

Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the front of the manual near the product photo. Keep this manual in a safe and dry place for future reference.

SolarSynthesis® Solar Powered USB Charging Station

Item #61225



Serial # _____

WARNING

Read this material before using this product.
Failure to do so can result in serious injury.
SAVE THIS MANUAL.

For Customer Support or general questions regarding this product, please e-mail support@solarsynthesis.us

Important Safety Information



WARNING Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. **Save all warnings and instructions for future reference.** The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

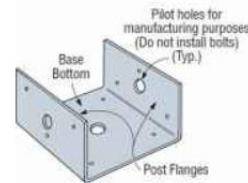
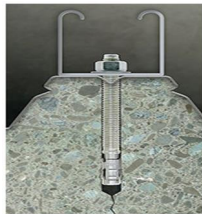
SolarSynthesis®

SolarSynthesis® Solar Powered Charging Station is your off-grid power solution. The unit is equipped with an on-board solar panel, solar rechargeable battery, and an internally mounted control electronics module. This aesthetically pleasing unit is ideal for permanent installation around the garden, park, playground or any other off-grid location where small amounts of power are routinely required.

Installation

1. Select an appropriate location for your solar charging station where the solar panel receives maximum sun and is not blocked by shadows. Ideally, the unit should face towards the south in the northern hemisphere to maximize the angle of the sun.

2. With 1/2" diameter drill bit, drill to a minimum depth of 3". Install anchor bolt and post base and torque to 60 ft-lbf.



3. Once post base is torqued, apply Loctite® Metal and Concrete Epoxy (included with SuperCharge18 and 35) to the outside of the post base. Slide charging station over post base such that the epoxy is between the inside wall of the charging station and the outside wall of the post base.

Specifications			
USB Output	SuperCharge™7	SuperCharge™18	SuperCharge™35
Nominal Output Voltage	5V	5V	5V
Output Receptacle	4.2A	4.2A	4.2A
Supply Stop Voltage	10.6V	10.6V	10.6V
Charge Stop Voltage	14.4V	14.4V	14.4V
Supply Resume Voltage	12.0V	12.0V	12.0V
Solar Panel Input	SuperCharge™7	SuperCharge™18	SuperCharge™35
Maximum Power	6W	6W	10W
Open Circuit Voltage	22.0V	22.0V	22.0V
Optimum Circuit Voltage	17.5V	17.5V	17.5V
Short-Circuit Current	0.36A	0.36A	0.61A
Optimum Circuit Current	0.34A	0.34A	0.57A
Cell Type	Monocrystalline	Monocrystalline	Monocrystalline
Load Parameters	2400Pa	2400Pa	2400Pa
Battery	SuperCharge™7	SuperCharge™18	SuperCharge™35
Nominal Voltage	12 volts (6 cells)	12 volts (6 cells)	12 volts (6 cells)
Nominal Capacity 20-hr.	(350mA to 10.50 volts) 7.0 AH	(900mA to 10.50 volts) 18.0 AH	(1.75A to 10.50 volts) 35.0 AH
Energy Density (20-hr. rate)	1.49 W-h/in ³	1.53 W-h/in ³	1.56 W-h/in ³
Specific Energy (20-hr. rate)	17.50 W-h/lb.	17.14 W-h/lb.	16.03 W-h/lb.
Internal Resistance (approx..)	23 milliohms	14 milliohms	11 milliohms
Max Discharge Current (7 Min.)	21.0 amperes	54.0 amperes	106.2 amperes
Max Short-Duration Discharge Current (10 sec.)	70 amperes	180 amperes	350 amperes
Charge Range	-4° F to 122° F	-4° F to 122° F	-4° F to 122° F
Discharge Range	-40° F to 140° F	-40° F to 140° F	-40° F to 140° F
Physical	SuperCharge™7	SuperCharge™18	SuperCharge™35
Shipping Dimensions	20x12x12	20x12x12	24x14x14
Shipping Weight	20 lbs.	35 lbs.	50 lbs.
Housing Dimensions (HxWxD)	12.5 x 6 x 6	18.5 x 8 x 8	19 x 8 x 8
Cover Dimensions	10 x 10	10 x 10	13.25 x 13.25
Unit Weight	18 lbs.	32 lbs.	47 lbs.
Material	Aluminum	Aluminum	Aluminum
Finish	Powder Coat	Powder Coat	Powder Coat

Operation

1. SolarSynthesis® Solar Powered Charging Stations are shipped ready for immediate use following proper installation.
2. Lift the waterproof protective cap to expose the dual USB outlet. The blue LED indicator light will be illuminated blue if the battery is sufficiently charged. If the light is not illuminated, the battery does not have sufficient charge and requires exposure to adequate sunlight for a duration sufficient for the battery to reach the supply resume voltage
3. With your phone connected to its charger, insert the USB connector into one of the 2.1A receptacles
4. The 2.1A is designed to provide optimized charging speed

Troubleshooting

Symptom	Problem	Correction
USB LED does not light up	Insufficient battery charge	Expose to adequate sunlight for a duration sufficient for the battery to reach its supply resume voltage
Solar panel not charging battery with sunlight present	Outside temperature out of charge range	Assure the temperature is within the appropriate charge range
	Dirt or debris covering solar panel	Keep panel free of dust, dirt and debris to promote optimal performance
Solar panel not charging battery with minimal sunlight conditions	Solar panel voltage falls below the battery voltage	Expose to adequate sunlight such that the solar panel voltage exceeds the battery voltage
If symptoms persist		Contact SolarSynthesis® support

Limited 1 Year Warranty

SolarSynthesis® makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 1 year from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our products. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. **This warranty is expressly in lieu of all other warranties, express or implied, including the warranties of merchantability and fitness.**

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.