



# Cryo-Logic 8800



The CL-8800 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

## Information About 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 CL8800 programs a BELL (X) for sounding at the end of particular ramps (after the Hold time) may be added.

Below is a listing of a set of 4 Sample Programs. Chip Name: DEMO\_WWW (For Model CL8800)

| 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>Epididymal 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              | - 8.0                                   | 4.0                 |                 |
| 0.65              | - 120.0                                 | 0.0                 | X               |

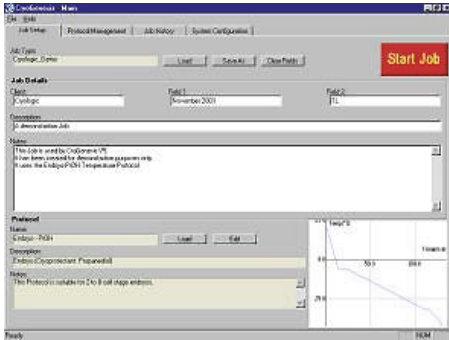
When the final state is Hold the temperature controller will maintain the last specified target temperature until the program is interrupted or LN2 is exhausted. When a final state of FreeFall is selected the controller will allow the temperature to drop from the last specified target temperature towards 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.

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## CryoGenesis™ V5 for Windows – Temperature Control Software



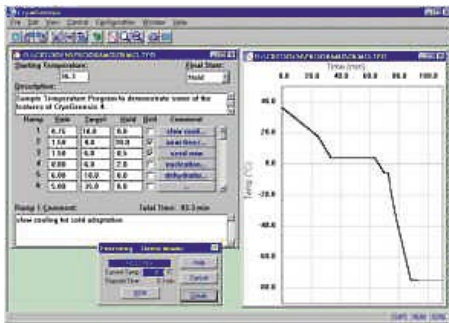
CryoGenesis™ V5 is temperature control software developed by CryoLogic for use with its FREEZE CONTROL® programmable temperature controllers. It has a new, simple user interface, advanced record management, and includes USB support.

### 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.