



Tactical Solar Power System

Modular, Transportable, Rugged

The Solarcraft Tactical Solar Power system is a rugged package designed to deploy quickly without tools or written instructions. Components are aluminum encased and rated for two-man-carry transport. All mechanical attachments are made with latches and U-pins. All electrical connections are made with polarized heavy-duty locking connectors.

The system shown is a 24 Volt, 2430 W system with 660 Ah of battery capacity, redundant voltage regulators, circuit breakers, auxiliary battery charging input, battery capacity meter, DC/DC converters, and polarized military spec connectors.

This system is an example of the custom remote power systems that Solarcraft designs and builds. We can build systems that combine solar power, diesel generators, wind, and back-up power.



▲ Shown above, components for three 810W solar arrays, six 110Ah batteries, cables, meters, storage compartment, and controllers.



▲ Aluminum encased solar panels slide into channels on horizontal rails.

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▲ Components shown above assemble into a single 810W solar array, battery and controller box.

Solar Array

- ▶ Total tool-less assembly – allows for rapid deployment in emergency, mobile, and tactical applications.
- ▶ Large ground mount array-foot – provides safety in high wind conditions, deployable in nearly all locations. *(Image 1)*
- ▶ Ground mount array-foot provides 360° of locking rotation – provides rapid array alignment to maximize power production. *(Image 2)*
- ▶ Gimbal mounted array – provides rapid adjustment of array tilt to maximum power production. *(Image 3)*
- ▶ Flat array provision – provides safety during wind storms. *(Image 4)*
- ▶ Completely adjustable array angles – accommodates uneven or rugged terrain. *(Image 5)*
- ▶ Stainless steel panel rails slide through cut-outs in center beam, and lock in place with u-pins. *(Image 6)*
- ▶ Self-enclosing solar modules with rugged covers – prevents damage during transport and storage. *(Image 7)*
- ▶ Completely pre-wired system with fully polarized connectors – ensures safe and error free connections. *(Image 8)*
- ▶ Array mounted meter – provides simple means for array alignment without charts or compasses; allows for manual solar tracking to maximize total energy output. *(Image 9)*



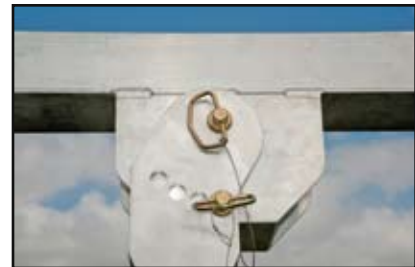
▲ Image 1



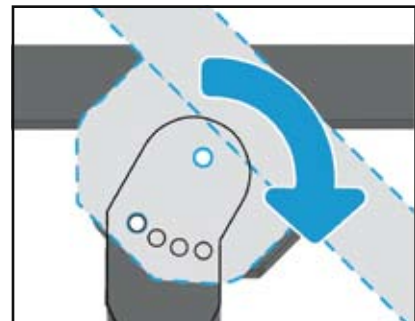
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▲ Image 3



▲ Image 4



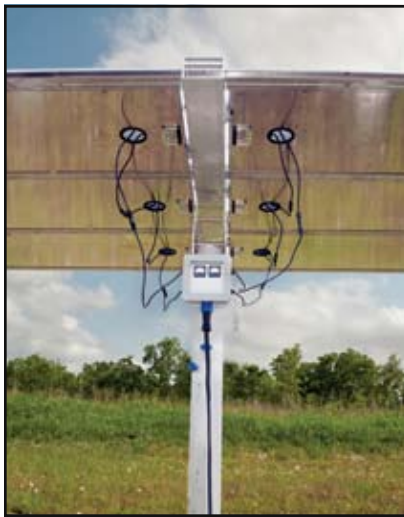
▲ Image 5



▲ Image 6



▲ Image 7



▲ Image 8



▲ Image 9



▲ Image 10



▲ Image 11



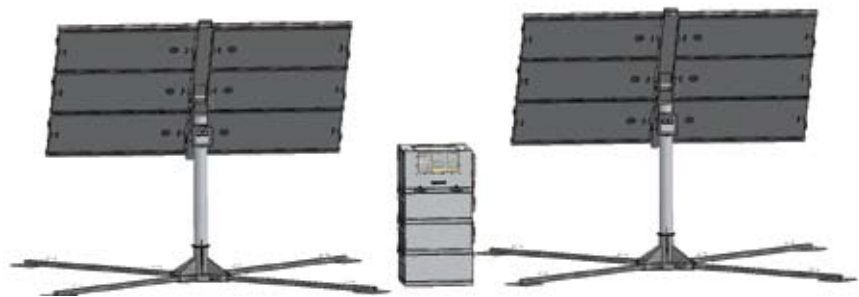
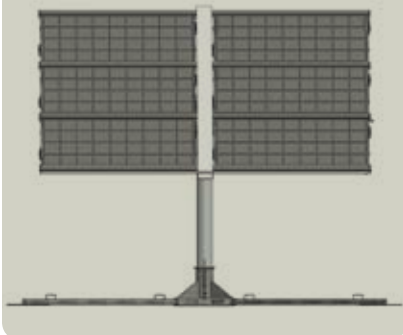
▲ Image 12



▲ Image 13

System Features

- ▶ All system modules rated for 2-man carry – minimizes personnel requirements for deployment.
- ▶ Modular storage compartment – provides cable storage integrated into base of battery enclosures.
- ▶ Polarized heavy-duty locking connectors – ensure goof-proof connections and tolerate rough handling.
- ▶ Tough and flexible UV resistant wiring – promote long life cycles and permit rugged usage.
- ▶ Intelligent system displays – provide system comprehensive status information.



Power Electronics

- ▶ Integral fuse within each battery enclosure – ensures safety for wiring.
- ▶ Insulated battery enclosures – promote longer battery life.
- ▶ Optional generator input with gen-start control – allows generator charging of system batteries.
- ▶ Power Factor Corrected generator input – promotes the use of smaller generators operating at full rated load.
- ▶ Maximum power tracking solar regulators – provide highest battery charge efficiency.
- ▶ Modular latching battery enclosures – provide safe stacking and simple connection. *(Image 10, see previous page)*
- ▶ Modular electronics enclosure – integrates seamlessly with battery enclosures. *(Image 11, see previous page)*
- ▶ Dual solar regulators – provide 4 inputs for solar arrays; a maximum of 3000 Watts of solar array power. *(Image 12)*
- ▶ All battery chargers feature programmable algorithms for different battery chemistries – provides for broad options in battery selection and replacement. *(Image 13)*

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