

## CryoLogic 8800i

The CL8800i Temperature Controller can be PREPROGRAMMED with up to 16 temperature programs. It is also PROGRAMMABLE when operated with a computer (IBM compatible) using our proprietary software (CryoGenesis™ V4 and V5 only). It includes a temperature logging module and allows actual temperature progress to be monitored and recorded in the computer (when used). It is ideal for critical clinical applications where precise control over a wide temperature range is desired, and quality control recording is mandatory.



- Internal Temperature Acquisition Circuitry
- Control Range: +40°C to -120°C
- Preinstalled Programs: 16
- Min. Temperature Step Size: 0.04°C
- Communication Ports: RS-232 and USB
- Dimensions: 90 x 195 x 225mm
- Weight: 1.9kg
- Product Code: 8800 TC

### 4 SAMPLE PROGRAMS Chip Name: DEMO\_WWW (For Model CL8800i)

RATE (°C/MIN)	TARGET TEMP (°C)	HOLD TIME (MIN)	BELL
<b>PROGRAM 0</b>			
<b>HUMAN EMBRYO -PROH</b>		<b>Start Temp:</b>	<b>24.0 °C</b>
		<b>Final State:</b>	<b>FreeFall</b>
2.00	-7,0	1,0	X
0.00	-7,0	9,0	
0.30	-60,0	0.0	X
<b>PROGRAM 1</b>			
<b>EPIDYDIMAL SPERM</b>		<b>Start Temp:</b>	<b>36.0 °C</b>
		<b>Final State:</b>	<b>FreeFall</b>
5.00	18.0	1.0	
0.50	6.0	5.0	
10.00	-8,0	3.0	
5.00	-40,0	0.0	
<b>PROGRAM 2</b>			
<b>BOVINE EMBRYOS - ETHYLENE GLYCOL</b>		<b>Start Temp:</b>	<b>- 6,5 °C</b>
		<b>Final State:</b>	<b>Hold</b>
0.00	-6,5	8.0	
0.50	-35,0	0.0	
<b>PROGRAM 3</b>			
<b>PLACENTAL BLOOD - GLYCEROL</b>		<b>Start Temp:</b>	<b>33.0 °C</b>
		<b>Final State:</b>	<b>FreeFall</b>
4.00	4.0	5.0	
2.00	-8	4.0	
0.65	-120	0.0	X

## INTERNAL (PREPROGRAMMED) TEMPERATURE PROGRAMS

Programs for Pre-installation are normally supplied by the customer. These Programs should include a STARTING temperature (°C), and a FINAL STATE for the program (Hold or FreeFall). Note: the temperature continues to be monitored / displayed past the end of the program. Each ramp should contain a RATE of temperature change (°C/min), a TARGET temperature (°C) for that ramp, and a HOLD period (min) for maintaining the target temperature before continuing to the next ramp. The programs may also show some text to indicate the application of the particular program, and in the case of CL8800i programs a BELL (X) for sounding at the end of particular ramps (after the Hold time) may be added.

When the final state is Hold the temperature controller will maintain the last specified target temperature until the program is interrupted or LN2 is exhausted. When a final state of FreeFall is selected the controller will allow the temperature to drop from the last specified target temperature towards the temperature of Liquid Nitrogen (-196°C), at a decreasing rate governed by the specimen temperature, the nature of the chamber, and the load. If you need more information on how to design temperature programs, contact CryoLogic.

Programs can be replaced. CryoLogic provides a programming service for a modest fee. Submit your new program requirements in the format described above, clearly identify the machine for which the programs are required, including Type and Serial Number. The new program information is installed on a chip and is despatched with listings and graphs, and instructions for removing the old chip and installing the new one.

## CRYOGENESIS V5 FOR WINDOWS - TEMPERATURE CONTROL SOFTWARE

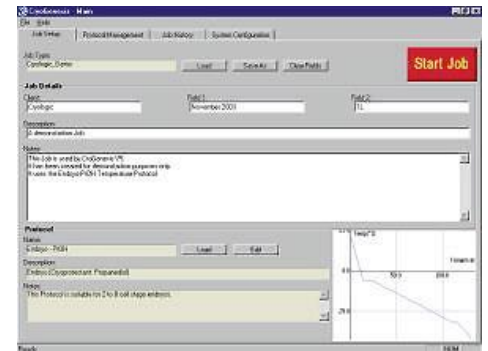
CryoGenesis™ V5 is temperature control software developed by CryoLogic for use with its FREEZE CONTROL® programmable temperature controllers. It has a new, simple user interface, advanced record management, and includes USB support.

### WITH CRYOGENESIS V5:

- Customised Temperature Protocols can be created
- Protocol execution is monitored and controlled
- Information about freezing operations can be recorded
- Freezing operations are quickly and easily started
- Recorded Cryochamber temperatures can be displayed
- A complete history of all past freezing operations is kept

CG V5 runs under Windows 95, 98, ME, NT, 2000 and XP operating systems.

It can be run concurrently with other computer tasks.



## CRYOGENESIS V4 FOR WINDOWS - TEMPERATURE CONTROL SOFTWARE

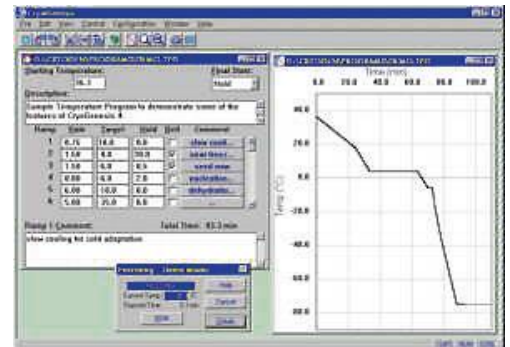
CryoGenesis™ V4 is temperature control software developed by CryoLogic for use with its FREEZE CONTROL® programmable temperature controllers.

### WITH CRYOGENESIS V4:

- Customised Temperature Protocols can be created
- Protocol execution is monitored and controlled
- Recorded Cryochamber temperatures can be displayed

CG V4 runs under Windows 3.1, 95, 98, or ME operating systems.

It can be run concurrently with other computer tasks.



## CryoLogic Chambers

A range of FREEZE CONTROL® cryochambers are available; each is designed to accommodate particular specimen containers. Cryochambers provide easy access during loading, manual seeding, inspection, and removal of specimens.

Standard or fast models can be selected to suit different applications, with cooling rates appropriate for most user protocols. Cooling rates from 0.01°C/min can be specified, and temperature can be held at any point in the control range. Cryochambers are interchangeable.

### FREEZE CONTROL® Cryochambers are unique:

- The cylindrical design ensures symmetrical heat transfer from all specimens to liquid nitrogen.
- Specimen temperature is measured by a high grade precision platinum resistance temperature sensor permanently mounted in the core.
- Temperature is continuously monitored and regulated to precisely maintain specimen temperature.
- The highly conductive material used for the cryochamber ensures a very high degree of temperature uniformity of each specimen.

Fast 60 Ampoule  
Cryochamber



Fast 23-Slot  
Cryochamber

Standard 23-Slot  
Cryochamber



### CARRY CASES

Horizontal or Upright carry cases are available

- Rugged construction for shipping
- Convenient for transporting and storage



### CRYOBATHS

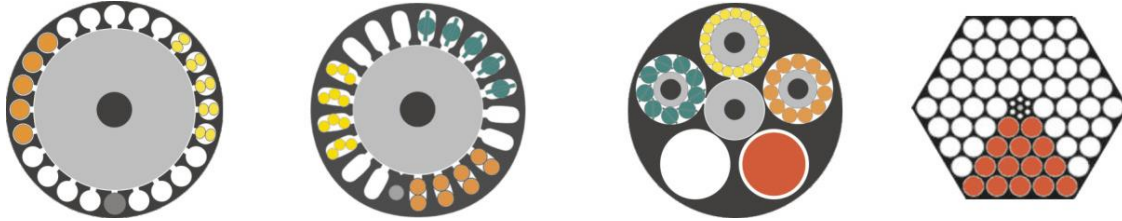
Insulated liquid nitrogen containers with lids

available in two sizes.

- 1.5 L (~2 hours operation time)
- 3.8 L (~4 hours operation time)

## CUSTOMISED CORES

Cores are fixed in the cryochamber and cannot be removed. Core configurations accommodate a range of straws and ampoules.



	23-Slot Core	20-Slot Core	5-Slot Core	60 Ampoules Core
Capacity	46 x 0.25ml straws 23 x 0.50ml straws	20 x 0.30 or 0.50ml CBS™ straws 60 x 0.25ml straws 40 x 0.50ml straws	5 x 5.0ml ampoules 10 x 2.0ml ampoules 15 x 1.0ml ampoules 85 x 0.25ml straws 55 x 0.50ml straws 45 x 0.30 or 0.50ml CBS™ straws	60 x 1.0ml ampoules 60 x 2.0ml ampoules
Maximum Cooling Rates (unloaded)	<b>Standard Models</b>			
	9°C/min at 20°C 6°C/min at -40°C	8°C/min at 20°C 5°C/min at -40°C	6°C/min at 20°C 4°C/min at -40°C	
	<b>Fast Models</b>			
	16°C/min at 20°C 10°C/min at -40°C	14°C/min at 20°C 9°C/min at -40°C	12°C/min at 20°C 7°C/min at -40°C	5°C/min at 20°C 3°C/min at -40°C



specifically designed bigger freezing chambers