

## Using your Heat Pump Under-floor Heating System.

Your System is divided into individual control zones each one can be time and temperature programmed.

The system zone controls used may be configured in two ways.

1/ **Operation based on the temperature of the floor slab.**

2/ **Operation based on the air temperature of the room or area.**

Your installer should as part of his commissioning of the system, set your controls appropriately to suit the room and your requirements, though you may need to make further adjustments therefore it is therefore wise to have some understanding of the control logic.

For efficient and effective output we recommend your controls are configured to operate on floor sensing for Bathrooms / Areas with polished concrete floors and in Living areas with high solar thermal input.

**Why?** *Well, for bathrooms and concrete floors stable, consistent warmth underfoot is just what you need. In rooms with high solar gain controlling via the floor overcomes the issues you can experience if you control via room temperature. Sunny days will quickly heat up such a room to the air setting set point, resulting in the floor shutting off. Then as the sun goes down the floor has to work hard (inefficiently) to input enough heat energy to maintain stable temperature when the sun goes down. This often results in an under heated lag time as the floor regains. Many users will use floor setting as the default for every room.*

**When using the air sensor for control**, set your controls as required – Typically at 21° during the periods the room is in use. The control allows you to also have setback temperature for long periods when a room is not in use (through the night for example). When adopting a setback temperature on an air sensing zone for efficiency we recommend no more than 3° below the control temperature (E.g. 21° = Setback Minimum 18°)

*Because changes are slow not instant, the switching time for moving to setback would be 1 hour before the time the room is vacated and 1.5 Hours before the room comes into use back to move to the main set point. (in bedrooms we recommend adopting the setback temperature for the time you are asleep. Sleeping cooler is better for us!)*

**Floor control** principals are similar, however, the temperature set point is no longer the room temperature you desire it is now the floor temperature that can achieve it. Requirements will vary a little home by home but generally a floor temperature setting of 26° / 27° suits most applications. Minimise any setback to just a 2° differential

*Perhaps surprisingly, greater overall efficiency can be achieved through the maintenance of consistent slab temperature as opposed to the constant fluctuation of a zone that has air control*

**Tip**, for energy saving, ensure the time of transition from setback to the main set point is not the same on every control. By staggering the trigger points by 10 minutes or so you reduce peak load on the HP maintaining a higher COP.

**Tip** when your system has been dormant during the summer it's a good idea to turn one or two zones on for a 10 minutes this helps prevent valve seizures and keeps the additives active to protect the system.

The Master HP control does not generally require user interaction if for any reason you need to - user details are in the HP Manual.

Heat IQ

eco+Logic HP / UFH

Using your Heat Pump Under-floor Heating System.

Your Installer