SENZTEK

smart energy management

DisplaySmart Plus™
USER GUIDE

www.senztek.com

CE   ISO9001 REGISTERED SUPPLIER   TECHNOLOGY & QUALITY AWARD   Z985

Table of Contents

For technical help contact your installer or maintenance technician.

Installer Details:
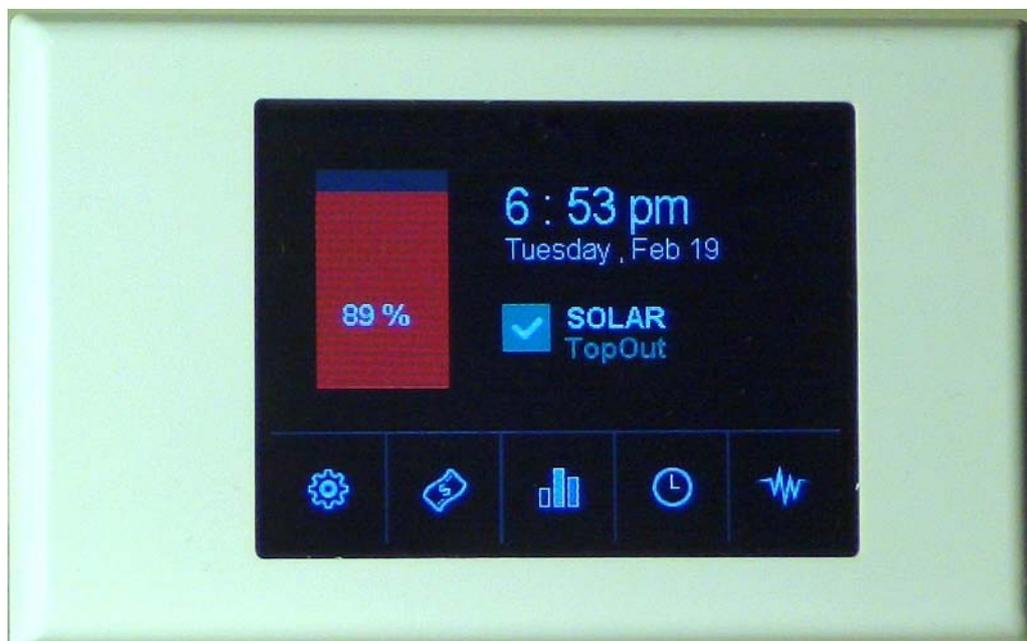
www.senztek.com

© Senztek Holdings Ltd. 2013

INTRODUCTION

The DisplaySmart Plus enables you to easily set the optimum efficiency for your ever changing hot water needs throughout the day, allowing you to create a tailor made balance between reserved hot water and power usage. Further it opens a window so you can see and understand how your system is functioning and why.

DisplaySmart-Plus employs a graphical touch screen to interface to the Senztek Solar Smart range of solar and hot water controllers.

The DisplaySmart Plus is user friendly with multiple information screens. We recommend that you have a read of all the information screens, accessed via the [i] icon to gain familiarity with the product.

HOME SCREEN
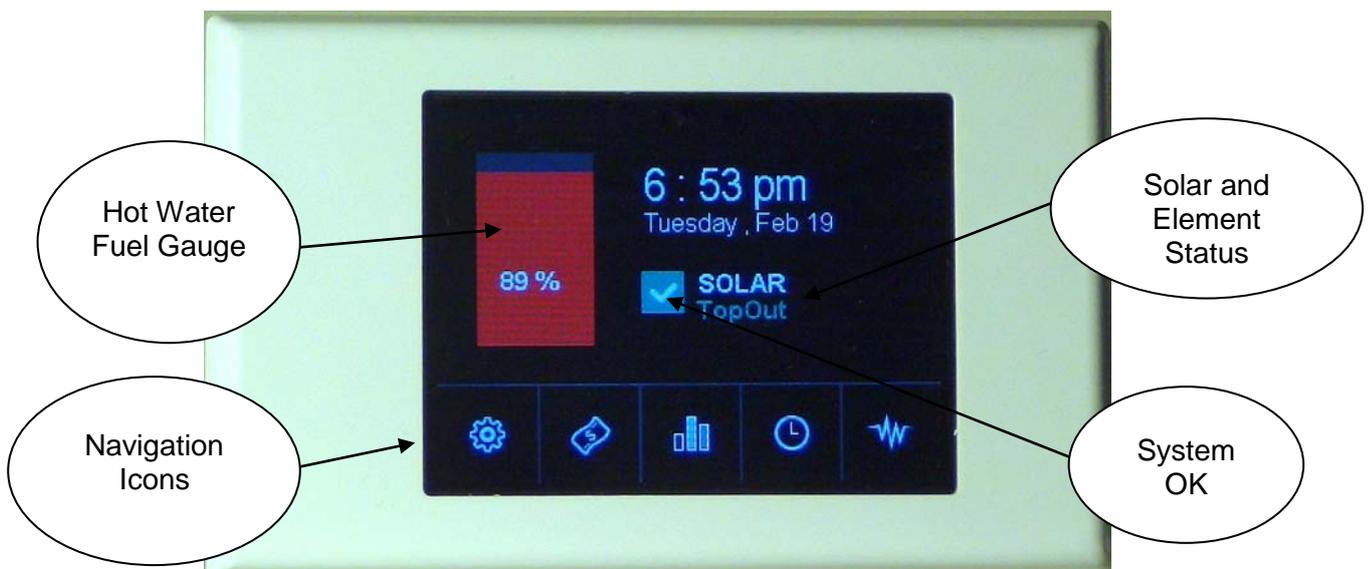
The Home screen is generally where most people would leave their display. It gives an overview of the whole system. From here you can navigate to all the other available screens.

The ✔ indicates that everything is OK. If there is an error an ✘ will replace the green tick and the text beside will inform the user on what the error is.

The Status display will swap between the element status and the solar status. If there is no solar system installed only the element status will be shown.

Element Status

Idle : The element is off

Topping Up : The controller has decided the tank needs heating to maintain the user profile using an electric element (might be upper or lower in the case of a dual element tank).

Sterilisation:	The hot water in the tank needs precautionary sterilisation. The element is heating to keep you safe. This is Senztek's BioSafe function
One off Boost:	User has pressed the "one off boost" button on the display. The tank will now heat to the Boost temperature using the electric element
Holiday:	User has pressed the "holiday button. The element will not come on except for sterilisation (typically once per week)

Solar Status

Idle	:	The solar pump is off and is waiting to harvest solar energy.
Harvesting	:	The solar pump is on and is harvesting solar energy.
Tank Full	:	The maximum temperature allowable for your tank has been attained and for safety reasons the solar pump will not come on even if the sun is out.
TopOut	:	The maximum tank temperature is about to be reached. The controller will use different solar strategies to maximise system performance.
Frost		The solar collector has fallen to the frost risk temperature (typically 4°C) and the solar pump is on to protect the collector from damage.

Hot Water Fuel Gauge

This is an estimation of <u>useful</u> hot water stored in your hot water tank. Senztek uses techniques to keep this as accurate as possible throughout changing conditions.

Screen Brightness;

This will dim after 2 minutes of no activity and become bright again when the screen is touched. This is to ensure the DisplaySmart is not distracting within your home especially at night but is still illuminated enough to be seen at a glance.

SET TIME AND DATE

- From the Home screen touch the Clock icon

- Set the Time and Date by touching the field that you want to update until it starts flashing and then using the Up/down arrow keys to adjust the value.
- Press the Home icon when finished
- Your new Date and Time will be displayed on the home screen

![SENZTEK logo]

SET HOT WATER PROFILE ⚙

This is where you tell the system what your typical daily electric hot water use is.

There are 4 time bands each of which starts at the times in each column. E.g. the first time is 0700 (7:00 am) so the first time band runs from 7:00am to 8:59am

The different expected levels of hot water needed in each time band will create a daily profile. In the above example (yours may vary from this);

- There will be an expected high use of hot water around 8:00a.m – 9:00 am. To allow for heating up time this is set to start at 7:00am

- Then low usage until after 3:00pm. Then it is expected there will be a medium requirement probably for dinner preparation and activity as people arrive home.

- Late at night there is no tank heating at all until the morning.

If you are not sure then set them all at HIGH (not MAX)

This is for the electric heating element control. If you have a supplemental heat source such as solar hot water or wet back or if you have enough stored hot water then the system might not need to heat during these times as it has enough hot water on hand.

Setting;

- A box will be flashing around the first time setting indicating that you can change it using the up/down arrow keys.

- Now set the hot water level in that band by touching the area directly above the time box. Each time you touch the value will change from Blank through to MAX. **Note:** This will be the maximum usage you are expecting. The Savings control can only decrease this value.

    Blank (Clear Bar): Very low hot water usage expected.

    (Might partially heat if the entire tank is very cold)

    LOW : Low hot water usage expected

    MED : Moderate Hot Water usage expected

    HIGH : High Hot Water usage expected

    MAX : Element always heating to max (no change with Savings control)

- To adjust the next time band touch on the time displayed for that band. The white box will now move to that time and it can be adjusted as above. Repeat the above steps for all four time bands.

- This screen will probably rarely be altered once set up

SAVINGS SCREEN
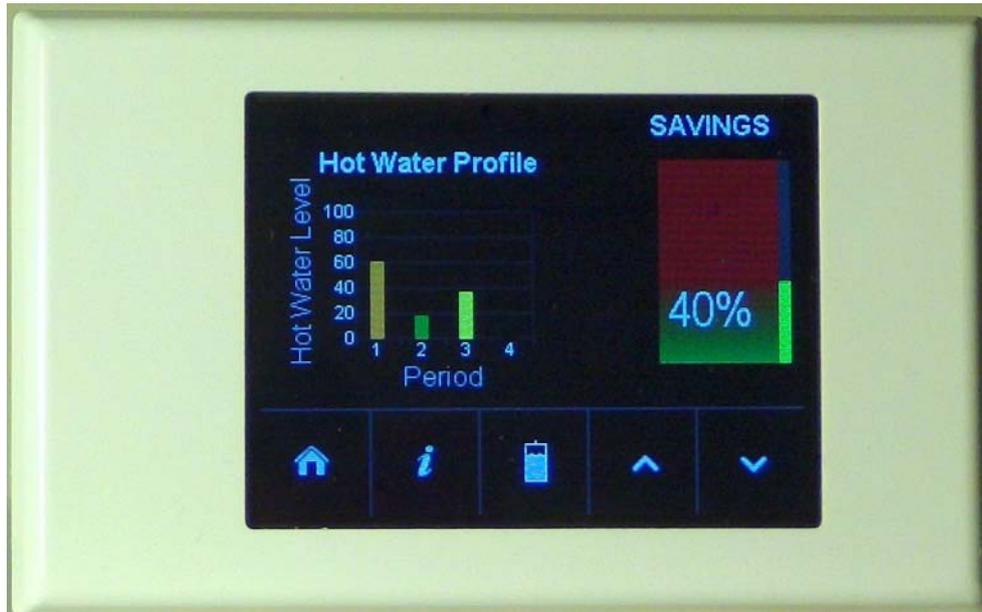
This is where the magic happens;

Once you have set up a profile you can find your perfect balance between reserved hot water and hot water needs. The best Savings setting will be the highest value you can set with the supply of hot water still being acceptable to you.

Note: The Savings control is not a direct temperature control; rather it uses sophisticated computer logic to determine the best temperatures, which sensors and which elements in conjunction with the Hot Water profile to use at any one time.

- To adjust the Savings control press the [▲] to increase or [▼] to decrease

- You will see the Hot Water Profile bars change in height as you change the Savings setting. This will show you how your profile is changing to track your new setting.

Initially it might be best to set the savings at 0%. If you find you regularly have spare hot water as indicated on the home screen 'fuel gauge' then try increasing the Savings control in say 10% increments until you find the best setting to suit you. This might take days or weeks to establish the best setting.

Touch [icon] to take you into the special element functions.

- Boost: This is a one off heat up of the tank to maximum. It will reset once at the target temperature. Typically 65°C. Might be used for a special occasion such as visitors coming.

- Holiday: Turns off the element/s until pressed again to reset.
                However BioSafe Legionella protection will override this and keep the tank safe (usually once a week at most)

SENZT≣K

DATALOGGING [icon]

You can step through the last week's recorded data for the various parameters.

To step between screens use [icons]

SYSTEM [icon]

This screen is a more detailed diagnostic display.

1. **Set a Home Owner Password (optional**) → [lock icon]

    If you do not want anyone except authorised individuals to change your hot water settings you can set up a password protection by following these instructions:

    - From the Home screen use the "Diagnostics" Icon followed by the "Lock" icon as pictured above
    - Press the "Set User Password" button
    - Enter a four digit code for your password

    You can disable the password from here on by pressing the "Clear User Password" that will now be visible instead of the "Set User Password" button.

    If you forget your password you can clear the password with this Master Clear Password that will always work "5106".

Note: The icon [icon] is for the system setup and qualified personnel only. It is code protected.
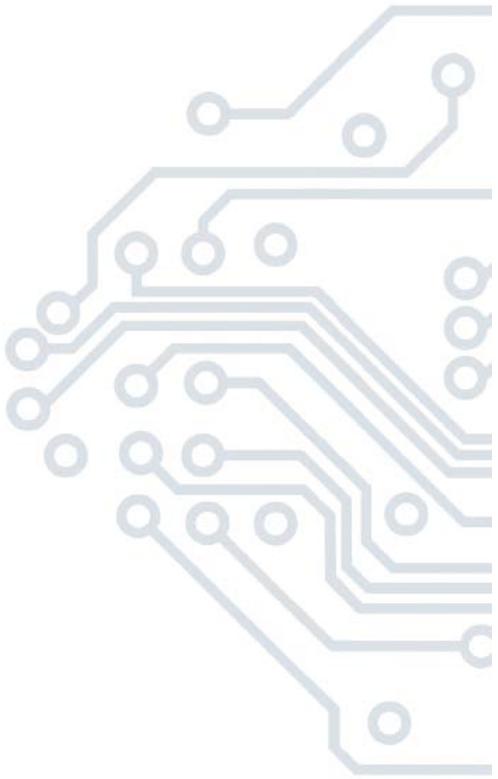
www.senztek.com

Senztek NZ Ltd   Senztek Australia Ltd   Senztek UK Ltd