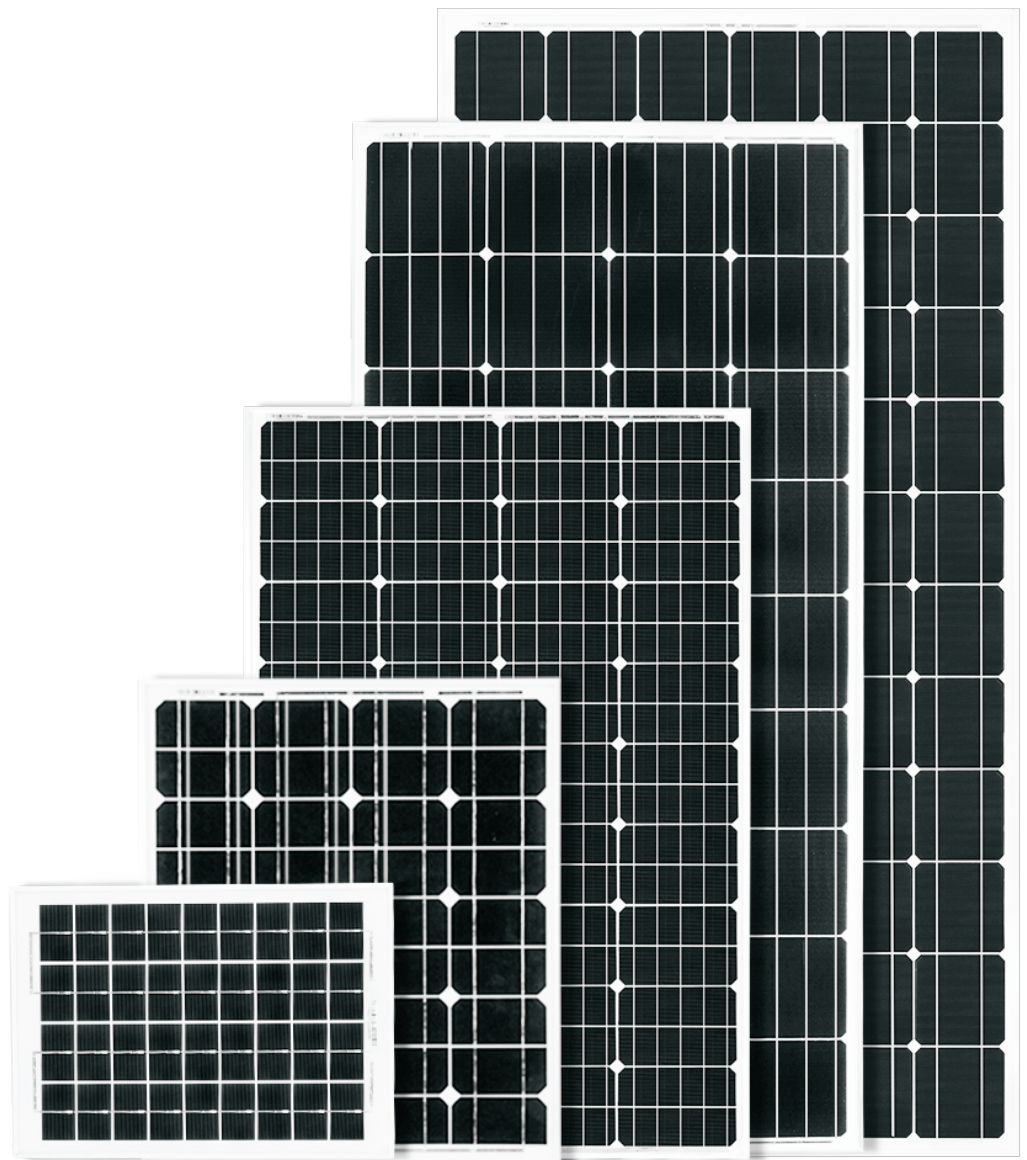




10W/60W/130W/200W/250W Solar Panel

USER MANUAL



ABOUT US

ATEM POWER, born in June, 2017, as a synonym for exciting outdoor experience, is an Australian company with dedication and passion for the R&D of high quality products in the field of renewable energy products, batteries and related accessories.

Since the company was founded, we have committed to innovation that aims to make your life infinitely more convenient. And the belief in our conviction for quality and commitment allows us to innovate in developing products that are optimally tailored to the needs of our amazing customers.

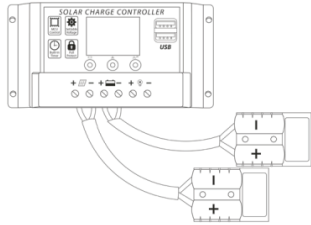
We engineer and supply solar products for homes, 4x4s, recreational vehicles and virtually any application you can think of. And we also develop reliable, high performing deep-cycled batteries and lithium batteries for standby or daily power needs. Accessories include battery chargers and inverters that are ideal for RV's, commercial vehicles, boats, yachts and many more applications!

At ATEM POWER, we stay true to our DNA by prioritizing technological innovation designed to improve our products and striving to provide excellent customer care. Because we are motivated to explore the limits of solar power!

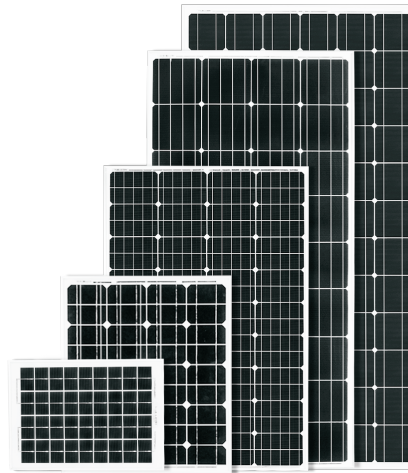
WARNINGS & SAFETY INFORMATION

- Keep the solar panel and controller away from liquids and chemical solvents.
- Keep the solar panel and controller clean and check connectors before use.
- Children, adults with reduced physical or mental abilities, or those who are under the influence of drugs or alcohol are not allowed to use this product.
- This solar panel is intended to charge 12v rechargeable batteries.
- Battery should be mounted in well-ventilated area without potential ignition sources, because lead acid batteries might produce harmful and explosive gases.
- Take care when operating & setting-up the solar panel.
- Never connect the solar panel directly to a battery or other load without controller.
- Any modifications to the product will void the warranty.
- Please make sure that the solar panel is firmly secured during transportation.
- Do not use this solar panel if any of its part or accessory is damaged.
- Good ventilation is important for the controller, as it will generate much heat during operation.
- Please note that overcharging will damage your battery.
- Please note that the current rating of the cable should not be less than the rated output of the controller.
- There is a common positive pole inside the controller, if grounding is needed, please ground the positive pole.

INCLUDED IN THE KIT



Pulse Width Modulator Controller



10W/60W/130W/200W/250W(from left to right)

Note: The PWM controller is not included in 10W and 60W solar panels.

INSTRUCTIONS

Solar panel will perform at its peak when it faces directly towards the sun.

CONNECTING YOUR SOLAR PANEL

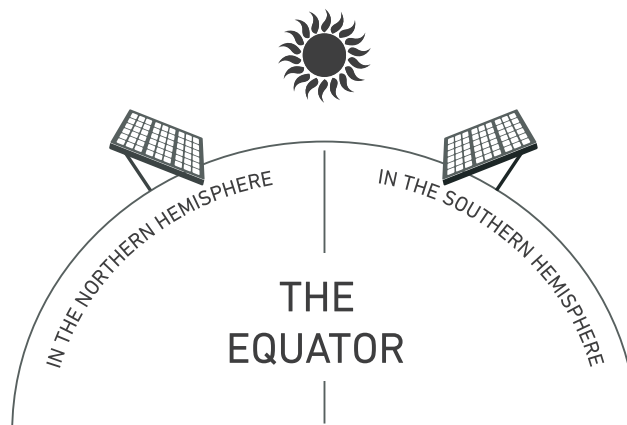
- First connect the alligator to the battery, then connect the solar panel to the controller.

DISCONNECTING & STORING YOUR SOLAR PANEL

- Disconnect your solar panel from battery by removing the battery clips.
- Place the wire neatly onto the back of the solar panel, and do not twist the wire.
- Note: Never store your solar panel with battery wire connected to the panel.

TIP

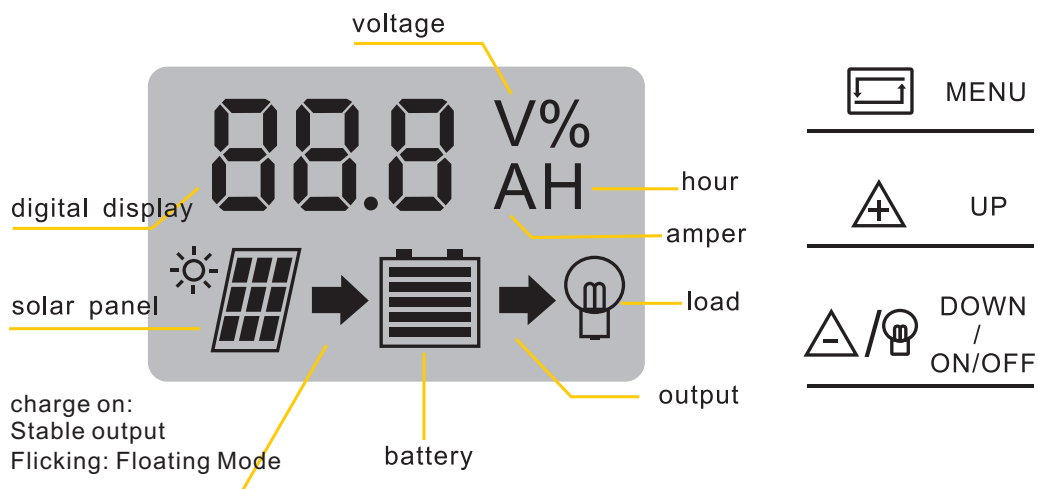
Solar panels should be installed in a location where there is no constant shading. In the northern hemisphere, panels should ideally face south, and in the southern hemisphere, panels should ideally face north.



SPECIFICATION OF THE CONTROLLER

Max Solar Input	<50V
Float Charge	13.7V - Default, Adjustable
Discharge Stop	10.7V - Default, Adjustable
Discharge Reconnect	12.6V - Default, Adjustable
USB Output	5V/2A; 5V/2A
Dimensions	133*70*34 mm
Weight	154g

LCD DISPLAY OF THE CONTROLLER



MENU: you can browse different settings, or long press to enter/exit certain settings.
 UP: press to increase value.
 DOWN: press to decrease value.

MENU & FUNCTION

- Press MENU to browse settings, which have been illustrated below.
- Press MENU for 6 to 7 seconds to change settings. Use UP or DOWN to change values.
- Press MENU again to confirm setting.

MAIN DISPLAY

It is about the status of voltage and PWM controller.



FLOAT VOLTAGE

Controller will enter float charging mode when voltage reaches 13.7V



LOAD RECHARGE

The panel is ready to power the load again when voltage reaches 12.6V.



CUT-OFF VOLTAGE

The controller will sever the connection to the load when the voltage of the battery reaches 10.7V.



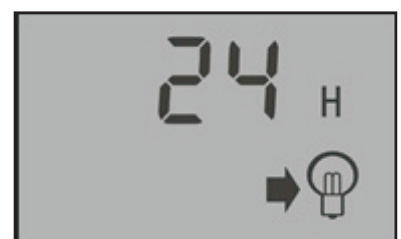
OPERATING MODE

The controller starts operating when battery supplies power to the load.

24H: Power being supplied to the load .

1-23H: Power will be provided to the load with the hours that has been set when the solar blanket gets no sunlight.

OH: Power will be provided to the load automatically when the solar blanket gets no sunlight.



BATTERY TYPE

Shows type of battery attached to the PWM controller.



TROUBLESHOOTING

Symptoms	Possible Cause	Solution
Solar panel doesn't work despite sufficient sunlight.	Solar panel opened or reversed	Reconnect
Load icon doesn't on	Wrong setting	Set again
	Low Battery	Recharge
Load icon flashing slowly	Overload	Reduce load capacity
Load icon flashing fast	Short circuit protection	Remove short circuit
The screen of the controller is not on	Low battery / Reverse Polarity	Change Battery



WARRANTY



WARRANTY PERIOD:

Full 12 month warranty from 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 its failure to perform correctly as described.
2. We will either repair or replace the product at our discretion provide 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 replace 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 due to improper use.
2. Incorrect installation or modification during installation.
3. Cost of removing and reinstalling the product.
4. Travel and /or other expenses due to customer's 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 repairing or replacing your product. If you want to send the product back we recommend that you insure against loss or damage.
6. Any loss directly or indirectly associated with the product that fails to operate.
7. Damage caused by mould, insects, animals, misuse, incorrect operation, adverse weather, accidents and daily wear and tear.