Solargear SG12-M200SSM Solar Panel

Operating Instructions

Thank you very much for purchasing our product. Please read this manual thoroughly before using this product, and retain it for future reference in order to use the product safely, and to make the most of its features. If you use other products together with this product, please read the operating instructions of those products thoroughly before use as well.

Product Summary

Mobile PV systems with mono crystalline solar panels with tilt mounts and LiFePO4 battery compartments designed for powering a broad range of appliances. Composed of highly efficient solar panels and compact, lightweight, weather resistant and long-life battery compartments for ultimate versatility, expandability, portability, weather resistance and durability in business, disaster preparedness, leisure and everyday living.

Applications

Charging the built-in LiFePO4 battery by sunlight, and powering a broad range of appliances through AC100V pure sine wave (inverter outlet, dust and water proof connectors), DC5V (USB) and DC12V (charge controller terminals, dust and water proof connectors) output. A built-in nightlight function can control DC12V load such as LED light at night and is widely programmable.

Features

- A solar panel with dettachable tilt mount for adjusting the best angle.
- Highly efficient mono crystalline solar cells.
- IP68 dust and water proof connectors mating with battery compartments, MC4 Conversion Cables, Extension Cables, Output Cables and DC Power Cables for weather resistant outdoor installations.

Important Safety Instructions

⚠Caution Please follow the instructions below. Failure to comply may damage this device, cause the built-in battery to burst or result in leakage, fire and injury.

- Charge only the specified batteries.
- Do not allow metal objects to touch the input/output connectors.
- Do not allow metal objects to touch the terminals of the batteries.
- Do not short circuit, or disassemble this device.
- Do not put this device into water.
- Do not use or leave this device near fire.
- Do not use or leave this device in enclosed spaces.
- Do not use or leave this device in unstable high places.
- Stop charging in case of leakage from the battery.
- Stop charging in case the battery becomes unusually hot.

Important Note

We are not responsible for any physical damage to appliances, any loss of memorized data, any interruption of business, and any loss of business opportunities caused by this product.

Specifications

●Max. power*:	200.0W (19.2V 10.42A)
●Open circuit voltage*:	23.0V
●Short circuit current*:	11.05A
●Operating temperature:	-40～80℃
●Dimensions (WXDXH):	1651X838X36mm (excl. dettachable tilt mount)
●Weight:	approx. 12kg (excl. dettachable tilt mount)
●Output cable:	800mm output cable with MC4 connectors
●Safety features:	a bypass diode
●Accessories:	5m MC4 Conversion Cable

*Panel temperature 25℃ AM1.5 1kW/m2

Warranty

Feature Diagram

How to Use

Attaching tilt mount

●Please read the operating instructions manual of tilt mount.

Connecting MC4 Conversion Cable

1 Connect the output cables of the solar panel to MC4 Conversion Cable. Align the connectors and mate them together by hand until a "click" is heard and/or felt. If the length is not enough, add other extension cables (sold separately).

☼ **Note:** Pull the connectors lightly to make sure they are locked.

2 The Universal tool is used to disconnect the connectors once mated as pictures below.

Connecting the battery compartment

1 Connect MC4 Conversion Cable to the battery compartment. Screw anticlockwise the cover off one of the dust and water proof connectors. Align the ▲ marks of both connectors and screw the ring clockwise tightly by hand.

☼ **Note:** Pull the connectors lightly to make sure they are locked.

2 Screw the ring anticlockwise to disconnect the connectors. Screw clockwise the cover on the connectors tightly by hand.

Charging the built-in Batteries

1 Face the solar panel towards the sunlight, and charge the built-in battery. For the most efficient charging, adjust the direction and angle of the solar panel 90 degrees in opposition to the sun rays.

☼ **Note:** The whole area of the solar panel needs to be irradiated. If there is a shaded area on it, the battery cannot be charged efficiently due to low output current.

2 You can connect 2 or more solar panels to the battery compartment for quick charging. Please refer to the operating instructions manual of the battery compartment for the maximum number of the panels to be connected.

⚠Caution To avoid damaging the battery compartment, do not connect more than the maximum number of solar panels.

Powering Appliances

●Please read the operating instructions manual of the battery compartment.

Maintenance

●Clean this product with a dried or dampened cloth. Do not use oil, solvents, petrol or paint thinners for cleaning.

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Design and specifications are subject to change without notice.

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