POWERTECH

User Manual
50W Solar Panel Array
with Charge Controller & Carry Bag
ZM-9166

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.

HOW DOES IT WORK?

This product is a device that converts natural sunlight into DC electricity. It's designed to charge 12V battery.

BOX CONTENTS

1 x 50W Solar Panel Array
1 x Charge Controller 10A 12V with USB Output
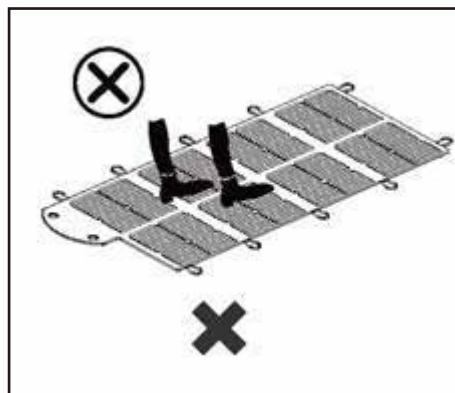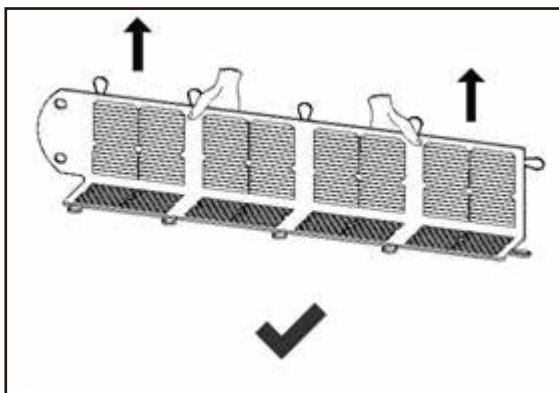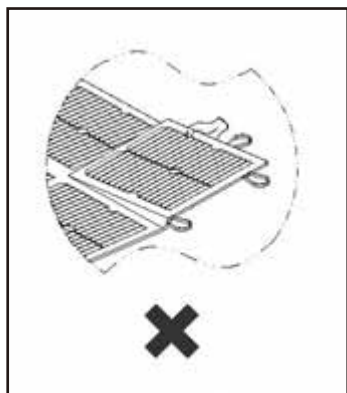1 x Lead

SPECIFICATIONS

Solar Cell Type:	Mono Crystalline 156 x 156mm
Power Output:	50W
Open Circuit Voltage:	21.6VDC
Short Circuit Current:	2.97A
Working Voltage:	18VDC
Working Current:	2.78A
Weight:	2.76kg
Folded Size:	325(W) x 360(H) x 30(D)mm
Unfolded Size:	325(W) x 1610(H) x 4(D)mm

CAUTION

• For optimum performance, protect the solar cell from dust, dirt, and other debris.
• Use and store the product in a 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.**
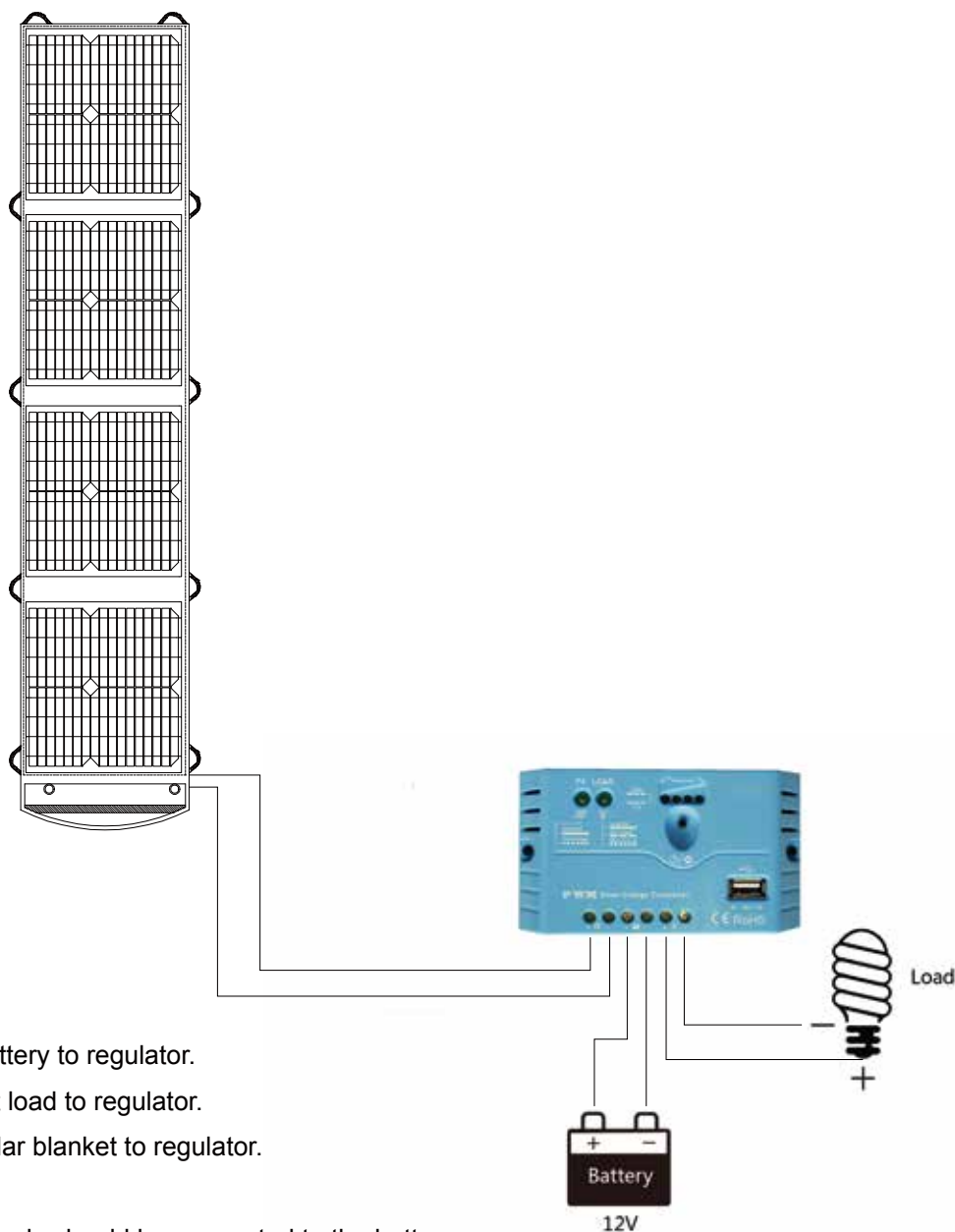• **Do not stand or walk on the solar panel.**

• 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.

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.