



New Brunswick Scientific
Where Quality and Innovation Have Become Tradition

NBS -86°C Freezers

Space Saving, Energy Efficient, Quiet Running and Dependable

INNOVA FREEZERS WITH VACUUM

UP TO 30% MORE STORAGE CAPACITY — SAME FOOTPRINT

NBS' Innova freezers combine Vacuum Insulation Panel technology with our efficient cooling technology to provide the ultimate in space and power efficiency.

INNOVA FREEZER ADVANTAGES

- **Greater Internal Storage Capacity** in the same footprint through use of Vacuum Insulation Panel technology
- **Inner Door Seals Prevent Cold Air Loss** and eliminate need for a door heater, resulting in lower energy bills and less maintenance
- **Higher-Grade Seals** for outer door and cabinet; and better-quality internal lids on chest models
- **Heated Air Vent with Plunger** quickly clears any ice build-up and prevents vacuum formation for easy opening throughout the day
- **Inner Doors Lift Off Hinges Without Tools** to simplify removal for cleaning
- **Adjustable Leveling Feet** provide stability on uneven floors
- **Two Unique Upright Models Fit in the Tightest of Labs.** Innova U101 fits on or under the bench, or can be stacked two high, shown at right. Innova U360 is an ultra-slender model with advanced new controller and sophisticated display. (Lift the flap at right)



Keep your samples safe and accessible only by you with Model U101 — a unique, personal-sized upright freezer that fits on or under your lab bench, or can be stacked two high.

CAPACITY & DIMENSIONS

Model No. Style	Catalog #	Electrical	Capacity		Max. Box Capacity			Dimensions (H x W x D)†		Shipping Wt.
			L	Cubic Ft.	2"	3"	4"	External	Internal	
U101 Upright	U9420-0000	120 V, 60 Hz	101	3.6	60	36	24	32.7" x 35.4" x 22.3" 83 x 90 x 56.6 cm	25.2" x 18.9" x 13" 64 x 48 x 33 cm	256 lbs 116 kg
	U9420-0001	230 V, 50 Hz*								
U360 Upright	U9425-0000	120 V, 60 Hz	360	12.7	252	180	108	76.8" x 26.4" x 34.1" 195 x 60 x 86.7 cm	53.7" x 17.3" x 24.2" 136.5 x 44.0 x 61.5 cm	55 lbs 270 kg
	U9425-0001	230 V, 50 Hz*								
U535 Upright	U9430-0000	120 V, 60 Hz	535	18.9	336	240	144	76.8" x 31.5" x 34.1" 195 x 80 x 86.7 cm	53.7" x 25.2" x 24.2" 136.5 x 64 x 61.5 cm	551 lbs 250 kg
	U9430-0002	208/220 V, 60 Hz								
	U9430-0001	230 V, 50 Hz*								
U725 Upright	U9440-0002	208/220 V, 60 Hz	725	25.6	504	360	216	76.8" x 40.4" x 34.1" 195 x 102.5 x 86.7 cm	53.7" x 34.1" x 24.2" 136.5 x 86.5 x 61.5 cm	694 lbs 315 kg
	U9440-0001	230 V, 50 Hz*								
C585 Chest	U9400-0000	120 V, 60 Hz	585	20.7	416	288	192	43" x 66.5" x 30.9" 109.2 x 169 x 78.5 cm	30.7" x 47.2" x 24.6" 78 x 120 x 62.5 cm	529 lbs 240 kg
	U9400-0002	208/220 V, 60 Hz								
	U9400-0001	230 V, 50 Hz*								
C760 Chest	U9410-0002	208/220 V, 60 Hz	760	26.9	572	396	264	43" x 80.7" x 30.9" 109.2 x 205 x 78.5 cm	30.7" x 61.4" x 24.6" 78 x 156 x 62.5 cm	628 lbs 285 kg
	U9410-0001	230 V, 50 Hz*								

(†) To allow for handles and hinges, add 3.1" (8 cm) to width of upright freezers and 4.3" (11 cm) to the depth of chest freezers.

(*) All 50 Hz freezers are supplied with both U.K. and Schuko cord sets.



Upright: Model U101

(As shown here, not to scale)



Chest: Model C585



Chest: Model C760

INSULATION PANELS

Upright Models U101, U360, U535, U725,
and Chest Styles C585, C760

INNOVA FREEZER SPECIFICATIONS*

CONSTRUCTION

Insulation: Ultra-thin Vacuum Insulation Panels with Vacupor NT, encapsulated between a metallic polymer film barrier, bonded to foamed-in-place polyurethane foam; 3.15", 80 mm thick

Exterior: 18 gauge steel, 1.2 mm thick. Powder coated, scratch and rust resistant

Interior: Top-quality, polished 304L stainless steel

Heated Air Vent with Spring-Assisted Plunger: clears ice build-up and prevents vacuum formation

Air Filter: Front-mounted; Easily accessed by 1/4 turn screws

Access Ports: Two pass-through ports, 3/4", 20 mm diameter

Casters & Feet: Heavy-duty lockable casters with adjustable leveling feet. Model U101 provided with two rear wheels

TEMPERATURE CONTROL SYSTEM

Range: Programmable, to -86°C, in 1°C increments, even at ambient temperature up to 32°C

Control: Microprocessor-controlled temperature & alarms with non-volatile memory. Model U360: Advanced new user interface with extra large display, automated data logging, communications ports & more. Open flap at right for details

Display: Large, bright, digital LED characters, 1/2", 1.3 cm high. Mounted at eye level on uprights. Model U360: Extra-large, backlit LCD measuring 4.75" x 2.7" (12 x 6.8 cm), identifies alarms, door opening, temp., passwords and more. Open flap at right for details

Optional Remote Control: Factory-installed RS-485 port with optional CryoCommand™ software monitors/controls up to 30 freezers simultaneously. (Not available on U360)

Battery Back-Up: Activates alarms and displays temperature during power outages. Separate on-off switch provided for cleaning/servicing/thawing

REFRIGERATION

Cascade Refrigeration: Hermetically-sealed two-stage cascade system with capacity to cope in high-ambient conditions

Compressors: Low-noise, heavy-duty & commercially-available

Circulation: Requires just one fan for reduced power consumption and noise

Refrigerants: CFC-free and HCFC-free

Compressor Lubricants: Biodegradable and commercially-available, high-performance, synthetic polyolester oil. Prevents "oil-logging"

(*) Specifications subject to change without notice

SECURITY FEATURES

Unique 4-Digit Password: For temperature setpoint and alarms, prevents unauthorized changes. Model U360: Up to eight users can program alphanumeric names & passwords

Removable Keyed Lock: For outer door/lid. Padlock adapter kit optional

Lockable Security Plate: protects on-off switch and alarm on/off

MONITORING & ALARMS

S.M.A.R.T. Plus™ Diagnostic Software: Built into the control panel, provides fault codes to trace and solve system errors

Remote Alarm Contacts: Provide connection to external user-supplied alarm/monitoring system

Visual Alarms: High/low temp. condition, power out, system fail, battery low, filter clean and remote-controlled operation indicated via LED light; with fault codes displayed on screen.

Model U360: Readout of alarm setpoints and status, including door open alarms, are displayed on screen with time-date stamp. User-programmable, password protected, with alarm acknowledgements logged by user. See flap at right for details

Audible Alarms: High/low temperature, power out & system fail, with battery backup. Model U360 adds a door-open alarm

UPRIGHT MODEL FEATURES

Door Latch: Molded handle with built-in removable lock. Powerful cam-action/reverse cam-action latch provides one-handed operation; pulls door firmly closed and pushes door open. Clicks to indicate proper closure

Compartments and Shelving: Three compartments with two adjustable-height, stainless-steel shelves. Additional shelving available. Model U101: Two compartments, one fixed shelf

Inner Doors: Insulated & gasketed with high-quality seals. New one-piece molded design with push-pull latch eliminates icing issues. Lightweight doors lift off stainless-steel hinges without tools. Two inner doors on U101; three on U535 & U725

Cabinet & Outer Door: Insulated, and provided with high-efficiency silicone seals on outer door

CHEST MODELS FEATURES

Lid Latch: Positive, single-handed cam action latch with lock

Sub-Lids: Two injection-molded, insulated lids on C585; three on C760

CERTIFICATIONS

CE Certified and UL Certified



Upright: Model U360



Upright: Model U535



Upright: Model U725

SLIM-STYLED INNOVA U360

ADVANCED DESIGN, SOPHISTICATED CONTROL AND AUTOMATED DATA LOGGING



Designed for labs tight on space, the ultra-slim U360 is the first in the Innova line to feature our advanced new controller with extra-large display, data logging and graphing capability. It offers all the quality construction and system advantages as our original Innova models, plus the following benefits:

EXTRA-LARGE INNOVA DISPLAY

On-Screen System Messaging: displays setpoints, and details of alarms, door openings and operating conditions with time-date stamp

Automated Data Logging: temperature, alarms and door opening data are stored for up to 30 days, for on-screen graphing. Downloadable to PC with optional communication ports, for your strictest validation requirements

Bright, Easily Read, Backlit LCD: is located at eye level. Display screen measures 4.75" x 2.7" (12 x 6.8 cm)

SUPERIOR USER CONTROLS

Total System Security & Control: are ensured through use of multiple sensors, and flexible programming of alarms, user ID & passwords

Alarm Log: identifies door open, power failure, electric fault, and sensor failures for cabinet and ambient temp. and air-cooled and cascade condensers

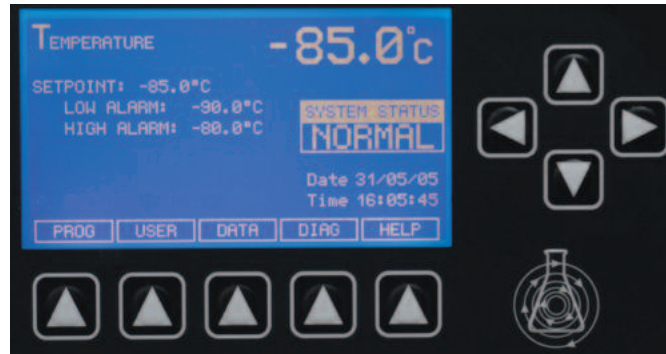
Communications Ports: Two PS2 Data Ports Standard. RS-485 & Ethernet ports optional for downloading to PC for validation requirements

SIGNIFICANTLY REDUCED NOISE LEVELS

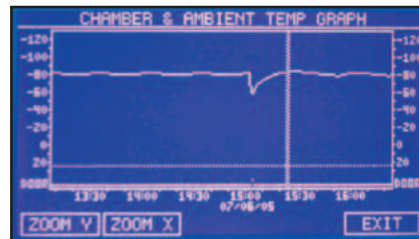
Quiet Operation: achieved through an advanced compressor housing with noise-reducing insulation, enabling placement of the freezer directly in your work area

LARGE CAPACITY, SMALL FOOTPRINT

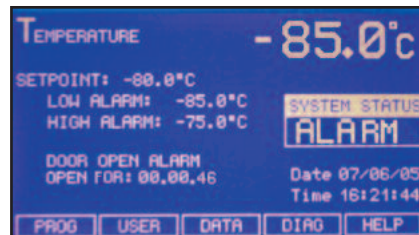
360 liters (12.7 cubic feet): Holds up to 252 2" boxes
Narrow Design: Only 26.4" (67 cm) wide, with the handle



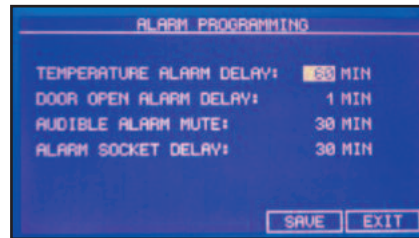
Large character display provides immediate review of important parameters "at a glance" from a distance. Intuitive menu system and directional arrows provide simple access & control of all parameters.



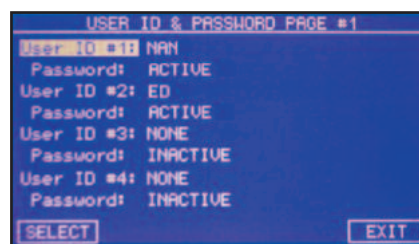
Multiple sensors and up to 30 days of data storage provide a graphic record of all system temperatures and activity, including door openings



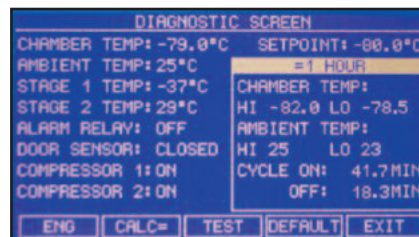
On-Screen Messaging with Time-Date Stamp identifies and logs current and past system status and events



Flexible Alarm Programming helps avoid false temperature alarms and allows greater user flexibility in alarm control.



User ID and Password programmable for up to eight users, provides multiple levels of security and control, including alarm acknowledgement log by user



Sophisticated Diagnostics allow system engineers to diagnose most issues over the phone, saving you time and money