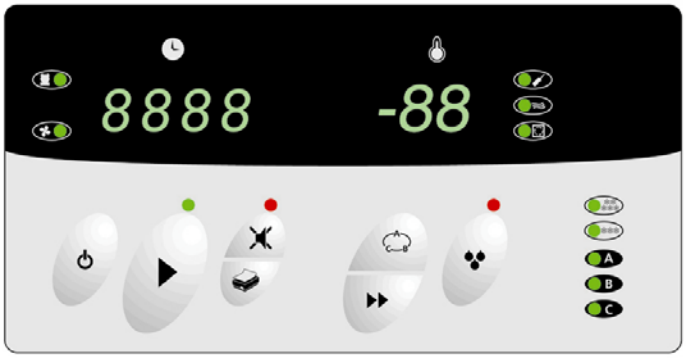
# Mk4 BLAST CHILLER CONTROLLER OUTLINE OPERATING GUIDE




## *Controller Operation – Basic Functions*

Sleep / Standby Mode 

Program Chill / Freeze Program Start / Stop  (Green LED illuminates during Program and Hold modes).

End of Cycle Alarm Mute Button  (Red LED illuminates once audible End of Cycle alarm has been muted).

Print Data  (Press once to print data / Press and Hold for 3 seconds to clear memory).

## *Controller Operation – User Setting Procedure*

Change Program  (Program changes from A ⇒ B, B ⇒ C and C ⇒ A. Appropriate Program LED's illuminate)

Change Program Parameters  (Press and Hold for 3 seconds)

- Minutes display flashes – increment minutes value  - save parameter value. 
- Hours display flashes – increment hours value  - save parameter value. 
- Probe Temp. flashes* – increment Temp. value  - save parameter value. 
- Air Temp. flashes – increment Temp. value  - save parameter value. 
- Hold Temp. flashes – increment Temp. value  - save parameter value. 
- Select Hard / Soft Chill – toggle parameter value  - save parameter value. 
- Set Print Sample rate – increment parameter value  - save parameter value and exit setting mode. 

Initiate Manual Defrost in Standby / Hold Mode  (Red LED illuminates during defrost)

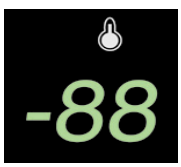
* Hours / Minutes parameter values set to 00:00

## *Displays and Indications*

 Compressor LED

 Evap. Fan LED

Time Display



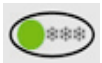
Temp. Display

 Probe Temp. LED

 Air Temp. LED

 Hold Function LED

 'Hard' Chill LED

 'Soft' Chill LED

Program LED's

**User Programme Settings.**

The following is a list of the parameters that may be adjusted by the user in programmes A, B or C.

Cooling Time. Control Programme (Hrs : Mins)

Duration of Cooling Phase for a Cooling Time Control Programme.
If set to zero, the Controller automatically assumes a Food Temperature Control Programme.

Food Temperature. Control Programme (°C).

Desired Food temperature at completion of the Cooling Phase.
Required when a Food Temperature Control Programme is selected.
Measured by the Food probe inserted into the product to be cooled.

Cooling Air Temperature. (°C).

Counter or Cabinet internal air temperature during the Cooling Phase.

Hold Air Temperature. (°C)

Counter or Cabinet internal air temperature during the Hold Phase.

Cooling Type ('Hard' or 'Soft'Chill).

Selects cooling type function, which in Soft Chill raises the Air Temperature during the latter part of the Chill Phase.
Soft Chill can only be selected if the Programme Settings – Food, Chill Air & Hold Air Temperature are above the value of the Soft Chill Limit

Printer Sample Rate.

Selects the interval between Air or Food temperature samples being recorded during the cooling Cycle and Hold Mode.

**Programme Setting and Control Parameter Adjustment.**

The user can tailor the Programme Settings to suit the particular product to be cooled.
Settings can be saved in up to three programmes, stored by the controller (A, B or C).
The Controller is pre-set with three typical Programmes.

<u>Chill Programme (P15 = 0)</u>

| | Programme A | Programme B | Programme C |
|---|---|---|---|
| Time | 1 Hr 30 min | 0.00 Hrs | 1 Hr 30 min |
| Food Temperature Probe | NA | +3°C | NA |
| Air Temperature Probe | -10°C | -10°C | -10°C |
| Hold Temperature | +3°C | +3°C | +3°C |
| Chill Mode | HARD | HARD | SOFT |
| Print Sample Rate | 3 | 3 | 3 |

<u>Chill / Freeze and Freeze Programme (P15 = 1)</u>

| | Programme A | Programme B | Programme C |
|---|---|---|---|
| Time | 3 Hr | 0.00 Hrs | 1 Hr 30 min |
| Food Temperature Probe | NA | -21°C | NA |
| Air Temperature Probe | -30°C | -30°C | -10°C |
| Hold Temperature | -21°C | -21°C | +3°C |
| Chill Mode | HARD | HARD | SOFT |
| Print Sample Rate | 3 | 3 | 3 |

Control Parameters alter the characteristics of the chilling or freezing control process. They should not be adjusted without a good understanding of the operation of the Controller.
If no button is pressed for a period of two minutes the controller will revert to the standby mode without saving any of the modified settings.