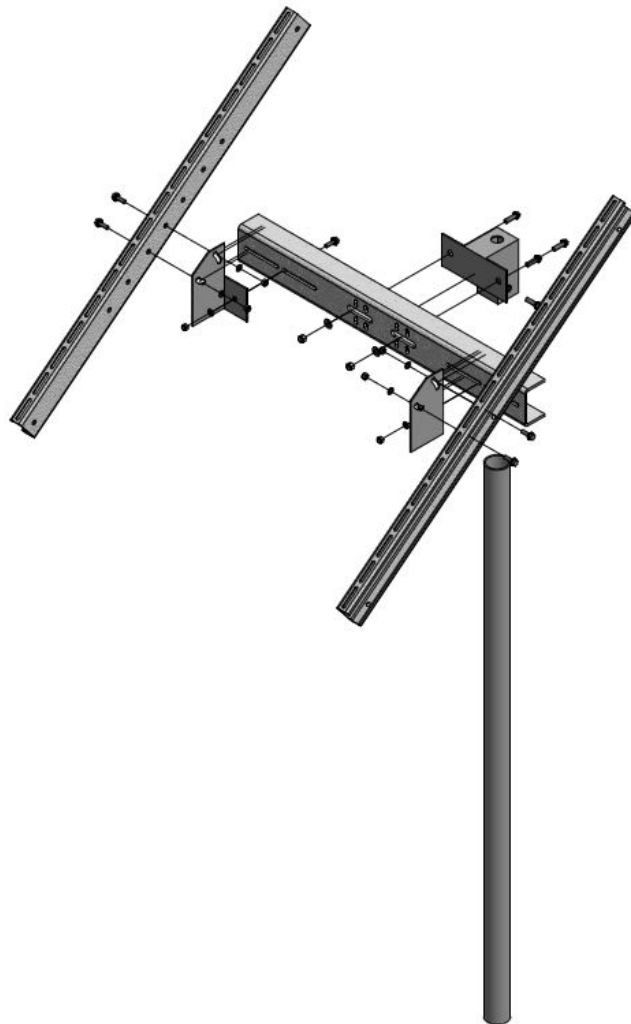


# SunWize Power & Battery Mount Installation Guide Top of Pole



## Mount Assembly and Installation: (TOP) Top-Of-Pole Mounts

Each rack is optimized for specific pole diameter ranges, for standard round SCH40 steel poles. Ensure that the pole used matches the optimal range for the racking equipment provided.

Standard TOP mounts are as follows:

Part #	Rail length (Inches)	Max Module Area (SQ-FT)	Weight (lbs.)
007967	26	10	18
007968	35	10	20
007969	53	15	22
007970	60	30	24
007971	77	35	26
007972	96	40	28
007973	104	45	29

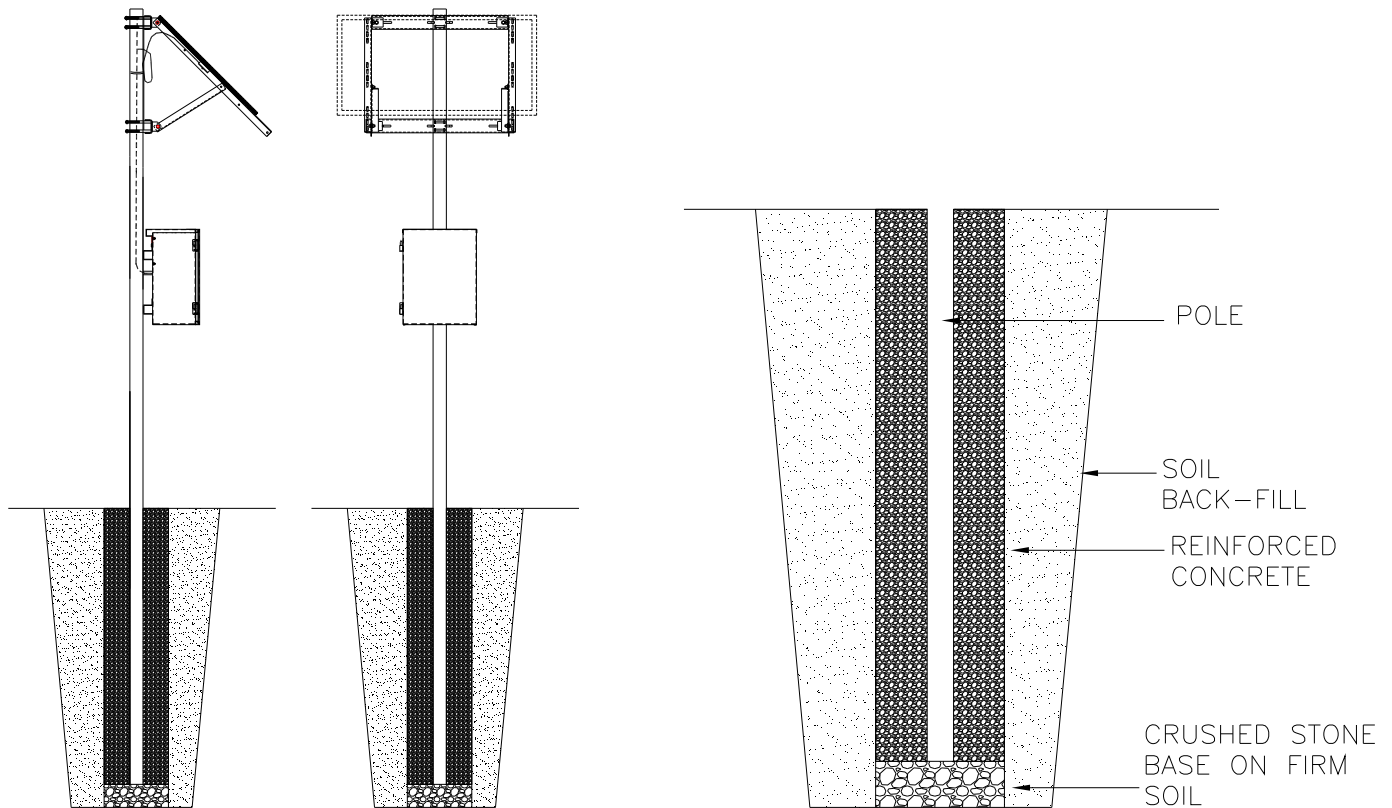
Pipe Gimbal Kit	Pipe Size (Sch. 40)	Weight (lbs.)
008103	2"	5
008104	3"	6
008105	4"	8
008108	6"	10

The mount consists of:

- 2x Module rails
- 1x Array Rail (2-tier mounts only)
- 2x Saddle Brackets
- 1x Saddle
- 1x Gimbal
- 1/4", 5/16", 3/8" SS hardware kits as needed
- Optional High wind brace kit

## Pole Mount Site Preparation

- The pole used to support the PV array must be designed per the local soil conditions to meet the following minimum requirements:
  - Array area based at tilted angle
  - Typical sustained wind speed per the recommended local building code.
- The pole is to be seated against a firm crushed stone base, on firm compacted soil a minimum of 6" below the frost line encased in reinforced concrete per ASTM standards.
- The pole is to be level and plumb.
- Pole diameter and wall thickness sized to withstand array forces without damage.



## Mount Installation

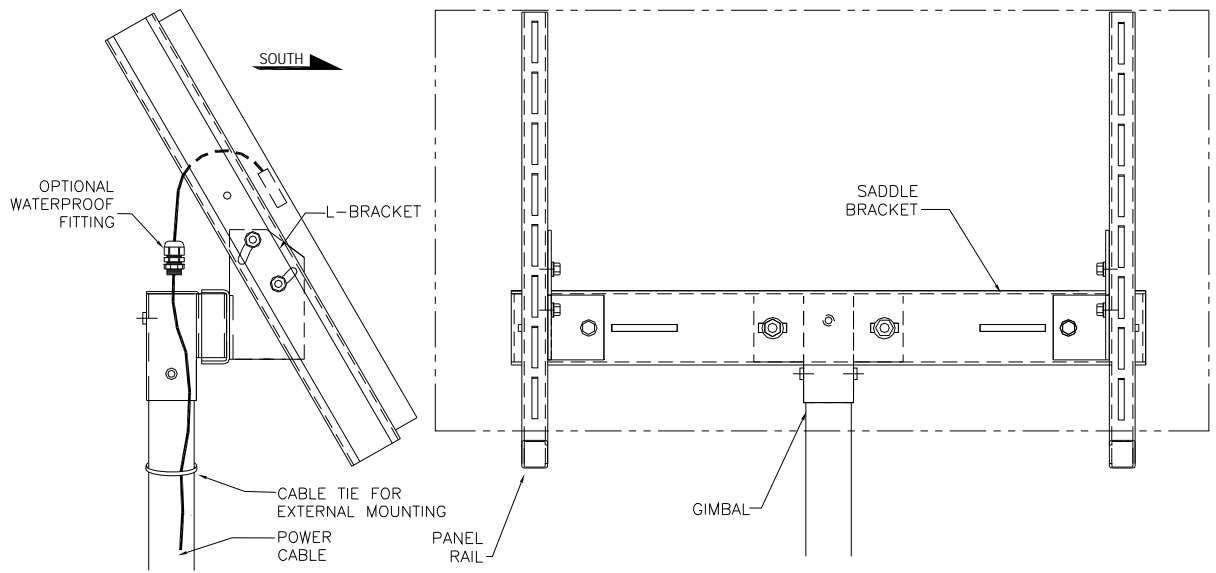
- Optional: For high wind areas, it is recommended that the gimbal be mounted using a through bolt into the pole (bolts not provided). Using the gimbal as a template, mount the gimbal onto the pole and orient in the direction of mounting. Install the 3, 3/8" set screws using 3/16" hex key to 18-20 Ft. Lbs. torque. Remove the gimbal and hardware and drill the marked areas using a 3/8" drill bit.
- Optional: For high wind areas, requiring extra bracing, add the saddle bracket to the pole per Table 1. Attach the L-bracket to the saddle using 3/8" SS hardware provided. Attach the tilt positioner legs to the panel rails using the 3/8" SS hardware provided. Tighten bolts using 9/16" wrench to 18-20 Ft. Lbs. torque.

For Single tier mounts: 1 – 4 modules:

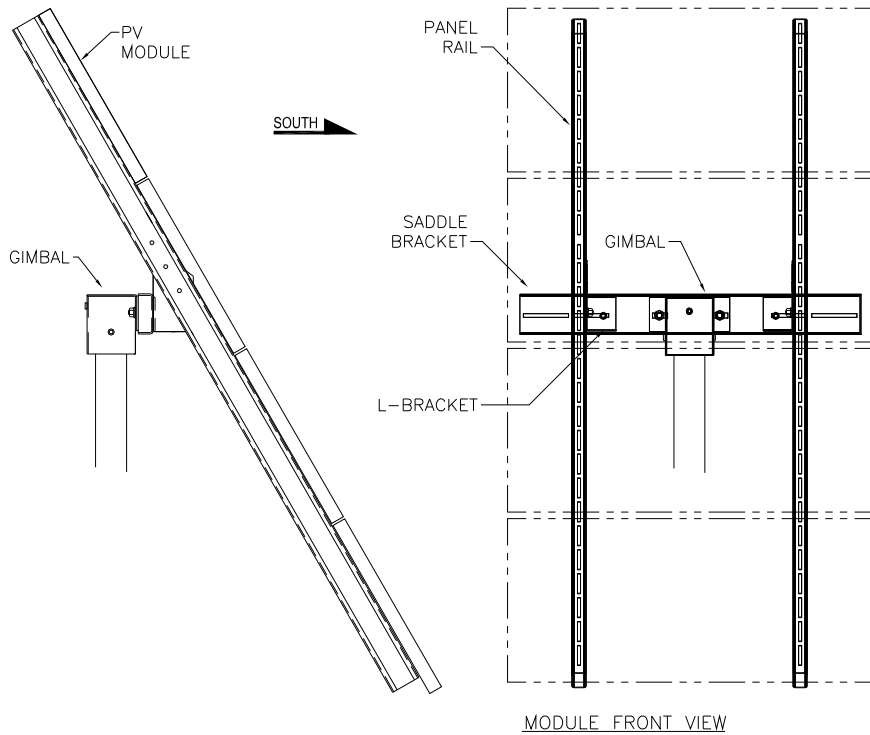
- Mount the saddle bracket to the gimbal using 2, 1/2" Galv. bolts and hardware provided. Tighten screws using 3/4" wrench to 45-47 Ft. lbs. torque.
- Mount left and right L-bracket to saddle using 3/8" SS hardware provided. Tighten bolts using 9/16" wrench to 18-20 Ft. Lbs. torque. Space brackets to allow panel rail mounting (Refer to FIGURES 1-2 for details).
- Install rack assembly onto pole top. For high wind, use 3. 3/8" x 1.5" SS bolts (not provided). Otherwise, use three, 3/8" set screws. Tighten using 3/16" hex key to 18-20 Ft. Lbs. torque.
- Mount panel-rail / module assembly to rack L-brackets using 3/8" SS hardware. Set tilt angle to desired position. Tighten bolts using 9/16" wrench to 18-20 Ft. lbs. torque.
- Apply thread-locking compound on all hardware.

For Two tier mounts: 4 – 6 modules:

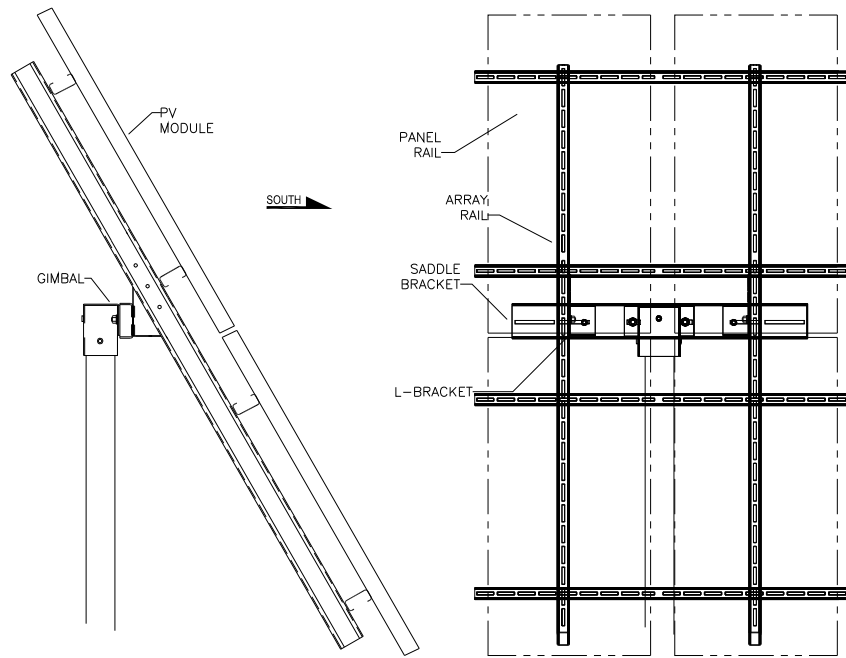
- Mount panel-rail / module assembly to rack L-brackets using 3/8" SS hardware. Set tilt angle to desired position. Tighten bolts using 9/16" wrench to 18-20 Ft. lbs. torque.
- Mount the saddle bracket to the gimbal using 2, 1/2" Galv. bolts and hardware provided. Tighten screws using 3/4" wrench to 45-47 Ft. lbs. torque.
- Mount left and right L-bracket to saddle using 3/8" SS hardware provided. Tighten bolts using 9/16" wrench to 18-20 Ft. Lbs. torque. Space brackets to allow panel rail mounting (Refer to FIGURES 1-2 for details).
- Install rack assembly onto pole top. For high wind, use 3. 3/8" x 1.5" SS bolts (not provided). Otherwise, use three, 3/8" set screws. Tighten using 3/16" hex key to 18-20 Ft. Lbs. torque.
- Mount array-rails to rack L-brackets using 3/8" SS hardware. Set tilt angle to desired position. Tighten bolts using 9/16" wrench to 18-20 Ft. lbs. torque.
- Mount the upper panel-rail / module assembly to rack L-brackets using 5/16" SS hardware. Tighten bolts using 1/2" wrench to 10-12 Ft. lbs. torque.
- Mount the lower panel-rail / module assembly to rack L-brackets using 5/16" SS hardware. Tighten bolts using 1/2" wrench to 10-12 Ft. lbs. torque.
- Apply thread-locking compound on all hardware.



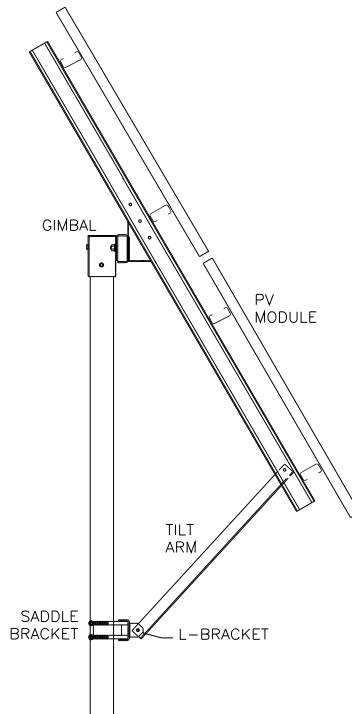
**FIGURE 1: TOP OF POLE MOUNT TILT ANGLE ILLUSTRATION (50 – 130W)**



**FIGURE 2: TOP OF POLE MOUNT TILT ANGLE ILLUSTRATION (150 – 540W)**



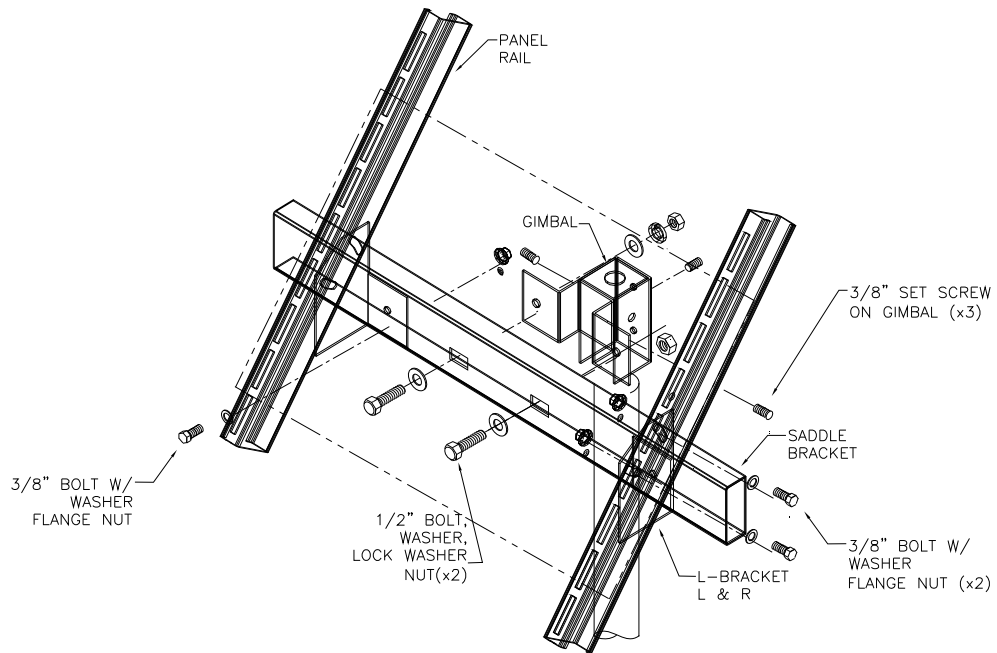
**FIGURE 3: TOP OF POLE MOUNT TILT ANGLE ILLUSTRATION (400 – 720W)**



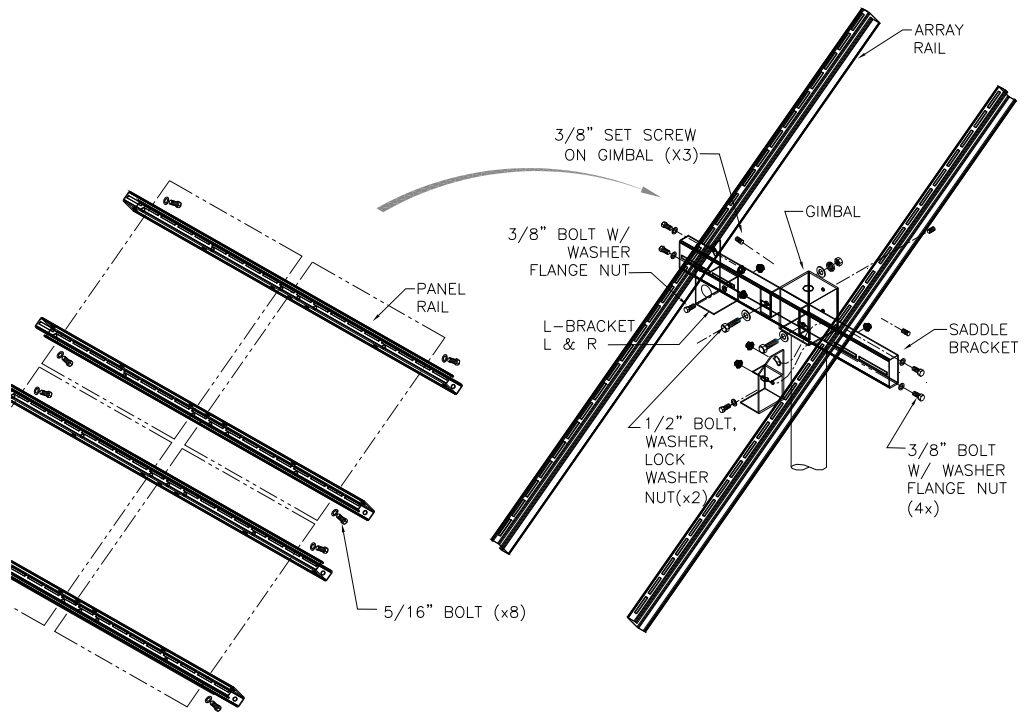
**FIGURE 4: TOP OF POLE HIGH WIND BRACE KIT**

HORIZ. TILT ANGLE (°)		
15 - 60		
26.5	Z DISTANCE IN" / mm	56" RAIL
673		
36.5	Z DISTANCE IN" / mm	77" RAIL
927		
42	Z DISTANCE IN" / mm	96 - 104" RAIL
1067		

**TABLE 1: TOP OF POLE MOUNT WIND BRACE TILT ANGLE TABLE (150 – 540W)**



**FIGURE 5: TOP OF POLE MOUNT INSTALLATION EXPLODED TYPICAL (50 – 540W)**



**FIGURE 6: TOP OF POLE MOUNT INSTALLATION EXPLODED TYPICAL (450 – 720W)**