


## ULTRA LOW TEMPERATURE CHEST FREEZER



Designed to meet the demanding requirements for scientific and laboratory research. Advanced engineered design incorporates the latest in cabinet, refrigeration, temperature control and monitoring features. Provides energy efficient, convenient, safe and reliable performance for optimal storage temperature environments necessary for a wide range of life science, pharmacy, biological, medical, clinical, and industrial applications.

### ADVANCED SELECT™ CONTROL SYSTEM AND FEATURES:

- Advanced PLC (programmable logic) microprocessor controller (door mounted eye level display and interface) includes real time clock, event logging alarm history, advanced alarms, alarm-test, and memory functions.
  - Password protection (2 levels, setpoints and parameters) security for power, temperature and alarm settings.
  - Key pad, multifunction, menu driven, LCD display for trouble free access on monitoring of all control features.
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- Temperature adjustable in 0.1°C increments. Temperature display to 0.1°C increments.
  - Control probe located in rear wall bottom left corner for optimal and accurate temperature measurement and control.
  - Power on/off switch located in protected area on back of cabinet.
  - Power failure alarm (audible and visual). Time selectable.
  - Door ajar indicator (audible and visual).
  - Remote alarm contact connections located on back of cabinet for easy installation and access.
  - Compressor protection monitors compressor performance and automatically adjusts to internal and external conditions.
  - Delayed startup (programmable) delays freezer restart after power interruption.
  - Exclusive voltage boost/buck system ensures proper operating voltage to operating system. Reduces incoming line voltage if too high and boosts line voltage if too low. Surge protection minimizes voltages spikes; protects system electronics
  - Audible and visual Hi/Lo temperature alarms are user settable via controller keypad.
  - On-board system and maintenance diagnostics continuously monitors system sensors to ensure optimal freezer performance.
  - Ambient temperature monitor and alarm indicate room temperature conditions.
  - 24-hour back-up microprocessor battery continuously recharged. Includes low battery indicator.
  - 2-10 VDC cabinet air temperature transmitter.
  - Dry erase board and pocket storage organizer for user comments, notes and documents storage. Dry eraser and markers included.

## SELECT™ REFRIGERATION SYSTEM

- Our Select™ Refrigeration system is powered by an advanced low noise high performance cascade refrigeration system using two next generation 1 HP hermetically sealed compressors.
- Exclusive engineered super capacity (tri-tube) capillary tube system (patent pending) delivers refrigerant on demand matching with advanced heat exchanger design providing optimal heat removal and superior low temperature performance.
- Evaporator design enhances refrigerant flow increasing the overall efficiency, temperature uniformity and recovery performance.
- Air cooled condenser, high capacity with large surface area. Washable condenser filter maintains optimal efficiency and performance.
- Clean filter indicator advises when to remove and clean. Easy service and maintenance.
- CFC-Free, commercially available refrigerants are used: R404a in first stage; R508b in second stage.

## ADVANCED CABINET CONSTRUCTION AND FEATURES:

- CFC free closed cell urethane foam insulation 4" thick on cabinet front, back, sides and floor. Lid is 2" thick foam insulation. Includes removable 2" thick sublid
- High impact, smooth scratch and corrosion resistant painted white exterior and smooth white painted interior provides attractive appearance and easy to clean surfaces. Cabinet base, lid handle and control bezel painted in gray
- Combination cabinet mounted multi-bulb and lid perimeter gaskets provide multiple points of lid sealing
- (2) 1" diameter access ports in chamber reinsures reliable frost resistant performance and enhances energy efficient cold performance for long term sample security and storage
- Large internal full capacity storage compartment compatible for use with optional stainless steel storage racks, fiberboard boxes and dividers for multiple storage needs. Holds up to 12 vertical racks.
- On-Off with circuit breaker located on the back of the cabinet
- Cold wall evaporator design provides superior refrigerant flow and maximizes cooling power by ensuring the evaporator is always 100% in contact with the outer freezer chamber wall, maximizing cold transfer heat removal
- Easy open handle allows one handed opening and closing
- Key lockable outer lid for sample security

## SPECIFICATIONS FOR ULTRA LOW TEMPERATURE CHEST FREEZER

Model	NSSCF051WWW/5
Temperature Range:	-50°C to -86°C
Capacity (CuFt) (L)	4.6 (131)
Noise Level	≤ 67dBA
Energy Consumption at -80°C (KWH/Day)	≤ 20.8
Vial Capacity (2ml.)	8,400
No. of Racks for 2" boxes	12
No. of 2" boxes per rack	7
Total no. of 2" boxes	84
Interior Dimensions (W x D x H)	23.75" x 21.6" x 17.6" (590 x 540 x 440) mm
Overall Dimensions* (W x D x H)	32" x 30.6" x 44.25" (800 x 770 x 1130) mm
Shipping Dimensions (W x D x H)	41.4" x 43" x 49.3" (1030 x 1080 x 1230) mm
Shipping Weight	685 lbs (311 kg)
Power Supply	230 V, 1 Ph, 50Hz, 12A

\*Exterior dimensions include allowances for hinges, door handle and control panel.

## ACCESSORIES FOR CHEST FREEZER:

Part No.	Description
NSR244	Stainless Steel Rack for Boxes Holds (16) 2 inch boxes
NSR334	Stainless Steel Rack for Boxes Holds (12) 3 inch boxes
RS485ULT	RS485 Communications
PHONEDIALER	Phone Dialer
NORSOFTULT	Ethernet 10 baseT (HTTP) control monitoring web card (factory installed)
LN2ULT	LN2 Backup System (Factory Installed)
CO2ULT	CO2 Backup System (Factory Installed)

**Authorized Distributor:**