

# Warranty Guidelines and Registration Process:

The staff at Sol-Ark thanks you for your business. In order to provide the highest level of support possible and to ensure a complete history for each Sol-Ark warranted, we need you, as the registered owner to complete the following steps to activate your warranty. These forms must be completed and returned to us **no later than 10 days after the system powers up for the first time.**

We have warranty registration instructions for both Installers and Do It Yourselfers (DIY) below. Please read the information below carefully and return to us.

## Sol-Ark Policies and Warranty Overview:

Once again, all criteria must be met for the warranty to be in effect.

1. A licensed electrician or licensed installer must wire the Sol-Ark per install specifications.
2. If you are a DIY customer, you must sign the attached **Hold Harmless** release. The Hold Harmless Agreement states that you do not hold Sol-Ark LLC, liable for damage occurring from workmanship, injuries or property damage as a result of improper wiring and or installation of the Sol-Ark System. This includes the current installation and any future additions or enhancements to the system.
3. Registered owner, must register for the warranty with Name, address and who installed their system. IE, was this a solar installer, electrician or an owner install / DIY project. If no installer is listed below, we will assume this was a DIY project.
  - a. This information will help us expedite your support call.
4. Registered owner must complete, sign and send back via Email or registered mail the **Sol-Ark 8K Install Operational Verification.**
  - a. This assures that you not only had a successful install but that you are familiar with the system, it's features and proper use.
5. Registered owner will also sign **Warranty Acknowledgement** and return it with the other documentation listed above.
  - a. This assures that you understand the warranty.
6. Once the system is powered up for the first time, **you must register your system online with the provided WIFI Dongle.**

## General Customer Install Information:

Customer Name: \_\_\_\_\_

Installer Name: \_\_\_\_\_

Customer Address: \_\_\_\_\_

Installers Business Address: \_\_\_\_\_

City, State Zip: \_\_\_\_\_

City, State Zip: \_\_\_\_\_

Best Phone Number: \_\_\_\_\_

Best Phone Number: \_\_\_\_\_

# Warranty Acknowledgement

5-Year Limited Warranty for SOL-ARK Products. Portable Solar LLC provides a Five-year (5) limited warranty ("Warranty") against defects in materials and workmanship for its Sol-Ark products ("Product"). The term of this Warranty begins on the Product(s) initial purchase date, or the date of receipt of the Product(s) by the end user, whichever is later. This must be indicated on the invoice, bill of sale from your installer. This Warranty applies to the original Sol-Ark Product purchaser and is transferable only if the Product remains installed in the original use location. Please call Sol-Ark to let us know if you are selling your home and give us name and contact of the new owner.

The warranty does not apply to any Product or Product part that has been modified or damaged by the following:

- ❖ Installation or Removal (examples: wrong voltage batteries, connecting batteries backwards, damage due to water/rain to electronics, preventable damage to solar wires.)
- ❖ Alteration or Disassembly
- ❖ Unauthorized software or firmware updates
- ❖ Normal Wear and Tear
- ❖ Accident or Abuse
- ❖ Corrosion
- ❖ Lightning; unless using EMP hardened system, then Portable Solar will repair product
- ❖ Repair or service provided by an unauthorized repair facility
- ❖ Operation or installation contrary to manufacturer product instructions
- ❖ Fire, Floods or Acts of Nature
- ❖ Shipping or Transportation
- ❖ Incidental or consequential damage caused by other components of the power system
- ❖ Any product whose serial number has been altered, defaced or removed
- ❖ Any other event not foreseeable by Portable Solar, LLC

Portable Solar LLC liability for any defective Product, or any Product part, shall be limited to the repair or replacement of the Product, at Portable Solar LLC discretion. Portable Solar LLC does not warrant or guarantee workmanship performed by any person or firm installing its Products. This Warranty does not cover the costs of installation, removal, shipping (except as described below), or reinstallation of Products or parts of Products.

THIS LIMITED WARRANTY IS THE EXCLUSIVE WARRANTY APPLICABLE TO PORTABLE SOLAR LLC PRODUCTS. PORTABLE SOLAR LLC EXPRESSLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTIES OF ITS PRODUCTS. PORTABLE SOLAR LLC ALSO EXPRESSLY LIMITS ITS LIABILITY IN THE EVENT OF A PRODUCT DEFECT TO REPAIR OR REPLACEMENT IN ACCORDANCE WITH THE TERMS OF THIS LIMITED WARRANTY AND EXCLUDES ALL LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION ANY LIABILITY FOR PRODUCTS NOT BEING AVAILABLE FOR USE OR LOST REVENUES OR PROFITS, EVEN IF IT IS MADE AWARE OF SUCH POTENTIAL DAMAGES.

**Return Policy - No returns will be accepted without prior authorization** and must include the Return Material Authorization (RMA) number. Please call and talk to one of our engineers to obtain this number at 972-575-8875.

Any product that is returned must be brand new, in excellent condition and packaged in the original manufacturer's carton with all corresponding hardware and documentation. Returns must be shipped with prepaid freight and insured via the carrier of your choice to arrive back at Portable Solar within 30 days of your initial delivery or pick-up. **Shipping charges will not be refunded.**

All returns are subject to a 35% restocking fee. **No returns will be accepted beyond 30 days of original delivery.** The value and cost of replacing any items missing (e.g. parts, manuals, etc.) will be deducted from the refund. If you have any questions regarding our return policy, please email us at [sales@sol-ark.com](mailto:sales@sol-ark.com) or call us at the number above during regular (M-F) business hours.

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Installer Name

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Installer Signature

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Date

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Customer Name

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Customer Signature

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Date

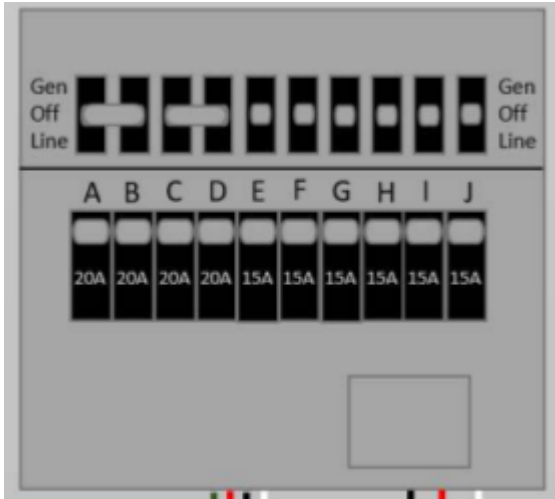
# Troubleshooting Guide

- **LCD is not powering on**
  - Check all connections
    - At least one of the following power sources is required: PV/Grid/Battery
  - Try pressing the power button. Or touchscreen or navigation button.
- **Panels are connected but DC Light is not on**
  - PV voltage must be 150V-500V
  - It's night
- **Panels are not producing**
  - Check all solar panel connections are wired properly
  - Turn on PV disconnect
  - Check that the PV input voltage is not greater than 500V
  - If system says PV=0V, check PV polarity
- **Panels are not producing much power**
  - PV Wire Strip Length: 5/8"
- **System not keeping batteries charged**
  - Check the charge setting in the Charge Menu
- **Auto Gen-Start not working**
  - Check to make sure your generator is compatible with Auto Start
  - Make sure that the Auto Gen Start wire is connected properly to the Sol-Ark 8K and the generator
- **Normal LED isn't on**
  - Sol-Ark 8K is not working properly (Call us)
- **Alarm Light is on**
  - Check the system alarms menu to see which alarm has been triggered
- **Grid HM value is negative when it should be positive (only applies in limited home mode)**
  - Limiter Sensors are installed backwards or L1/L2 sensors are swapped or L1/L2 sensors mis-wired
- **AC Overload Fault**
- **DC Overload Fault**
  - Check PV voltage
  - Make sure you have not wired more than 2 solar strings in parallel
- **System is beeping**
  - Check the system alarms menu to see which alarm has been triggered. Most alarms will self-reset.
  - There is no battery connected. If not using a battery, select no battery in the setup Batt menu.
- **Battery cable is sparking when connected**
  - Use included resistor to connect the batteries (for the first time) to charge inverter capacitors before fully connecting to batteries (see installation guide)
- **Battery symbol on home screen is red**
  - Battery is under voltage or over voltage
- **Battery symbol on home screen is yellow**
  - Battery is low or charge/discharge current is close to the programmed limit (which is ok)
- **Grid symbol on home screen is yellow**
  - Grid parameters are out of specified range or grid is down
- **System has restarted**
  - Happens if: System is overloaded, Battery voltage is greater than 61V, or Software update
- **Batteries were connected backwards**
  - Battery fuse has blown (Call us)
- **Why is LCD screen still on when power button is off?**
  - If PV or Grid power, LCD stays on but inverter and loads are off.
- **The Batt % meter is not reaching 100%**
  - System needs to go through a small discharge/charge cycle to first calibrate battery
- **Generator setup is reading 0Hz**
  - Turn off UL1741. Then widen the voltage range to 53Hz-65Hz

# Sol-Ark 8K Install Operational Verification

Installer to complete after system is working. This protects installer, home owner, and inverter.

1. Is the 8K installed in a location protected from water and has 6" clearance left and right for cooling? **Y/N**
2. Are all the battery lugs tightened? **Y/N**
3. 8K should be connected to Grid, 8K 50A load/Grid breakers on, batteries connected, PV input on and ON button on. Leaving all 10 transfer switches on Line/Grid, test circuit only one at a time to Gen/Solar and then back to Line.  
Wiring should be correct if you do all 10 to verify no breakers pop or inverter overload.
  - a. Did any breakers trip? **Y/N**
  - b. Did inverter overload? **Y/N**
  - c. Set all switches to Gen/Solar.



- d.
4. If you have problems, please take pictures of these: (Email to [sales@Sol-Ark.com](mailto:sales@Sol-Ark.com))
  - a. **Battery icon screen, showing detailed voltages (the screen shown below)**
  - b. **Sol-Ark 8K with batteries and of user wiring area**
5. Load and solar test
  - a. Did you do this entire section with the customer to explain the home screen and the detailed voltages screen? **Y/N**
  - b. Press the battery icon for the detailed voltages screen.
  - c. Is batt temp sensor working? **Y/N**
  - d. Turn on many loads for the critical circuits. Are solar panels producing enough power to match the load (provided there is enough sun)? **Y/N**
  - e. **Verify** screen in limited power to loads mode (default). Are both Grid Home measurements positive? **Y/N**

In Limited to home Mode HM values will be close to zero. HM values should never be negative. If negative, the Limiter Sensors are not installed properly.

Solar	Grid	INV	Load	Batt
0W	0W 50.0Hz	0W 50.0Hz	0W	69W 87%
L1: 0V 0.0A 0W	117V HM: 0W LD: 0W	116V 0.2A 0W	116V 0W	51.13V 1.36A 0.0C
L2: 0V 0.0A 0W	117V HM: 0W LD: 0W	116V 0.2A 0W	116V 0W	DC:50.1C AC:40.3C

f.

- g. Program Full Grid sell mode. If there are enough panels and sun or light loads in the entire house, the Grid HM measurements will be negative on both L1/L2. Are the negative (solar selling back to grid)? **Y/N**
  - h. Program limited power to home mode. The Grid HM sensors will be near zero or slightly positive. Are they both near zero and cancelling out the whole home power? **Y/N**
  - i. You have verified the limit sensors are correctly installed. Program in the correct Grid mode the customer will use.
- 6. Did you program the correct Ah for battery bank and ~20% max Amps charge/discharge? **Y/N**
  - 7. Did you program the correct battery charge voltages for your battery type? **Y/N**
  - 8. Turn off the AC breaker so 8K is operating in off grid mode for several minutes. Are appliances still powered? **Y/N**
  - 9. Turn off PV input, running only on batteries for several minutes. Are appliances still powered? **Y/N**
  - 10. Turn on PV input and AC Grid inputs.
  - 11. Did you setup wifi plug to the customer's internet? **Y/N**
  - 12. Absolutely important for software updates. Did you help customer register system on Dessmonitor? **Y/N**
  - 13. Does customer have a 3-10KW standby generator or small generator? **Y/N**
    - a. Did you turn off UL1741/IEEE1547 and reprogram grid freq range to 53-65Hz? **Y/N**
    - b. If standby generator, are the current limit sensors on the Grid side of the generator transfer switch? **Y/N**
    - c. If small gas generator using Gen inputs, did you enable Gen charging and properly set charge current? **Y/N**
  - 14. If EMP protected, did you install EMP Suppressors on critical appliance cords? **Y/N**

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Installer Name

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Installer Signature

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Date

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Customer Name

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Customer Signature

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Date

# Hold Harmless Agreement

You must read the entire Installation and Operating Instructions provided with the purchase of your Sol-Ark Inverter. If you do not agree to and accept the terms of this warranty/agreement and the responsibilities set forth in these manuals, DO NOT install this product.

Sol-Ark LLC., warrants the Sol-Ark 8K Inverter to be free from defects in materials and workmanship for a period of five years from the date the system is powered up for the first time in accordance with our warranty policies. Sol-Ark LLC., will repair or replace any item under the terms of this warranty provided the item is returned to the Sol-Ark LLC., prepaid with an RMA Number (no returns accepted without RMA Number) you will receive from Sol-Ark.

Sol-Ark LLC., is not liable or responsible for any situation that results in personal injury, property damage, missed commitments, lack of use of the Sol-Ark Inverter, or any expenses incurred due to: product failure, inaccuracy in displayed data or text files, display or display format issues, software bugs or problems, upgrade or customization issues, misinterpretation of the display, warning and/or limit settings, calibration problems, installation issues (mis-wiring, obstructions, damage to the Sol-Ark inverter or components, incorrect installation of any parts, wrong parts, parts that don't fit, etc.) or any other issues related to the installation or operation of this product. All of the above are solely the owner's responsibility. The owner must understand the operation of this product before operating or configuring.

By installing this product, the owner agrees to hold Sol-Ark LLC., harmless and in no way responsible for monetary compensation, including punitive damages for any incident, harm and/or damage associated with this product (including but not limited to the ones listed above). If you do not agree to the above, DO NOT INSTALL THIS PRODUCT.

This Warranty shall not apply to any product that has been repaired or altered by any person other than Sol-Ark LLC., or that has been subjected to misuse, accident, incorrect wiring, negligence, improper or unprofessional assembly or improper installation by any person. This warranty does not cover any reimbursement for any person's time for installation, removal, assembly or repair. Sol-Ark LLC., retains the right to determine the reason or cause for warranty repair and if the product will be covered.

Personal injury or property damage due to misinterpretation or lack of understanding of this product is solely the owner's responsibility. The owner must understand all aspects of the operation of this product before any wiring begins. If he/she does not fully understand the install process, he/she agrees to seek support from the supplied manual or Sol-Ark LLC., support.

This warranty does not extend to any machine, electronics, back up batteries or any other device to which the Sol-Ark LLC., product may be connected, attached, interconnected or used in conjunction with in any way.

The obligation assumed by Sol-Ark LLC., under this warranty is limited to repair, replacement or refund of the product, at the sole discretion of Sol-Ark LLC. Sol-Ark LLC., is not liable for expenses incurred by the customer or installer due to factory updates, modifications, improvements, changes, or any other alterations to the product that may affect the form, fit, function or operation of the product. Sol-Ark LLC., is not responsible for shipping charges or damages incurred under this Warranty.

No representative is authorized to assume any other liability for Sol-Ark LLC., in connection with the sale of Sol-Ark LLC., products.

This Warranty is made only to the original user. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES OR OBLIGATIONS: EXPRESS OR IMPLIED. MANUFACTURER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. PURCHASER AGREES THAT IN NO EVENT SHALL MANUFACTURER BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING LOST PROFITS OR LOSS OF USE OR OTHER ECONOMIC LOSS. EXCEPT AS EXPRESSLY PROVIDED HEREIN, MANUFACTURER DISCLAIMS ALL OTHER LIABILITY EXPRESSLY PROVIDED HEREIN, MANUFACTURER DISCLAIMS ALL OTHER LIABILITY TO PURCHASER OR ANY OTHER PERSON IN CONNECTION WITH THE USE OR PERFORMANCE OF MANUFACTURER'S PRODUCTS, INCLUDING SPECIFICALLY LIABILITY IN TORT.

Customer Name: \_\_\_\_\_ Customer Signature: \_\_\_\_\_ Date: \_\_-\_\_-\_\_

**Warranty Verification Checklist:**

1. Warranty Acknowledgement - Signed
2. Sol-Ark 8K Install Operational Verification – Filled out and signed
3. Online Dongle Registration – Completed
4. Hold Harmless Agreement - Signed
5. Send the above back via Email or by U.S. Mail (Certified Mail ensures delivery confirmation, we will send an Email acknowledgement)