



5W SOLAR BATTERY CHARGER MAINTAINER

Model: RSP5BM

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IMPORTANT SAFETY INSTRUCTIONS

Please read the User Guide carefully before installation.

IMPORTANT SYMBOLS

WARNING

Indicates potentially dangerous conditions that could result in personal injury

CAUTION

Indicates conditions or practices that could result in damages to the unit or other equipment

NOTE

Indicates procedures or functions that are important for proper and safe operation of the unit and/or other equipment

WARNING

DO NOT disassemble the unit or remove any attached components. Incorrect reassembly may result in a risk of fire or electric shock.

WARNING

Keep the unit out of reach of children unless supervised by an adult.

WARNING

DO NOT operate the unit if it has been smashed, squashed, pierced, or otherwise damaged in anyway.

WARNING

The unit is only compatible with 12V lead-acid batteries. DO NOT connect it to other types of batteries or batteries with nominal voltages other than 12V. Doing so may cause irreversible damages to the unit and/or battery explosion.

WARNING

To reduce the risk of a battery explosion, please follow the instructions published by the battery manufacturer and review the cautionary markings on the battery carefully.

WARNING

DO NOT place the unit on a surface constructed from combustible material. Keep the unit away from explosives and corrosive substances.

CAUTION

The unit is designed to withstand splashes and spills but is not fully waterproof. DO NOT submerge the unit in water or leave it in the rain.

CAUTION

Dispose of the unit according to the local recycling and environmental regulations.

CAUTION

DO NOT step, walk, stand, or jump on the unit. Localized heavy loads may cause variances of micro-cracks on the solar cells, which will ultimately compromise the reliability of the unit.

NOTE

Clean the surface of the solar battery charger maintainer as necessary for optimal performance.

PACKAGE CONTENTS

- 1 x Renogy 5W Solar Battery Charger Maintainer
- 1 x SAE to Ring Terminal Cable
- 1 x SAE to Alligator Clip Cable
- 1 x SAE to Cigarette Lighter Plug Cable
- 8 x Suction Cups
- 1 x User Guide

SPECIFICATIONS

Solar Panel	
Rated Maximum Power	5W
Open Circuit Voltage	21.6V
Short Circuit Current	0.3A
Optimum Operating Voltage	18V
Optimum Operating Current	0.27A
Operating Temperature Range	-4~140°C / -20~60°C
Output Connector	SAE
Dimension	7.9 x 9.8 x 0.1 inch / 200 x 250 x 3 mm
Weight	10.5 oz / 298 g
MPPT Charge Controller	
Boost Voltage	14.8V
Float Voltage	13.55V
Maximum Input Current	0.35A
Maximum Output Current	0.4A
Operating Temperature Range	-4~185°F / -20~85°C

INSTALLATION

WARNING

DO NOT leave the solar battery charger maintainer connected and unattended for extended periods of time. Check the battery status frequently for safe operation.

WARNING

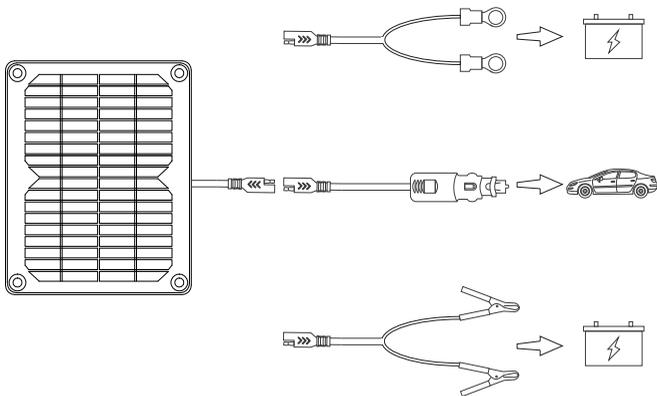
Place the solar battery charger maintainer as far away from the battery as the adapter cables permit. DO NOT place it directly above the battery.

CAUTION

The solar battery charger maintainer MUST be disconnected from the battery or cigarette lighter port when starting the engine or driving the vehicle. Electric surges from the alternator when starting and running may damage the solar battery charger maintainer.

NOTE

The solar battery charger maintainer is designed to compensate for the battery self-discharge. Please do not rely on it for a full charge.



CONNECTING DIRECTLY TO THE BATTERY

- Check the polarity of the battery terminals. The positive (POS, P, +) terminal usually has a larger diameter than the negative (NEG, N, -) terminal.
- Connect the included SAE to Ring Terminal Cable or SAE to Alligator Clip Cable to the battery.
- If the battery is installed in the vehicle, the vehicle ground type must be identified. For a negative-grounded vehicle, first connect the positive (red) alligator clip or ring terminal to the positive (POS, P, +) terminal of the battery, and then connect the negative (black) alligator clip or ring terminal to the vehicle chassis or engine block away from the battery. For a positive-ground vehicle, first connect the negative (black) alligator clip or ring terminal to the negative (NEG, N, -) terminal of the battery, and then connect the positive (red) clip to the vehicle chassis or engine block away from the battery.
- If the battery is outside the vehicle, a 24 inch (610mm) 6 AWG (13 mm²) insulated battery cable must be first connected to the negative (NEG, N, -) battery terminal. Then connect the positive (red) alligator clip or ring terminal to the positive (POS, P, +) terminal of the battery and connect the negative (black) alligator clip or ring terminal to the free end of the battery cable away from the battery.
- Connect the SAE to Ring Terminal Cable or SAE to Alligator Clip Cable to the solar battery charger maintainer.
- Place the solar battery charger maintainer, facing due south (or north), in the path of the sun. Make sure that no shadows are cast on the solar battery charger maintainer.

WARNING

Electric shock can occur if the adapter cable is damaged. DO NOT use a damaged adapter cable to maintain or charge the battery. Position the adapter cable properly to reduce the risk of damage by the hood, door, or hot engine parts.

WARNING

If it is necessary to close the hood during the maintaining or charging process, ensure that the hood does not touch the metal part of the alligator clips or ring terminals, or cut the insulation of the adapter cable.

WARNING

Stay clear of fan blades, belts, pulleys, and other parts that can cause injury.

WARNING

NEVER allow the alligator clips or ring terminals to touch each other.

WARNING

When disconnecting the solar battery charger maintainer, please follow the above procedures in reverse order.

WARNING

DO NOT connect the alligator clips or ring terminals to the carburetor, fuel lines, or sheet-metal body part.

CONNECTING TO THE CIGARETTE LIGHTER PORT

- Park the vehicle in direct sunlight with the front facing due south (or north).
- Connect the solar battery charger maintainer to the included SAE to Cigarette Lighter Plug Cable.
- Insert the cigarette lighter plug into the cigarette lighter port.
- Attach the solar battery charger maintainer to the windshield using included Suction Cups.

NOTE

For some makes or models of vehicles, the cigarette lighter port may not operate when the ignition is turned off. In such cases, please connect the solar battery charger maintainer to the battery directly.

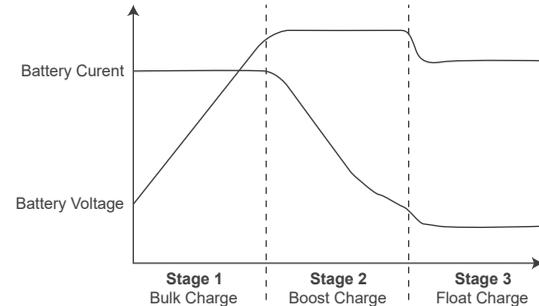
NOTE

Dark window tints may seriously affect the performance of the solar battery charger maintainer if it is attached to the inner side of the windshield. For optimal performance, please route the adapter cable through the open window and place the solar battery charger maintainer outside the vehicle.

INTELLIGENT CHARGING TECHNOLOGY

The built-in charge controller employs a 3-stage charging algorithm for an efficient and safe charging process, which includes bulk charge, boost charge, and float charge.

- **Bulk Charge:** During this stage, the built-in charge controller utilizes the MPPT (Maximum Power Point Tracking) algorithm to automatically track the maximum power point voltage of the solar panel and charges the battery at a constant maximum current until the battery voltage increases to the boost voltage.
- **Boost Charge:** During this stage, the built-in charge controller keeps the battery at the boost voltage while gradually decreasing the charging current. The Boost Charge stage helps the battery retain the energy stored during the Bulk Charge stage.
- **Float Charge:** During this stage, the built-in charge controller charges the battery at the float voltage with a small maintenance current, making up for the loss of battery self-discharge. The Float Charge stage keeps the battery topped off once it is fully charged.



WARRANTY

- RENOGY products are covered by a 1-year limited warranty from the original purchase date. If any problems occur, please contact us for assistance. Refer to the last page of User Guide for contact information.
- We only provide after-sales services for products that are sold by RENOGY or retailers and distributors authorized by RENOGY. If you have purchased your unit from other channels, please contact your seller for more information about return and warranty.
- Please register your purchase(s) directly at www.renogy.com/warranty-registration or your region's corresponding website so that we can stay in touch and contact you in the unlikely event that a safety recall is required.

FCC Compliance:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must withstand any interference received, including interference that may cause undesired operation.



Renogy reserves the right to change the contents of this manual without notice.

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