New Features: Display Target Temperature and Hold timer

While your GB1 is running, the target temperature changes to reflect the current position on the ramp. (Of course, for a soak or programmed hold, this temperature will always be the same.) In the Monitor Mode you can see what this target temperature is without getting out your calculator. Simply push the "profile" key followed by "mode". The temperature display will now show the target temperature for that minute. It will be flashing to indicate that it is a calculated temperature and not the actual temperature. To revert back to the normal display push any key. If you do nothing the GB1 will revert to the normal display after about 15 seconds.

When showing the target temperature, the time display will show the elapsed time into the current step instead of the remaining time for that step. (For cumulative time GB1s it will show the time elapsed since the start of the step instead of the total elapsed time for the program.)

Note that any time passing while the "autohold" light is on is not counted in the elapsed time in either case.

If the step is a programmed hold, the time shown will be the elapsed time since the hold started, up to 99 hrs and 59 min. If the hold is longer than this, the display is overflowed and will not increase anymore.

If the keyboard hold has been invoked, the time shown will be the time elapsed since the last time the hold button was pushed. The same overflow limit exists as for the programmed hold.

New Feature: Enhanced Keybd. Hold/ Instant Setpoint

All GB1's have always had the "keyboard hold" feature: if you push the hold key at any time (in monitor mode) while a program is running, the timer stops and the controller maintains the temperature existing when the hold was pushed. This gives a certain manual control ability to the automatic controller which is particularly useful in fusing and slumping, or indeed any procedure where you are waiting for the glass to behave in a certain way. For example, if the slump is not happening when expected, you can extend to cycle manually using the keyboard hold.

Some processes need even more flexibility. So now you can do more than hold the temperature at which you stopped the timer: you can change that temperature. You essentially have an "instant setpoint".

Here is how you do it:

0) the following is only valid if you have already invoked a keyboard hold.

1) push the" mode" key - the program light will come on and the current holding, or setpoint, temperature will be displayed. The time display will be blank because changing the time has no meaning when you are holding. (If you have a GB1 with proportional control, you may need to push mode twice to get to program mode.)

2) push the "clear" key. The original temperature will be replaced by 0, but will continue to be the setpoint until a new temperature is entered. If nothing is done for 10 seconds, everything reverts to the normal situation, as if mode had not been pushed.

3) push in a new temperature, followed by the "enter" key. If you push a key such as "mode" without first pushing "enter", you will get an error. You will have to clear the error and re-enter the temperature. Until all this is done, the original temperature is still controlling the oven.

4) once the new temperature has been entered the display reverts to the normal monitor mode which now shows the actual temperature of the kiln.

5) when you leave the keyboard hold, operation reverts to the programmed profile. Any information about the changed temperature is lost.

NOTE A: Don't confuse changing the keyboard hold temperature with the hold timer. Whenever the GB1 is holding, you can always see how long it has been holding by pressing "profile" and then "mode." (So long as you are not in the midst of changing a temperature!)

NOTE B: When you are in a keyboard hold, any time you push the "hold" key, the existing temperature is grabbed as the setpoint. Any changes you may have made to the temperature per above will be overwritten. The hold timer will commence anew.