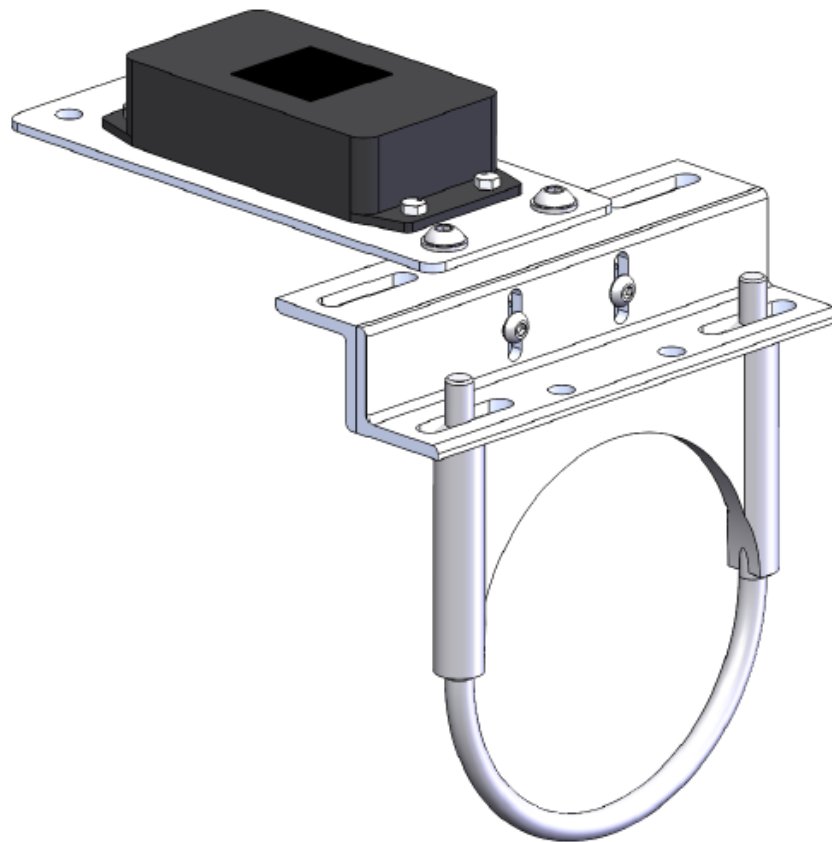




## Solar | Array Mounted Reference Cell Round Torque Tube #16515

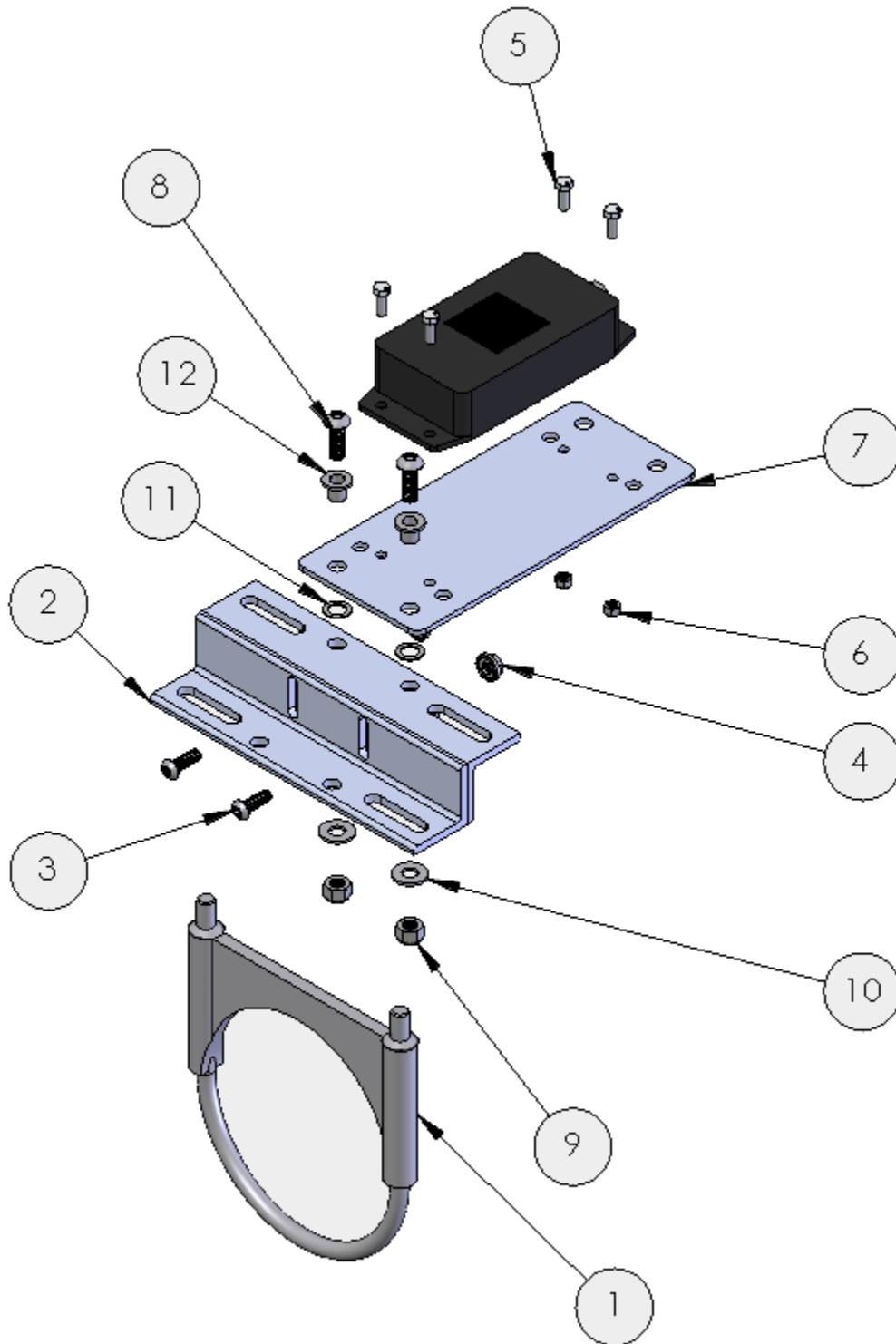
### INTRODUCTION

Kit #16515 was designed to mount a reference cell to a 5-inch diameter, round torque tube using Mounting Plate #15756 and a U-bolt.





Solar | Array Mounted Reference Cell Round Torque Tube  
#16515





## Solar | Array Mounted Reference Cell Round Torque Tube #16515

### #16515: Parts/BOM

NRG Part Number	Part Description	Part Specification Notes	Qty	Diagram Key
15848	Clamping U-bolt & Nuts	3/8-16 Threaded   Zinc Plated   5" ID	1	1
15821	Angled Bracket	Pre-drilled angled aluminum	2	2
12022	Button Head Screw	1/4-20 x 3/4   Stainless	2	3
15869	Serrated Flange Locknut	1/4-20 threaded   Stainless	2	4
10194	Screw	M5 x .8mm   14mm Length	4	5
14975	Nyloc Nut	M5   Stainless	4	6
15756	Reference Cell Plate	Plate, Reference Cell, Boom Mount	1	7
14980	Button Head Screw	5/16-18 thread   0.875" length   Stainless	2	8
14979	Nyloc Nut	5/16-18 threaded   Stainless	2	9
18249	Nylon Washer	.34 ID   Nylon	2	10
18250	Nylon Washer	.375 ID   Nylon	2	11
18251	Nylon Washer Sleeve	.3125 ID   Nylon	2	12

### Tool List

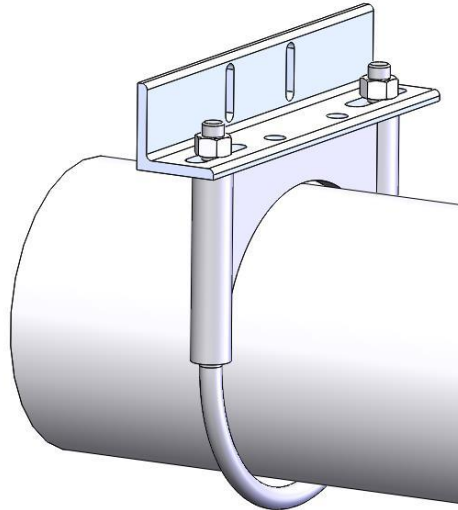




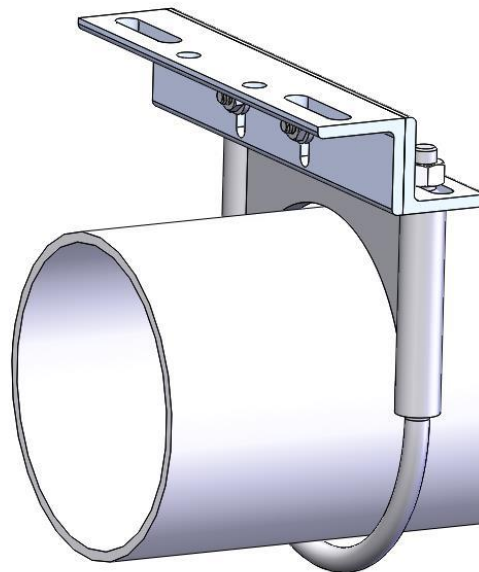
## Solar | Array Mounted Reference Cell Round Torque Tube #16515

### Procedure

- 1) Clamp one #15821 angled bracket to the torque tube using the #15848 U-bolt kit. Tighten nuts with a 3/8 nut driver.



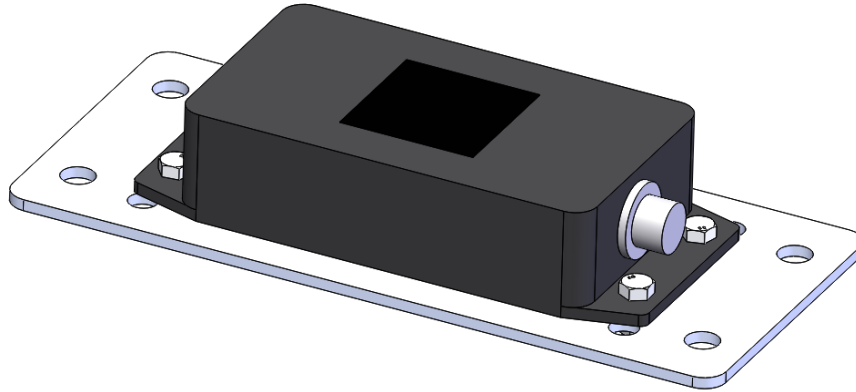
- 2) With the #12022 screws and #15869 nuts, loosely fasten the second #15821 angled bracket to assembly.



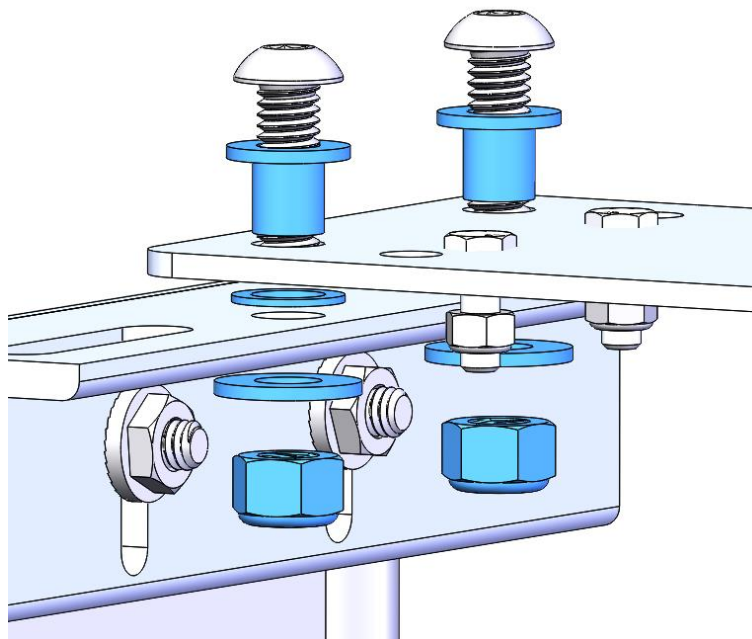


## Solar | Array Mounted Reference Cell Round Torque Tube #16515

- 3) Mount the reference cell to the #15756 plate using #10194 screws and #14975 nuts. *Note: do not overtighten the nuts.*



- 4) **With the sensor cable exiting northwards**, mount the above assembly to the bracket assembly utilizing the nylon washers and sleeve washers as shown below.



Insert the #14980 screws into the sleeve washers #18251 and then through the holes in the Mounting Plate. Add nylon washers #18250 to the ends of the screws, and insert the screws through the holes in the angle bracket #15821. Add nylon washers #18249 to the ends of the screws before adding the nuts as shown below.



### Solar | Array Mounted Reference Cell Round Torque Tube #16515

These nylon sleeves and washers provide plate isolation and additional sensor protection from electrostatic shock.

- 5) The reference cell should be in line with the PV panels on the array. Check that the reference cell is at the correct angle along both axes. Adjust if necessary and then tighten all hardware.



***It is critical that the reference cell be at the same angle/level as the PV panels.***

***If possible, level the array table and then install the sensor, taking care that the reference cell mount is at the same level as the PV panels.***



## Solar | Array Mounted Reference Cell Round Torque Tube #16515

### Additional Configurations

Reference Cell Mount #16515 can be assembled in multiple ways for more adjustability by flipping the angled brackets and using the adjustable screw slots. RPOA (not shown) configuration is also possible.

