



## 480W 12V Off Grid Power Kit - Installation Guide



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## Kit Contents

- 4 x Sunshine Solar Panels 120W 12V Monocrystalline
- 1 x MPPT Controllers 40A 12/24V
- 1 x 10m Solar Panel Extension Cable (4mm)
- 1 x 1m Extension Cable - Controller to Batteries (6mm)
- 1 x Midi Fuse Holder & 40A Fuse (controller to batteries)
- 2 x 125Ah 12V AGM Deep Cycle Batteries
- 1 x Sets of Heavy Duty Battery Joining Leads
- Sunshine Power Inverter 1500W 12V Pure Sine Wave
- Power Inverter - 150A Mega Fuse Kit
- Power Inverter - Wired Remote On/Off Switch

## Solar Panel Specifications

- Product Code. SSP120M
- Max Power. 120W  $\pm$  3%
- Max Power Voltage. 17.8V
- Max Power Current. 6.74A
- Open Circuit Voltage. 21.3V
- Short Circuit Current. 7.28A
- Normal Operating Cell Temp. -45 to 80°C
- Max System Voltage. DC1000V
- Weight. 8.25 kg
- Dimensions. 670 x 1115 x 35 mm



### **Important**

When the Solar panels are exposed to light they will start to generate electricity, avoid shorting the cables together and do not touch the bare ends. The voltage of each solar panel may be relatively low, but still can cause a electric shock. When making the electrical connections best practice is to cover the solar panel to reduce the voltage and current. Consult the manufacturers instructions and applicable safety guidelines before fitting. This information is for guidance only, if you are unsure about any part please call us or seek professional help. Failure to adhere to these instructions may invalidate any warranty provided.

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1. Thoroughly read all manuals and specifications before commencing. If you are unsure about any part seek professional help.
2. Connect the batteries together in parallel using the supplied battery cables leaving the positive of the first battery and the negative of the last battery loose for the connection of the power inverter and the Solar controller, making sure the correct polarity is observed (see fig 1).
3. Connect the power inverter cables to the power inverter and with the supplied Inline fuse to the battery bank, (see fig 1). Positive lead first then negative lead, ensuring the correct polarity is observed (there maybe a spark on connection).
4. Mount the Solar controller as per the controllers instruction.
5. Connect the solar controller to the battery bank observing the correct polarity, using the supplied inline fuse and cable.
6. Tightened all battery connections
7. Mount the panels securely using a suitable mounting system, ideally in a south facing unshaded position.
8. Connect the panels together in series, positive of one panel to the negative of the next (see fig 1).
9. Cover the panels and connect the extension cables (positive of one panel and negative of last panel) marking the positive lead to ensure correct polarity when connecting to the solar controller.
10. Route the solar panels extension cables to the solar controller. Connect the cables to the solar controller ensuring the correct polarity is observed and uncover panels.
11. Read the solar controller manual for user adjustments and data display.

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## Basic Wiring Diagram

