



Portable Folding Solar Panels

Please read the following instructions carefully before connection.

This instruction manual applies to the following models:

N 1085 85W Folding Solar Panel System.

N 1140 140W Folding Solar Panel System.

OVERVIEW

Congratulations on your purchase of this solar panel product. This solar array is an excellent charging source for power for those off-road adventures or whilst at remote camp sites. The battery charging circuit ensures your batteries are always performing at their peak. The panel and charger are IP68 all-weather rated, and the panel folds up and fits inside the heavy-duty nylon carry case for added portability. The aluminium stand on the rear of the panel allows the angle to be adjusted to capture as much solar energy as possible throughout the day.

FEATURES

- All in one panel and regulator solution.
- Direct battery hook-up via croc clips.
- Anderson plug adaptor and MC-4 solar connectors supplied.
- Great for boats, yachts, 4WD's and caravans.
- Four metre connection lead.

INBUILT SOLAR CHARGE CONTROLLER

The Solar Charge Controller unit that is attached to the solar panel presents a number of outstanding operational aspects:

- Fully encapsulated, high-performance solar charge controller providing optimum performance.
- IP68 rated case - all weather, perfect for any solar outdoor applications which are exposed to harsh weather conditions.
- Negative grounding.
- Robust aluminium housing.
- Suitable for 12V system.
- Two-stage charging (boost, float) for battery.

SET UP

As a general rule, in the Southern hemisphere, for optimum full day charging face the panel north. If you are above the tropic of Capricorn, during summer, check the sun's position in the sky to determine if the panel should face north or south.

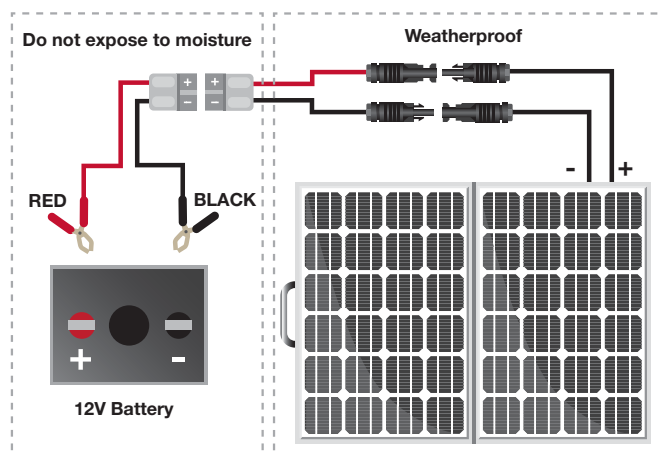
SOLAR CHARGE CONTROLLER LED INDICATOR

ON - Controller connected to battery, night detected.

Flashing - Controller connected to battery, day detected.

OFF - No battery connected.

CONNECTION OF SOLAR PANEL TO 12V VEHICLE BATTERY



Make sure the wire length between the battery and controller is as short as possible.

SAFETY FEATURES

	Solar Terminal	Battery Terminal
Reverse Polarity	Protected	Protected
Short Circuit	Protected	Protected
Reverse Current	Protected	N/A
Over Voltage	N/A	Max. 40V, which is less than panel maximum voltage
Over Temperature	Protected	Protected

WARNINGS:

1. This system is not suitable for 24V battery systems.
2. If charging stops due to over-temperature, disconnect the load and wait for the unit to cool down. Then re-connect the load.

SPECIFICATIONS - SOLAR PANEL:

	N 1085	N 1140
Power:	85W	140W
Nom. V:	12V	12V
Open V:	22V	21.8V
Max V:	17.5V	17.5V
Max A:	4.86A	8A
Dimensions (mm):	632 x 541 x 35	775 x 670 x 35
Weight:	10kg	16kg

SPECIFICATIONS - SOLAR CHARGE CONTROLLER:

Nominal voltage	12V
Boost voltage	14.4V (25°C), 2h
Float voltage	13.8V (25°C)
Battery type	Flooded, Sealed
Temp. compensation	-4.2mV/K per cell
Typical power consumption	Less than 10mA
Ambient temp. range	-40 to +60°C
Case protection	IP68 (Tested 1.5m water depth for 72h)
Max altitude	4000m
Weight	150g