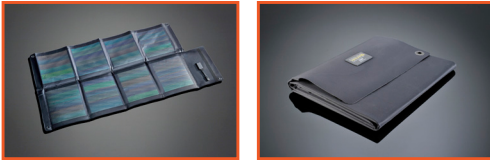


CAUTION: Please read the following instructions before operating your portable solar charger


PRODUCT DESCRIPTION AND SPECIFICATIONS

SUNLIQ portable solar chargers convert sunlight directly into 12 V electricity - ideal for recharging consumer electronics and maintaining vehicle batteries.

The **SUNLIQ**. 25W is an unregulated solar charger intended for batter charging. Open circuit voltage (unconnected) can be as high as 25 volts. Always consult manufacturer's specification before use. Contact your **SUNLIQ**. dealer for more information.



PRODUCT SPECIFICATIONS

Part Number	22127A*
Module	
Wattage	25 W
Dimensions Folded	11" x 8 1/4"
Dimensions Unfolded	41 1/4" x 21 1/2"
Weight	1.7 pounds
Maximum Output	16.5V @ 1.5 A

* SAE to FCLA (22700-2RC) accessory included

The overall performance of the solar charger is dependent on a variety of conditions including season, orientation with direct sunlight, cloudy conditions, temperature, and shadowing. As a result, providing 'typical' performance parameters is dependent on the placement of the solar charger.

NOTE: The product specification above lists the solar charger's maximum power rating and may not be the actual power generated by the solar charger when connected to a device or battery.

CAUTION: When recharging, some consumer products may not be allowed to be in direct sunlight. Consult the instruction manual of your product for further details.

TROUBLESHOOTING

- Inspect the connections between the portable solar charger and the device you are attempting to charge.
- Inspect all plugs, outlets, clamps, connectors and cables to ensure they are not damaged or cut.
- If the connections are all secure, use a volt meter or 12 V test light to check voltage between the positive and negative electrodes. This check should be done using the 12 V vehicle power plug.
- For vehicle and AA/AAA battery charging, check to make sure that the battery is in good condition. Over time battery performance decreases. If the battery performance is weakened, the battery may need to be replaced.
- Note: Some portable electronics such as computers require more power (current) than the solar charger creates. If problems persist you may require a larger solar charger.

IMPORTANT SYSTEM CARE INSTRUCTIONS

- Although the solar charger is flexible, **ONLY FOLD** the natural creases in the all-cloth portions of the charger
- DO NOT FOLD** with the solar cells facing outward.
- DO NOT FOLD** or crease the solar charger on sharp edges or objects.
- DO NOT CRUMPLE OR IMPROPERLY BEND CHARGER.**
- DO NOT** excessively flex or bend the solar charger as this could cause the plastic layers to crease or bubble.
- DO NOT** machine wash, machine dry, or dry clean the solar charger.
- DO NOT** attempt to charge non-rechargeable batteries.
- The solar charger is designed for portable outdoor use. Fold and store when not in use.
- ALWAYS** charge vehicle lead-acid batteries in a well-ventilated area.
- DO NOT** reverse the polarity of the connections.
- Contact battery manufacturer for questions on the battery specifications.
- DO NOT** use the product in a salt water/marine environment



APPLICATIONS / HOW TO USE

CAUTION: Ensure that you completely understand this instruction manual before using your portable solar charger.

1. Consumer Electronics

Handheld Devices & Rechargeable Batteries

Application: Charges/runs satellite phones, portable battery packs, and 12v batteries.

How to use with 12v devices: Connect the 12 V vehicle power outlet receptacle to the portable solar charger. Insert the adaptor (male) included with your device or battery into the 12 V vehicle power outlet. Place the charger in direct sunlight. Consult "Sunliq Solar Charging Chart" for charging times (on back).

Note: Please consult with the device or battery manufacture prior to connecting to the solar charger directly to ensure that the device can be connected with the potential of a high voltage equaling 25 volts.

2. Laptop Computers

Application: Charges/runs laptop computers via an auxiliary battery pack.

How to use with Tekkeon 3450: Connect the Global Solar SAE 8 ft extension cable to SAE to 2.1mm barrel plug (both sold separately). Connect the SAE cable to the portable solar charger. Connect the 2.1mm barrel plug to the Tekkeon Sunbooster input/three-pronged cable that is connected to the Tekkeon battery pack. Place the charger in direct sunlight and the Tekkeon battery in the shade. Consult "Sunliq Solar Charging Chart" for charging times (on back).

HOW TO CONNECT

- SUNLIQ** portable solar charger
- SAE to FCLA (22700-2RC) accessory included



Note: The SAE plug connects directly to the solar charger and the FCLA can be connected to various consumer electronic devices.

FAQs

How do I know that my portable solar charger is working?
Check the charge indicator light or bar on the handheld electronics or accessory.

How do I know what size to use?
Consult the Product Application chart.

Will this product drain my battery at night?
No. The solar charger will not discharge your device battery if left plugged in at night! The solar charger has a built in reverse flow diode to prevent discharge from the battery.

What happens if the solar charger gets wet?
The solar charger is made from water-resistant material. Wipe the product with a clean, dry cloth, and allow the product to dry completely before folding for storage. **DO NOT** keep the product in or under water. **DO NOT** use the product in a salt water/marine environment.

Can I leave the solar charger outside for continual use?
The solar charger was not designed for continued outdoor usage. Once your device is finished charging (see charge times from chart), wipe the product with a clean, dry cloth, and allow the product to dry completely before folding for storage.

Should the solar charger be disconnected from the car battery when starting the engine?
No, the solar charger can remain connected and will not effect operation of the vehicle or any of the vehicle's electronic components.

1-YEAR LIMITED WARRANTY

This **SUNLIQ**. product carries a **one (1) year** limited warranty against defects in workmanship and materials affecting performance. Global Solar Energy agrees to replace the defective product free of charge, within the stated warranty period, when returned by the original purchaser with **proof of purchase**. This product is not guaranteed against wear or breakage due to misuse and/or abuse. In addition, any units that show signs of creasing or folding on the active photovoltaic areas are not covered under this warranty. Use in salt water environments will VOID warranty.

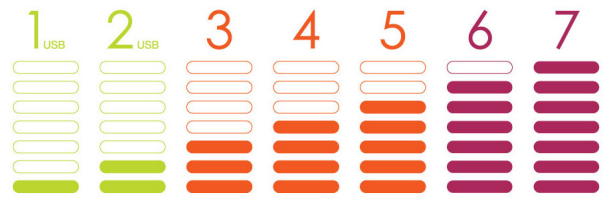
NOTE: Since the conditions or methods of operation, use and maintenance of solar chargers are beyond its control, the Manufacturer does not assume responsibility and expressly disclaims liability for loss, damage or expense arising out of or in any way connected with such operation, use or maintenance.



Portable Solar Chargers generate electricity when exposed to light, even when not connected to a device or battery. Shocks and burns can result from contact with module output wiring, misuse or improper connections. Contact battery manufacturer for questions on battery specifications before charging.



SUNLING SOLAR CHARGING CHART



Device	1 USB	2 USB	3	4	5	6	7
Cell Phone* / MP3*	2-3 hrs	1-2 hrs	2-3 hrs	1-2 hrs			
PDA* / GPS* / iPhone	2-4 hrs	1-3 hrs	2-4 hrs	1-3 hrs			
Mobile Game Players*	2-4 hrs	1-3 hrs	2-4 hrs	1-3 hrs			
4 "AA" Batteries	4-6 hrs	2-3 hrs	4-6 hrs	2-3 hrs			
4 "AAA" Batteries	2-3 hrs	1-2 hrs	2-3 hrs	1-2 hrs			
Satellite Phone / Radio				3-4 hrs	1-2 hrs	1-2 hrs	1-2 hrs
Laptop Computer**					8-10 hrs	4-5 hrs	4-5 hrs
Battery Power Pack (56 watt hr.)				10-12 hrs	8-10 hrs	3-4 hrs	3-4 hrs
Vehicle Battery (60 amp. hr.) Solar charge controller and battery clips sold separately			trickle	trickle	40 hrs	37 hrs	18 hrs

Charge times are approximate and will vary depending on specific device and sun exposure.

* Charging standards vary from device to device. Please consult your device manufacturer for specific charging guidelines and requirements. Please be sure your device powers through a USB connection.

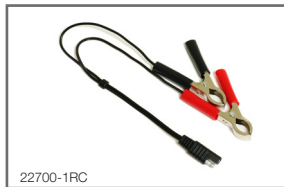
** Most laptop computers require more power to charge than a portable solar charger can produce on a consistent basis. We recommend the purchase of an auxillary batter pack to store the solar charger's energy and deliver the specific power required for your device.

SOLAR CHARGER ACCESSORIES (SOLD SEPARATELY)



14598
7 AMP SOLAR CHARGE CONTROLLER

Protects your 12V lead acid batteries from overcharge. It is to be used with any Global Solar charger over 12W and can handle up to 100 Watts of power. With the attached SAE trailer plug the 7 Amp Solar Charge Controller can connect directly to the solar charger and the remaining SAE trailer plug can connect to any other accessory cable.



22700-1RC
SAE to BATTERY CLAMPS

An 18 inch, 18 AWG zip cord cable. It has a standard SAE two prong connector on one end and a set of standard battery clamps on the other end. The SAE plug connects directly to the 7 amp charge controller and the battery clamps connects to a 12V car battery.



22700-2RC - Incl. with Sunlings 3, 4 & 5
SAE to FCLA

An 18 inch, 18 AWG zip cord cable. It has a standard SAE two prong connector on one end and a 12V FCLA receptacle on the other. The SAE plug connects directly to the solar charger and the FCLA can be connected to various electronic devices.



22700-3RC
SAE to 2.5mm BARREL PLUG

A 4 inch, 18 AWG zip cord cable. It has a standard SAE two prong connector on one end and a 2.5mmID x 5.5mmOD barrel plug on the other end. The SAE plug connects directly to the solar charger and the barrel plug connects to various electronic devices and battery packs.



22700-4RC
SAE to MCLA

An 18 inch 18 AWG zip cord cable. It has a standard SAE two prong connector on one end and a 12V MCLA plug on the other. The SAE plug connects directly to the solar charger and the FCLA can be connected to various electronic devices.



28000RC
FCLA 2.5mm BARREL JACK

A 6 inch, 18 AWG zip cord cable. It has a 2.5mmID barrel jack on one end and a 12V FCLA receptacle on the other. This cable can be used to connect to various electronic devices.



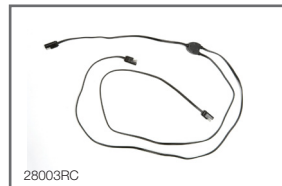
28001RC
SAE to 2.1mm BARREL PLUG

A 4 inch, 18 AWG zip cord cable. It has a standard SAE two prong connector on one end and a 2.1mmID x 5.5mmOD barrel plug on the other end. The SAE plug connects directly to the solar charger and the barrel plug connects to various electronic devices and battery packs including the Tek-oon myPower All portable batteries (models MP3450 and MP3700).



28002RC
2.1mm BARREL PLUG to 2.5mm JACK

A 4 inch, 18 AWG zip cord cable. It has a 2.5mmID x 5.5mmOD barrel jack on one end and a 2.1mmID x 5.5mmOD barrel plug on the other end. This cable can be used to connect to various electronic devices.



28003RC
Y-CABLE

The 18 AWG SAE Y-Cable has two 3' ends that branch from a 1' SAE cable. Use the SAE Y-Cable to connect two solar chargers together in parallel if you need more power. This effectively doubles the power but the voltage remains the same.



28007RC
SAE 8 ft EXTENSION

An 8 foot, 18 AWG, jacketed cable with a two-prong SAE trailer plug on each end. This cable connects to any of the accessories with a SAE connection and plugs directly into the solar charger.