



# ***POWERTECH***



**User Manual  
100W Solar Panel Array  
with Charge Controller & Carry Bag  
ZM-9168**



## USER MANUAL

Please ensure that you have read the product manual and instructions in full prior to use. Failure to do so may result in incorrect operation and therefore impact products performance.

## BOX CONTENTS

1 x 100W Solar Panel Array  
1 x Solar Controller 10A 12V with USB Output  
1 x Lead

## SPECIFICATIONS

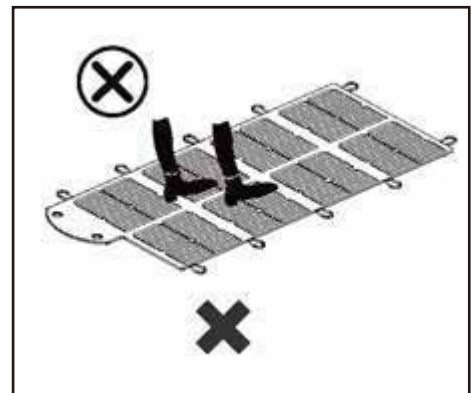
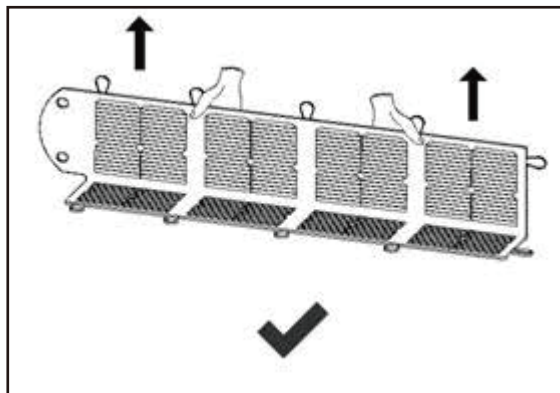
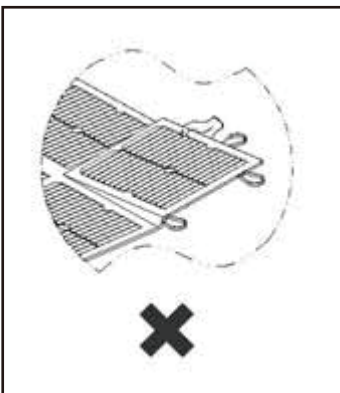
Solar Cell Type:	Mono Crystalline 156 x 156mm
Power Output:	100W
Open Circuit Voltage:	21.6VDC
Short Circuit Current:	5.94A
Working Voltage:	18VDC
Working Current:	5.55A
Weight:	5.18kg
Folded Size:	340(W) x 360(H) x 80(D)mm
Unfolded Size:	664(W) x 1720(H) x 6(D)mm

## CAUTION

- For optimum performance, protect the solar cell from dust dirt, and other debris.
- Use and store the product in dry and ventilated location.
- Do not use in flammable or explosive areas.
- Stop use immediately if any wires become loose or electronic components are exposed.

## WARNING

**Do not pick panel up directly by the solar cells.**  
**Use the gap between the solar cells to pick up the panel.**  
**Do not stand or walk on the solar panel.**





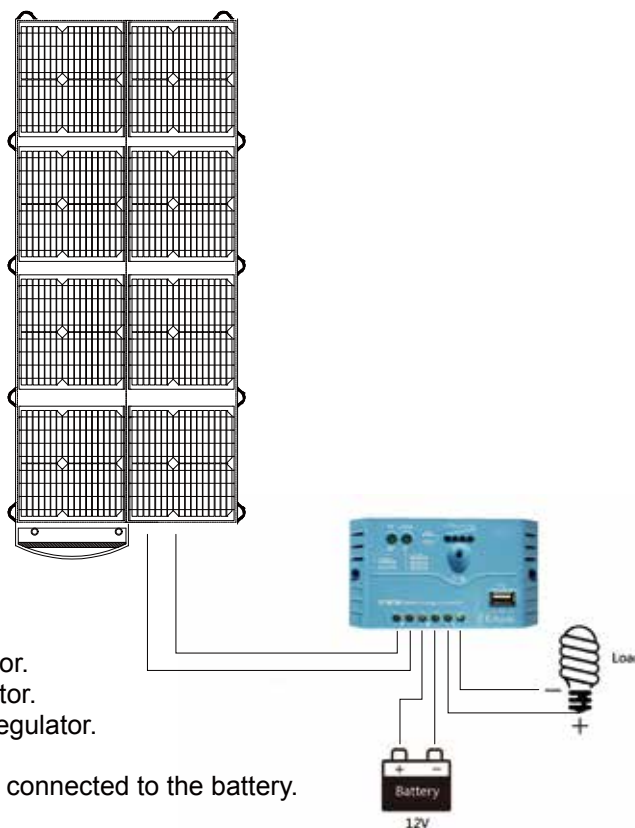
## HOW TO USE

- Unfold the solar charger first.
- Place the folding solar charger at a position that can have direct contact with sunlight, face the solar cell to the sun. Make sure that no shadow is cast onto the solar cells to ensure better power output.
- Tilt the solar panel at a suitable angle. The right angle can be the same as your local latitude (Additional support may be necessary).
- Connect this solar charger to regulator, and connect battery clamps wire to the regulator too.

Quantity	Total Solar Output	Charging Current	Charge Regulator
	Watt Peak	Amp	Recommended
1 Piece	100 Watt	5.55A	10A/12V

1. The above data is the amount of electricity this solar charger can create under full sun, and ideal working condition.
2. The solar charger generates electricity in proportion to the amount of sunlight exposed to the solarpanel(s). The peak generation of power is on a clear day when the sun is at a correct angle to the solar panel(s). Clouds, seasonal variation of solar angle, dust/dirt on the solar panel, off-azimuth orientation, and any incidental shading could decrease the performance of the solar panel.
3. Power loss during transmission through lead wire and connector, efficiency of charge controller and inverter will also decrease the amount of electricity you are allowed to use.

## HOW TO CHARGE A 12V BATTERY



First connect battery to regulator.  
 Second connect load to regulator.  
 Last connect solar blanket to regulator.

**NOTE:** Heavy loads should be connected to the battery.

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