



SPK-2 Solar Power Kit

The SPK-2 Solar Power Kit is designed for powering PM-11z Phytomonitor when the normal electric power is not available, in the open field, for instance.

Typical mounting of the SPK-2 Solar Power Kit is shown on Page 3.

The holder of the Solar panel shall be fixed on a mast by using four enclosed bolts. The panel must be oriented strictly to South (in Northern hemisphere).

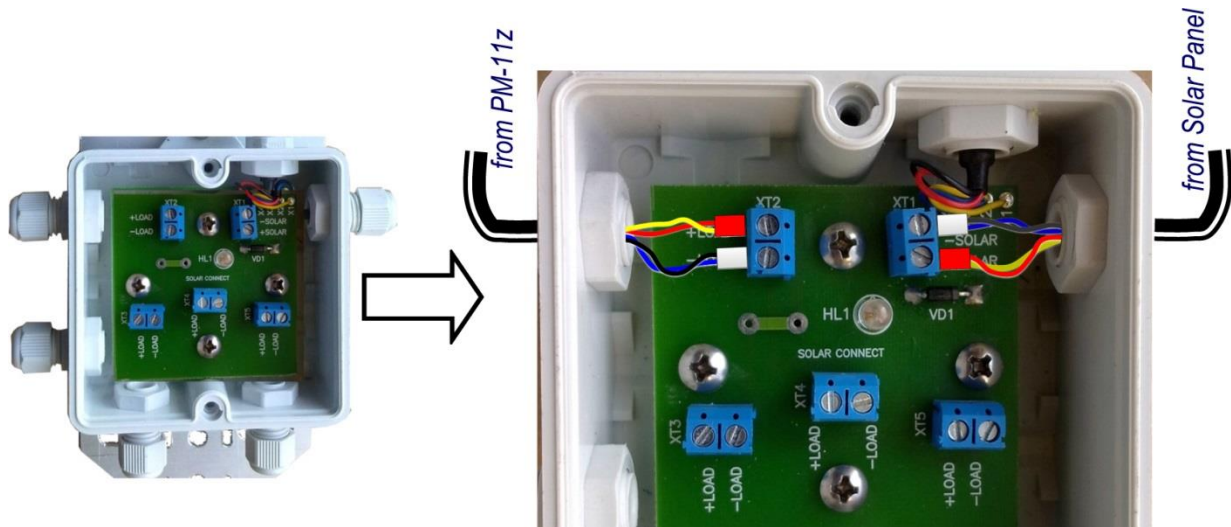
The Solar Charge Controller with Junction Box shall be attached to the mast using a couple of enclosed cable ties.

Connections

Precaution! All connections shall be made when the main power switch is in OFF position (see the photo below):



- a. Remove the lid from the lower SPK-2 enclosure named as 'Junction box'.
- b. Run the PM-11z Phytomonitor's cable through a left cable gland of the Junction Box (please note that this cable must be already connected to the PM-11z Phytomonitor), and connect the cable to the terminal block marked as "+LOAD", "-LOAD" keeping correct polarity. Positive – Red end; Negative – White end.
NOTE: There are four terminal blocks for connecting external power loads. Some other devices may be powered from available terminals, a router, for instance.
- c. Run the Solar Panel's cable through the right cable gland of the Junction Box, and connect the cable to the terminal block marked with "+SOLAR", "-SOLAR" keeping correct polarity. Positive – Red end; Negative – White end. If a solar pane is exposed to the sun at this time, the HL1 LED shall be on.



- d. Please prepare the PM-11z for operation: SD-card and SIM card must be inserted, and the internal battery must be activated.
- e. Now you may switch the main power switch ON. The appropriate LED on the PM-11z's PCB shall be on.
- f. Close and tighten the lids of the junction box SPK-2 and PM-11z.

Specifications

- Solar Panel Power Rate: 9V, 10 W
- Standard zenith angle: 45°
- Azimuth: 180° in Northern hemisphere, and 0° in Southern hemisphere
- Rechargeable battery capacity: 2.2 Ah 2xPack plus 0.9 Ah backup battery in PM-11z.
Total: 3 Ah approx.
- Battery type: Li-ION 2.200 Ah 7.4V 2xPack plus Li-ION 0.9 Ah 3.7 V.
- Maximal depth of discharge: 0 %
- Cables length: 3 m typical

