

Solar Power Station

RENEWABLE MAINS-FREE POWER

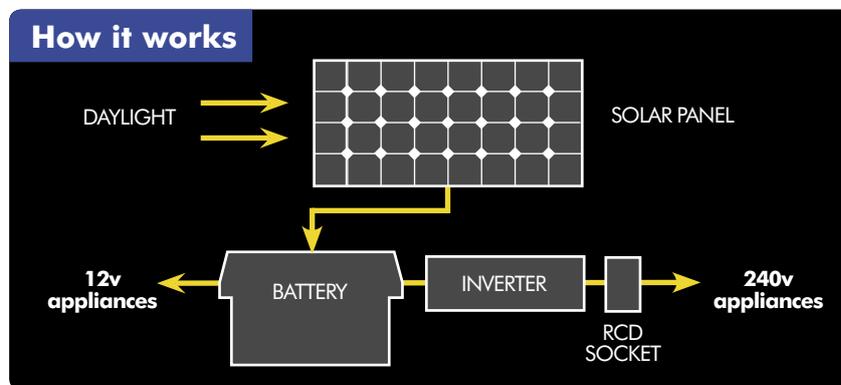


No mains supply? No

The Solar Power Station (SPS) system is a revolutionary micro renewable energy generator, designed to provide both a supplement to mains fed power and also complete independence from the grid.

The SPS range is purpose designed to provide power where installing mains cable would otherwise be far too expensive or inconvenient. Such uses are garden offices, workshops/garages, building site huts, agricultural buildings, stables, sports facilities (such as cricket pavilions), garden sheds, summer houses, beach huts, static caravans – the list is endless!

Let's not forget the home! Many smart homeowners and business are installing SPS systems to work independently of their existing grid supply to not only provide insulation from the inevitable cost increases in energy but also to provide a guaranteed electricity supply in the event of power cuts.



Suitable for:

- Garden offices
- Workshops/garages
- Building site huts
- Agricultural buildings
- Stables
- Sports pavilions
- Garden sheds
- Summer houses
- Beach huts
- Static caravans

High power
crystalline

Mo
al

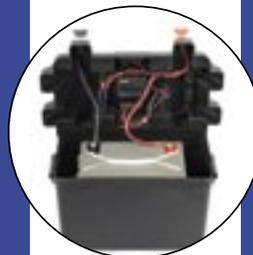


Six easy steps to self sufficiency

Position the solar panel



Install battery in all-weather battery box



Connect solar panel to battery box



problem!

WORKS IN ALL DAYLIGHT CONDITIONS



NO MAINS WIRING



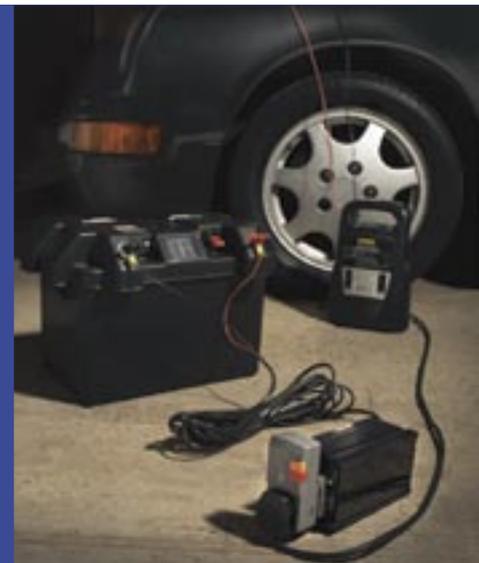
Connect inverter to battery box



Switch on



Start using your free solar power!



Solar Power Station is available in four sizes as follows:

SPS60 UP TO 300 WATT HOURS PER DAY
 • 60wp solar panel • 12ah charge controller

Suitable for: Panel dimensions: 694 x 669 x 35mm

- GARAGES
- WORKSHOPS
- STABLES
- AGRICULTURAL BUILDINGS
- GARDEN SHEDS
- BEACH HUTS



Typical uses: Lighting, power tools, power tool battery charging, radio, car vac, horse clippers, alarm systems*

SPS80 UP TO 400 WATT HOURS PER DAY
 • 80wp solar panel • 12ah charge controller

Suitable for: Panel dimensions: 1195 x 540 x 35mm

- HOME
- SUMMER HOUSES
- STATIC CARAVANS
- OCCASIONAL OFFICE USE



Typical uses: TV's, games machines, DVD players, Sky boxes, table lamps, occasional use on pc/laptop, alarm systems*

SPS120 UP TO 600 WATT HOURS PER DAY
 • 120wp solar panel • 20ah charge controller

Suitable for: Panel dimensions: 1364 x 670 x 35mm

- HOME OFFICES
- BUILDING SITE HUTS
- SPORTS PAVILIONS

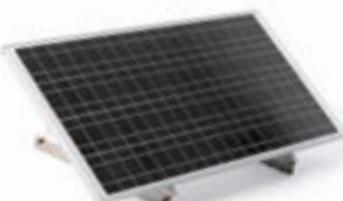


Typical uses: Lighting, computers, printers, fax, cd player, alarm systems*

SPS150 UP TO 750 WATT HOURS PER DAY
 • 150wp solar panel • 20ah charge controller

Suitable for: Panel dimensions: 1580 x 805 x 35mm

- GARDENS
- HORTICULTURAL
- CAMP SITES



Typical uses: Garden lights, general lighting, pond pumps, greenhouse heaters, charging 12v garden machinery (mowers, hedge trimmers, strimmers etc.)*

In addition to the solar panel and charge controller, each kit contains the following core elements:

- Multi position aluminium rack
- 85ah Sealed deep cycle solar battery
- 300W Inverter
- Waterproof battery box
- Digital Multi meter
- RCD Socket
- 20m x 2mm Solar cable bundle
- All connectors, fuses and terminals
- Instruction manual

SPS performance

In the UK, solar works most efficiently in the Spring, Summer and Autumn months. Solar is still effective in the winter but the performance is much reduced. The table below shows the expected performance of a SPS system over 9 months of the year.

SPS System	Peak power per day – summer	Average over 9 months per day
SPS60	300wh/d	153wh/d
SPS80	400wh/d	204wh/d
SPS120	600wh/d	307wh/d
SPS150	750wh/d	383wh/d

*Please note that the above applications are based on typical usage of 2-4 hours per day in Britain. Longer run times may require a bigger kit or the purchase of an SPS Expansion panel. Shorter run times may enable a smaller SPS kit to be selected.



Solar Power Station accessories

A wide range of accessories are available for Solar Power Station:

Expansion panels

SPS Expansion Panels are an easy way to increase the power production of any SPS kit. This is ideal if appliances need to be run for longer periods or more appliances than originally anticipated need to be powered. The Solar Expansion Panel is supplied on our multi position aluminium rack and is pre-wired so that it can simply plug directly into the supplementary socket provided on the all weather battery box. The battery box is already fitted with a charge controller that allows any SPS Expansion Panel to be used without further equipment being needed. Panel sizes available are 60W, 80W, 120W and 150W, as illustrated on previous page.



Part nos. SPS060EX (shown above), SPS0800EX, SPS0120EX, SPS0150EX

12v Energy Saving Light Bulb Kit

The SPS all weather battery box is pre-wired with a 12v plug and socket to enable the future connection of any 12v appliance. This 12v lighting kit is supplied with 2 x 11w (60w equivalent) energy saving bulbs (ideal for lighting a workshop or double garage), a 10m cable run and wall switch. (This kit is not supplied as standard with any Solar Power Station kit.)



Part no. SPSCL

Energy Saving Bulbs

9W (45W equivalent) 12V
Part No CFL9W12

11W (60W equivalent) 12V
Part No CFL11W12



Wide Angle Luminaire

For use with energy saving bulbs



Part No HBLU12V

Bulkhead Lights

9W 12V fluorescent bulb
Part No BH913



21W 12V inc. tungsten bulb
Part No BH912

Fluorescent Light Fittings

8W 12V with switch - 35cm long
Part No LVFL8W



13W 12V with switch - 60cm long
Part No LVFL13W

Digital Timer 12V



Part No 60007

Cable Bundle

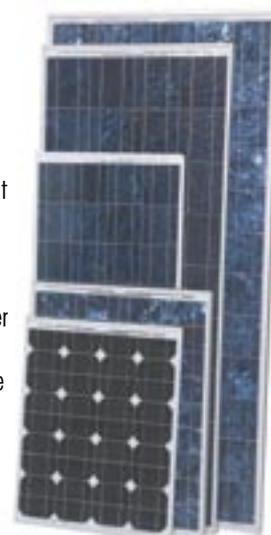
15m or 30m



Solar panels

As well as the Expansion panels above, we have large range of solar panels compatible with Solar Home Power Station.

When investing in solar energy it is important to buy a quality product that is guaranteed to give you many years service. Our panels are based on the finest crystalline technology, which is more efficient than amorphous or other thin film technologies. Further, our solar panels are all accredited with the internationally recognised IEC 61215 certification that guarantees robust construction and high performance in all weather conditions.



Inverter

150 to 1000w



PIR Movement Sensor

12V



Part No 60008

www.solartechology.co.uk

Frequently asked questions

How does an SPS system work?

Using a premium Solar Technology International panel, energy is harvested from daylight and transferred via a sophisticated management system into the deep cycle, ultra safe solar battery. The energy stored in the battery is then available to use as and when required. Power can be delivered as 12v current to power 12v appliances such as garden lights, interior lighting, some lap top computers etc or 240v current through the supplied inverter to power most "plug in" electrical devices most often used in the home and business.

Which SPS system should be selected?

There are four SPS systems in the range, all of which deliver differing amounts of power and selection should be made depending on what appliances need to be powered (refer to the table at the bottom of page 4 for advice). Should, in the future, more power be needed (for example to run your appliances for longer or to run more appliances) an SPS Extension Panel can be purchased and this simply plugs directly into the Power Box. Therefore "daisy chaining" an additional panel couldn't be easier.

How to install an SPS system?

This is very straight forward! All SPS systems and SPS Extension Panels are supplied ready assembled*. First step is to decide on the solar panel location. The panel is supplied with a multi adjustment rack so it can be located on soil, grass, hard standing or a flat roof (full instructions, hint and tips are supplied). A 10m cable, attached to the solar panel, plugs directly into the all-weather Battery Box. A 10m extension cable then plugs into the "power out" socket of the Battery Box and the end of this cable needs to enter into the building or room where the power is needed. The cable then attaches to the inverter and that's it! A standard multi gang extension (not supplied) can then be plugged into the inverter and the SPS is ready to start delivering power.

Can the SPS system be moved?

A great feature of this system is that it is totally portable. The solar panel and rack can be folded flat and the Battery Box is easily carried. Therefore, one SPS can be used in many different locations.

How long will an SPS system last?

A system should last for 35 years. The component parts have varying warranty periods as follows: solar panel – 20 years, battery – 3 years, inverter 2 years the other components have a lifetime guarantee. The consumable elements i.e battery and inverter should last 5+ years and can easily be replaced.

What is the payback time on an SPS system?

This can be immediate if using the SPS as an alternative to installing mains cable – in fact not only will pay back be instant but the costs saved will be enormous! Where the system is being used in premises where mains power already exists, payback will be longer. Of course, the payback time could be significantly reduced depending on future energy price increases.

What is the environmental benefit of using an SPS system?

The environmental benefits are significant. An SPS system will save nearly 2 tons** of carbon emissions over its lifetime – a very impressive amount for a single system! Add in an SPS Expansion Panel and each installation really goes a long way to cutting down on the use of fossil fuels.

What are the benefits of using an SPS system over other micro renewable systems?

- No installation costs
- Limited running costs and virtually no maintenance
- Totally safe
- No noise or vibration
- Planning permission is not required
- Fully portable
- Low costs – long term guarantees

*The solar panel needs to be fitted to the rack and the battery fitted into the all-weather Battery Box – all fixings supplied

**Figure quoted is for the SPS150