

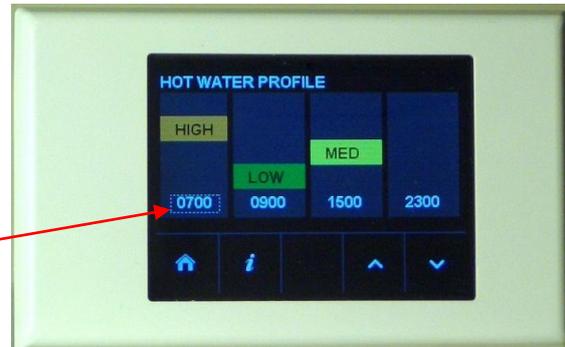
# Savings and Profile Control

## 1. The Profile;

This is like a roadmap, a prediction by you of what the controller should expect over a typical 24 hour period of required hot water. This is not meant to be a precise prediction, just a general indication of how your household typically uses hot water.

This is not a prediction of how much hot water there will actually be in your cylinder at any one time but rather how much you must have as a minimum. There might well be quite a bit of left over hot water as indicated on the hot water 'fuel gauge'.

Profile start times



There is a good chance that once you have selected a hot water profile, you might never need to change it again.

If you are not sure of your hot water usage pattern or your household is not predictable at all then select a flat profile (all 'highs'). This is OK, you have another control to manage your savings.

**Note:** 'Max' is an override setting and the cylinder will attempt to heat to its maximum capacity when Max is selected, the savings control cannot affect it. This is for special functions and is not recommended for standard use.

## 2. The Savings adjustment;

Now that the controller has been told the general direction of what to expect and what it should reserve for available hot water with the 'Profile', we can now tell it how close the profile is to reality at this particular point in time. There is only one adjustment needed; the Savings control on the Touch Screen display

Adjusting savings will adjust down the value set in the profile. On the DisplaySmart-Touch you can see the profile changing on the graphic to the left of the savings column as you adjust



This is not a reading of actually energy savings but a label for how well the profile is matched for your *present* needs. Changes to your needs usually only require savings adjustments. A perfectly matched profile might be best with 0% savings setting, or 20% or 50%. The critical factor is do you have enough hot water and there shouldn't be excessive hot water stored after peak times during the day.

## How to set it up and maintain (heating only the water you need)

The Smart Hot Water control method will help reduce losses by only heating the water you need, rather than the whole cylinder. This method will suit households that do not draw off frequent large amounts of hot water. For high users there are other strategies your Smart Controller can be adapted to control and save energy and money.

We don't use temperatures here as they not as important as what is 'enough hot water' for you. This is a new way of controlling hot water and much closer to how humans think about hot water.

### Setting up

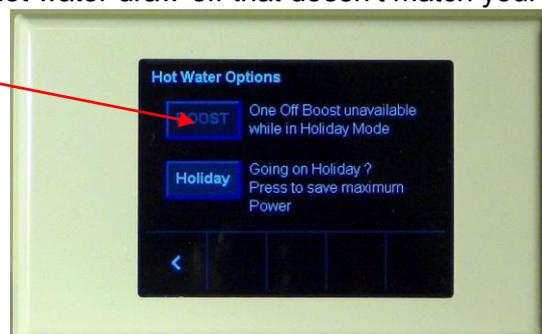
1. Set the profile that you think best matches your typical 24 hour hot water usage. Ensure that you allow time for the cylinder to heat, set start times for each period an hour or two before they are needed, especially if you are transitioning from a low to high
2. Set savings to 0% (for now)
3. If you are running out of hot water at any stage during the day without it being an unusual event then this is a good time to fine-tune the profile
  - a. Adjust the period for the time affected. E.g. if you do not have enough hot water first thing in the morning then either increase the setting for the first period or make the time it comes on earlier (to allow more time to heat up)
  - b.

4. Try for a few days and see how much hot water is left over after peak time/s of hot water usage. You can see this on the home screen fuel gauge and multiple days on the data-logging pages.



5. If you consistently have more hot water left over than you need then try increasing the savings 10 to 20% at a time depending on how much is left over after peak usage times. Allow a few days to be sure you have the 'average' covered
6. Once you find the point you are starting to have less hot water left than you are comfortable with then decrease the savings a little and you should have a precise custom setting for your home.
7. Adjust savings for seasonal variations, guests staying etc as the occasion arises.

For short term (and rare) increased hot water draw-off that doesn't match your profile try the one off Boost button



The profile times must always start from earliest to latest left to right (as demonstrated)  
 If this is not the case the controller might incorrectly execute heating times

Examples

1. Morning showers, mostly low hot water usage during the day, moderate hot water use around 4:30pm to 7:30 pm. Low usage at night.

Note: It might take an hour or two to heat up so allow for this with the start times

Most popular profile				
	Band 1	Band 2	Band 3	Band 4
Band Start Time	7:00	9:00	15:00	23:00
Hot Water Level	High	Low	Med	Minimal

Such a profile would look like this



2. If the usage is fairly unpredictable or you wish to keep total flexibility then set all bands to high. Now the savings control becomes the primary adjustment.

Unsure or unpredictable usage				
	Band 1	Band 2	Band 3	Band 4
Band Start Time	7:00	9:00	15:00	23:00
Hot Water Level	High	High	High	High

Choose all 'high' because the savings control will only ever turn these down from the profile. This might require more frequent adjustment of the savings control.

3. If you have unpredictable usage during the day, much like example '2' above but your night usage is definitely low then you could set this profile

Low at night				
	<b>Band 1</b>	<b>Band 2</b>	<b>Band 3</b>	<b>Band 4</b>
Band Start Time	6:00	9:00	15:00	20:00
Hot Water Level	High	High	High	Low

In this example Band 4 is Low and not Minimal as it gives flexibility when adjusting the savings control.

Also note the times for each band. These should be adjusted to suit your own circumstances.

4. Solar electric matching. Since you need to heat your hot water anyway, it is best to do this when solar power most likely to be available, this way more power is likely to be consumed within the premises.

Solar electric with Hot water				
	<b>Band 1</b>	<b>Band 2</b>	<b>Band 3</b>	<b>Band 4</b>
Band Start Time	4:00	11:00	14:00	18:00
Hot Water Level	Med	High	High	Low