

PRO USER ELECTRONICS SCP10 Solar Panel Battery Controller Instruction Manual

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Pro-User Electronics SCP10 Solar Panel Battery Controller Instruction Manual

SCP10

Solar Panel Battery Controller 12V/24V



WWW.PRO-USER.COM

OPERATING MANUAL



PWM SOLAR BATTERY CONTROLLER 10A

SUITABLE FOR STANDARD LEAD-ACID, AGM & LiFePO4 (12V) BATTERIES





Read this manual before using this product. Failure to do so can result in serious injury.

Important Safety Instructions & Warnings



SAVE THESE INSTRUCTIONS: This manual contains important safety and operating instructions for the Pro-User Electronics solar panel battery controller.

Pro-User Electronics accepts no liability for direct or indirect damage caused by faulty assembly or connection, a usage of damaged or altered products, a usage for purposes other than described and especially caused by failure to follow these instructions.

- Battery posts, terminals and related accessories contain lead and lead components, and other chemicals known to the State of European to cause cancer and birth defects or other reproductive harm. Always wash your hands after handling these devices.
- Do not operate the solar panel battery controller with damaged wiring. Replace wires immediately if damaged.
- All lead acid batteries have the potential to emit gasses that may combine into a combustible or explosive
 mixture. In many cases, it is possible that lead acid batteries will emit these gasses during normal discharge
 and charging operations. Because of this potential danger, it is important that you follow the precautions
 recommended by both the battery and battery charger manufacturers before using either one. For example, do
 not exceed the recommended maximum recharge rate (charger output current limit), or remove cell caps while
 charging flooded batteries.
- Install the solar panel battery controller as far away from the battery as possible and in a well ventilated area.
- Do not expose the Solar Charger Controller to any rain, snow, spray, or moisture of any kind. This device is not designed for outdoor use.
- Do not use attachments that are not recommended or sold by the charger manufacturer. To do otherwise may

result in the risk of electric shock, fire, or possibly some other unforeseen potential personal injury situations.

- When leaving a battery charger connected to either a sealed (AGM or GEL) or non-sealed (flooded battery) for extended periods of time (weeks, months, etc.), periodically check the battery to see if it is unusually warm. This is an indication that the battery may have a weak cell and that it could go into a thermal runaway condition. If the battery releases an excessive amount of gas or if the battery gets hotter than 55 degrees during charging, Disconnect the charger and allow the battery to cool. Overheating may result in plate distortion, internal shorting, drying out or other damage. For flooded batteries, also check individual cell fluid levels against manufacturer's recommendations for safe operation.
- Never smoke or allow a source of electric spark or open flame in the vicinity of the battery or engine. (For example: don't charge the battery next to a gas water heater.)
- Do not operate the solar panel battery controller where ventilation is restricted. The intent here is to allow sufficient airflow to minimize and dissipate the heat generated by the Solar Charger Controller and to diffuse the gasses that may be emitted by the battery.
- Never disassemble or attempt to do internal repairs. This voids the warranty. Disassembling the Solar Charger Controller incorrectly may result in the risk of electric shock or create a fire hazard.
- Never charge a visibly damaged or frozen battery.
- After opening the package, examine all parts for visible damage. If you have found any damage, please contact the company you purchased this unit from.
- Electrical devices are not toys. Keep the product away from children.

Personal precautions when you work near lead-acid batteries:

- Someone should be within range of your voice or close enough to come to your aid if you have an accident.
- Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing, or eyes.
- Wear complete eye protection and protective clothing. Avoid touching your eyes while working near a battery. If battery acid contacts your skin or clothing, wash immediately with soap and water. If acid enters an eye, immediately flood the eye with running cold water for at least 10 minutes and get medical attention as soon as possible.
- Be extra cautious when handling metal tools around a battery. If you drop a metal tool near a battery it might spark or create a short circuit between the battery terminals and some other metal part. Either event may cause a dangerous electrical shock hazard, a fire, or even an explosion.
- Remove all personal metal items such as rings, bracelets, necklaces, and watches when working with a leadacid battery. A lead-acid battery can produce a short-circuited current high enough to weld a metal ring or other piece of jewelry, causing a severe burn.

Product Specifications

R PANEL BATTERY CONTROLLER	SCP10
Art. No.	18280
EAN	8717809182807
Technology	PWM
Battery Types	SLA/AGM/LiFePO4(12V)
Max. Input Voltage	50V
Max. Input Power	12V / 150W - 24V / 300W
Max. Output	10A
USB Output	5V / 2.4A
Working Temperature	-10 - 50 degrees
Dimensions LxWxH	81x125x30 mm
Weight	130 gr.
Certification	CE

2 Years

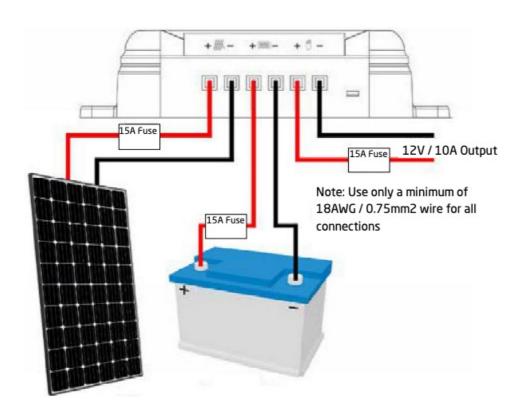
Package contents:

1. Solar panel battery controller SCP10 (PWM)

Warranty

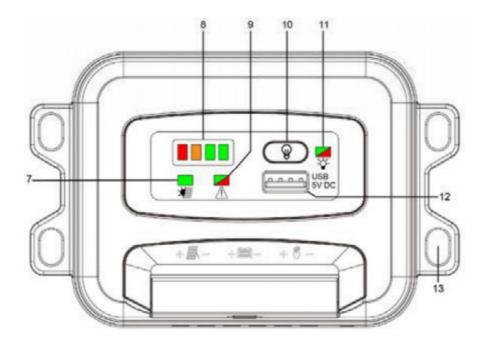
2. Instruction manual

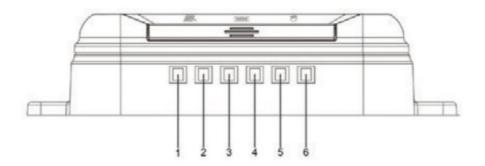
Wiring Scheme



Explanations

- 1. Solar panel + positive input
- 2. Solar panel negative input
- 3. Battery + positive output
- 4. Battery negative output
- 5. Load + positive output
- 6. Load negative output
- 7. Solar panel Charging LED Flashes during charging, turns solid when fully charged. If insufficent sun light the LED will not illiminate.
- 8. Battery voltage indicator.
- 9. Error warning LED Green no issues, Red indicates a failure (see failures section for details).
- 10. Load output button, press to engage. Press again to disengage. If your battery voltages drops to low the load will automactically disengage.
- 11. Load output LED Green load output is on, Red is USB error.
- 12. USB output 5VDC, 2.4Amp.
- 13. One of four mounting slots.





- This device does not current limit the output, therefore you must ensure that you do not exceed the 10Amp output rating. If the 10Amp output is exceeded the RED error LED (#9) will flash on the front panel. The output regulator will then stop, however current will still pass through the regulator. Once the current has dropped below 10Amps the regulator will reboot.
- Maximum 150W solar panel at 12V (20-25VDC).
- Maximum 300W solar panel at 24v (40-50VDC).
- The load will automatically disengage if the battery voltage gets too low.
- The solar charger controller will automatically detect if you have connected up to a 12V or 24V battery. It will then charge appropriately at 14.4V for a 12V battery and 28.8V for a 24V battery.

Failures

THE RED ERROR LED (#9) ON THE FRONT PANEL WILL BE RED IF THERE IS A FAILURE WITH THE OUTPUT REGULATOR.

Possible failures:

- 1. Reverse polarity: Check that your + positive and negative connections are correct and not reversed.
- 2. Short circuit: Check there is not a short between the + positive and negative connections.
- 3. High voltage: Check the input voltage has not become too high and the regulator has turned off. Current will still be flowing.
- 4. Low voltage: Ensure your 12V battery has sufficient charge in it before connecting. A 24V battery must be at least 16V+.
- 5. If your 15A cable fuses are continually blowing, you are exceeding the current rating of your cables and the solar charger controller. You need to either reduce the input current or increase the size (AWG) of the cables or solar charger controller. Pro-User Electronics does sell larger 30Amp and 50Amp solar charger controllers.

Warranty

Pro-User Electronics warrants this product for a period of 2 years from the date of purchase to the original purchaser. Warranty is not transferable. Warranty covers defect against workmanship and materials only. To obtain warranty service, please return the unit to the place of purchase or authorized Pro-User Electronics dealer together with your proof of purchase. The warranty is void if the product has been damaged or not used as described in this manual. Warranty is void if a non-authorized repair has been performed. Pro-User Electronics makes no other warranty expressed or implied. Pro-User Electronics is only responsible for repair or replacement of the defective product and is not responsible for any consequential damage or inconvenience caused by the defect.

Contact information:

Tradekar Benelux BV Ohmweg 1 4104 BM Culemborg The Netherlands +31(0)345470990 Info@tradekar.com

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WWW.PRO-USER.COM



Tradekar Benelux BV Ohmweg 1 4104 BM Culemborg The Netherlands

www.pro-user.com

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Documents / Resources



PRO USER ELECTRONICS SCP10 Solar Panel Battery Controller [pdf] Instruction Manual SCP10, SCP10 Solar Panel Battery Controller, Solar Panel Battery Controller, Panel Battery Controller, Battery Controller, Controller

References

- User.com Marketing Automation Platform
- Pro-User Electronics
- User Manual

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