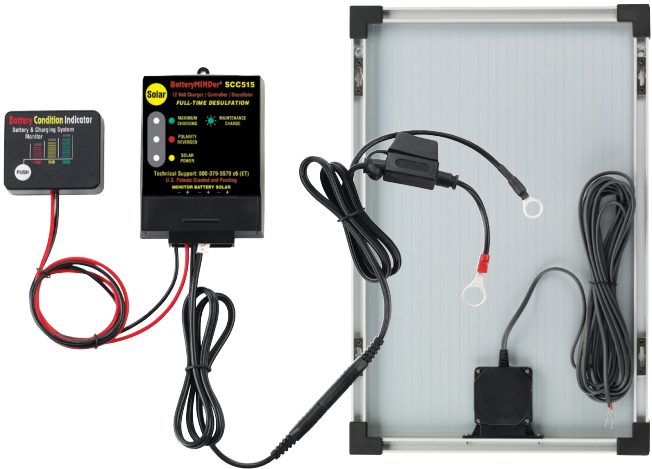


INSTRUCTION MANUAL

BatteryMINDer®

Model SCC515 Maintenance Charger- Solar Controller for use with 5 Watt and 15 Watt Solar Panels



OVERVIEW 2
MOUNTING INSTRUCTIONS 3
BATTERY CONDITION INDICATOR (BCI) 5
TESTING BATTERY 5
FAQs 6
For Repair or Replacement 7
Warranty 8

VDC Electronics, Inc.
www.batteryminders.com
techsupport@vdcelectronics.com

**READ AND SAVE THESE
INSTRUCTIONS**

Please read these simple instructions before making any attempt to permanently or temporarily installing your BatteryMINDER SCC515 controller and panel.

OVERVIEW

Note: Your battery(s) need to be in “good” condition to gain the full benefits from your BatteryMINDER Solar maintenance charger – desulfator system. By “good” we mean no shorted cells, and a “rested” voltage of each battery = 12.2 volts*. When able to test your batteries with a hydrometer, do so only after fully charging them and waiting at least overnight before testing for specific gravity level. If your readings indicate battery is holding a charge equal to only 1125 (1.125 s.g.) or only 2 balls floating (in a 4 ball type hydrometer) or just 12.25 volts (when tested with a digital voltmeter), your batteries should first be desulfated with a 120 Vac input type charger-desulfator. Once your batteries are properly desulfated your solar charging system will be able to keep them desulfated and fully charged for years to come.

* “RESTED”: see Page 5



Solar panel must be mounted black glass side up (silver side down). It must be orientated in a direction that will ensure maximum exposure to the sun. It **MUST** be mounted on a flat surface only using the brackets enclosed in the foam package and installed on the panel’s frame. Panels are made of tempered glass, able to withstand nature’s elements, including hailstones as large as 1-1/2” diameter at 60 miles per hour. However, it cannot stand up to a person’s weight, so do not mount anywhere a person could accidentally step on it. Try to locate within area that does not require you to extend the cord. If this is not possible, cord may be extended by an additional 5’, using same gauge / type cord. Always leave at least 3/4” space between panel and mounting surface.

Solar Controller Must be mounted in an area where it can be easily seen, protected from the elements (direct rainfall), and bright sunlight (where it would be difficult to see the 3 LED status indicators). Do not attempt to extend or replace (substitute) the quick connect-disconnect battery cables supplied with your system, as it is important the controller be in the same general temperature environment as the battery(s). Use the already attached Velcro adhesive pad to either temporarily or permanently mount the controller. This will allow you to change its location, should you ever wish to, without leaving holes behind. You may also choose to use the screw holes provided.

Connect output wires from solar panel to solar controller by twisting wires together and using the correct wire nut (not included). Be careful to observe correct polarity. Do one wire at a time. Do not have solar panel exposed to sunlight. Do not touch wires together.

Connect cord set (supplied) to battery clamps or directly to terminals (depends on battery type) Observe polarity indications on ring end of wires: **RED** = + (positive) **BLACK/BLUE** = - (negative).

Solar Controller has three (3) separate LED status indicators: They are:

- **YELLOW** = Solar Power - Lit when sufficient sunlight is available to charge/maintain/desulfate battery(s)
- **RED** = Polarity Reversed (Battery only) - If lit **RED**, reverse battery connector wires to battery.
- **GREEN** = Battery Charge - If lit (solid) battery is being charged-desulfated. If it blinks (flashes) battery is being maintained and desulfated (if required).

IF NO LEDs ARE LIT, SOLAR OUTPUT IS NOT SUFFICIENT TO ALLOW ANY FUNCTIONS TO OCCUR. YOU MUST WAIT FOR ADDITIONAL SOLAR OUTPUT TO OCCUR, BEFORE ANY ACTION CAN TAKE PLACE.

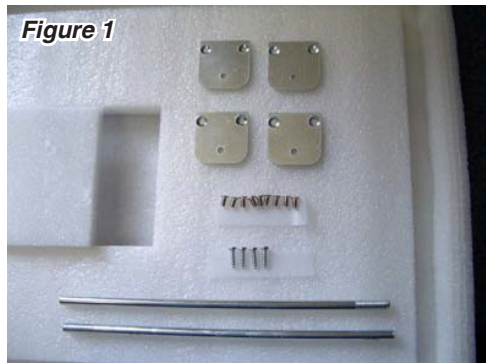
Note: Never try to use your SCC515 solar controller with any other solar panels in excess of 15 watts total. Doing so will burn our your unit and void your Warranty and 1-year Guarantee.

MOUNTING INSTRUCTIONS

Kit with Temporary and Permanent Mounting Brackets. See Figure 1.

The panel comes with two arms for angling the panel for a temporary installation and four brackets for installing the panel permanently on a surface. **The brackets and screws are in the cut-out in the foam underneath the panel.**

Mount the panel with the black side up and silver side down. It must be placed in a location where there is maximum sunlight.



Try to locate an area where you do not have to extend the cord. If this is not possible, the cord may be extended by an additional 5 feet.

Temporary Installation with Arms

See Figure 2.

Use the arms to angle the panel for optimal sun exposure. The panel has two nuts in the groove at each short end of the panel. You may place the panel temporarily, for example, on the ground or on top of the vehicle.

1. Screw the arms provided in the kit in the nuts that are in the groove at each short end of the panel.
2. Let the panel rest on a flat surface.
3. Make sure that you place the panel in a location where it is not going to fall down and where you are going to get maximum sunlight.



Permanent Installation with Brackets

See Figure 3.

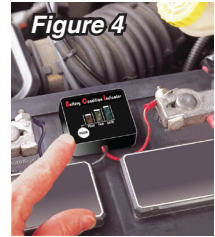
Use the brackets provided in the kit to install the panel permanently to a surface. You could attach the panel, for example, to a wall, on the roof, etc. Leave about 1" between the surface and the panel for airflow. The manufacturer is not responsible for any damage to the panel caused by incorrect installation.

1. Unscrew the flat head screws from the brackets in the groove at both ends of the long side of the panel.
2. Use the Phillips head machine screws provided in the kit to screw each bracket on the panel.
3. Use the Phillips head sheet metal screws provided in the kit to attach the panel to the surface. If you need longer screws, buy them from the hardware store.
4. Leave about 1" between the surface and the panel for airflow. Insert, for example, piece of wood between the bracket and the surface to create the space.
5. Make sure that you install the panel securely. The manufacturer is not responsible for any damage to the panel caused by incorrect installation.



BATTERY CONDITION INDICATOR (BCI):

Your BCI (*Figure 4*) will give you a quick and accurate indication of your battery(s) state of charge-condition. By properly using your BCI you can determine whether your battery needs to be charged, is not holding its charge or needs to be desulfated. This is what you must do if you expect accurate-helpful results: ALWAYS test your battery only after it has been charged as fully as possible with a high power charger (5 -10 Amp rated) and left “rested” for 10 to 24 hours*. If you don’t follow these directives you will obtain information that is inaccurate or down right misleading. Take your time and do it right and your battery(s) will reap the benefits and so will your pocketbook.



**“Rested” means a charged battery that has not been recharged or discharged for a minimum of 10 hours and has had no load attached to it during this time period.*

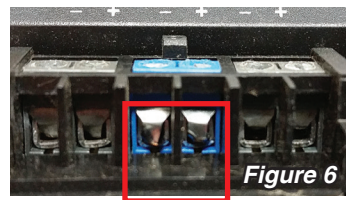
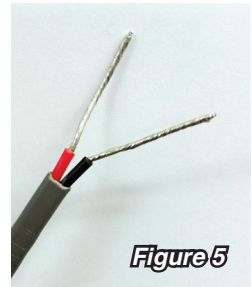
BCI INSTALLATION (if removed from controller):

Turn engine and ALL accessories off. Carefully think of the best location on or near your battery to locate your BCI so it can be easily seen and read. Clean surface you plan to attach BCI to using an alcohol cleaning pad.

Attach the ring terminal on the **RED** wire of your BCI to the (+) Positive clamp on your battery. Attach the ring terminal on the **BLACK** wire of your BCI to the (-) Negative clamp on your battery.

CONNECTING SOLAR PANEL TO CONTROLLER:

The cable coming from the Solar Panel has **RED** Positive (+) and **BLACK** Negative (-) leads (*Figure 5*) which are twisted and tinned to ensure there are no loose threads that may touch across terminals. It is important that all tabs in the controller be pushed in and up and **NOT pushed OUT** as shown in the red square in *Figure 6*.

**TESTING BATTERY:**

(Engine and ALL loads must be off for accurate readings) Remember, only test a fully charged battery and only after it has “rested”* for 10 hours minimum. Press the area on the face of your BCI in raised area marked PUSH.

- If all three (3) LEDs light (**RED**, **YELLOW** and **GREEN**) your battery is “good” = fully charged = 12.5 – 13.2 volts.
- If only the **RED** and **YELLOW** LEDs light your battery is “fair” = 12.0 – 12.5 volts.
- If only the **RED** LED lights your battery is in “poor” condition (11.5 – 12.0 volts). Battery needs to be desulfated fully before it can be

further evaluated to determine if it can be returned to “good” condition. WHEN NO LEDs are lit, battery can be considered “DEAD”, unlikely able to be restored. AGAIN, this can only be accurately determined if you have correctly allowed your battery to “rest”^{***} after first having fully charged it as indicated above.

IMPORTANT NOTE: Fused lead (located on positive lead of battery connector): ATC-3 blade type 15 Amp rated. DO NOT ATTEMPT TO BYPASS OR REPLACE WITH HIGHER RATED FUSE; SERIOUS DAMAGE WILL OCCUR.

FREQUENTLY ASKED QUESTIONS:

Q: Can the Solar BatteryMINDer be used to charge, maintain and desulfate any size or type lead acid 12-volt battery such as sealed gel, AGM, deep cycle, marine, maintenance free electrolyte?

A: YES, BatteryMINDer can charge, maintain and desulfate any type size lead acid based battery, regardless of construction or brand. It is however limited in power (charge current output) by the solar panel (15 watts = 15V @ 1.0 amps). If possible, always charge your battery(s) to full capacity using a plug-in type 120 Vac input high output charger, before connecting it to your solar maintenance charger.

Q: Can BatteryMINDer be used to maintain and desulfate more than one battery at a time?

A: YES, but remember the limitation of the solar panel will determine how much current output your Solar BatteryMINDer can supply to the battery. Normally, 2 parallel connected medium sized (auto size) batteries can be maintained, if they are in good condition. See our definition of a “good” battery in instructions for the BatteryMINDer SCC515 solar maintenance charger-desulfator.

Q: Why do the solar LED indicators turn off and then suddenly turn on seconds later?

A: When the sun goes behind a cloud the solar controller shuts down, in order to prevent the battery from being discharged due to low or no solar energy. As soon as sufficient solar energy is detected by the solar controller, the LED indicators turn on again and unit resumes its function as a charger-maintainer-desulfator.

Q: Why doesn't the **GREEN** LED start blinking immediately after low solar shut off, when just before the LEDs turned off the **GREEN** LED was blinking?

A: For the **GREEN** charge power LED to blink unit must first charge battery to approximately 14.2-volts. Once it reaches this voltage the unit automatically switches to a lower float-maintenance level where it holds the battery's voltage at approximately 13.4-volts. For the **GREEN** LED to start blinking the unit must first charge the battery again to the 14-volt level. This can take from several minutes to several hours, depending on battery size and the amount of solar energy hitting the solar panel.

FOR REPAIR OR REPLACEMENT

All returns must be authorized by VDC Electronics.

In the event that you believe your product may be defective, you **MUST** speak to a VDC Electronics technician at **1-800-379-5579 x6 (ET)** before proceeding further.

NOTES

MODEL BatteryMINDer SCC515 with ____ Watt Panel

SERIAL NUMBER _____

PLACE OF PURCHASE _____

DATE OF PURCHASE _____

ALL returns must be authorized by VDC Electronics after speaking to a VDC Electronics technician at 800-379-5579 x6 (ET). Please see our “Repair or Replacement” section of this manual for additional information.

BatteryMINDER One-Year 100% Unconditional Money-Back Guarantee

This BatteryMINDER product is guaranteed to perform as claimed or WE will refund your full purchase price, including all taxes, shipping or handling cost applicable to the **purchase**.

Unit must be returned freight prepaid together with Proof of Purchase directly to VDC Electronics, Inc., NOT TO THE DEALER FROM WHICH IT WAS PURCHASED.

BatteryMINDER Limited Warranty

VDC Electronics, Inc. warrants the unit's Controller for FIVE years and the Solar Panel for TWO years from date of purchase at retail against defective material or workmanship and will be repaired or replaced at no charge. We make no warranty other than this limited warranty and expressly exclude any implied warranty including any warranty for consequential damages. This limited warranty is not transferable.

Unit must be returned freight prepaid together with Proof of Purchase directly to VDC Electronics, Inc., NOT TO THE DEALER FROM WHICH IT WAS PURCHASED.

IMPORTANT NOTICE

BatteryMINDER® Warranty Registration

Please register your unit online within 10 days of purchase on www.batteryminders.com. **Due to the ever-changing technology associated with this BatteryMINDER® unit, we may be unable to keep you apprised of significant upgrades, changes, etc. without your registration.**

The information you provide upon registration will be used to keep a record of your purchase and will assist in providing support should you ever need to contact our Technical Service department: techsupport@vdcelectronics.com; 800-379-5579 x6 (ET).