



Plane of Array Pyranometer Boom

INTRODUCTION

The NRG Plane of Array (POA) boom is designed to mount pyranometers to a tubular tower and adjust to a specific, predetermined angle. Plane of array is also called “tilted GHI” (Global Horizontal Irradiance).

PYRANOMETER COMPATIBILITY

The POA boom is compatible with the following pyranometers:

- Licor LI-200
- Hukseflux LP02
- Hukseflux SR11/SR20 pattern
- Kipp & Zonen CMP3/CMP10/CMP11 pattern

ASSEMBLING & INSTALLATING THE POA BOOM

Inside the Box

- Boom, 0.52m, Adjustment collar installed
- Tower mounting plates
- Pyranometer mounting plate
- Hose clamps (2)
- Hex key, 1/8”





Figure 1

Assembly

Fasten the plate and collar to the boom using the 1/8 inch hex key (Figure 2).



Figure 2

Assemble the tower mounting plates around the end of the boom with the supplied hardware.

Ensure that the boom is straight, then tighten hardware with adjustable wrenches.

Boom Installation

For reference, determine the proper hole arrangement to mount your pyranometer (Figure 3). Mark the holes you will be using, if desired.

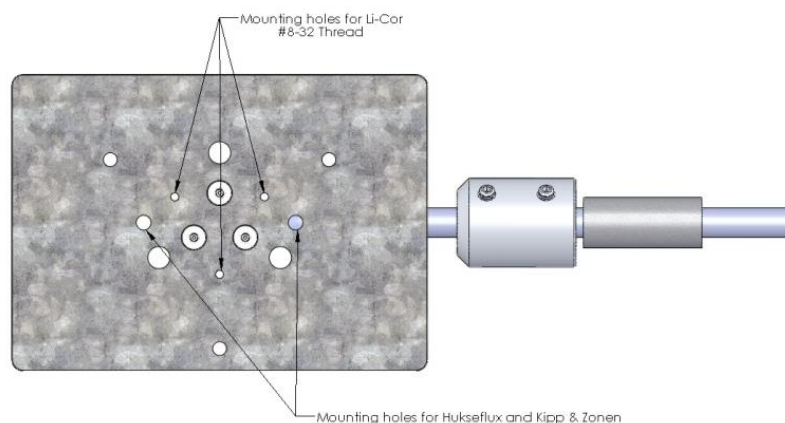


Figure 3



SRA System | POA Boom Assembly & Installation

Make sure tower is level and plumb. Install the POA boom onto the tower with the supplied hose clamps so that the boom faces directly east or west.

Boom Leveling and Pyranometer Mounting

Place a magnetic angle finder onto the plate to make sure the boom is horizontal. Once the boom plane is horizontal, mount and level the pyranometer according to the manufacturer's instructions (Figure 4).



Figure 4

When this step is complete, the pyranometer will be level relative to the earth (plane of 0 degrees).

Adjustment for POA Measurements

After leveling the plate and pyranometer, locate the collar on the boom near the angle arm. Loosen outer collar screw with 1/8 inch hex key, and adjust the plane to the desired angle. Tighten the collar screws to hold the plane in place. Be sure to record the final angle and further document the installation by taking photos.

