SYSTEM OVERVIEW

Congratulations on your purchase of the Solar Stik™ 100 Lite. This system is designed to provide many years of reliable DC power. Depending on your power requirements, the Solar Stik™ may act as the primary power generator, or supplement other power generating equipment. All Solar Stik™ Systems are designed for “Plug & Play” operation and a multitude of accessories are available for easy adaptation to any application.

Effective Solar Power Production requires the following ingredients:

1. Direct Sunlight
2. Air Circulation around the panel
3. MPPT Charge Controls between the solar panels & the battery

The Solar Stik™ is designed to provide the best operating conditions for the panels, yielding the maximum power gain possible in a 24-hour period.

The Solar Stik™ is easily deployed by one person. The entire system can be setup and operating in less than five minutes.

All connections are “Plug & Play”.

There are no tools required for assembly or maintenance and the System is “Field Serviceable”.

Constructed of aircraft-grade aluminum and stainless steel, the Solar Stik™ 100 Lite transports and stores in a single container.

The major components are:

- Mast
- Tripod
- Panels
OPERATION OVERVIEW

The Solar Stik™ 100 Lite has TWO axes of rotation for maximum daily solar power productivity.

In good conditions with three panel adjustments per day, the Solar Stik™ 100 Lite will produce an average of 1 Kilowatt-Hour (80 Amp-Hours) of 12 Volt DC Power.

The power must be stored in a 12 Volt DC battery bank, and then taken from the battery as needed by the connected appliances.

Using the Solar Stik™ 100 Lite with a Power Pak (sold separately) allows the Stik™ to be used as a “stand-alone” power source. Various power models can be achieved through use of inverters or converters, according to the appliance’s power requirements.

DIMENSIONS, NOMENCLATURE & MOVEMENTS
The Solar Stik™ 100 Lite will operate with many Solar Stik™ Accessories

All Solar Stiks™ have dual solar power connection points that allow for easy expansion of a system. If additional power is necessary, then additional Solar Stiks™ can be “daisy-chained” together.

NO TOOLS ARE REQUIRED FOR ASSEMBLY

The “SOLAR ONLY” Plug
For connection of the Solar Stik™ power generator to a battery

All connections are polarized and weatherproof
SETUP & ASSEMBLY

Deploying the SOLAR STIK™ 100 LITE:

Find a suitable location for the Solar Stik™. The location should be in direct sunlight, and as far away from any other structures as possible. When deployed, the solar panels need a radius of about 6 feet to operate.

The Tripod assembly is designed primarily for deployment on flat surfaces. 

**THE SOLAR STIK™ SHOULD ALWAYS BE SECURED TO THE GROUND FOR OPERATION**

Stakes are provided and should be driven through the feet and socket base and into the ground with the provided mallet. Ensure all three feet are firmly against the ground and that the Mast is as vertical as possible before securing it to the ground. (See the OPERATING TIPS in the FAQ section at the rear of this manual for more details on these and additional ground securing tips.)

Remove the Tripod/Mast Assembly in a suitable location to deploy the System
Deploy the Tripod ensuring that all three legs are in full contact with the ground
Place the Mast assembly onto the Tripod
Secure the Tripod & Mast to the ground using the provided stakes & mallet

Insert at least one stake for each Tripod foot

Other Methods of Ground Securing the TRIPOD FEET:

“Sandbag” Method

“Expanded Footprint” Method

The feet can be attached to a surface using screws or other hardware
Installing the SOLAR PANELS:

Once the ground-securing is complete, stand one panel between two of the legs and rotate the Mast so that the panel connection points are facing the panel.
Completely remove the solar panel clamp handle and re-insert through the panel support arm. **DO NOT TIGHTEN THE SOLAR PANEL CLAMP HANDLE - THE HANDLE MUST REMAIN LOOSE UNTIL IT IS ATTACHED TO THE MAST**
Remove the Panel Receiver Pins on the Mast

Lift the panels into place by lifting them using two hands, each placed on opposing ends of the panel
CAUTION: THE SOLAR PANELS CONTAIN TEMPERED GLASS. EXERCISE CAUTION WHEN HANDLING THEM.

Connect the Panel Support Arm to the Mast using the T-handle Pin.
NOTE: The connection is designed as a tight fit. Assembly will become easier as the fittings “break-in”. A light lubricant may also be used to aid during assembly.

Insert the Panel-Frame Ear into the Panel Connection Socket at the top of the Mast and insert the T-handle Pin. Once the panel frame is inserted into the socket, be sure to support the panel’s weight by holding the outer frame securely until the pin is inserted into place. DO NOT LET SOLAR PANEL FALL!
Complete the installation of second Solar Panel to Mast following the same procedures.
Connect the solar panel female plug to the male plug on the Solar Stik™ to complete electrical connection (NOTE: the plugs are polarized and will only connect together in correct polarity. If you have difficulty, reorient the plugs and try again). Repeat this process for the other solar panel.
Tighten the solar panel clamp handle.

The clamp handles on the Solar Stik™ can be mechanically disengaged in order to rotate the handle into a more favorable position for leverage. Simply pull the handle arm up, rotate, and release back into place.

Located on the outer ends of the Solar Panel Lifting Arms is a round aluminum handle. This handle should remain tightened at all times. Check the tightness of this handle by rotating clockwise.
Connecting the SOLAR STIK™ 100 LITE to a battery:

Depending on the accessory or leash purchased with the Solar Stik™, one may now “plug in” to the Stik™. Simply connect the Power Leash between the Solar Stik™ and the load using the “twist-lock” plugs. If connecting to a Non-Solar Stik™ accessory, a charge controller should ALWAYS be used. The Solar Stik™ system is designed for use in many environments and applications.
The 30 foot Solar Power Leash is shown connected to a Power Pak 100
Rotate the entire Mast assembly into desired position and tilt the panels into direct sunlight. Once the desired positions are set, tighten the Tripod’s locking handles.
APPLICATION

CONNECTING SOLAR STIKS TOGETHER FOR AN EXPANDED SYSTEM:

*All* Solar Stik™ Terra models have twin solar power receptacles. The receptacles are parallel ports and either may be used for connection to a battery system or additional Solar Stiks™. If multiple Solar Stiks™ are required to supply a heavy load, they can be linked together via 15 ft. Expansion Leashes (sold separately). The maximum amount of Solar Stiks™ that should be used with a single Power Pak or Terra Pak is three.

CAUTION: ONLY THE SOLAR CIRCUIT CAN BE DAISY CHAINED. If Multiple Breeze Systems are to be used as a single system, each wind generator circuit MUST be plugged into a Power Pak or battery. USE OF THE OMNI CABLE PAK IS RECOMMENDED. Each wind generator is self-regulating, and they cannot interfere with each other’s operation as long as they are connected to a battery such as the Power Pak or Expander Pak.

CAUTION: MORE THAN THREE SOLAR STIKS IN A SINGLE SYSTEM CONFIGURATION WILL EXCEED THE SOLAR BOOST™ CHARGE CONTROL INPUT RATINGS AND/OR POWER LEASH SAFE OPERATING CONDITIONS.
PITCHING THE SOLAR PANELS

Solar Panels need direct sunlight to produce maximum power. It is recommended that the panels be pitched a minimum of three (3) times daily:

- Morning
- Mid-day
- Evening

This will ensure maximum direct sun exposure onto the panel surface.

INCLEMENT WEATHER

The Solar Stik™ 100 Lite was designed to handle harsh conditions and remote environments, and it is fully weatherproof; however, some precautions should be exercised when high wind conditions exist:

- Ensure that the Tripod is secured firmly to the ground.
- If sustained winds higher than 30 miles per hour are expected, then remove the solar panels and store them in a safe environment.

LOW LIGHT CONDITIONS

There is a simple rule to remember about the ability of the Solar Stik™ to generate power. If there is any light (even low light during dawn or dusk) then the solar panels ARE producing power, but the amount of power they produce will be less than 100% of maximum rated output.

SOLAR STIK™ MAINTENANCE

While very little maintenance is required on the entire Solar Stik™, there are a few things that the owner can do to keep the Solar Stik™ in top condition.

1: A corrosion inhibitive lubricant should be applied to all moving parts and joints regularly, especially on any threaded surface or connection.

2: Regular visual inspection of the electrical connections, receptacles, Mast, Lifting and Support Arms, solar panels and mount (Tripod/Transom) is recommended.

3: Keep the Solar Stik™ clean... dirty panels mean less production of electricity.
REPACKAGING AND STORING

When reassembling the Solar Stik™ 100 Lite into its case or box, it is important to do so in a manner that will not cause damage during transport.

Fold in the solar panel clamps so that the handles are not exposed.

Ensure that the Panels are stored face-to-face with the ends matching.
REWIRING THE SOLAR STIK™ FOR 24 VOLTS OUTPUT

The Solar Stik™ may be altered to operate at either 12 or 24 volts DC should conditions warrant.

CAUTION: OF ALL THE COMPONENTS IN THE SOLAR STIK™ SYSTEM, ONLY THE SOLAR STIK™ MAY BE ALTERED TO OPERATE AT 24 VOLTS. ALTERATION OF THE SOLAR STIK TO 24 VOLT OPERATION SHOULD ONLY BE DONE FOR DIRECT CONNECTION TO A 24VDC SYSTEM OR 24VDC CHARGE CONTROL.

Any 12VDC Solar Stik™ accessory (such as the Power Pak or RV Pak) that has a Solar Boost™ MPPT charge control CANNOT be used with a 24 Volt Solar Stik™. The altering of the Solar Stik™ electrical system should ONLY BE DONE BY A QUALIFIED INDIVIDUAL. Failure to correctly rewire the panels for 24 Volt operation could result in damage to the system or injury. INCORRECT WIRING OR DAMAGE AS A RESULT IS NOT COVERED UNDER ANY WARRANTY.

The Solar Stik™ factory design has the two solar panels operating in a parallel 12 or 24 Volt circuit. To operate a 12 Volt Solar Stik™ at 24 Volts, one solar panel must be wired in series to the other. The series-connection can be made by removing both of the Solar Power receptacles and modifying the wiring to provide 24VDC.

Before ANY load is connected to a Solar Stik™ that has been converted to 24 Volt operation, it is highly recommended that it be labeled as 24VDC.

DC Voltages other than 12 Volt may be obtained from the Power Pak through converters or inverters. For example, if a 24 Volt appliance needs to be operated from the Power Pak, a 12V to 24V converter should be used between the Power Pak and the appliance. Converters are commonly available from many electrical retailers.
LITE-SERIES ACCESSORIES AND DESCRIPTIONS:

Optional Lite Accessories:

- RV Pak
- Terra Pak
- Power Pak 50 or 100 including 30' Power Leash
- 50' Solar Power Leash
- 375 Watt Inverter
- Inverter Pak 1000S
- PRO-Verter™ Pak
- R.A.L.S. 9460
- H2O Pak
- Refrigerator Pak
- ERCO (Ergonomic Comfort Pak)
- Stik™ Security Cable
- Replacement parts are available

See the website [WWW.SOLARSTIK.COM](http://WWW.SOLARSTIK.COM) for a complete list of the accessories.

TECHNICAL SUPPORT LINE: 800-793-4364 (available weekdays 7AM to 7PM EST and Sat. - Sun. 9AM to 4PM EST)

ADDRESS: Solar Stik™, Inc. R&D Facility
226 1/2 West King Street
Saint Augustine, Florida 32084

WARRANTY INFORMATION

Solar Stik™, Inc. warrantees the Solar Stik™ 100 Lite assembly for a period of ONE (1) YEAR against construction and workmanship defects.

Solar panels have a 25 year power output warranty and a 5 year ‘materials and workmanship warranty’.

Replacement parts are available through Solar Stik™, Inc.
### TECHNICAL SPECIFICATIONS

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<thead>
<tr>
<th>Solar Stik™ 100 Lite</th>
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<tbody>
<tr>
<td><strong>Construction</strong></td>
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<tr>
<td><strong>Weight Assembled</strong></td>
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<tr>
<td><strong>Mast Outer Diameter</strong></td>
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<tr>
<td><strong>Total Mast Height</strong></td>
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<tr>
<td><strong>Panel Height From Ground</strong></td>
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<tr>
<td><strong>Solar Panel Lifting Arm Dimensions (each)</strong></td>
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<tr>
<td><strong>Deployed Tripod Footprint Diameter</strong></td>
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<tr>
<td><strong>Ground Stakes: 4 included</strong></td>
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<tr>
<td><strong>Axes of Movement</strong></td>
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<td><strong>Power Output</strong></td>
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<tr>
<td><strong>Electrical</strong></td>
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<tr>
<td><strong>Connections</strong></td>
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<td><strong>Solar Panel</strong></td>
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<td><strong>Shipping Weight - (box/custom foam/100 Lite)</strong></td>
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<tr>
<td><strong>Shipping Size - (100 Lite in box only)</strong></td>
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** Solar Stik™ power output *increases* with use of supplied(optional) MPPT charge controls.

For More Information, Log onto [WWW.SOLARSTIK.COM](http://WWW.SOLARSTIK.COM)
FREQUENTLY ASKED QUESTIONS

GENERAL:

Do I need a permit to use the Solar Stik™ at my house?  
The Solar Stik™ is a portable solar generator that does not require any approvals for use. It is a self-contained, turn-key system that is ready to operate right out of the box.

Are there any Tax-Rebates or government incentives to purchase a Stik™?  
The answer to this question lies in the state in which you live. Check with the state and local authorities in your area to see if the Solar Stik™ qualifies for these programs.

Why were rigid solar panels chosen for use on the Solar Stik™ instead of lighter or flexible panels?  
When compared to all other solar technologies on the market, rigid solar panels have the highest power output per square foot of panel surface area. During the initial Research and Development phase for the Solar Stik™ System, the BP panel’s power-output routinely exceeded their power rating when pitched into direct sunlight. In addition, the clear anodized aluminum frame is the strongest available on the market. As a result of these qualities, the rigid BP solar panels were chosen to become an integral part of the Solar Stik™ System.

Will my Solar Stik™ become obsolete in a few years if there is a new “high-efficiency” solar panel developed?  
The Solar Stik™ can be retrofitted easily with new panels. If a new “high-efficiency” and “cost-effective” panel technology is introduced, we will immediately employ the new panel on future systems, and make the new panel technology available to older Solar Stiks™ as well. The Solar Stik™ is designed to support any type of solar panel, and since any new solar panel technology will require the same direct sunlight exposure as today’s existing solar panels, the Solar Stik™ itself will not become obsolete for many years.

How will my Solar Stik™ be delivered?  
The Lite-Series Solar Stik™ 100 system will be delivered in ONE box. Complete Packing lists are available for download from the Technical Data Page:

Is the power output rating on a solar panel the maximum it can produce?  
Solar panel operating characteristics (Watts, Amps, Volts) are rated at "STC", or "standard operating conditions", which are set and vary according to individual manufacturers. Current, voltage and wattage at STC are NOT "maximums", and these values can be higher or lower, depending on operating conditions and panel brand. A solar panel’s output is affected by the angle of the cells to the sun’s light rays and the cell operating temperatures. Solar panel output is usually rated at a nominal temperature of 25 degrees Celsius (77° F), and the output can be expected to vary as the ambient temperature rises or falls. An increase in temperature will usually cause the power output to decrease. For example, if panels are cool due to cloud cover, and the sun bursts through the cloud, the panel’s power may exceed its rated output until the panel temperature rises.
**OPERATION:**

*Can I use the Solar Stik™ to power our house?*

Although the Solar Stik™ produces DC power and most home appliances use AC power, you could power some appliances in your home with the Power Pak 50 or the heavier duty Power Pak 100 and their inverters. The Solar Stik™ & Power Pak work well for remote homes with no access to traditional power supplies, or supporting critical appliances after a hurricane when power may be disrupted for weeks. For example, you could operate a small refrigerator, television, radio, computer, and other devices. Visit the SOLAR SCHOOL section to learn more about appliance loads.

*How much time and personnel does it take to setup a Solar Stik™?*

The Solar Stik™ is designed to be erected and functioning in less than five minutes by one person. Disassembly is also less than five minutes by one person.

*How much power will the Solar Stik™ produce?*

On average, with a sunny day and proper solar panel orientation, you can expect to harness about 80 Amp-hours (1 Kilowatt-hour) daily. This typically requires a minimum of 2-3 panel adjustments during the day. There are exceptions to this because there are longer and shorter days during the calendar year. For example, during the summer months, one may see as much as 90 Amp-hours per day depending on operating conditions and geographic location.

*What can I power with my Solar Stik™?*

The Solar Stik™ System operates on a principle of “Stored Power”, and delegates power to connected appliances according to the demand. The total power consumed in a 24 hour period should be less than the amount of power produced by the Stik™. There are many variations in how a Stik™ System can be setup. Because it is designed to operate with a 12 or 24 Volt battery bank, the user can choose to operate the Stik™ either in a “stand-alone” capacity using a Power Pak, or directly with battery banks that are commonly found in boats, recreational vehicles, golf carts, and more. Any battery bank should be able to store the full amount of solar power generated. Go to the SOLAR SCHOOL section on the website to learn how to figure out the power requirements for your specific application.

*Can I connect a DC appliance directly to the Solar Stik™?*

This is NOT recommended. Damage to the appliance or Solar Stik™ could result from a direct connection. The solar panels are an UNREGULATED DC power supply which has varying Voltage outputs, and can damage an appliance if the voltage is higher or lower than the acceptable voltage input. The Solar Stik™ is designed to work in conjunction with a 12 or 24 Volt DC battery bank only.

*Is there a "break-in period" for a new Solar Stik™?*

The mechanical parts of the Solar Stik™ may at first be a little difficult to operate or get used to. For instance, the rubber solar panel latches may be a little difficult to stretch when locking the panels into the “down” position, but they become
easier to operate as you use them. Normal "break-in" periods range from 1-3 months of regular use.

**I have sometimes seen 8.8 amps registering on the Solar Boost™ control. Is this possible?**
The Solar Stik™ gives solar panels the two main ingredients that they need to operate at their "maximum" output: direct sunlight and sufficient cooling. Three axes of rotation mean direct aiming at the sun ALL day, and the high wing-like arms mean the panels get extremely good airflow against the panel, keeping the panel temperature low (which substantially aids in power output). By placing the panels in an environment where these two factors are optimally met, the Solar Stik's™ BP350J panels are able to operate at or even briefly above their STC rating for most of the day. Additionally, when a panel is operated at its maximum, MPPT technology is also at it's best. The Solar Stik™ maximizes ALL of the operating factors through a unique mounting system, and is complemented by the best MPPT technology available.

**How often should I change the position of the solar panels?**
In order to maximize the amount of solar energy produced, the panels should be facing east for the morning sun, straight up for the noon sun, and west for the afternoon sun. Remember, *direct sunlight* means *more power!*

**What if we aren’t present to change the solar panel tilt?**
We understand that someone may not always be available to tilt the panels, so in this instance, the panels should be left facing the "noon" sun. This will allow for the greatest amount of solar panel operation in a "fixed" position.

**Will the Solar Stik™ Mast or wind generator cast shadows onto the panels?**
Because of the Solar Stik’s™ ability to rotate and pitch, any shadows should be *behind* the solar panels. The sun will only be directly overhead for a brief period during the course of a calendar year because of the earth’s orbit around the sun. During 5 years of testing, any shadows from the wind generator or Mast were quickly fixed by rotating the Solar Stik™ until the panels faced the sun directly.

**What if the sun isn’t shining, will the Solar Stik™ still produce power?**
If there is light, then the solar panels will function. They may produce less energy in reduced light conditions, but they will still function to the best of their ability.

**How can I prevent theft without removing the entire Solar Stik™ System?**
System removal is easy and the most desired method of avoiding theft; however, for temporary theft prevention, either the Stik™ Security Cable (accessory) or an ordinary bicycle chain/cable lock may be used. Simply intertwine the cable through the handles and solar panel frames and remove any slack from the cable. Be sure to connect the cable to a fixed structure.

**Should I remove the solar panels for inclement weather?**
The Solar Stik™ is completely weatherproof and designed to withstand the harsh marine environment, as it was originally designed for cruising sailboats. The solar panels are designed to lock in the "down" position for rough seas or inclement weather; however, in a high wind environment (greater than 50 miles per hour), it
would be best if the panels were removed. For instance, tropical storms or hurricanes would warrant panel removal. We designed the Solar Stik for easy panel removal and it can be done in a matter of minutes. Removal of the Mast from the base socket is probably not necessary (although extremely easy if warranted) as it does not pose much wind resistance.

The Tripod for the Solar Stik™ can be secured to the ground using the provided stakes, the accessory Ground Securing Pads, or using the alternative methods as follows:

**Expanded Footprint:** If the Tripod is placed on a hard surface during windy conditions, plywood (2’x2’x3/4” square pads) may be screwed to the bottom of each leg. This will aid in stabilizing the unit by giving it a lower center of gravity and a wider ‘footprint’.

**Quick-Sand:** If the Tripod is placed on a soft surface, such as on a sand dune, the Tripod may be deployed and then "buried" in the sand up to 16 inches deep, leaving at least 8 inches above the ground. The Solar Stik™ system is not affected by sand.

**Sandbagging:** sandbags can be places on the Tripod legs and feet

**What if we want to permanently attach the Tripod base mount to a structure?**
The feet and base of the Tripod base mount can be screwed to any surface using standard hardware. Simply adjust each leg independently to the correct orientation, and attach to the surface. Stainless steel hardware should be used for any permanent installation.

**How do I know when my batteries are fully charged from the Solar Stik™?**
Battery Voltage is a direct indicator of battery State of Charge. Many Solar Stik™ accessories such as the Terra Pak and the RV Pak include a digital MPPT charge control. This control displays the battery Voltage and/or charging status. If needed, a plug-in digital Voltage meter can also be purchased at any automotive or marine store.

**What would happen of the Solar Stik™ were submerged or dropped overboard?**
The Mast assembly would float for a few minutes, but the solar panels would definitely sink. Take care not to drop the Solar Stik™ overboard. If submersion in fresh water occurs, place the system in a well-ventilated area and allow to dry. If immersion in salt water has occurred, immediately flush all components of the Solar Stik™ with fresh water EXCEPT for the internal components of the solar panel junction box. In either case, open the junction boxes on the back of the solar panels and drain any water that may have intruded. Use a petroleum based spray to remove any water from the electrical connections or junction boxes. Allow adequate drying time before returning to service. Once submerged, electrical wiring and connections will degrade quickly, so frequent inspection and treatment is recommended.
Can the Solar Stik™ System survive a NEMP (nuclear electro-magnetic pulse) blast?
There is no definitive answer to this question, and much of the answer lies in the intensity of the EMP. Tests were conducted a few years ago by the NBS (now NIST) on the resiliency of various devices to NEMP. Results were that a typical solar power system could withstand any probable NEMP event with little or no damage to the junctions of the crystal cells. The system charge controller, as well as any sensitive electronics connected to the system (radios, lights, etc.) would bear the brunt of any damage. The cells and batteries in the test were also mostly immune to damage. Placing over-voltage transient suppressors on the wires from the panels helped protect the controller and equipment during the test.

MAINTENANCE:

What should I do in order to maintain my Solar Stik™?
In addition to regularly wiping the panel surfaces, we recommend periodic use of a silicone OR petroleum based corrosion-inhibitive lubricant on the Solar Stik™. Application should be made primarily at joints, hinges, and base socket as these are the areas that have the most potential for corrosion or abrasion. Occasionally check to make sure the mechanical handles' center screws are snug. Electrical connections should be checked on a regular basis to prevent corrosion and ensure good contact. All electrical connections should be regularly treated with an anti-corrosion treatment.

How long will my Solar Stik™ last?
The Solar Stik™ is designed to last the service-life of the panels, which is 25 years. We have taken every measure to ensure that this is a high-quality American-made product and that you will not have to "upgrade" to keep functional. The Solar Stik™ Breeze will require maintenance on the wind generator about once every 10 years. Replacement parts are available, but with proper care, should seldom be needed.

Could the Solar Stik™ ever rust?
No... however the Solar Stik™ can corrode. Depending on the environment, one may see a slight discoloration in the metals. This is indicative of corrosion on the surface of the metal. Aluminum will oxidize (especially in a marine environment); this is how it "protects" itself. It will often first appear as a very faint, chalky, white powder... and ultimately the aluminum will assume a darker appearance as it becomes "seasoned". The stainless components are "stain - less" and not "stain-proof". You may find an area of faint surface rust on the stainless steel components, but this is normal. Typically, one does not need to worry about these phenomena. The physical signs of concern are pitting, galling, and cracking. Great care was taken to insulate all of the stainless and aluminum parts from one another, but where screws and bolts are used, direct contact inevitably occurs. TEF-GEL™ was used at these contact points to prevent galvanic corrosion. Regular inspection is recommended.
**What grade of stainless steel did you use?**
The stainless steel we used in the construction of the Solar Stik™ are marine grade 304L and 316. Stainless steel is found primarily in the Solar Panel Lifting Arms and supports, the Tripod leg supports, and the mechanical handles.

**The brushed aluminum on my Solar Stik™ is scratched. What can I do to repair the damage?**
Most light scratches in the surface of the brushed aluminum can be repaired with an abrasive or scrubbing pad. Simply rub the pad lightly over the damage until it disappears. Remember to rub the scratch in the direction of the existing brushed finish.

**MODIFICATION:**

**What if I want to install larger solar panels on my Solar Stik™?**
The arms designed for the Solar Stik™ are constructed for the specific panel to which they are attached. They are also designed to handle the loads imposed on the entire assembly by the supplied panels. We do not recommend installing a larger, heavier, panel in replacement of the stock unit as it will compromise the structural integrity of the system, and IT WILL VOID YOUR WARRANTY.

**Can I add additional solar panels to the Solar Stik™?**
The Solar Stik™ was designed to physically support only the two panels supplied with the unit. The Solar Boost™ charge controls however, will handle up to 25 Amps of solar charging current. Therefore, if additional solar power is desired, extra Solar Stiks™ can be added to the system.

**Can I paint my Solar Stik™?**
You can paint or powder-coat the aluminum structure of the Solar Stik™, but any painting should be done immediately after purchase, before the unit is put into service. We recommend having the paint applied professionally, as it will ensure proper procedure in preparing the aluminum. It is important NOT to paint the face of the solar panels.

**What other items can I attach to the Solar Stik™?**
The Solar Stik™ Mast will support items like antennas, television receivers, radar, GPS equipment, satellite equipment... etc.

**Can I get a motor for the arms so that it will "auto-track" the sun?**
This system is designed for manual operation only. Tracking systems require power to operate and are extremely expensive. If motors were to be added to automatically "track" the sun, the motors’ power consumption would greatly reduce the amount of power that is harnessed for the battery bank. Tracking systems are useful in large systems where the amount of energy harnessed is great enough to overcome the loss, but these systems typically generate several thousand watts per hour. Additionally, should a tracking system fail, the effectiveness of the entire system could be greatly impaired. We do not recommend an auto-track system under any circumstances.
Can I attach other manufacturer’s accessories to the Solar Stik™?
Yes, just be sure manufacturer’s instructions are followed during the process. Great care should be exercised if drilling is necessary, as damage to internal wiring can result. It is NOT recommended that holes greater than 3/4” be drilled into the Solar Stik™ Mast.

Can I make a longer leash to use between the Solar Stik™ and my RV?
There are 50’ leashes that can be purchased from Solar Stik™ as accessories. The length of the leash determines the size of the wire that is used and the associated Voltage loss, so proper wire sizing is critical.

Where can I get a battery to use with the Solar Stik™?
Deep Cycle batteries are commonly found in boats, recreational vehicles, golf carts, and Power Paks. RV & Marine stores also sell batteries that can be used.

Please Consult the Website for additional education on 12 Volt DC and 120 Volt AC systems.

Available for download from the site are:

Solar School
Battery School
Inverter School
…and more!

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 Subject to revisions without prior notice

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