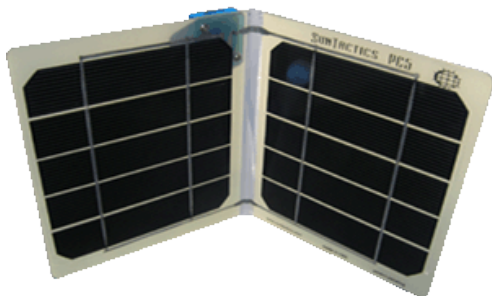




SUNTACTICS

5 Watt USB Solar Charger



The sCharger-5. The most powerful USB solar charger in its class. Hassle free and reliable.

sCharger-5 User Manual V2.0

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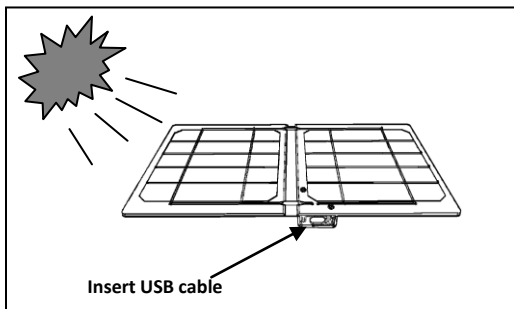
Introduction

As you will soon find out, the sCharger-5 is a very unique high powered solar charger. It is capable of charging USB rechargeable devices like cell phones directly from the sun. It does not use any internal batteries that can become discharged. It will run a cell phone directly from the sun. It utilizes fairly complex circuitry that makes it very simple to use. With proper use and care, the sCharger-5 will provide many years of service.

Most smart phones now come with their own USB connector cable so that they can communicate with personal computers. This is the same cable that can be used to charge your device with the sCharger-5. We found that most of the new phones now include a cable that has a mini or micro USB connector on one end and a standard "A" connector on the other end. If you don't have a cable, you should most likely be able to find your USB cable on the internet or at a local store.

Getting Started

Simply unfold the sCharger-5 and place it in the sun with solar cells facing up. The solar cells are the black squares with tiny lines on them. The little box on the back has a female USB connector and an LED indicator. The indicator should light up when the solar panel sees light. It will light up even in the slightest sunlight. **In order to get maximum power, the panel should be in full sunlight.** Simply plug your USB device into the USB socket on the back of the sCharger-5 using your device's USB "A" type connector. Also note, as the sun moves, the solar panel could eventually get blocked by an obstruction like a tree or a building etc. Try and strategically place it where there will be no obstructions. If you are having problems, please see the troubleshooting section.



iPhone 3, 4, iPod Touch Charging

These devices are fully supported. You will most likely be surprised how quickly your iDevice will charge with the sCharger-5. Most of the time it is not even necessary to aim the panel at the sun. You can lay it on any flat surface and it should work fine.

Instructions:

- Place the sCharger-5 in full sunlight when being plugged into the iPhone
- Do not try to charge in shade or behind glass
- On hot days, keep iPhone as cool as possible by wrapping in a towel. A USB extension cable may also be used to get phone into the shade
- Look for the lightning icon battery indicator
- Try to be patient and let the sCharger-5 do its job

See a video at www.suntactics.com/videos

iPhone 4S Charging

The sCharger-5 does a supreme job at charging the iPhone 4S. Unlike the iPhone predecessors, the iPhone 4S is less finicky when solar charging. This means that it can often be charged in lower sunlight light conditions..

Instructions for best results:

- Place the sCharger-5 in the sunlight when being plugged into the iPhone
- Verify the lightning bolt icon indicator. If it turns into a plug icon, then there is either not enough light facing the panel or the iPhone is too warm.

Low light charging:

- Turn the screen brightness down and turn off other energy consuming apps including location services, blue tooth etc.

See a video at www.suntactics.com/videos

iPad Charging

Although the sCharger-5 is at its best with smaller USB devices, we have been able to charge the iPad1 and 2 at charge rates from 10%-12% per hour. For absolute best results, charge on a clear cool day when the sun is high in the sky. Like any solar panel, output power lowers as temperature rises. So charge times may vary.

Instructions:

- Aim the sCharger-5 in the sun's general direction.
- Lower your screen brightness to 1/3 and turn auto brightness off
- Press top button to put iPad into sleep mode
- Set background image to a dark image (**most important tip**)
- Keep iPad in shade on hot days

See a video at www.suntactics.com/videos

Other Tablet Devices and High Power Readers

USB type tablets and color eReaders can also be charged from the sCharger-5. Please follow the iPad instructions for general charging instructions.

Android Phone Charging

When charging your Android phone, it is advised that you try and avoid shading the panel. Otherwise you may see a message appear on your phone that indicates battery is fully charged when it is not. Cloudy days could also cause this problem. When the sCharger-5 is shaded the Android can become confused. This is perfectly fine and the sCharger-5 will do a retry which will suppress the message once it is seeing sunshine. If you have other issues with charging, like slow charging times, this could be an indication of a faulty battery in the phone.

Charging other devices

If you can get your phone device to charge from a PC USB port then it should solar charge from the sCharger-5. Some phones may actually need a special sync cable. See your phone's instructions to find the cable needed. Follow the Getting Started instructions at the beginning of this manual for info on solar charging.

The sCharger-5 can also charge USB backup batteries. USB batteries can be found on Amazon. These battery packs are inexpensive and many are less sensitive to heat than your phone. Plug the battery pack into the sCharger-5 using a USB cable and leave it in the sun to charge. When charging is complete, you can either use it to charge your device right away or store it for later use. Some of these batteries are specialized for certain brands of phones or PDAs, some are general purpose. The sCharger-5 can also charge AAA/AA USB battery chargers available on Amazon.

Other Info

Cleaning

Try and keep your sCharger-5 clean. If you find dust on the panels, you can simply wipe them off using a soft cloth with a non abrasive spray cleaner or just clean water.

Water Resistance

The sCharger-5 is water resistant. If it falls in water, take it out of the water and gently shake the water out of the USB box with USB port hole facing down. If condensation collects in the USB box, you can also blow out the water then let it dry completely by leaning the sCharger-5 so that the USB port is facing up. You could also use a hair dryer too but do not heat the box up too much. It could melt at 170 degrees or so.

sCharger-5 Special Functionality

The sCharger5 will go in auto mode within 5 minutes of first being placed in the sun. This auto mode is one of the reasons the sCharger-5 works so well. Once in auto mode there is a few good things that start happening to optimize charging. For one thing, if a shadow appears like a cloud or even a person walking in front of the panel some phones may stop charging and not restart. The sCharger-5 takes care of this by doing a charger reset automatically. As long as the sCharger-5 sees sun, the phone will continue to charge and any messages that were displayed on the phone will eventually disappear on their own. Also, if the sun becomes brighter because cloud haze disappears, the sCharger-5 will cause some more sophisticated USB devices to kick into a bulk charging state. Some devices may make a signal sound when in auto mode, this is normal and is a nice indicator that your phone is still charging and not to forget about it.

Website and Videos

Informational videos www.suntactics.com/videos

Support, manual updates and FAQs www.suntactics.com/support

Troubleshooting

Note that some of the troubleshooting items are not sCharger-5 specific problems. Some of these problems can happen regardless of what charger you are using.

The sCharger-5 does not charge at full capacity through glass especially UV filtered glass. Glass blocks a large portion of the sun's rays, so charging through glass (such as on the dash of a car or energy efficiency windows) may not work very well.

Keep the device to be charged cool (in the shade) if possible. Heat will shorten the life of your batteries and may cause some devices to shut down or stop charging because of overheating.

Trouble	Possible Cause	Solution
Device starts charging then stops	USB Device is overheating	Move device to be charged to a cooler place (in the shade)
Device won't charge at all	Charging through glass. Solar panel upside down.	Move the solar panels into direct sunlight with solar cells facing up.
iPhone incompatibility message or triangle warning	Panel has been shaded or was connected while in the shade then moved into the sun.	While in full sunlight, plug the iPhone into the sCharger-5 or just let alone and sCharger-5 will commence within 5 minutes or so and message will go away.
iPhone will not charge at all from AC charger or sCharger-5 charger	unknown	Sync with iTunes or upgrade firmware.
iPhone battery completely dead and will not reboot while solar charging.	Happens when you do not charge the phone.	It may take a while for the iPhone to come back on when solar charging. Eventually it should reboot and come alive. Another solution is to sync with iTunes then phone should reboot.
iPhone, iPad charge indicator showing "plug" icon instead of lightning bolt icon	iPhone, iPad is over heating	Cool down then retry.
Some model phones seem to discharge.	Low light conditions and solar charger continued cycling causes phone screen to come on.	The sCharger-5 must be in sunshine to work properly. If you suspect constant low light conditions, turn your brightness down or turn phone(some models)completely off to help minimize discharge when solar charger cycles. Or unplug solar charger and try when sun is out.

Troubleshooting iPhone 3, 4 and iPod Touch Charging

If the iPhone displays an incompatibility message, it basically translates to it needing more power. These messages will not, in any way harm your iPhone. It means the sCharger-5 is not outputting the full energy needed to activate the iPhone's internal charger. Make sure the sCharger-5 is in the sun. After you plug your iPhone into the sCharger-5 and you see the charge icon activate then you are charging. If not, then unplug the phone and plug it back in while the sCharger-5 is in the sun then let the sCharger-5 do its job. For verification, take a note of the percentage charged* then come back in ten minutes and verify how much it increased. *Go to Settings->General->Usage then turn Battery Percentage "ON" If this option is unavailable, then your iPhone needs an IOS update.

Specifications

Connector Type	USB Type "A"
Open Circuit Voltage (solar)	5.5 -6.0V
Closed Circuit Current (solar)	0.8A - 1.2 A (800-1200mA)
Output Voltage (USB)	5.0V
Output Current (USB)	0.8A – 1.2A (800-1200mA)
Output Power	5-6 watts
Temperature	Tested to 160F/ 71C
Indicator	Bright LED
Dimensions (open)	6-1/8" x 11.5" / 15.5 x 29.2 cm
Dimensions (closed)	6-1/8" x 5-3/4" / 15.5 x 14.6 cm
Weight	7-8 oz / 200 g
Weather and corrosion resistant	

Measured Charge Times

Device	Current	~Charge times dead battery
iPad	.600-.980mA	8 hours
iPhone 3, 3G, 4, 4S	.450-.800mA	1.5-3 hours
Android, HTC, Samsung	.260-.600mA	3-4 hours stock battery
Duracell PPS2	.450mA	2-3 hours

Limited warranty

Warranty covers malfunction or defects that may appear in the solar panel or circuitry of the sCharger-5. Not covered is any observable abuse. Abuse is in the form of damage that may have occurred from mishandling the product. Charges may incur if any damage is found.

Warranty period is 1 year from the date of purchase and is non transferable. This is described as transferring ownership of the sCharger-5 to another person.

Warranty includes repair or replacement of the product if it meets the criteria as explained. Shipping will be paid by the customer.

For warranty service, please email info@suntactics.com. Leave your name, phone number, serial number and the nature of the problem and we will respond promptly.

www.suntactics.com



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