

# Isothermal Carousel

Patented design eliminates liquid nitrogen in the storage area.

## What this means to you:

- Dry storage greatly reduces the risk of cross contamination.
- Added user safety by eliminating liquid nitrogen contact.
- Liquid nitrogen temperatures with no liquid nitrogen contact.
- Higher storage capacity than other carousel-type freezers.
- Square lid opening allows access to square racks.
- Accommodates all standard rack systems.
- Industry best temperature uniformity.
- Easily remove one rack at a time.



## Why is dry storage important?

**Safety.** Storage in liquid nitrogen can make vials shrink. This may cause liquid nitrogen to seep into the vials, which on rewarming, expand and subsequently explode as nitrogen vaporizes inside the vials. Dry storage eliminates this possibility. Also, the Isothermal design provides added user safety by eliminating contact with or splashing of liquid nitrogen.

**Cross Contamination.** Studies have shown that viral, bacterial and fungal pathogens can survive after suspension in liquid nitrogen. Infected samples can cross contaminate other samples in the same liquid nitrogen tank. Dry storage greatly reduces the possibility of cross contamination.



## Hatch-style lift off lid with built in holder

- Rotation of the carousel by the unique ratchet handle on top of the freezer reduces operator hazard.
- Easily remove one rack at a time.
- No need to remove one rack to get the one needed.
- No unnecessary exposure to room temperatures helps to maintain critical temperature stability.
- Square lid opening allows access to square racks and helps reduce LN2 consumption.
- Removable console allows access to storage area in case of emergency.



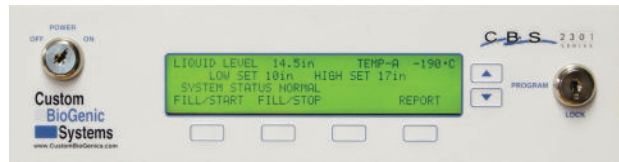
## Our 2301 controller is time tested, reliable and designed to keep your sample storage safe and secure.

### New 16 Port Connector

- 0-5 volt outputs provide temperature & level data for connection to existing alarm/monitor system.
- 4-20 mA outputs provide temperature & level data for connection to existing alarm/monitor system.
- Sequential and One-Fill-All-Fill input and output connection for filling systems.

### New two level temperature display option

- Temp. A displays temperature at the lid, approximately 11" (27.94 cm).
- Temp. B displays temperature inside the storage space, approximately 20" (50.80 cm).



### Additional Features

- Records 12 alarms & events such as fill start, fill stop, etc. with dated time stamp printed or displayed.
- Ethernet and auxiliary RS485 for future expansion.
- Dedicated 24 Vdc signal output to activate a third 24 Vdc valve to control the LN2 supply.
- Global Remote Alarm – Dry contact that switches during any alarm condition.

## Specifications / Capacities

	V3000AB-C	V3000EHAB-C	V5000AB-C	V5000EHAB-C
N2 Capacity (liters)	70	89	93	140
External Width in (mm)	37 (939)	37 (939)	47 (1,194)	47 (1,194)
External Depth in (mm)	48 (1,219)	48 (1,219)	54 (1,372)	54 (1,372)
External Height in (mm)	44.5 (1,130)	54.5 (1,384)	49.5 (1,257)	54.5 (1,384)
Usable Interior Height in (mm)	27 (686)	36 (914)	29 (737)	34 (864)
Usable Interior Diameter in (mm)	29 (737)	29 (737)	38 (965)	38 (965)
Maximum 2ml vial capacity	16,800	21,000	36,400	42,000
Maximum 50ml bag capacity	876	1,168	1,736	1,984