

SOLAR iBOOST+

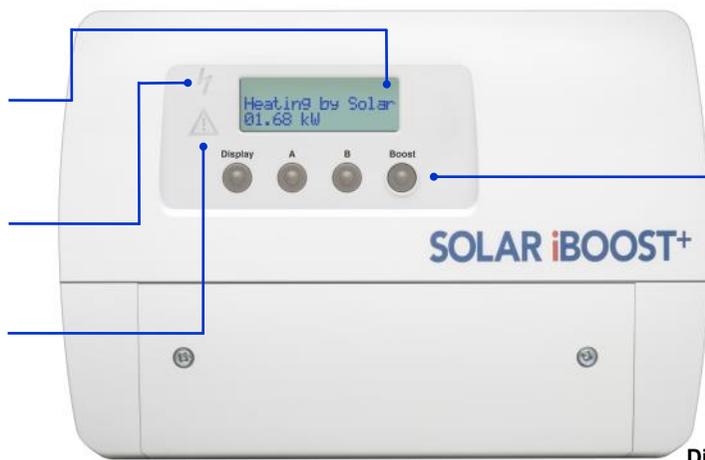


User Manual



Solar iBoost+ User Guide

- Intermittent flash indicates communication with Sender 
- Excess energy is being diverted, when flashing 
- Manual or Timed Boost operation, when illuminated 
- When illuminated, a diagnostic message is displayed (see Trouble Shooting/Messages) 



Display Each press moves through the energy savings display cycle (see Energy savings)

A Enables programming mode (see Programming)

B Enables the sender pairing process (see Pairing the Sender)

Boost Provides a Boost of Hot Water (see Manual Boost)

Normal Operation During normal operation the unit will show one of the following displays:

Heating by Solar
01.45 kW Htr1

Solar iBoost+ is diverting energy to the hot water tank. The amount of power being diverted is shown together with an indication of the immersion heater currently being supplied (if two heaters are connected the indication will switch between Heater 1 and 2).

Water Tank
HOT

Shown when the unit is attempting to divert energy to the immersion heater but the tank has reached maximum temperature and has switched off.

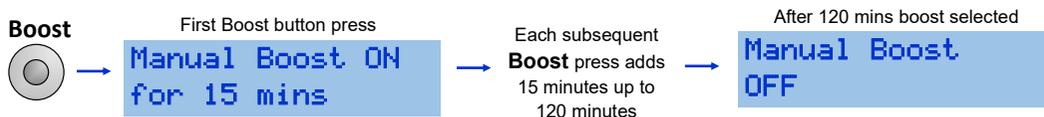
Water Heating
OFF

There is no excess generation for the Solar iBoost+ to divert to the hot water tank.

Manual Boost 

The Boost button switches on full power to the immersion heater for the period of time selected. Note that electricity is drawn from the grid if the generation is too low.

- Press any button on the Solar iBoost+ to bring on the backlight.
- Each press of the Boost button adds 15 minutes to the boost time up to maximum of 2 hours. The amount of time remaining is shown on the display.
- To cancel the boost simply press the Boost button repeatedly until 'Manual Boost OFF' is shown.



Boost is also selectable from the iBoost Buddy, available separately.

Energy Savings 

The energy savings display cycle allows the user to view the energy savings generated by the Solar iBoost+. Each press of the **Display** button will move through the following sequence:

Saved Today
03.66 kWh

Present days energy diverted

Saved Yesterday
10.56 kWh

Previous days energy diverted

Saved Last 7 days
28.90 kWh

Total energy diverted into the immersion heater in the past 7 days

Saved Last 28 days
65.53 kWh

Total energy diverted into the immersion heater in the past 28 days

Saved Amount
390.20 kWh

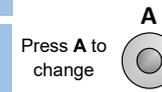
Total value of energy diverted into the immersion heater since Solar iBoost+ was installed

Time
10:15 01/07/18

Current time and date in 24hr format

In Winter Boost
Toggle Press A

Final press



In Summer Boost
Toggle Press A

Timed Boosts Off
Toggle Press A

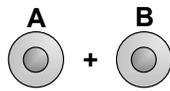
Boost Season selection.

Hot water boosts can be programmed for different seasons (see programming section).

The boost season can be changed here by pressing the **A** button when required.

Each press of the **A** button will change the setting between Summer, Winter and Boost OFF selections.

Programming



The programming function allows:

- Setting the time and date.
- Setting a power offset for battery storage (if required)
- Programming of Timed Boosts when grid power is automatically switched on to heat the water. This feature can be used in place of existing timers.

The Solar iBoost+ unit is programmed using push buttons A and B. The first press of any button switches on the backlight only. To programme:

1. Press and hold button A for 3 seconds, release. The first item in the sequence below is shown (set time).
2. The first digit becomes active and flashes. Press button B, each press adds 1 to the value, continue pressing until the digit required is reached.
3. Press button A once to confirm and move on. Repeat 2, press A to confirm and move on.

Set Time
10:15 01/07/18

Storage Offset

For use when the Solar iBoost+ is connected to a system which includes battery storage. Configures the amount of power before the Solar iBoost+ diverts energy, allowing prioritisation of the battery storage system over water heating. See over.

Storage Offset
100W (default)

B1 Summer Wk/Day
00:00 0.00hrs

Timed Boosts

Timed Boost periods can be entered against Summer and Winter seasons. This enables longer boost times to be set in Winter periods when solar generation maybe less. Two boost periods are available each day and can be programmed on a 5 day weekday/2 day weekend basis.

B2 Summer Wk/Day
00:00 0.00hrs

B3 Summer Wk/End
00:00 0.00hrs

B4 Summer Wk/End
00:00 0.00hrs

B5 Winter Wk/Day
00:00 0.00hrs

Programme the start time and duration of the boost using the A and B buttons as described above. Start times are selectable in 15 minute steps and the duration of the boost in 30 minute steps.

B6 Winter Wk/Day
00:00 0.00hrs

Example: A setting of 07:00 1.5hrs will switch on the boost at 7 am for 1 hour 30 minutes.

B7 Winter Wk/End
00:00 0.00hrs

An unused boost is left at 00:00 for 0:00 duration.

B8 Winter Wk/End
00:00 0.00hrs

The operating boost season is set manually using the Boost Season selection feature found at the end of the normal Energy Savings display cycle. Boosts may be temporarily disabled (e.g. for holiday periods) by selecting 'Timed Boosts OFF'.

Troubleshooting - Warnings and Messages

The Solar iBoost+ internal diagnostics notify if any problem arises in the system. When a problem is detected the red warning triangle on the front of the unit is illuminated. A message on the display details the specific problem:



Sender Battery
LOW

Batteries are low in the sender unit – replace batteries at earliest opportunity. **Do not** use rechargeable batteries.

Lost Signal to
Sender

The unit is no longer receiving messages from the sender unit. Possible causes:

1. Batteries may be exhausted.
2. Solar iBoost+ is positioned too far or near to the sender.
3. Sender unit pairing button may have been pressed inadvertently outside of the pairing process (see Pairing the Sender unit).

Unit Cooling...
Check vents

This is normal operation, the Solar iBoost+ unit will cool for a short period if it reaches the top of its working temperature. The unit will recover automatically when the internal temperature has reduced. Always ensure that the unit is clear of obstructions and that there is adequate airflow to the unit.

Maximum Power
Exceeded Htr 1

The Solar iBoost+ will check for overload during initialisation and during normal operation. If overload of either heating circuit is detected the output will be disabled. Check the load of the immersion heater and supply voltage are within specification. This warning can be reset by power cycling the Solar iBoost+ unit.

Over Voltage

The supply voltage to the Solar iBoost+ unit is above its operating range. The unit will automatically recover when the voltage drops to within the normal operating range.

Further troubleshooting is available online www.marlec.co.uk/troubleshootmysolariboost

Shutting Down

Solar iBoost+ can be left to operate year round. Should you wish to power it down (e.g. during holidays) the following options are possible:

- Switch off at the fused spur - No solar energy will be captured by the Solar iBoost and timed settings will not operate.
- Temporarily remove the batteries from the sender - No solar energy will be captured but timed settings will continue to operate.
- Select OFF in Winter/Summer/OFF timed settings. Solar energy will be captured but timed settings will not operate.

Accumulated savings and programmed times are retained in memory.

Pairing the Sender Unit

The Solar iBoost+ and Sender are supplied uniquely paired and should not require the following operation. However, if the signal becomes lost or a new pairing is required the following procedure should be performed with the sender positioned 1m or more from the Solar iBoost+. In service, the Sender is usually located at the household meter or consumer unit.

1. Press any button on the Solar iBoost+ to switch on the backlight.
2. Press and hold button **B** for 5 seconds then release.
3. When **Pairing with Sender** is displayed, press and hold the green button on the Sender for up to 10 seconds to pair the devices.

Repeat the procedure if necessary until pairing is achieved.

The result of pairing is shown on the screen as follows:



IMPORTANT! Do not press the sender button except when performing the pairing process. If it is pressed for more than one second the pairing may be lost and the display shows a 'Lost Signal' message (see Trouble Shooting). To correct, either reset the sender by removing and refitting the batteries or use the above procedure to reset the pairing.

Language Settings

The Solar iBoost+ can be configured to show different languages on the display.

To change language, press the display button once to light the display then press and hold the Boost button for 5 seconds or more and release. Each long press of the Boost button will move the language between:

English → **French** → **Italian** → **Spanish** → **Portuguese** → **German** → **English**

All programming and information displays will be shown in the selected language.

If an iBoost+ Buddy is fitted, the unit will automatically change to the language chosen on the Solar iBoost+

Using Solar iBoost+ Alongside Battery Storage?

Solar iBoost+ has a default cut in threshold of 100W of export before diversion commences. This is programmable incrementally upwards to 500W. When the battery storage threshold is <100W the Solar iBoost+ can be installed as supplied in its default mode resulting in battery storage prioritised with water heating following when the batteries are full. If a higher level is needed to accommodate a battery storage system with >100W cut-in follow these instructions:

1. View the Programming section, see over. Follow the instructions to set the time and date of the clock.
2. On the last press of button A confirming the date and time "Storage Offset 100W (Default)" will display.
3. Press Button B to step 50W increments up to a maximum of 500W. When the level required is reached press button A to save.
4. The Boost settings menu appears, proceed to make any settings required or leave the unit for approximately 30 seconds to time out.

Should the user choose to prioritise water heating adjustments to the battery storage threshold may be required.

Caution: Position battery storage CT and Solar iBoost+ Sender clamps approximately 10cm apart to avoid measurement errors.

Maximise the Benefit of Your New Solar iBoost+

Here's a few tips to help capture and save more energy:

- Reduce or delay the "ON" periods of your current water heater to maximise Solar iBoost+ preheating the water.
- Vary your water heating times by season, the Solar iBoost+ may be capable of fulfilling all your summer hot water requirements.
- Ensure your water tank is well insulated.
- Minimise energy consumption in your property.

Add an iBoost+ Buddy

It lets you know the status of the Solar iBoost+ and allows you to use the Boost function remotely within the home.

The intuitive traffic light indicator glows green when your tank is hot but there's still excess energy available.

It's a great way to help you self consume your PV energy and is simple to pair to the main unit.

Available from www.solariboost.co.uk



Further Support

To find out more about how Solar iBoost+ works visit www.solariboost.co.uk

Consult your qualified installer / electrician for any user queries.

Technical support for qualified installers and electricians, visit:

www.marlec.co.uk/troubleshootmysolariboost

Important Information about Legionella

Legionella bacteria are common and can be found naturally in environmental water sources such as rivers, lakes and reservoirs, usually in low numbers. As legionella bacteria are commonly encountered they may eventually colonise manufactured water systems and if conditions are favourable the number of bacteria may grow. Contamination risks are however low due to the low availability of nutrients and the regular chlorination of the water supply.

As with any hot water storage system it is important to avoid water stagnation and ensure the water is regularly heated to a minimum temperature of 55-60°C to reduce potential risks.

It is therefore recommended that the hot water tank be heated to 55-60°C at least once per week either using Boost facility or through other heating controls.

Limited Warranty

The SIB Energy Company Limited Warranty provides free replacement cover for all defects in parts and workmanship for 24 months from the date of purchase when used for normal domestic purposes. SIB Energy Ltd obligation in this respect is limited to replacing parts which have been promptly reported to the seller and are in the seller's opinion defective and are so found by SIB Energy Ltd upon inspection. A valid proof of purchase is required if making a warranty claim.

Defective parts must be returned by prepaid post and accompanied by a Returns Authorisation available in advance from Marlec Engineering Company Limited, Rutland House, Trevithick Road, Corby, Northamptonshire, NN17 5XY, England, or to an authorised agent.

This Warranty is void in the event of improper installation, unauthorised service, use of unauthorised components, owner neglect, misuse or natural disasters including lightning strike. This warranty does not extend to ancillary equipment not supplied by the manufacturer. No responsibility is assumed for incidental damage. No responsibility is assumed for consequential damage.

Disclaimer

SIB Energy Limited has a policy of continuous improvement in product quality and design. The company, therefore reserves the right to change the specification of its models at any time. All items in this guide are for illustration purposes only and may not apply to your particular situation.

Disposal of Old Electrical Appliances



For electrical products sold within the European Community.

At the end of this products useful life, it should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice in your local area.