160W / 200W / 250W FOLDING SOLAR BLANKET

USER MANUAL

SKUS:
SOL160W-FS
SOL200W-FS
SOL250W-FS

V1.0

PLEASE READ AND UNDERSTAND THIS MANUAL COMPLETELY BEFORE USING THIS PRODUCT.

SAFETY

- Keep your solar regulator & battery away from liquids at all times.
- Keep the solar blanket and controller clean at all times (always check connectors to ensure they're free of grit before plugging them in).
- Do NOT use the solar blanket to charge non-rechargeable batteries. Doing so may result in harm to the user and/or damage the solar blanket and controller.
- All lead-acid batteries produce harmful, explosive gases. The battery should be mounted in a well-ventilated area, as far as possible from any ignition sources. Do NOT smoke or have a naked flame in the vicinity of the battery under charge.
- Never tamper with or pull any component of the solar blanket, regulator or wiring apart. If you do so, you will void the warranty.
- Always store the solar blanket in its folded position.
- Ensure nothing sharp or heavy could potentially damage the solar blanket during transport or storage.
- Only use the solar blanket to charge 12V batteries.
- The PWM controller is only suitable for regulating solar modules.
- The PWM controller is suitable for lead-acid batteries (LEAD, AGM & GEL) & Llithium-ion (LiFePO4)
- Never connect another charging source to the PWM controller.
- Do not place solar blanket on your vehicle's bonnet or paintwork during use.

INCLUDED IN THE KIT

Flexible Folding Solar Blanket



20 Amp PWM Regulator



5M Anderson Extension Lead



Anderson Plug to Aligator Clip Adapter



Technicial Specifications			
Maximum Power (Watts):	160	200	250
Solar Cell Type:	Monocrystalline		
Max Power (Volts):	19.8V		
Max Power (Amps):	8.1A	10.1	12.6
Open Circuit Voltage:	23.36V		
Short Circuit Current:	8.89A	11.11	13.89A
Operating Temperature:	-20 to 50℃		
Max System Voltage:	100V		
Length	182CM	228CM	324CM
Width	62cm		
Closed (Folded) Dimentions(CM):	46 x 62		
Colsed (Folded) Thickness (CM):	6	7	8
Weight	5.6KG	7KG	8.4KG

INSTRUCTIONS FOR USING SOLAR BLANKET & REGULATOR

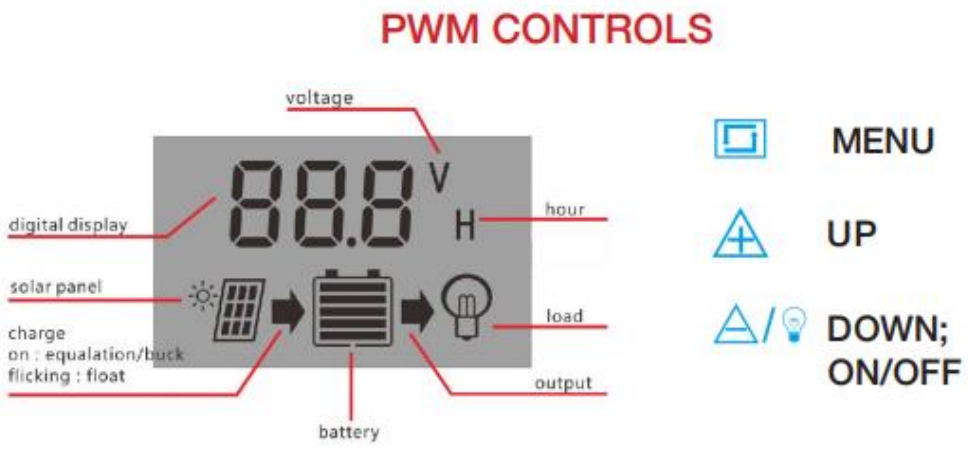
Unpacking your solar blanket

- Find a suitable location to unfold the Solar Blanket, away from sharp objects, liquids and other hazards that could damage your solar blanket. Ensure there is sufficient space for the Solar Blanket to be spread out fully.
- Whilst unfolding, take care with the panels making sure they do not bend.

USING THE SOLAR REGULATOR

Please note: not following these instructions may cause damage to the PWM controller. Ensure that you attach the positive (+) and negative (-) wires to the appropriate terminals.

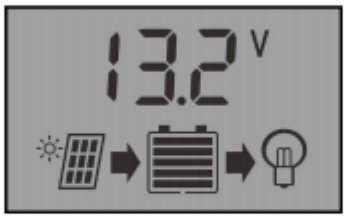
1. Connect the battery to the PWM controller
2. Connect the solar blanket to the PWM controller
3. Optional: Connect the load you want to provide power to (excluding batteries)
4. Reverse the order to uninstall The controller will now be receiving power and its settings can be altered.



Menu: short press: cycle through the different menu options; long press: confirm selection or return to the main display
Up: increase value
Down: decrease value

SOLAR REGUALTOR MENU SCREENS & FUNCTIONS

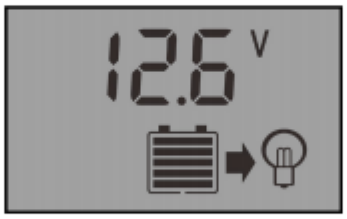
1. Press the menu button to cycle through the six different settings screens. Each screen is explained below.
2. Holding the menu button for 6 to 7 seconds will allow you to change the settings on a screen. Use the up or down buttons to change the values.
3. Hold the menu button again to confirm your settings.



- Main display
  Displays details about voltage and connections to the PWM controller.
  (Not pressing any button for 10 seconds will return you to this screen.)



- Float voltage
  Accept power from the solar panel until the battery's voltage reaches the set value.
  Default: 13.7V



- Discharge reconnect
  Connect to the load when the battery's voltage reaches the set value.
  Default: 12.6V



- Discharge stop
  Sever the connection to the load when the battery's voltage reaches the set value.
  Default: 10.7V

SOLAR REGUALTOR MENU SCREENS & FUNCTIONS CONTINUED…



- Work mode
  Control when the battery supplies power to the load.
  24H – constantly provide battery power to the load.
  1-23H – provide battery power to the load for the set number of hours after the solar panel has stopped receiving sunlight.
  0H – provide power only when the solar panel is not receiving sunlight.



- Battery type
  Shows type of battery attached to the PWM controller.

TROUBLESHOOTING

Problem	Cause	Solution
Charging symbol not displaying even when the solar panel is in the sun	Panel has been improperly connected to the PMW controller.	Reconnect the solar panel, ensuring that the positive and negative terminals are appropriately connected
Load icon is off	Battery is low	Charge the battery
	Incorrect menu setting is selected	Select a menu setting where the load is displayed
Load icon flashes slowly	Overload	Reduce the load's power draw
Load icon flashes quickly	Short circuit protection	System should reconnect automatically
The PWM controller will not turn on	Battery is insufficiently charged	Charge the battery
	Battery has been connected improperly	Check, and if necessary alter, the battery's connection to the PMW controller

WARRANTY INFORMATION

SOLAR CELL PERFORMANCE – 10 YEARS GAURENTEE
Perception Lighting provide a 10 Year performance warranty from the date of purchase that solar panel performance will not fall below 85% of its rated output.

CANVAS – 5 YEARS GAURENTEE
Perception Lighting provide a 5 Year warranty from the date of purchase against all manufacturing defects related to the canvas.

ALL OTHER COMPONANTS – 2 YEARS GAURENTEE
Perception Lighting provide a 2 Year warranty on all other components and accessories of the solar panel from the date of purchase against all manufacturing defects.

WHAT DOES THE WARRANTY COVER?
Under normal usage conditions, this warranty covers:

1. Any defect in design or manufacture which results in the product failing to perform substantially as described in authorised advertising or literature.

2. We will either repair or replace the product at our discretion providing that the fault is found to have been caused by a design or manufacturing defect and not misuse or tampering.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. The benefits provided to you as the consumer by this warranty are in addition to other rights and remedies available to you under the law.

THE WARRANTY DOES NOT COVER:

1. Any damage resulting from improper use.
2. Faulty installation or modification made during installation.
3. The cost of removing and reinstalling the product
4. Travel and /or other expenses due to customer's remote location
5. Transport charges and damage in transit. It is your responsibility to deliver and pick up your product, including any costs associated with the postage of your repair or replacement product. If you do freight your product we recommend that you insure against loss or damage.
6. Any loss directly or indirectly associated with the product failing to operate.
7. Damage caused by mould, insects, animals, misuse, incorrect operation, adverse weather, accidents and fair wear and tear

TO MAKE A CLAIM, PLEASE ENSURE YOU RETAIN YOUR SALES RECEIPT OF PURCHASE

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