

# Powers Remote Systems

Useful at sites far from ac sources



SP20 with extended  
mounting kit (option -EM)

## Overview

The SP20-series 20 W solar panels are photovoltaic power sources capable of recharging batteries. They are often used for system

configurations that have higher-than-average power requirements, or in higher elevation and latitude locations.

## Models

### *Unregulated Solar Panels*

The SP20 unregulated solar panel recharges the sealed rechargeable battery of a BP7, PS150, PS200, BP12 (requires CH150 or CH200), BP24 (requires CH150 or CH200), or CR3000. This solar panel is intended for the type of batteries used in Campbell Scientific power supplies. Refer to the specifications for an in-depth list of compatible batteries.

### *Regulated Solar Panels*

The SP20R is used to recharge user-supplied, 12 Vdc flooded batteries such as deep-cycle marine or RV batteries. This solar panel includes an onboard regulator that allows it to directly connect to the battery.

## Mounting Hardware

The standard mounting kit (option -SM) consists of one #17492 U-bolt and matching nuts. The U-bolt has a 5.398 cm (2.125 in) space between the U-bolt legs. This hardware allows the solar panel to be mounted to a 0.75 in. to 1.5 in. IPS pipe [25.4 to 50.8 cm (1 to 2 in) OD].

The extended mounting kit (option -EM) positions the solar panel approximately 25 cm (10 in) from the tripod or tower, which reduces shadows from other components and guy wires. The zenith angle indicator and the slotted supports simplify installation.



## Ordering Information

### Solar Panels

Must choose a cable termination option and a mounting option.

**SP20** 20 W, Unregulated Solar Panel with 4.6 m (15 ft) cable.

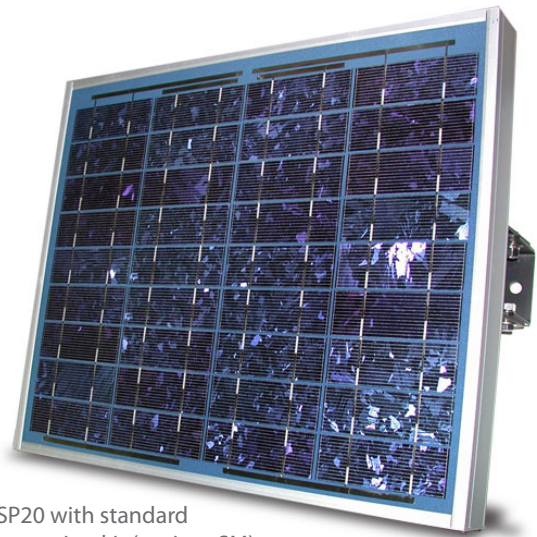
**SP20R-L** 20 W, Regulated Solar Panel with user-specified cable length. Enter the length, in feet, after the -L.

### Cable Termination Option (choose one)

- PT** Cable terminates in stripped and tinned leads for connection to the power supply.
- PW** Cable terminates in a connector that attaches to a prewired enclosure.

### Mounting Option (choose one)

- SM** Standard Mounting Kit
- EM** Extended Mounting Kit



SP20 with standard mounting kit (option -SM).

## Specifications<sup>a</sup>

- Maximum Power: 20 W
- Voltage at Peak: 16.8 V
- Current at Peak: 1.19 A
- Continuous Current Drain (SP20R only): 2 mA
- Maximum Allowable Wind Gust Speed<sup>b</sup>:

Model	Standard Mount (-SM)	Extended Mount (-EM)
SP20	44 m/s (99 mph)	58 m/s (130 mph)
SP20R	44 m/s (99 mph)	58 m/s (130 mph)

- Cable Description: 20 AWG, 1-twisted pair
- Dimensions: 50.0 x 42.2 x 5.1 cm (19.7 x 16.6 x 2 in)

- Weight  
SP20: 4.4 kg (9.6 lb)  
SP20R: 6.2 kg (13.6 lb)

### Compatible Batteries<sup>c</sup>

- SP20: compatible battery families include EnerSys Genesis NP Series (includes our PS200, BP12, and BP24), EnerSys Cyclone Series, Concorde Sun Xtender Series (includes our BP84) and a custom battery. These batteries are typically referred to as valve-regulated lead-acid (VRLA), sealed lead-acid (SLA), gel cell, maintenance free, or absorbent glass matt (AGM) batteries.
- SP20R: user-supplied, 12 Vdc flooded batteries such as deep-cycle marine or RV batteries

<sup>a</sup> Solar panel characteristics assume 1 kW m<sup>-2</sup> illumination and 25°C solar panel temperature. Individual panels may vary up to 10%. The output panel voltage increases as the panel temperature decreases.

<sup>b</sup> The wind ratings are for solar panels with the indicated mounts and do not account for strength of tower or tripod.

<sup>c</sup> Ensure that the solar panel you are using is intended for your type of battery. Otherwise the battery life will be shortened.