App. Note Code: 2RA-K



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CM225, CM255, CM255LS Pyranometer Mounting Brackets

1. Introduction



FIGURE 1-1. CM225, CM255, CM255LS pyranometer mounts

The CM225, CM255, and CM255LS pyranometer mounts are designed to be mounted on a mast, crossarm, or pole. The mounting holes on the top plate allow a wide variety of pyranometers to be mounted.

The CM225 is designed to be mounted either horizontally to a crossarm or vertically to a mast or pole to keep the mounting plate level. The CM255 and CM255LS can also be mounted horizontally or vertically, but include a 90° adjustment. This allows the mount to be positioned and different angles, as shown in FIGURE 1-2.

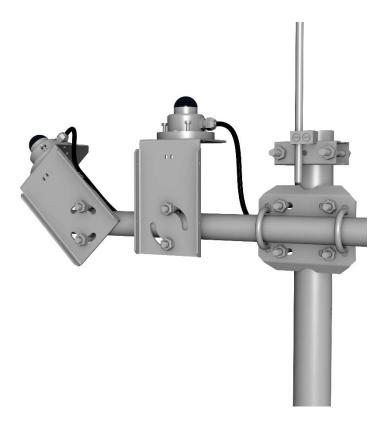


FIGURE 1-2. CM255 mounted level and at an angle

2. Installation

- 1. On a level surface, level the pyranometer using the leveling feet on the pyranometer. Alternatively, remove the pyranometer leveling feet to allow it to be mounted directly to the mounting bracket.
- 2. Secure the pyranometer to the mounting bracket. Refer to FIGURE 2-1 to determine which mounting holes are used by the pyranometer. Visually inspect the leveling feet on the pyranometer (if present) to ensure all feet are in contact with the mounting bracket.

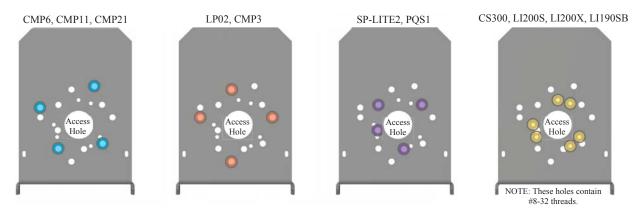


FIGURE 2-1. Mounting hole locations for various pyranometers

- 3. Using a diopter in combination with a solar compass, install and orient the crossarm on the tripod or mast. If installing the mounting bracket on a vertical pole, ensure the pole is truly vertical.
- 4. Secure the mounting bracket to the crossarm or vertical pole using the hardware included with the mounting bracket. The CM225 and CM255 use a 5/16 inch U-bolt, nuts, flat washers, and lock washers to mount the bracket. First place a flat washer over each end of the U-bolt, followed by a lock washer. Secure the U-bolt and washers with a nut on each end of the bolt. Use a 1/2 inch socket or wrench to tighten the nuts. The CM225LS bracket uses two set screws to secure the crossarm or pole in the channel at the base of the bracket. A 3/16 inch Allen wrench is included with the bracket to tighten the set screws. For pyranometers mounted horizontally, ensure the mounting bracket is horizontal in two dimensions. For pyranometers to be mounted at an angle with the CM255 or CM255LS, set the mounting bracket angle to the desired angle prior to tightening the mounting hardware.
- 5. Verify all mounting hardware is firmly tightened, and that the mounting bracket is at the desired angle. The CM255LS includes leveling bolts for additional adjustment of the pyranometer level.

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