Manual

Drying Cabinets Incubators Industrial Ovens E3 Cabinets Waterbaths





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UNPACKING ...

This manual may relate to either drying cabinets, incubators, ovens, waterbaths or the E3 range. Some instructions are specific to the model purchased and other instructions are general to all models. Remove all packing material from between the shelves and inner walls of the oven.

MAINS SUPPLY ...

415-volt units	These unit	These units should be wired in by a suitably qualified electrician to the following:-				
BROWN BLACK GREY BLUE GREEN/YELLOW	'L1' 'L2' 'L3' 'N' 'E'	Phase 1 Phase 2 Phase 3 Neutral Earth pin	Please note: Ensure that after the electrical connections have been made, the fan blades rotate in a clockwise direction as viewed from inside the chamber. It may be necessary to change phases to achieve this. (Anti Clockwise External)			
240-volt units.	Each unit of shown on of the corr	comes supplied with a m the voltage plate riveted ect rating.	ains connection lead already fitted with a correctly rated fuse. The fuse rating and other details for each unit is I to the back of the unit. It is important that, if the fuse needs to be replaced, it must only be replaced with one			
110-volt units	Each unit i	s supplied with a cable b	out without a plug or fuse. These units should be wired in by a suitably qualified electrician to the following:-			
BROWN BLUE GREEN/YELLOW	'L' 'N' 'E'	Live pin, refer to v Neutral pin for fu Earth pin	voltage plate se requirement			
	WARNING					

VARNING

DO NOT CONNECT THE OVEN TO A D.C. MAINS SUPPLY OR SERIOUS DAMAGE WILL OCCUR

MAINTENANCE - ROUTINE CHECKS ON EACH OCCASION OF USE ...

Check the condition of supply lead and plug top.

Connect to mains supply and check:-

Supply switch operation.

•

A temperature check can be done by using a suitable temperature probe inserted 100mm into the oven chamber via the top vent. If the chamber requires a temperature adjustment, see 'Calibration, page 10'

PREVENTATIVE MAINTENANCE ...

Ensure that the unit is maintained in a clean, dry condition and, when not in use, stored in a normal ambient atmosphere.

Minimum recommendation every six months:-

Check the plug top connections are tight and the fuse rating is correct.

Check the operation of the overheat protection system by raising the desired temperature above the overheat temperature see 'Safety' section of this manual, page 10.

Carry out an electrical safety check (Portable Appliance Test) using an appropriate appliance tester, operated by a competent person.

Check that the control temperature is maintained within limits.

The manufacturer can offer the above service on request.

SAFETY...

When the unit is to be used for the incubation of microbiological specimens, please consider carefully the siting and use of the unit to ensure safe operating conditions for all users.

If this manual is for a waterbath, never run the water bath without water in as it will cause the element to burn out under dry boil conditions. The water should never fall below the internal shelf.

Do not operate the water bath when the fluid level is above the ridged fill line, which is approximately 30 mm from the top of the bath. Do not use at temperatures above 60°C without a lid or some other means of reducing evaporation such as plastic spheres if running the bath on Lab Armour, the control system will automatically compensate.

If liquids contained in partially sealed vessels are to be heated in the unit, then at all times the temperature setting must be such that no appreciable pressure build-up is allowed to occur within the vessel. The risk of explosion becomes high if the temperature setting is higher than that of the boiling point of the liquid. Therefore, any vessels that require heating SHOULD NOT be completely sealed. These units are not suitable for use where inflammable solvents are being used where the solvent concentration can reach inflammable or explosive levels.

GENERAL ...

Mop up any spilled liquid from the floor of the unit. Drip trays are available upon request from the supplier should you have excess liquid evaporation.

Do not place samples on the chamber floor, ALWAYS use the lowest shelf.

Take the normal precautions to prevent liquids coming into contact with the electrical components.

The outer surfaces can be cleaned with a warm, damp, soapy cloth or any proprietary cleaner suitable for a painted surface (do not use solvents or harsh abrasives). The work chamber may also be cleaned as above.

WARNING: The following precautions MUST be observed:-Do not place items with excess water into the cabinet, e.g. drain glassware before use. Do not place the cabinet flush to a wall. A small gap must be left to allow free circulation of air. THIS UNIT SNOT SUTABLE FOR USE WITH FLAMMABLE SOLVENTS



Notes : Available functions and features differ from unit to unit. Please contact your supplier if you see a feature in this manual which you want to install



Press the start button.

The chamber will now start to the default Set Point shown in the top right hand corner of the screen.

To stop the chamber, press the red button and the icon will turn back to the start symbol shown here awaiting the next command.

Note, this command is not available in E3 modes, see E3 running operation page 8.

To Change Set Point



The active Set Point (SP) is displayed next to the

Press the SP button.

The screen will change to Update Set Point screen.

Change the set point using the up and down keys.

Either press or leave the screen for 5 seconds and the SP will be updated and go back to the run screen.

Set Point Lock.

You can lock operators from changing the set point without access to the configuration password if required. To activate / decactivate set point lock, go to Temperature Settings section, page 10.

If Set Point Lock is activated, you will get the following message.

To View Chamber Information and monitor energy useage



To view chamber information such as serial codes, power ratings, 2nd button, or, a 3 on E3 safety temperature value, press the models.

Chamber specifications are shown on this page including the current safety sensor value.

A kWh meter is highlighted on this page to indicate the power usage.

To reset this meter, touch the Reset key.

To download the operating manual in electronic format, scan the QR code on this screen with your smart phone.

To return to the run screen, press the home button.

To View / Download Historical Information







EЗ	Mon 18 June 16:25	<u></u> 42.0
	Export Data to	USB
	Yes (No	
6		ø







To view the history of the chamber, press



The red trend is the set point the chamber is working to and the green trend is the actual temperature the chamber has been.

The scaling of the trend is automatically scaled to the Maximum temperature.

The time period can be set in the history section in the configuration menu (page 13).

On some advanced model ranges, datalogging of both temperature and energy usage can be exported and archived in graphical and numerical format. Please note this is not a standard feature, hence your chamber may not have this option.

To download the raw data, insert a memory stick into the USB panel socket and press the memory stick icon.

Press Yes when prompted to export the data.

The control system will automatically upload any missing data from the last export command.

If no USB memory is available, or, if the memory is broken, it will ask you to insert a new one and press Yes.

Once all transfer is done, remove the USB memory and press the button to return to the run screen.

To display the data in graphical form, use the raw data saved in conjunction with the G-Viewer software package.

OPERATING CHAMBER IN TIMER MODE

The chamber can be set up to work in 1 of 3 timer functions.

- 1 Process Countdown Timer 2 Profile Control, 2a - B
 - Profile Control, 2a Basic 8 Stage Profile Mode
 - 2b Advanced Multi Menu Profile Mode
 - 2c Cyclic Profile Mode
- 3 24 Hour Real Time Clock Mode

Only one timer mode can be active at any time. These are selected in the Timer Settings on the configuration page.

Timer functions are not available on all models. To upgrade to timer functions, please contact the supplier.

Standard profile mode offers a 8 stage profile. Advanced multi menu profile and cyclic control is available as optional extras, please contact the supplier to upgrade if required.

Process Count Down Timer



Select to run in either Timer mode or Manual mode.

Manual mode will keep the chamber at the selected Set Point until you press the stop button.

Press the start button.

The chamber will begin to warm to the desired set point.

Within 2 deg of setpoint, the chamber will start the count down timer and the remain time is displayed on screen. This time period can be changed between 1 and 5000 minutes in the Timer Configutation section shown on page 11.

If the temperature falls outside of the 2 deg band, (ie if chamber door is opened) the timer will pause until the set point is reached again.

At the end of the countdown, the timer will turn the heat off. Depending on preference, you may choose to turn on a siren/beacon at this stage (selected in Output Relay Section - Page 13).

To cancel the siren / beacon, press the 'Alm Off' icon. The chamber will now return to sleep mode awaiting the next command.

Repeat the procedure if required, or select manual mode. to go back to normal running mode.

OPERATING CHAMBER IN PROFILE MODE



OPERATING CHAMBER IN MULTI - PROFILE MODE OR AS A CYCLIC CHAMBER

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Prof	ile Selec	t
Grapes	[10]	[cycles]
Profile	[1]	
Profile 8	[6]	<u> </u>
Profile 9	[inf]	
Profile 10	[1]	

	Apples	[3]	[cycles]
,	Oranges	[1]	
	Profile 4	[inf]	
	Profile 5	[1]	
			~

Profile Select

~

O



Select to run in either Profile Mode or Manual Mode.

If in Manual mode, the chamber will warm to 70 (default set point).

If in Profile mode, the SP automatically changes to the stage 1 SP set in the configuration menu (page 12).

The chamber will start to heat until it reaches the target SP of stage 1 and then jump to stage 2.

At the start of stage 2, the SP shall change to the next requested SP and the chamber will begin to heat / cool as required.

If the Hold Back feature is set during this stage on the configuration and the chamber temperature falls outside the expected temperature range, the chamber goes into Hold Back mode. This will pause the time and ramp function until it comes back into the expected temperature range.

The Hold Back feature can be disabled if required, and used for example when either the door is unexpectedly opened or if the decrease in temperature is set too quick for the natural loss of heat from the chamber if a cooling stage is set. In this example, the chamber comes back into the expected temp range so stage 3 profile is then continued.

On reaching 40 deg, the final stage (stage 4) ramps the chamber to 50 deg.

At the end of stage 4, the chamber indicates profile complete and goes into standby mode (up to 8 stages can be configured if required)

If the chamber is above the starting temperature of the configured profile and the start button is pressed, the chamber will not turn on and display the message Cool Chamber First. To start the next profile, either wait until the chamber falls below the Stage 1 temperature setting, or press the Manual button and run the chamber to the default SP.

Advanced models will come with multi profile control with cyclic features. You can enter a maximum of 10 unique profiles with a unique name and number of cycles, please go to Page 13 to assist in this configuration

Highlight the Profile Icon and press the Start button

A Profile Select Screen will appear with a maximum of 10 saved profiles stored. Press the up and down key to toggle between pre saved profiles 1 to 5 and 6 to 10.

The number highlighted in the brackets is the amount of times the profile will repeat before it goes to standby mode. These can be changed in the configuration section also.

Select the pre saved profile, in this case Grapes is selected.

The chamber will then automatically control to the presaved data from Grapes and will repeat this 10 times.

To highlight which profile is running, the profile name is shown on the top left corner of the screen.

To stop and profile at any stage, simply press the red stop button and the chamber will go into standby mode awaiting the next command.

To upgrade from 1 x 8 profile mode to 10 x 8 with cyclic control, please consult your supplier. This firmware upgrade is available with license keys.

MTO Mon LE Juese Local Time Set / Manual Energy Saving Mode	MTO Mon 18 Janse 1622 Time Set / Manual O Run Mode () () () () () () () () () ()
MTO Mon 18 June 1625 SP-70.0 Time Set / Manual Boost Start	MTO Man 18 Jane & SP-70.0 1623 Time Set / Manual
	() (2)

Select to run in either Real Time Clock mode or in Manual mode.

To work the chamber so it turns on and off at designated times of the day, select Time Set and press the start button.

The chamber will now only heat up at the predetermined times set in the configuration set up (shown on page 13) the chamber will turn on and off automatically. Up to 2 turn on and 2 turn off settings per day can be set. If you press the start button and it is outside the preset times, the display will highight Energy Saving Mode. When it reaches the first start time, it will start to increase temperature until it reaches the set point and indicate Run Mode.

To turn the chamber on during Energy Saving Mode, press the start button (should be in red state at this stage). The chamber will then start before the pre configured start time but turn off at the next stop time. The chamber will indicate this with the message 'Boost Start' mode until it passes the designated start time and then go into standard time set mode.

If you want to start the chamber during the sleep mode in a manner so it does not turn off, change to manual mode and then press the start button. The chamber will then remain on until the stop button is pressed.

TURNING ON/OFF LIGHTS / EXTRACTION UNITS





If the chamber is configured with internal lights or extraction systems, these can be manually turned on or off by pressing the \triangleright or \square icon. See Output Relay Action -Page 13.

Alternatively you can turn these on at various stages of profile operations as an event action if preferred. Please note in E3 operation, this feature is not available.

OPERATING CHAMBER IN E3 MODE

Please note this page on the manual is specific to the E3 range of Energy Saving Chambers.

The control system on the E3 Cabinet is designed to be energy efficient. The cabinets will only operate between preset hours of 7am and 7pm Monday to Friday, however, these times can be changed as shown on Page 13.

The operator can perform a boost start before 7am (or at weekends) or an extended run time after 7pm, however, the cabinet will then reset to default times to ensure energy saving performance.









The cabinet will always be in run mode between the hours of 7am and 7pm Monday to Friday. In run mode, it will automatically control to the Set Point. If you don't want to warm the cabinet between these hours, turn off the unit with the on/off master rocker switch. Outside of these hours, the cabinet will be in Energy Saving Mode as shown here and will turn the elements and fans off.

Boost start

When in energy saving mode, press the +1hr command until the desired boost time is shown on the right of the icon. Press the start button and the cabinet will turn on for the pre set boost time. The Boost time is displayed and the chamber will turn itself off again at 0 minutes. If the preset start time occurs before it reaches 0 minutes, the chamber will stay on until the next preset Stop time and the message will change to Run mode

Extended time.....

4 hours before the preset turn off time (default 7pm), the +1hr button will appear. Every press will add 1 hr (max of 6) to the shut down time. At 7pm, the message will change to an Added Time' value and turn the power off when the timer gets to zero to allow for extended drying times. The cabinet will then turn back on as usual at 7am the next day and reset any boost and added times to zero. ALARM DIAGNOSTICS





The control system is designed to indicate any faults should they occur.

High Temp Alarm.

If the chamber goes into a high temp alarm mode, it will remove power to the heating elements until it falls below the set point configured in (page 10 Safety Settings).

The chamber temperature and the overheat sensor temperature is shown during this mode on the alarm screen.

If the unit is set as Auto reset, when the temperature falls below the (Value -Hysteresis) it will automatically reset and continue operations. If the unit is set as Manual Reset, you must press the Reset button to restart the unit after the chamber has fallen in temperature to less then (Value -Hysteresis).

Sensor failure. If the probes are damaged, the control system shall automatically turn the heating elements off.

Please contact your supplier for replacement probes.

The message will indicate which probe has failed as each unit has 2 probes, the message shown here shows Control Probe (Probe B) has gone open circuit and Over Heat Probe (Probe A) has gone closed circuit

If you requested a calibration certificate with your chamber, the control system shall give you notification when the calibration is about to expire one month before. If you require a new calibration, please contact your supplier.

By pressing the Cancel Warning, the control system shall not remind you again.

To continue operation but request another reminder 1 week later, press the 'Cancel Reminder, Remind again' icon.

If you purchased an extended warranty with your unit, the control system shall remind you when the warranty is about to expire. If you want to arrange a service visit, please contact the supplier.

By pressing the Cancel Warning, the control system shall not remind you again. To continue operation but request another reminder 1 week later, press the 'Cancel Reminder, Remind again' icon. CONFIGURATION MENU







Enter Config PIN.

Scale

The password pin is 0381 on all models

Depending on chamber specification, some icons may not be displayed on your model. Features can be added by contacting your supplier if required.

After configuring your chamber, press the home screen.

The chamber will then ask if you want to save the configuration. If you have made an error, press cancel and the chamber will go back to the previous configuration.

Decimal places. temperature.	Choose the screen resolution of chamber
Min Set Point.	Set the lowest set point available for the chamber.
Max Set Point.	Set the highest set point available for the chamber
Max Set Point.	Set the highest set point available for the chamb

Default Set Point. Set the set point you want the oven to go to after power failure or reconfiguration. Operators can change from this default set point between the Min and Max set point from the run screen without any passwords.

Set Point Lock . To stop the operators from changing the set point, select 'Y'.

Set chamber to work as either Celsius or Fahrenheit .

Overheat Monitor. When selected as a Value, enter the Max Temperature alarm value which sends the chamber into an alarm condition. The hysteresis value is the temperature the chamber comes out of alarm condition.

Example : Overheat Value 100, hysteresis 5 - The chamber will go into alarm condition at 100 and come out of alarm condition at 95 (100-5).

Overheat Monitor. When selected as a Deviation, enter the deviation band around the set point. This function is useful when the chamber is in profile mode to help protect the process.

Example, Deviation = 5 - The chamber will go into alarm mode if the temperature is outside the deviation band. With a set point of 100, the chamber will go into alarm condition if it falls below 95 or above 105.

Oven Reset Method. In Auto mode, the chamber will reset itself and continue operation as soon as it comes out of alarm mode.

In Manual mode, the chamber will require the operator to press the reset button on the run screen to restart. The chamber will only restart if it is out of alarm condition. This is the safest configuration as it will need a user intervention to restart the chamber.

Power Failure. In Safe mode, should power be lost, upon power being turned back on, the chamber will turn back on and await the operator to press the start button.

In Continue mode, the chamber will turn itself back on and control to the 'Default Set Point' temperature upon power being turned on. (See Temperature Settings above).

The chamber has 2 isolated temperature probes, a control probe which the chamber uses to detect temperature, and an overheat probe, which works independently as a safety monitoring solution, to turn the chamber off under an alarm condition that may occur under fault mode. Both Control and Overheat probes can be calibrated either with a zero/span calibration or an offset calibration.

In zero/span calibation mode, set the chamber to work at the lowest temperature and note the temperature against a calibrated reference probe situated within the chamber. If the readings do not match, apply a zero offset.

Example, the chamber display states 33.4, the reference probe states 33.6, enter +0.2 in this field.

After the zero offset is applied, run the chamber up to the maximum temperature and repeat the process for span offset. The chamber will then compensate a linear offset against the minimum and maximum values.

In Offset calibration mode, run the chamber to

the temperature it is commonly used at. From the reading from an external calibrated probe, compare this reading to the chamber reading. Example, the chamber display states 33.4, the reference probe states 33.6, enter 0.2 in this field.

After the Offset is applied, the chamber will compensate for this over the entire range.

Temperature	(L)) Safety	Calibration
Home Screen		History
Outputs	Upgrades	









¢° (Calibrat	ion & PID	
Select	Control	Overheat	PID
PID Au	totune	On /0	nc
Propor	tional	3.000	
Integra	al	110	
Calib. t	L/tH	114.3	168.1
	G	L)	(mail)
			(B)

SDO	Mon 18 June
Auto	o-Tune Ready
Kp: 3.0000 Ki: 110.1 tH: 168.1 tL: 114.3	State : 0 Power : 20% Duration : Temp: 25.7 Temp Limit: 0.0 Dead Temp: 0 secs
	^

Enter Text Mon 18 Jun

6

J. SP-170.0

Ö[®]

In PID mode, you can manually enter the P, I, and tL and tH value to optimise the control. For fan units, the P is defaulted to 3.000 and for fanless units the Value is defaulted to 1.500. The Integral and tL and tH values are best calculated using the Autotune. Please note the algorithm used in the control system uses Fuzzy Logic. This means these values are constantly updated to provide optimum control.

When selected as Auto, when you return to run screen, the chamber will then automatically calculate the best P, I and tL and tH values for optimum chamber conditions.

Only Auto Tune the chamber if it is not controlling well, if you have an unusual load, or if you replace the control system.

The Auto Tune feature may take up to 8 hours depending on the model. During this time, the chamber will gradually increase the temperature and teach itself the thermal errors hence do not run a heating sequence until it has completed. At the end of an autotune, the chamber will go into sleep mode awaiting the next command.

If power is lost during Auto Tune, it will retain the previous values hence you may need to repeat the process.

You can customise the run screen to best suit the environment with a variety of text colours, background colours and identity tags.

In the Text configuration, you can enter upto 10 characters such as company name, oven name, location, ID no. This text is then displayed on the top left hand side of the run screen.

Enter the Time and Date.

This may be required to update if clock battery runs low.

Select Text Time to Display Set Clock 20: 10 Set Date 20:06:18 Mon Tue Wed Thur Fri Sat <u>Bun</u>

Inter Tex

Display

)-

O [©]	Custo	mise H	ome	
Select	Text	Time	Displa,	-
Text Col	our			_
Backgro	und Colo	our	TEXT	
Screen I	Brightne:	s 7	5%	
Element	t Status	0	n/Off	
		\square	(6 °)	

Function linear Profile 24/7RTC Enable linear Version Activate Event Relay Version Process Timer Enter Minutes 5000



The run screen can be colour selected to suit the environment. The chamber will have default colours set depending on the model, but you can change colours to your preference. Both run screen text and background colours can be changed and as you change the colours, these are represented in the top bar.

Available colours are navy blue, green, grey, black, red, light blue and white.

Screen Brightness. Select between 5% to 100% screen brightness.

Element Status... The start icon changes to a red'ON' symbol during operation. The icon can either be solid red when set to 'OFF' or flash at the same frequency power if applied to the heating elements if set to 'ON'.

Timer Settings.

If your unit has the timer function license, you can turn the timer modes on and off with the Enable Timer Icon. This turns on all 3 different timer functions. When activated, the run screen will have the timer selected (see page 3).

Only 1 timer function can be active at one time. Select which mode you prefer from either Count Down Timer, Profile Mode or Real Time Clock. To change modes, go into the settings and highlight your preference. This will change the runs screen as shown on page 3.

If your unit does not have the timer symbol shown on the configuration screen, the license if not activated. To purchase a Timer License Code, phone your supplier.

Count Down Timer Mode.

Enter the time period in minutes you want each cycle to be (max 5000 minutes)

Event relay: Select if you want to trigger a siren or beacon (if fitted) at the end of the timer cycle.







Profile Mode. Max 8 Stages.

The chamber can run up to 8 stages of profile control.

Stage 1 is the set point to climatise the chamber to the starting temperature

At each stage, please select if you require hold back, or, if the event relay is activated for control of sirens or beacons. If hold back is selected and the chamber falls outside the expected temperature, the profile is put on hold until it returns back to the expected condition (ie if the chamber door opens). If this is not selected, the time period continues as configured depending on the chamber conditions.

To configure the next stage, select Profile End to No. If selected to Yes, it stops further stages being entered.

Select the next temperature value desired for the next stage.

Highlight Time and enter the time period you require to ramp to this temperature. The Ramp rate is automtically calculated as the Time Value is changed. If you want to Dwell for a set period of time, enter the same Temperature Value as the previous stage.

Example of the configuration to perform the graph on the left.

Temp	50				
Hold Ba	ck	N	Event	N	End N
Temp	100				
Ramp	2.000				
Time	25				
Hold Ba	ck	N	Event	N	End N
Temp	100				
Ramp	0.000				
Time	20				
Hold Ba	ck	Y	Event	N	End N
Temp	150				
Ramp	5.000				
Time	10				
Hold Ba	ck	Y	Event	N	End N
Temp	150				
Ramp	0.000				
Time	30				
Hold Ba	ck	Y	Event	Y	End N
Temp	30				
Ramp	-2.000				
Time	60				
Hold Ba	ck	Y	Event	Y	End Y
END					
END					
	Temp Hold Ba Temp Ramp Time Hold Ba Temp Ramp Time Hold Ba Temp Ramp Time Hold Ba Temp Ramp Time Hold Ba Temp Ramp EnD END	Temp 50 Hold Back 2000 Time 2000 Time 25 Hold Back 7 Temp 100 Ramp 0.000 Time 20 Hold Back 7 Temp 150 Ramp 0.000 Time 30 Hold Back 7 Temp 150 Ramp 0.000 Time 30 Ramp 2.0000 Time 30 Ramp 2.000 Hold Back 7 END 500	Temp 50 Hold Back N Temp 100 Ramp 2.000 Time 25 Hold Back N Ramp 0.000 Temp 100 Ramp 0.000 Time 20 Hold Back Y Temp 150 Ramp 5.000 Time 10 Hold Back Y Temp 150 Ramp 0.000 Time 30 Hold Back Y Temp 30 Ramp 2.000 Time 60 Hold Back Y END END	Temp 50 Hold Back N Event Temp 100 Event Ramp 2.000 Time 20 Time 20 Event Temp Ramp 0.000 Time 20 Time 20 Event Temp Hold Back Y Event Event Temp 150 Ramp 5.000 Time 10 Hold Back Y Event Ramp 0.000 Time 10 Hold Back Y Event Event Temp 150 Ramp 0.000 Time 30 Event Event Temp 30 Event Event Temp 30 Event Event Hold Back Y Event Event END Event Event Event	Temp 50 Hold Back N Event N Temp 100 Ramp 2.000 Time 25 Hold Back N Event N Hold Back N Event N Temp 100 Ramp 0.000 Time 20 Hold Back Y Event N Temp 150 Ramp 5.000 Time 10 Hold Back Y Event N Temp 150 Ramp 0.000 Time 10 Hold Back Y Event N Temp 150 Ramp 150 Ramp 2.000 Time 10 Hold Back Y Event N Temp 30 Ramp 2.000 Time 10 Hold Back Y Event Y Event N Temp 30 Ramp 2.000 Time 40 Hold Back Y Event Y END Even

PROGRAMMING 10 X 8 STAGE PROFILE

siren/beacon activated at the end of Stage 6 (Fall) Chamber now goes into stand by mode



Note that '10 Menu and Cyclic Profile Control' is not a standard feature. To upgrade to this feature, please contact your supplier and ask for upgrade /10PRO.

Each Profile is set up in the same manner as shown above. To edit each menu and store another profile (up to 10) please follow these steps.

Press Profile and then Profile again to open Profile Select page.

Highlight 1 of 5 profiles or press down to show 6 to 10 profile.

Press Edit name and change name using arrows.

Press Config icon to save name.

To change repeat cycles, press the profile name and watch the number in the box rise which equated to how many cycles occur. You can select 1 to 10 repeats of 'inf' for continuous repeat mode (cyclic control)

Press Confirm to change profile settings againt this new name.

Configure this profile as required.

24/7RTC

PROGRAMMING CYCLIC MODE



Edit the name of 1 of the available 10 profiles.

Press the number in the [?] repeatedly until it gets to [inf].

Press confirm to Edit this profile.

Hold Back

Temp 37

Hold Back

Hold Back

Hold Back

Hold Back

Temp 37

Temp 44

Ramp 0.000

Temp 44

Ramp 0.000

Time

Ramp 0.700

Time

Time

Ramp -0.700 10mins

Time

As an example, if you want to cycle the chamber between 37 deg C for 1 hour and 44 deg C for 2 hours.

Temp 37 (climatise the chamber initially to the first Temp Set point)

N

End N

End N

End N

End N

End Y

Event N

Event N

Event Ν

Event

Event N

Note if you want to run the unit as a cyclic chamber, the final set temperature of the last stage, must be the same or lower than the 2nd stage temperature set point.

Ν

Ν

Ν

N

Ν

60mins

10mins

120mins



The chamber can be configured to turn itself on and off twice per day.

Enter the start and shut down times as requested.

If an invalid start and stop time is entered, it will highlight in red and will not allow you to continue until a valid time is entered.

If you only require it to turn on and off once per day, leave the Start 2 and Stop 2 to 00:00.

The trend page can be set to run as a 2, 6, 12 or 48 hour window.

The longer the time on the viewing window, the less sampling rate. If you have a quick responding application we would recommend you set this for a 2 hour duration.

On upgraded models with Data Export features, enter the sample rate between 1 and 300 seconds. Enter a name for the data to be saved under. If you have more than 1 chamber on site running G Viewer, you need to enter a unique name for each chamber. This name is shown on the presentation data so enter a name that you recognise.

The chamber may be built with an additonal siren / beacon or with an oven light that you can control via the touch screen.

Only 1 action can be active at one time.

In Alarm mode, the siren will come on with a high temp alarm.

In Event mode, this is linked to the count down timer or on the profile control mode. If you set Event active, the siren or beacon will come on at that sequence. This is used to highlight the end of a process timer with a visual indication and/or siren with the option AWA.

Alternatively, in profile mode, this could be used in conjunction with a door lock, to keep the door locked at various times of the cycle.

In manual mode, the chamber light, or extractor will be turned on and off via the run screen button.

🛱 Timer Settings								
Function Timer		Profile		24/7RTC				
Mon Start 1	08		30					
Mon Stop 1	12		00					
Mon Start 2	13		15					
Mon Stop 2	18		10	•				
				İ				

😥 🖗 Timer Settings							
Function Timer		Profile		24/7RTC			
Mon Start 1	08		30				
Mon Stop 1	12		00				
Mon Start 2							
Mon Stop 2			10	\checkmark			
	(ᡟ		O			

💇 History Settings						
Select Sample Rate Du	ration					
10 Seconds	2 Hours					
30 Seconds	6 Hours					
60 Seconds	12 Hours					
4 Minutes	48 Hours					
	6					









The upgrade key is password protected and used at manufacturing stage, or, to upgrade features such as Timers.

Please do not change any settings in this menu as it may cause damage to the chamber.

The changes will be saved to the internal memory and this will void your warranty.

Contact your supplier if you need to perform any firmware upgrades. Your serial number will be required to generate the license key.

To Exit the configuration menu, press



The chamber will then ask if you want to save any amendments as the current configuration.

If you have made errors on the configurations, press 'Discard' the chamber will go back to the previous configuration.



The touch screen can be configured to power up with your own logo and company details.

This can only be done via the manufacturer so please contact your supplier for further details.

The chamber comes with a standard 2 year warranty. Contact your supplier if you want to extend the warranty within the first months of use.

If your chamber comes with a factory calibration, it will remind you on the run screen one month before the calibration certificate expires.

To be completed by customer.

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Model Code Serial Code Date Received Current Rating Voltage

Dealer Stamp



