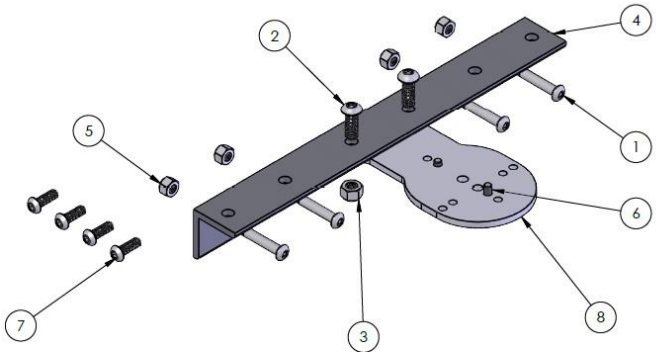
Universal Pyranometer Array Mount | #14983

Introduction

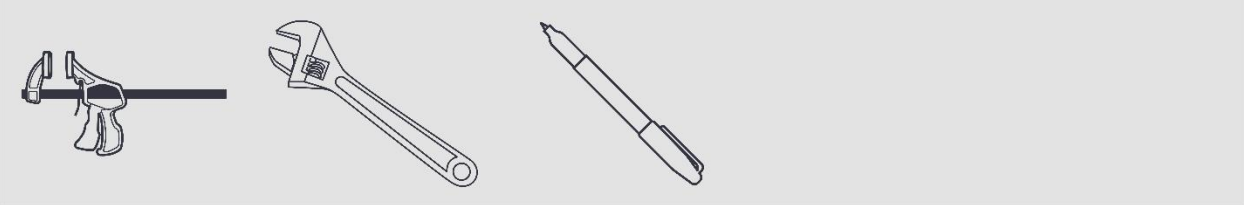
These instructions explain how to mount a pyranometer to the frame of a PV array with a frame or mounting location that can be drilled. The bracket allows the sensor to be placed in a global plane-of-array (GPOA) orientation.



#15483 Parts/BOM

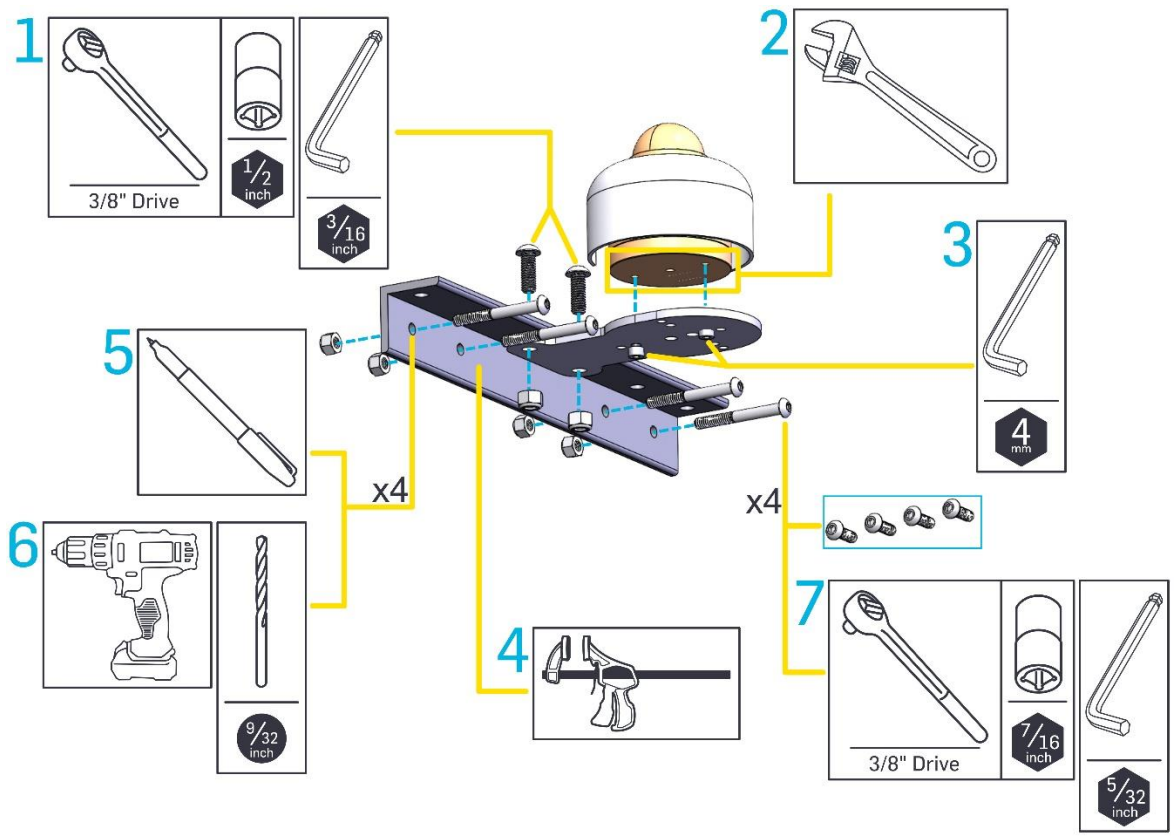
NRG Part Number	Part Description	Part Specification Notes	Qty	Diagram Key
15498	Mounting Plate	Aluminum | 3/16” thickness	1	8
14467	Bracket, 1.5”, Angle	Pre-drilled angled aluminum	1	4
14981	Button Head Screw	1/4-20 thread | 2.25” length | Stainless	4	1
10406	Nyloc Nut	1/4-20 thread | Stainless	4	5
14980	Button Head Screw	5/16-18 thread | 0.875” length| Stainless	2	2
14979	Nyloc Nut	5/16-18 thread | Stainless	2	3
14397	Pyranometer mounting screws	M5 x 0.8 | 10 mm length | Stainless	2	6
12022	Button Head Screw	1/4-20 thread | 0.75” length | Stainless	4	7

Tools



Apply a small amount of anti-seize to the bolt threads.

Procedure



1. Attach the universal mounting plate #15498 to angle bracket #14467 using the 5/16-18 stainless hardware.

2. Remove the feet from the pyranometer. The pyranometer mounts directly to the plate.

3. Attach the pyranometer to universal mounting plate #15498 with the M5 screws.

4. Clamp the assembly to the PV array frame at the desired mounting location.
   IMPORTANT: Ensure that the pyranometer sensing element is on plane with the PV panels and the bracket is level with the PV panles!

5. Angle bracket #14467 has (4) mounting holes, but a minimum of two can be used. Mark the locations of these holes on the PV array frame. Remove the assembly after marking.

6. Drill the marked holes in the PV array frame. Drill bit size: 9/32”|7.2mm|Size K

7. Mount the assembly to the PV array frame using the 1/4-20 stainless hardware.
   Longer screws (2.25”) are shown, but shorter screws (0.75” | outlined in blue) are included to suit thinner PV array frames.