

# BACKWOODS SOLAR ELECTRIC SYSTEMS

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## JANUARY 2006 NEWSLETTER

A QUICK UPDATE ON SOLAR MODULE AVAILABILITY and  
NEW PRICING for SHELL and KYOCERA MODULES

2006 CATALOG COVER PHOTO CONTEST

WINTER WEATHER, BATTERY CHARGING, AND A 10% OFF  
SALE ON OUR COMPLETE BATTERY BOOSTER KIT, IOTA,  
AND XANTREX BATTERY CHARGERS



**SOLAR MODULES** remain in tight supply especially any module in the 30 to 85 watt size. Since the beginning of December, Shell and Evergreen have delivered shipments of 120 to 175 watt modules in a more timely fashion. We typically have these modules either in stock at one of our distributors or due

at a distributor within 2-4 weeks. However Shell has just increased their prices to us.

The Evergreen 120 sells for \$637.00 with free UPS shipping to a lower 48 address.

The Shell SQ165 sells for \$3408.00 in boxes of four or \$852.00 per module. In quantities other than multiples of four, the price per module is \$864.00.

The Shell SQ175 sells for \$3712.00 in boxes of four or \$928.00 per module. In quantities other than multiples of four, the price per module is \$942.00

Truck freight charges will be added to SQ165 and SQ175 orders and California sales tax of 7.25% will also get added to orders shipping to a California address where box of four quantities are NOT ordered.

Shell has not manufactured its SQ80 or its SQ85 modules since February of 2005 and they give us no indication that they will resume production this year. At this time we are unable to accept orders for the Shell SQ80 and SQ85. As soon as we receive notice that these modules will ship, we will then again accept orders and we will let you know.

Unisolar shipped its last US64 in August of 2005 and they suggest that we will receive more in February 2006. We are once again accepting orders for US64 modules. And at this time the smaller Unisolar modules in our catalog have been discontinued until further notice.

The supply of Kyocera modules is particularly challenging. We have two sources for these modules: Kyocera Solar and another distributor. We get the best price on these modules from Kyocera Solar however Kyocera typically does not have these modules in stock. The other distributor charges us significantly more money but as of this newsletter, has these modules available for immediate shipping.

In an effort to meet your needs in either a timely fashion or a financial fashion, we have decided to implement a two tier pricing system for Kyocera modules. Effective immediately, we will have a "K" series and a "D" series. The "K" series will ship from Kyocera Solar. The KC130-K may have a 2-6 week lead time while the KC85-K and the KC65-K may take 8 weeks, perhaps longer until the backorder of these small modules is relieved. These lead times are estimates and may vary. We appreciate your patience if Kyocera Solar ships more slowly than anticipated. The "D" series will ship from our distributor and each model should be in stock. If not in stock, we will not process an order for the "D" series. Please note that we do not have a KC130-D.

The new pricing will be:

KC130-K: Price reduced: \$680.00	KC125-D: \$735.00
KC85-K: Price reduced: \$480.00	KC85-D: \$530.00
KC65-K: \$395.00	KC65-D: \$425.00

In general, industry projections suggest module supply will continue to be constrained through 2008. Backwoods continues to broaden its distribution channel in an attempt to access greater supplies of the modules we sell however our success is at best limited. We extend our gratitude to all of our customers as you accept these conditions and receive your orders as they arrive.





Our **2006 CATALOG COVER** needs a picture!! The photo to the left is found on our 2005 catalog as well as on the home page of our website. If you would like to have your alternative energy homestead featured on our 2006 catalog and our website's home page, please submit ONE picture via email to [info@backwoodssolar.com](mailto:info@backwoodssolar.com) The photo should layout in a vertical fashion as displayed here.

Initial email submissions must have the photo within the body of your email. We do not open attachments due to the potential virus hazards which exist. Please include a description of your picture's content which we will eventually edit to the inside front cover of our catalog as well as our website. If your photo is chosen for our 2006 catalog cover, we will extend a 10% discount on your next order with Backwoods Solar. Note: sale items would NOT receive an additional 10% discount. Once we select the winning photo, we will have you forward it to us as a high resolution jpeg attachment to an email.

Those photographs which are not selected may find their way into other portions of our website, catalog, and future publications without the 10% order discount. If you do not want your picture used in this fashion, please let us know in your initial email to us.



of AC generators. Consider their EM7000i series with 5500 watts of continuous AC output.



**10% OFF IOTA and XANTREX BATTERY CHARGERS as well as the Complete BACKWOODS SOLAR BATTERY BOOSTER KIT through February 28<sup>th</sup>, 2006**

A battery charger converts AC power from the generator or from the power company into low voltage DC to charge a battery. The ability to charge batteries from these sources during poor solar weather avoids battery damage from extended periods of severe discharge.

Some small AC generators have a built-in DC battery charge feature of only 3 to 10 amps. To be effective, one or more 30 to 100 ampere battery chargers should be connected to your AC generator and allowed to charge while the generator runs a washing machine or well pump, making the best use of costly generator time.

Battery chargers need a generator which can deliver a true sine wave at 120 volts AC in order to give their rated amount of charge. Most generators under \$2500 have *low peak voltage* causing many chargers to give only a fraction of their claimed charge rate. This may be cured with our [10% voltage boost transformer](#). Some generators can be adjusted for slightly higher engine speeds in order to maintain 120 volts to compensate for low peak voltage. Beware low cost 120/240 volt generators with only half rated wattage on each 120 volt circuit.

Maximum charger amps should be 10-20% of the battery bank's amp hour rating. Charging too fast can damage batteries. A 440 amp hour battery works well with a 40 ampere charger. Charge rate should taper to a much lower rate as the battery becomes fully charged. Several chargers can be used together to increase charge rate and reduce charge time, if the battery size and rating of the generator allow. *NOTE: Many automotive chargers list a high "boost" 200 amp or higher short term engine start surge, but this setting CANNOT function for charging home power batteries.*



**XANTREX TRUECHARGE 40+ Electronic 12 volt BATTERY CHARGER**

A Microprocessor controlled, fully automatic, 40 amp continuous duty, multi-stage battery charger (12 volt only, or use two in series for 24 volt).

15" x 7" x 3"

Weight 8 pounds      TWO Year warranty

The TRUECHARGE 40 + is a highly reliable 40 amp electronic battery charger for deep cycle batteries. Dip switch settings program the correct charging voltages for flooded lead acid, gel cell, or absorbed glass mat batteries. It offers selectable 2 or 3 stage charging where 3 stage includes bulk, absorption, and float charges while the 2 stage only uses bulk and absorption modes. Initiate an Equalization charge with the push of a button. Manual or automatic temperature compensation. Optional temperature sensing

probe to correct charge voltage for actual battery temperature.

This charger delivers its rated 40 amp output even with low cost generators of 1200 watts or more, an important quality if your generator cost under \$2500.

BC-TRUECHARGE 40 +: Regularly \$410 **SALE PRICE: \$369** (Shipping \$10)

I-Pro Temp temperature sensing probe corrects charge voltage: \$40

BC- 40Remote: remote control panel with 20' of cable: \$40



### **IOTA 12 VOLT, 55 AMP and 24 VOLT, 25 AMP CHARGERS**



Iota Engineering uses advanced switch mode technology in the production of this highly sophisticated electronic battery charger. The DLS series converter efficiently charges batteries with its full rated output. It then maintains the batteries by only putting into the battery bank what is required to maintain the selected voltage set point. Short circuit, overload, and thermally protected.

Historically, low and transient AC line voltage was a major cause of battery charger failure. The DLS series is protected against low line voltage as well as spikes coming from your AC power source. It also meets FCC criteria for

minimizing radio and television equipment interference.

The DLS5512 is a 55 amp 12 volt fully automatic electronic charger. Backwoods has the Iota factory maximize the voltage set points at either 14.8 or 15.4 volts. These set points are user selectable via a simple plug-in jack.

The DLS2524 is a 25 amp 24 volt (equal to a 50 amp/12 volt charger) fully automatic electronic charger. Backwoods has the Iota factory maximize the voltage set points at either 29.2 or 28.2. Slightly low set points for flooded lead acid batteries but the best Iota can offer. These set points are user selectable via a simple plug-in jack.

7 x 6.5 x 3.5 inches. Weight 5.5 pounds. TWO year warranty

BC-IOTA 5512...Regularly \$185 **SALE PRICE: \$167** (shipping \$8)

BC-IOTA 2524...Regularly \$250 **SALE PRICE: \$225** (shipping \$8)

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## **BACKWOODS SOLAR BATTERY BOOSTER KIT**

12 volt or 24 volt

16 x 16 x 18 inches, plus  
separate control box

Backwoods Solar offers this  
low-cost engine driven car





