



**RPAL48-180-xxxx**

**200W RemotePro<sup>®</sup>**

- Wireless Base Stations and Client Devices
- Surveillance Cameras
- Remote Control
- Remote Lighting
- Off Grid Electronics



**Congratulations!** on your purchase of the RemotePro<sup>®</sup> 200W Remote Power System. Please take a moment to review this Qwik Install Guide before use.

**Operation Modes:** Solar Only operation or Solar with AC/DC Backup.

**Key Features:** Industrial Strength, Manageable, 24VDC and 48VDC Output, 7 Gigabit Passive PoE ports, 2.25A Aux Port, 48V 20A MPPT Solar, Automated Alerts, Removable Connections.

**Safety:** For your own protection, follow these safety rules.

- **Perform as many functions as possible on the ground**
- **Do not attempt to install on a rainy, windy or snowy day or if there is ice or snow accumulation at the install site or if the site is wet.**
- **Make sure there are no people, pets, etc. below if you are working on a roof or ladder.**



**Recommended Tools:** Phillips and Small Flat Blade Screwdrivers, 6mm Hex key and 13, 19, 27, 34mm Wrenches



**Please help preserve the environment and return any used batteries to an authorized depot**

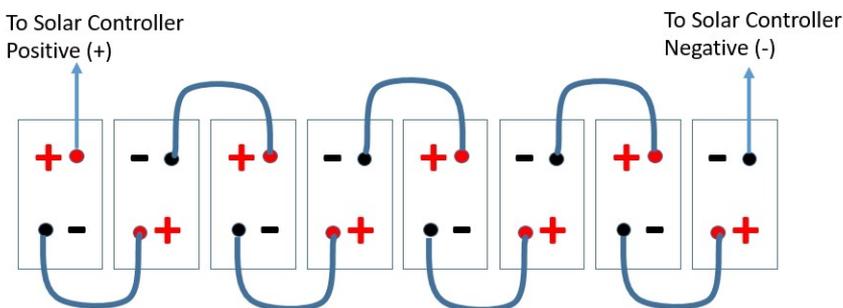
## Qwik Install

**STEP 1:** Select install location where southern sky has no obstructions that could cause shading on solar panels.

**STEP 2:** Pour a foundation big enough to hold solar mount anchors and also provide level support for battery box. See detailed instructions in solar mount instructions.

**STEP 3:** Assemble solar array with mount using solar mount instructions.

**STEP 4:** Place battery box under solar panels facing towards back of solar panels. Install 8 batteries in the box in an alternating pattern. Use rope tied to battery tabs to lower batteries into the box. Connect all 8 batteries in series configuration (Positive to Negative to Positive...)



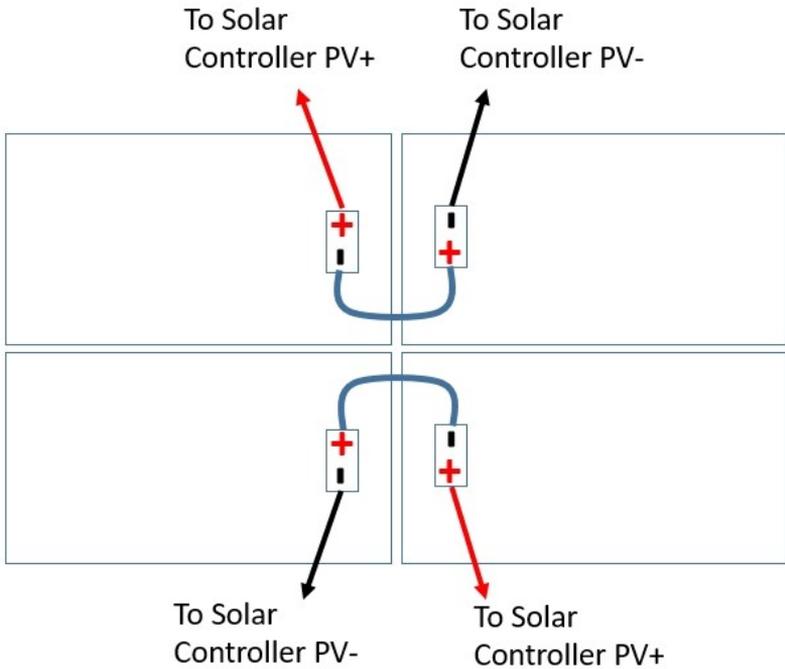
**STEP 5:** Install DIN rail to enclosure using the two screws provided. Install MPPT solar controller to DIN Rail. Remove the Large Green Connector from the unit.

**STEP 6:** Find the thermocouple cable that came with the MPPT Solar Controller and connect the side with the ring lug to one of the batteries positive or negative terminals, it doesn't matter which one. Connect the battery cable to the Large Green Connector battery inputs and then to the batteries making sure to observe the proper polarity.

**STEP 7:** Install the cable glands in the back of the enclosure and route the long solar panel cables through the cable gland and connect to the large green connector solar (PV) inputs. A four panel system will use two of the long cables and a two panel system will use one of the long cables. You can shorten the cables as necessary for a cleaner install. You can also lengthen the cables by adding additional lengths of 12AWG cable.

**STEP 8:** Connect two of the solar panels in series (Positive to Negative) by plugging the positive from panel 1 to the negative of panel 2 and then connect the long 20' solar cable to the remaining positive and

negative connectors from the solar panels. The connectors are keyed for polarity so they cannot be connected incorrectly. Repeat for a four panel system.



**STEP 9:** Once the batteries and solar panels are all connected and wired to the Large Green Connector, Disconnect PV+ wire and plug the connector to the MPPT Solar Controller until the connector latches click into place. The Battery Charging LED should light up for about 60 seconds. Now connect PV+ to the green connector.

**Warning:** Battery should always be connected first and disconnected last from the controller.

**STEP 10:** Plug the temperature sensor to the Temp Sensor input on the MPPT Solar Controller. Refer to the TPDIN-SC48-20 instruction manual for setup and operation of the MPPT Solar Controller.

**STEP 11:** Tighten the cable glands on the wires to make weatherproof connections. Plug unused holes using the supplied hole plugs. If desired, attach the enclosure to the solar mount pole using chain or cable for security.

**STEP 12:** You may want to put a fine screen over the vent holes on either end of the enclosure to keep out insects. Window screen works

well. Be sure to secure the cables so they won't move in the wind. All cable connectors should be protected by being located under the solar panels.

## **TECH CORNER**

### ***Additional Information you may find useful***

**Panels:** Panels should be facing due south. Panel angle is dependent on latitude. Use Latitude + 15 degrees for winter tilt and you can leave all year at that angle. If you want to adjust for summer then use Latitude - 15 degrees for optimum summer tilt. Panels should be cleaned periodically to remove dirt and dust.

**Batteries:** The batteries are maintenance free and should last about 5 years in normal operation. The solar controller has the ability to do a balance charge on the batteries. You should only use this if you suspect some problem with the batteries. Using balance charge too often will reduce the battery life.

**Enclosure:** We recommend making extra keys in case the enclosure keys are lost. If desired you can add one or more fans to the enclosure to help to cool the inside. The fans could be connected to the controller auxiliary port and the controller can control the port based on temperature.

### **Limited Warranty**

The RPAL48-180-xxxx Remote Power System is supplied with a limited 36 month warranty which covers material and workmanship defects. This warranty does not cover the following:

- Parts requiring replacement due to improper installation, misuse, poor site conditions, faulty power, etc.
- Lightning or weather damage.
- Physical damage to the external & internal parts.
- Products that have been opened, altered, or defaced.
- Water damage.
- Usage other than in accordance with instructions and the normal intended use.

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