M505CE Quick Start Guide

WARNING!

Avoid Injury

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Low Temperature

The User Manual contains important warnings and safety instructions

The M505CE Control System can monitor and control both the liquid nitrogen level and the vapor temperature range in the IC Biomedical Cryostorage Freezer you have selected.

The features are designed to provide a safe environment for samples while at the same time tracking all relevant information associated with the freezer. This control provides a complete historical record of the environment in your unit and therefore, the environment in which your samples have been stored in this system.

Before beginning installation or operation of an IC Biomedical Cryostorage Freezer with M505CE Control System, make sure that you read and understand the User Manual that contains safety instructions for the cryostorage unit you will be using with this controller.

Please be aware that IC Biomedical can accept no liability for controllers purchased and installed by a third party, only for the vessel as supplied.

- The fascia panel incorporates a 2 line by 20-character OLED display, eight switches and two LEDs.
- Four of the switches (+, -, ↑ and ↓) in conjunction with the OLED display allow the user to program the various settings for timers, alarms etc.
- Other switches allow the Fill Solenoid Valve to be turned on and off, and the audible alarm to be muted.
- Six of the switches are numbered to allow the codes to be entered for access control.
- One LED (Red) gives a visual indication of an alarm condition.
- The other LED (Blue) is used to indicate when the Fill Solenoid Valve is energised.

Freezer Installation

- Connect a transfer line (included with freezer) from an LN2 supply tank to the fill connection at the rear of the freezer.
- The liquid nitrogen supply pressure at the inlet to the freezer should be in the range of 10 psig (0.7 bar/69 kPa) to 22 psig (1.5 bar/152 kPa) for optimum performance. Higher operating pressures will increase transfer losses and create excessive turbulence of the liquid in the freezer, which can generate false signals to the liquid level controller causing the freezer to under fill. In “liquid phase” storage applications, excessive turbulence can cause splashing which could result in personal injury.
- After the transfer hose is securely coupled to the freezer and supply tank, ensure all connections are leak free by opening the valve of the LN2 supply tank and apply a soap and water solution to each field joint. You should not see bubbles forming at any joint. Wipe away excess soap and water when finished.
- Connect the power supply to the M505CE Control System and then plug the power supply into a surge-protected wall outlet.
- When the freezer is powered up, the control display will illuminate and the fill valve will open to allow LN2 to enter the freezer. LN2 will start flowing into the freezer cooling it.
- It is recommended that the freezer be allowed to cool for 48 hours before putting any product in the freezer.

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