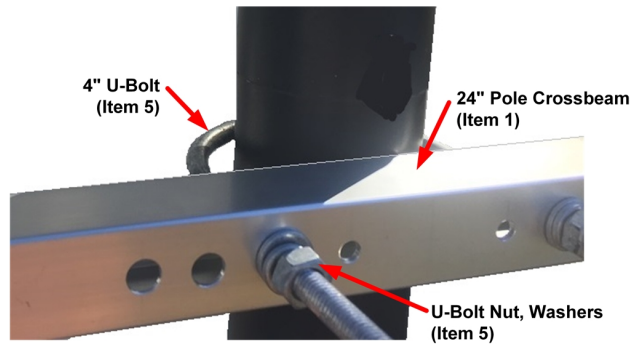


- Orient the crossbeam where the top of bracket will be located on the pole as shown below

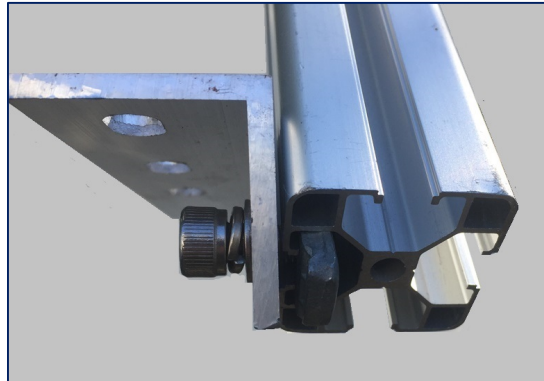


- Secure the Adjustable Angle L-bracket / 24" Cross beam assembly from Steps 4-7 to the pole using the second U-Bolt assembly (Item 5) approximately 24" below the T-Slot / 20" Cross beam assembly from Step 9. Be sure the open cavity of the cross beam is facing the pole as shown below.





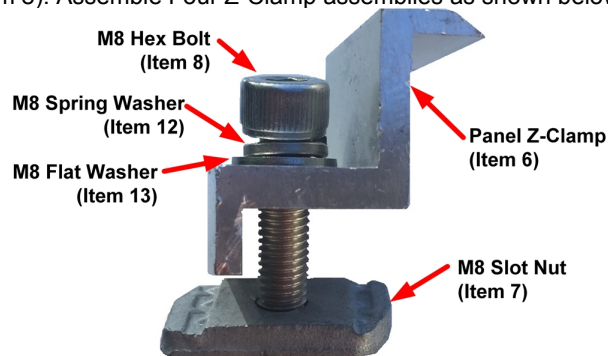
11. Lift the Adjustable Angle L-Bracket end with the Slot Nut (Step 6-7) and align the slot nut with the groove in the T-Slot bracket and slide the nut up into the bracket as shown below.



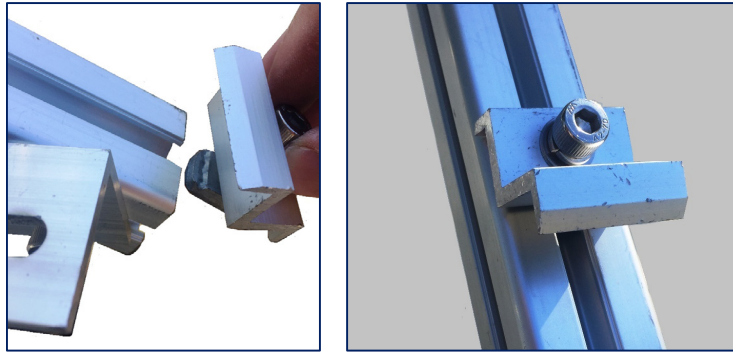
12. Repeat Step 11 for the other side of the mount. The assembly should look as shown below.



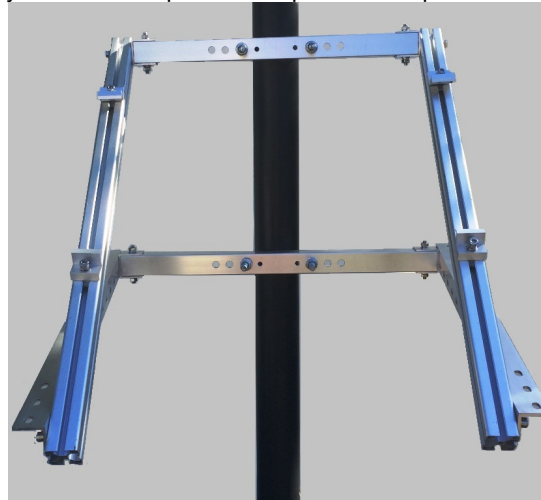
13. Select the appropriate Solar Panel Z-Clamp (Item 6) for your solar panel thickness (30mm or 35mm) and the corresponding Hex Bolt (Item 8). Assemble Four Z-Clamp assemblies as shown below.



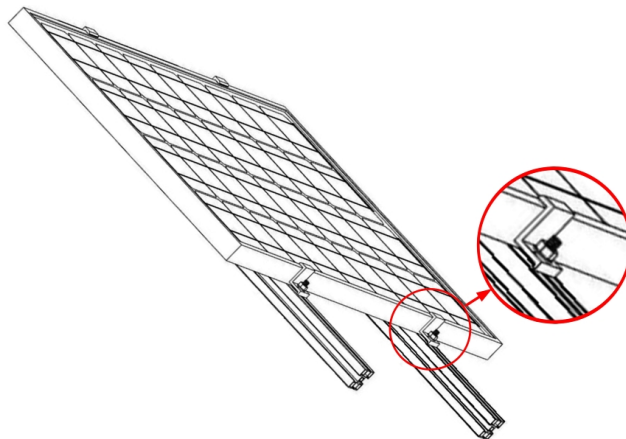
14. Slide two of the Z-Clamp assemblies into each of the T-Slot Bracket and move the clamps into the channels as shown below



15. Orient the four Z-clamps so they will allow the panel to be placed on top of the T-Slot Brackets as shown below.



16. Place the panel inside the four Z-clamps and secure the panel by tightening the Z-clamps to the panel frame as shown below.



17. Set the tilt angle by moving the Adjustable Angle L-Brackets (Item 4) within the T-Slot Bracket.

For Northern Hemisphere installations, the solar panels should be mounted at angle facing true south (true north for Southern Hemisphere installations). The recommended mounting angle should be equal to the latitude location of where you are installing the solar panels. For example, the latitude of Miami, Florida, USA is 25 degrees. Therefore, solar panels installed in this area should ideally be facing true south at a tilt angle of 25 degrees.

Due to design constraints in many installations, you will not be able to mount the solar panel facing true south at the ideal tilt angle. In these cases, try to come as close as possible to the ideal mounting configuration as this will maximize the power output from the solar panels.

#### **WARRANTY**

Windy Nation warrants the item to be free of manufacturing flaws for a period of one (1) year.

Windy Nation is not responsible for any injuries and/or damages caused as a result of not complying with the specifications stated.