



Accessories:

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| 1. Handle | 8. Cable |
| 2. Latches | 9. Battery crocodile clips |
| 3. Aluminum frame | 10. Anderson plug |
| 4. Aluminum stand | 11. Fuse |
| 5. Solar charge controller | 12. Storage bag (if included with the kit) |
| 6. Connection box | 13. Corner protector |
| 7. Label | 14. Ring terminal |



Foldable solar panel

User's manual

Installation

1. Unclip the two latches on the side of the unit and unfold the two panels outward. Extend the stand to support the solar panels and fix it.
2. Fully extend battery leads and connect the battery clips to the + positive (red) & - negative (black) battery terminals on a 12v battery. Ensure that the connections are secure.

Note: The kit should be connected to a battery generating at least 6V to start the solar controller. If your 12V battery is fully discharged, charge it for a short period of time by other means to reach 6V.

3. When you connect the kit to the battery, the "BATT" LED on the solar controller will switch on.
4. Press the setting button on the controller a few times until LED stops on "Batt type". Press the setting button again and hold it for 5 seconds until the digits start flashing. Press the setting button quickly again to choose the battery type (1 = sealed lead acid, 2 = gel, 3 = flooded) and leave it in this position (it will stop flashing in a few seconds which means that controller recorded the settings).
5. Find a clear sunlit area free from over hanging branches, obstructions or shading.
6. Place the solar kit into that area facing the sun ("PV" LED on the controller will switch on).

Note: To maximise the output, adjust position of the kit regularly to track the sun movement throughout the day.

Operation

The charging status LED is marked as "PV" on the controller

1. GREEN on all the time means the solar panel is charging the battery
2. GREEN fast flashing means over-voltage in the system

The battery status LED is marked as "BATT" on the controller

1. GREEN on when the battery voltage is in the normal range and the battery is partially charged
2. GREEN slowly flashing when the battery is fully charged
3. ORANGE on means low voltage of the battery (requires charging)
4. RED on is when the battery is over discharged

FREQUENTLY ASKED QUESTIONS

Q. What type of batteries can be used with this kit?

A. Any sealed lead acid, gel or flooded 12V battery (typically used in caravans, motorhomes, boats etc.)

Q. Can this kit charge a 24V battery?

A. No, this kit is designed to charge a 12V battery. Technically it's possible to change solar panel connections to enable the kit to work in 24V mode but this should only be done by an appropriately qualified person

Note: unauthorised modification to 24V will void the warranty.

Q. Can the kit charge two or more 12V batteries connected in parallel ("+" to "+", "-" to "-")?

A. Yes, it's possible if the batteries have the same type and capacity and are always used together wired in parallel as a single 12V battery bank.

Q. Is there any risk that the solar kit will over charge my battery?

A. One of the functions of the solar charge controller is to ensure that your battery is not over charged.

Q. Can I extend the battery leads?

A. Yes, it's possible – please choose the same size of cable for extension.

Q. Do I need to clean the solar panels?

A. Yes, it is recommended for better performance. Dust & dirt should firstly be swept off the panel surface using a soft brush and then use a wet cloth to wipe the panel surface to remove remaining dirt & grime.

Q. Can rain damage the solar kit?

A. The solar panels and solar controller are fully waterproof (IP66 class), but we recommend protecting the kit from rain whenever possible, because regular contact with water might lead to rust on some of the fittings.

Troubleshooting

- Check all connections to ensure they are secure and clean
- Check polarity of the battery connection and make sure the battery generates at least 6V
- Ensure the solar panels are exposed to sufficient light – ideally position them to face the sun directly
- For more information refer to the Troubleshooting section of the solar controller manual (skip anything which relates to load work in the controller manual as the load terminals of the controller are not used)

Warranty

The workmanship warranty (wiring and accessories) and solar controller warranty is 2 years. Solar cells are guaranteed to generate power for more than 20 years. The warranty does not cover a fuse.

Specifications

Model	Cells type	Folded size	Net weight	Specifications				
				Max. power	Max. power voltage	Max. power current	Open circuit voltage	short circuit current
				W	V	A	V	A
folding2x120	mono	1070*595*70	18.9	240	18.8	12.77	22.0	13.40

Specifications under standard test conditions (STC): 1000W/m², AM 1.5, 25 °C. Specifications are stated for the solar panels only without the effect of the charge controller.