## **SOLAR IBOOST**

Solar iBoost FAOs

Updated 08/07/2014



Solar iBoost is designed for use with immersion heaters without electronic control and rated up to 3kW for water heating in the home. It should be installed by a qualified electrician.

When does my Solar iBoost start putting energy into my hot water tank?

As your PV array starts to generate in excess of your household power requirement the Solar iBoost will begin to "dump" energy into your hot water tank. For example if you have 2.2kW of export energy then the Solar iBoost will dump 2kW into the immersion to heat your tank of water. There is a buffer of 200W to ensure that the Solar iBoost deals smoothly with the changing use of household energy and the PV array's generation thus avoiding any draw from the grid.

What happens if I switch on my kettle and the Solar iBoost is working?

The clamp rapidly detects changes between import and export and sends a signal to the Solar iBoost to taper back any water heating to maintain export levels at 200W. If exports drop below that Solar iBoost switches off and waits until export of 200W or more is restored to return to water heating.

How does the Solar iBoost know when my water tank is fully heated?

Your immersion element contains a thermostat to switch the element off when the desired temperature is reached. The Solar iBoost displays 'Water Tank HOT'. Check that your immersion has a thermostat control as, rarely, some very old ones do not.

Is the Solar iBoost a "proportional controller" or a switch?

Solar iBoost cleverly allows only excess power generated to be diverted to the immersion. As this excess energy varies, Solar iBoost manages the power levels applied to the immersion up to a maximum of 3kW. It is not an open and close switch except when the manual Boost or timer has been activated by the user.

Can I use the Solar iBoost with other renewable technologies such as wind turbines? Yes, the Solar iBoost measures the export at your utility meter so if you regularly export power from your property then this unit is right for you.

Does the Solar iBoost affect my Feed in Tariff Payments?

Solar iBoost does not affect your FiT Generation payments. Where your FiT provider uses a "deemed" usage contract you will be paid the export tariff regardless of whether the energy is consumed or not. This is normally based on 50% of the generation reading, and will not be affected for as long as you are on a "deemed" contract. Where an export meter is fitted the benefits of the Solar iBoost can still easily outweigh the rising energy costs of water heating.

How much does the Solar iBoost cost?

Contact your local qualified electrician or PV installer who will quote for the cost of installing the unit including the Solar iBoost itself, this normally costs from £295.00 plus fitting.

What warranty will I get with the Solar iBoost? Two years.

What's the maximum immersion heater power rating I can use with the Solar iBoost? Any immersion element rated up to 3kW is suitable. As the immersion element is a resistive load it will accept any variable amount of power up to its rated maximum. This enables it to accept even the smallest amount of power sent to it from the Solar iBoost and start heating water. More than 1 immersion heater can be connected together by your electrician but the combined rating should never exceed 3kW.



Where should the Solar iBoost sender and clamp be fitted? The Solar iBoost sender and clamp should be fitted at the household utility meter cabinet. Ensure the clamp's latch is firmly closed around the live feed from the utility meter to the consumer unit. A label on the clamp clearly indicates to the installer how to be sure of fitting it in the correct orientation. The clamp should be fitted on the utility meter side of a Henley block if present.



What is the distance range between the Solar iBoost and the wireless sender? Approx. 500m line of sight, or up to 30m within a building. The strength of the signal can be affected by thick walls in a similar way to a wireless router or a cordless phone in your home.

What is the life expectancy of batteries in the Solar iBoost's wireless sender?

Approximately 12 months from installation. A warning symbol flashes red *and* the message *Sender Battery Low* appears on the Solar iBoost display advising that the batteries will soon require replacement.

Is there a repeater available to boost the signal of the Solar iBoost sender?

The range of Solar iBoost is effective in most UK homes and experience to date has been good. A clamp cable extension is available to purchase that can be passed through thick walls to improve signal strength.

Does the Solar iBoost need to be installed on a dedicated circuit?

No. As long as the Solar iBoost is installed between an isolation switch and the immersion heater.

Can the Solar iBoost be installed further away from immersion heater or at the consumer unit? Yes. Your qualified electrician will need to ensure that no other loads can be connected to the output of the Solar iBoost, other than the immersion.

Can I install another immersion to the second Solar iBoost output?

The second Solar iBoost output is independent of the export electricity being monitored and it draws its power from the grid. This connection is most useful for households heating water by electricity only who also want to heat water on economy tariffs. A built in 24 hour timer enables 2 settings per day.

How do I integrate the Solar iBoost with an Economy 7 timer?

The Solar iBoost includes a programmable timer for 2 times which can be used to replace existing timers. At the user preset times full grid power is diverted to the immersion independently of the pv generation.

Does it matter what type of inverter I have installed?

Solar iBoost is compatible with transformer and transformerless inverters and there is no interference between the two devices. Some micro inverters may not be compatible, ask your installer for advice.

How can I use a Solar iBoost on my three phase system?

There are 2 possible options:

- 1. Use one Solar iBoost on one phase with its own 3kW immersion or resistive load. In three phase systems it is very rare that all phases are equally loaded so we recommend that the installer connects the Solar iBoost, the clamp and immersion to the phase with the lowest load.
- 2. Fit one Solar iBoost onto each phase, each with up to 3kW of load.

I've heard devices like this can cause flicker; does the Solar iBoost have this problem? The Solar iBoost uses a special switching method to switch power into the immersion heater, this technology does not generate flicker. A Solar iBoost installation will therefore not suffer with the effects associated with flicker.

What happens if I have a power cut?

The Solar iBoost automatically detects that there is no export taking place and stops heating water. It resumes when export is next detected and the built in memory retains the settings and savings to date. Want to find out more? Watch our YouTube videos at www.solariboost.co.uk