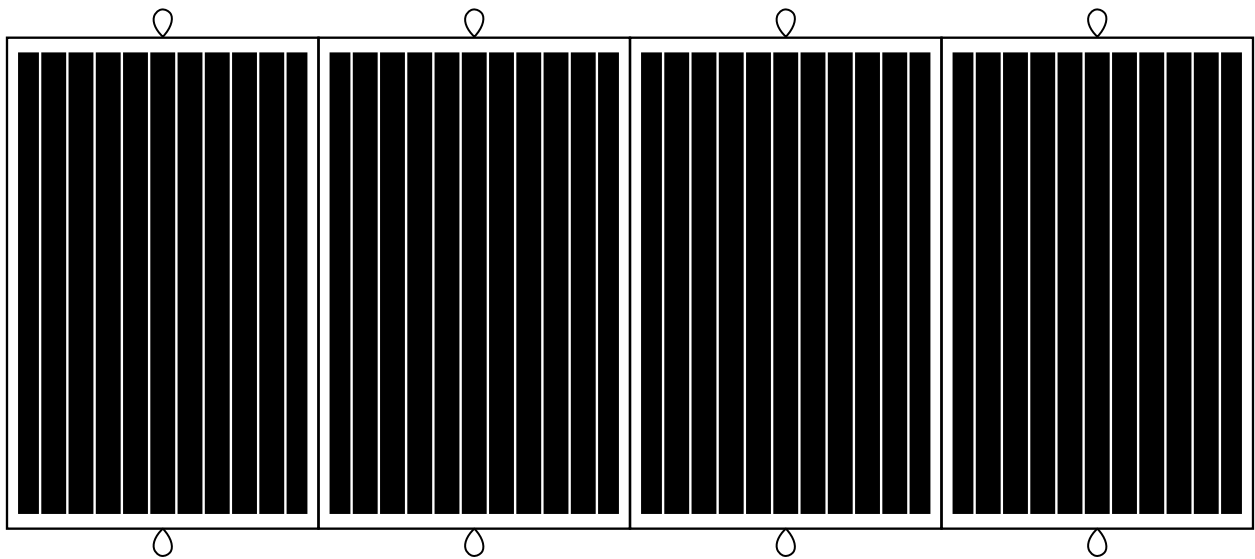




# 120W Monocrystalline Solar Blanket **USER MANUAL**

AKSR-BK120W\_03



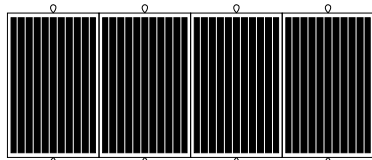
V1.6

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

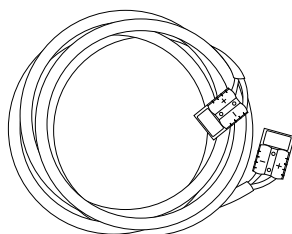
# SAFETY INFORMATION

- Make sure to keep your solar blanket, MPPT Solar Controller & battery away from any 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).
- This appliance is not intended to be used by people (including children) with reduced physical or mental capabilities, or those who are under the influence of drugs or alcohol.
- 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. Only use the provided solar blanket, regulator and adapters/wiring provided in the kit.
- 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.
- 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 MPPT controller is only suitable for regulating solar modules.
- The MPPT controller is only suitable for lead-acid batteries: OPEN, AGM & GEL. The Solar Blanket & Controller should not be used with nickel metal hydride, lithium ion or other batteries.
- Never connect another charging source to the MPPT controller.
- Do not place the solar blanket on your vehicle's bonnet or paintwork during use.

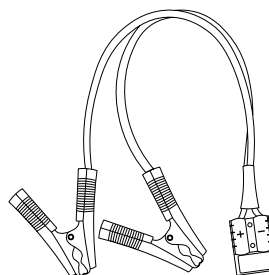
# INCLUDED IN THE KIT



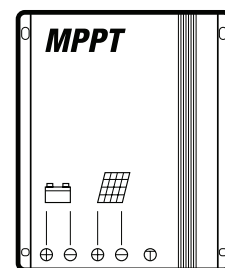
120W Solar Blanket



4.4m Extension Cable



Alligator Clips



MPPT Solar Controller

# SOLAR BLANKET SPECIFICATIONS

Max Power.	120W
Tolerance	± 3%
Voltage at Pmax (Vmp)	17.8V
Current at Pmax (Imp)	6.75A
Open-Circuit Voltage (Voc)	20.8V
Short-Circuit Current (Isc)	7.54A
Normal Operating Cell Temp (NOCT)	47 ± 2°C
Maximum System Voltage	1000VDC
Maximum Series Fuse Rating	10A
Operating Temperature	-40°C to +85°C
Application Class	Class A
Folded Size	510 x 400 mm
Unfolded Size	510 x 1410 mm
Net Weight	4.3 kg
Gross Weight	4.8 kg

# MPPT SPECIFICATIONS

Maximum Charging Current	15A
Overcharge Protection Voltage (pre-set)	14.4V
Overcharge Recovery Voltage	13.8V
Over Discharge Protection	11V
Over Discharge Recovery Voltage	11.8V
Maximum PV Voltage (VOC)	55V
Maximum Input Power	250W
Dimensions (mm)	145 x 85.8 x 30mm
Weight	600g
Working Temperature	-35~+60°C

# INSTRUCTIONS

## 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.

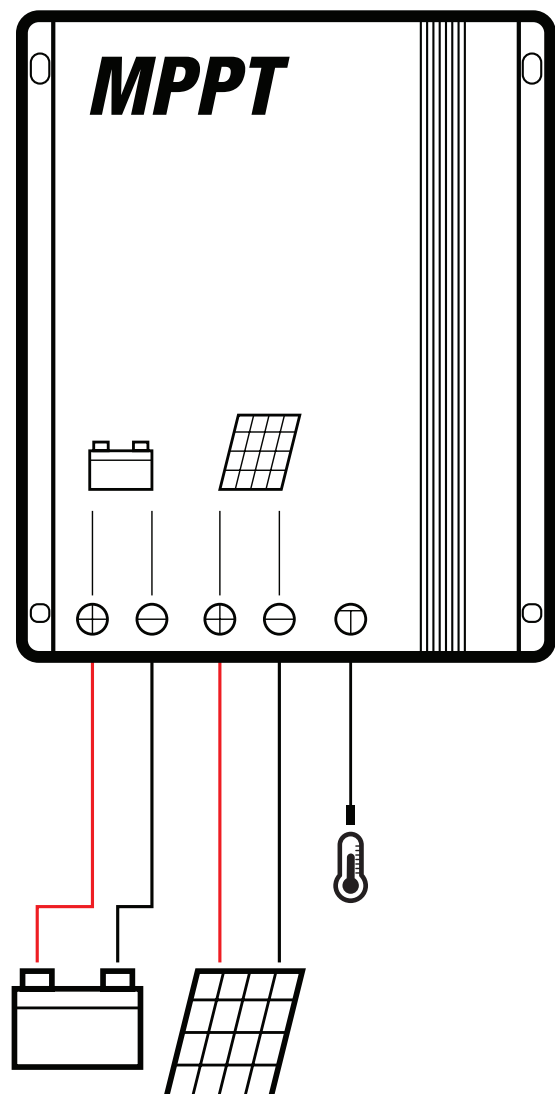
## OPERATING THE MPPT CONTROLLER

**Please note: not following these instructions may cause damage to the MPPT controller.**

Ensure that you attach the positive (+) and negative (-) wires to the appropriate terminals.

1. Connect the positive and negative wires from the battery into the terminals with the battery icon ensuring polarity is correct.
2. The solar indicator light will turn on.
3. Connect positive and negative solar input into the two terminals with the solar icon, ensuring polarity is correct.
4. The controller is now ready to use.

**NOTE:** Ensure a fuse is used on battery positive wiring to prevent short circuits and potential damage to the unit or your vehicle



INDICATOR	STATUS	MEANING
Green LED	Steady ON	Solar panel connected properly, no charging.
	Slow Flashing	Charging in process
Yellow LED	Steady ON	Normal Power
	Slow Flashing	Low Power
	Rapid Flashing	Low Voltage Protection
	OFF	Over Voltage Protection
Red LED	Steady ON	No power output/ fault detected
	Slow Flashing	Over Temperature Protection
	Rapid Flashing	Short circuit and over current protection
	OFF	No fault detected

## TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Unable to charge	Battery voltage is too low	Charge the battery from a 240V charger/ replace battery
	Load over current or short circuit protection	Remove all load to clear fault, ensure the load does not exceed output
	Over temperature Protection	Remove load and allow the MPPT to cooldown
Charging indicator light not displaying even when the panel is in the sun	Panel has been improperly connect to the controller	Reconnect the solar panel to the controller, ensuring that the positive and negative terminals are connected correctly

# 12 MONTH LIMITED WARRANTY

## WARRANTY PERIOD:

Full 12 month warranty from date of purchase against all manufacturing defects.

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## WHAT DOES THE WARRANTY COVER?

Under normal usage conditions, this warranty covers:

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

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## THE WARRANTY DOES NOT COVER:

- a. Any damage resulting from improper use
  - b. Faulty installation or modification made during installation
  - c. The cost of removing and reinstalling the product
  - d. Travel and /or other expenses due to customer's remote location
  - e. 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.
  - f. Any loss directly or indirectly associated with the product failing to operate.
  - g. Damage caused by mould, insects, animals, misuse, incorrect operation, adverse weather, accidents and fair wear and tear
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TO MAKE A CLAIM, PLEASE ENSURE YOU RETAIN YOUR SALES RECEIPT OF PURCHASE

# 1800 88 39 64



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