

## CS200 Quick Start Guide



**WARNING!**

Avoid Injury

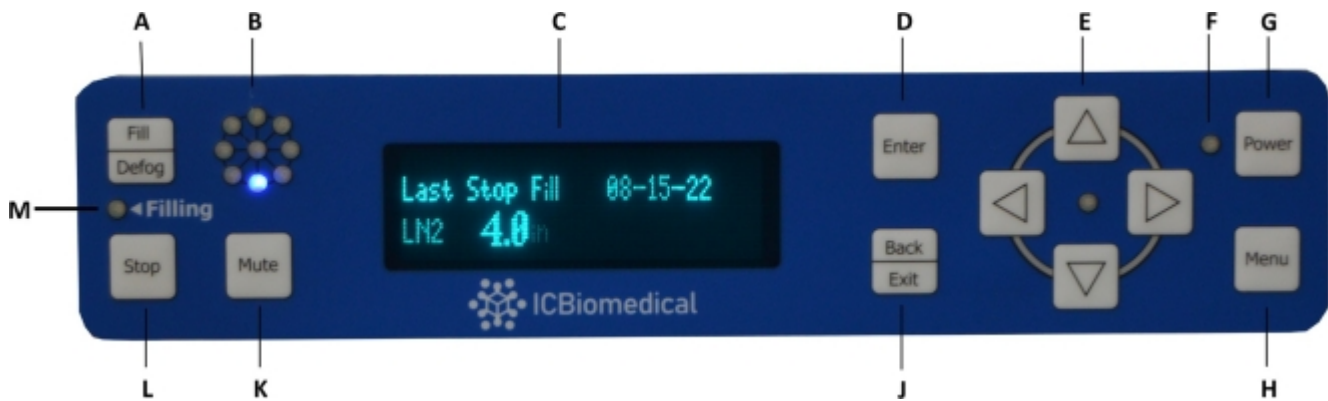


**WARNING!**

Low Temperature



The User Manual contains important warnings and safety instructions



<b>A</b>	Fill / Defog button:	Opens the fill valve.
<b>B</b>	Status Wheel	Gives “at a glance” status of the operating conditions of the freezer.
<b>C</b>	Display	Gives continuous information regarding operating conditions including LN2 Level, Temperature, Alarms and Events.
<b>D</b>	Enter button	Selects a menu choice or saves a setting.
<b>E</b>	Navigation buttons	Allows navigation through the menu or changes to a setting.
<b>F</b>	Power LED	Gives the status of the state of power.
<b>G</b>	Power button	Gives the status of the state of power.
<b>H</b>	Menu button	Accesses and exits the menu system
<b>J</b>	Back / Exit button	Provides single step back-out of the menu or cancels a setting change.
<b>K</b>	Mute button	Mutes the audible alarm.
<b>L</b>	Stop button	Closes the fill valve
<b>M</b>	Filling LED	Indicates if the valve is open or closed.



The CS200 SERIES 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 CS200 SERIES 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.

## 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 CS200 SERIES 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.
- Should any alarms occur, contact your IC Biomedical Distributor.

**Note: Liquid level and temperature sensors are positioned by during the manufacturing of the freezer. If these need to be adjusted, refer to the CS200 SERIES technical manual or contact your IC Biomedical Distributor.**

