

Warranty & After Sales Support

All NBS freezers are covered by a FIVE-YEAR Limited Warranty:

Two years covering parts and labor — with THREE ADDITIONAL years covering parts. Additionally, Innova vacuum insulation panels are warranted for TWELVE YEARS. **Freezer accessories**, such as chart recorders or back up systems, carry a one-year warranty on parts and labor. **Customizable extended warranties and preventive maintenance plans** can also be tailored to best suit your individual requirements. Outside of the U.S., contact your local NBS sales representative for warranty details.

Every NBS freezer is also equipped with unique S.M.A.R.T.

Plus™ diagnostic software to help quickly identify the cause of a fault or setpoint variance. Easily accessed through the front control panel, S.M.A.R.T., Systems Monitoring and Reporting Technology, can be used to identify and correct problems, often over the phone at no charge, with the aid of our trained service technicians. S.M.A.R.T. Plus not only eliminates unnecessary service calls, but provides advance diagnosis, so should an on-site repair become necessary, the service engineer arrives at your facility with the components needed to complete the repair.

Compressor and biodegradable gasses are commercially available, for ready replacement, anywhere in the world. NBS freezers also conform to European WEEE Directives affecting disposal.

NBS freezers are backed by one of the largest service organizations, comprised of in-house technicians, field engineers, and factory-authorized service centers in your local area.



New Brunswick
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NEW BRUNSWICK SCIENTIFIC - A culture of innovation

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Ultra-Low Temperature Freezers

Space Saving, Energy Efficient, Quiet Running and Dependable



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NBS -86°C Freezers

Space Saving, Energy Efficient, Quiet Running and Dependable



CO₂/LN₂ controller features selectable setpoint dial. LED lights to indicate when system is activated or valve open

CO₂ & LN₂ Controller Back-Up System

Safely protects your samples

- Maintain temperature between -55°C and -70°C with Liquid CO₂, or down to -85°C with LN₂, subject to environmental conditions
- Coolant addition is pulsed to avoid excessive consumption
- Built-in safety device prevents pulsing while the door is open



BioCommand SFI data logging software

BioCommand® SFI Data Logging Software

NBS' BioCommand SFI software provides data trending capability for multiple NBS freezers from a single PC. Easy-to-use set-up screens enable you to capture data in an alarm log, and display trend graphs for multiple units simultaneously

Chart Recorder & Data Loggers

Continuously monitor and record temperature for up to 7 days

- Temperature range of +20°C to -90°C, ± 2%
- Front-mounted for easy access. Factory installation recommended
- Contact your sales representative for other options



7-day chart recorder

Auto-Dialers

Auto-dialers can call a set of preprogrammed telephone numbers in the event of an alarm condition and connect right into the freezer's remote alarm port

Temperature Probes

Additional temperature probe for an external alarm system or for validation can be installed upon request

Validation Packages

Installation and operational qualifications are available. Ask your NBS freezer sales rep for details



NBS manufactures a variety of racking systems, boxes and dividers to maximize storage space

Inventory Racking & Shelves

Exclusively designed and manufactured for NBS freezers to maximize storage space (see page 9 for capacity chart)

- Anodized aluminum racking is lightweight and durable
- Standard racks hold 2", 3" or 4" boxes
- Custom racking solutions also available
- Waterproof boxes and wax-coated cardboard dividers provide a low-cost alternative to injection-molded boxes
- Supplemental stainless-steel shelves also available

Voltage Stabilizer

Modulates incoming line voltage

- Internal slide-in stabilizer available for U360 120 V units
- External stabilizer available for Premium and U101 models

Padlock Adapter Kit

Allows up to two user-supplied padlocks to be secured to outer door handle for extra security

ENERGY-EFFICIENT & ECO-FRIENDLY

Energy Savings!

NBS offers the most energy-efficient freezers in the industry, reducing power consumption by thousands of kilowatt hours over our competition. Net effect:

- An average savings of 45% in yearly operating costs
- Approximately \$4,000 savings over the life of the freezer
- 28-ton reduction of CO₂ emissions on average, over the life of the freezer.











Power Features, Advantages & Plugs

Internal Voltage Stabilizer (60 Hz Innova Models excluding U101 & U360): Evens out high and low voltage fluctuations and optimizes energy usage. Optional external unit available for Premiums and Innova U101; slide-in stabilizer optional for Innova U360

Automatic Reset: Protects the microprocessor controller from failure caused by power spikes

Automatic Restart with Non-Volatile Memory: Returns alarms and setpoints to user-programmed levels after power interrupt

Programmed Restart: Random startup, 1 - 1.5 minutes apart. Prevents power overload

Freezers with this Code	Have this Plug	Require this Receptacle	NEMA Reference	
			Plug	Receptacle
A			5-15P	5-15
B			5-20P	5-20
C			6-15P	6-15
I N T E R N A T I O N A L				
D			European (Schuko)	
E			UK Model	

Power Consumption*

Brand	Model	Voltage	Amps	Plug Provided	Power Consumption		Pull-Down Time /Hrs.
					Watts	kWh/Day	
Innova	U101	120 V, 60 Hz	13	A	265	6.3	3.5
		220/240 V, 50 Hz	5	D/E	367	8.8	3.7
	U360	120 V, 60 Hz ◊	16.5	B	487	11.6	5.0
		220/240 V, 50 Hz	6.5	D/E	492	11.8	5.6
	U535	120 V, 60 Hz ◊	16.5	B	550	13.2	5.3
		208/240 V, 60 Hz	9	C			
	U725	220/240 V, 50 Hz	208/230 V, 60 Hz	10	C	685	16.4
220/240 V, 50 Hz			9.5	D/E	660	15.8	5.6
C585	220/240 V, 50 Hz	120 V, 60 Hz ◊	16.5	B	580	13.9	4.3
		208/230 V, 60 Hz	9	C	580	13.9	4.3
	220/240 V, 50 Hz	5.5	D/E	565	13.5	4.5	
C760	208/230 V, 60 Hz	10	C	698	16.7	5.8	
220/240 V, 50 Hz	9.5	D/E	665	15.9			
Premium	U410	120 V, 60 Hz ◊	16.5	B	540	12.9	4.1
		208/230 V, 60 Hz	8	C	540	12.9	4.1
		220/240 V, 50 Hz	5	D/E	525	12.6	5.3
	U570	120 V, 60 Hz ◊	16.5	B	590	14.1	5.3
		208/220 V, 60 Hz	9	C	590	14.1	5.3
		230 V, 50 Hz	6	D/E	565	13.5	5.2
	C340	120 V, 60 Hz ◊	16.5	B	430	10.3	3.4
220/240 V, 50 Hz		4.5	D/E	420	10.0	3.8	
C660	208/230 V, 60 Hz	8	C	625	15.0	6.0	
	220/240 V, 50 Hz	6	D/E	595	14.2	5.8	

(*) All models use single phase power. Amperage shown designates "running" amps.
 (◊) 120 V freezers with this designation require a dedicated 20 Amp line to cover the amps drawn at start-up.

Power Consumption is based on an empty freezer set to -80°C, ambient temperature 20°C - 25°C. Test run over a 24 hr period at rated electrical supply.
Pull Down is based on an empty freezer at ambient temperature of 20 - 25°C.

Accessory Racking - Capacities & Catalog Numbers

Freezer	Freezer	Cu.	Compartments	Racks	Racks Per	Box Size*	Boxes	Boxes Per	Vials	Rack
Innova	U101	3.6	2	3	6	2"	10	60	6,000	K0641-3003
	U360	12.7	3	3	9	2"	28	252	25,200	K0641-3000
	U535	18.9	3	4	12	2"	28	336	33,600	K0641-3000
	U725	25.6	3	6	18	2"	28	504	50,400	K0641-3000
	C585	20.7	NA	NA	32 †	2"	13	416	41,600	K0641-1690
	C760	26.9	NA	NA	44 †	2"	13	572	57,200	K0641-1690
Premium	U410	14.5	5	3	15	2"	16	240	24,000	K0641-1900
	U570	20.0	5	5	25	2"	28	400	40,000	K0641-1900
	C340	12.0	NA	NA	20 †	2"	16	260	26,000	K0641-1690
	C660	23.3	NA	NA	40 †	2"	13	520	52,000	K0641-1690

(*) 4" Boxes also available. Ask your rep for details

(**) Based on a box capacity of 100 vials

(†) Half-height racking available

New Brunswick Scientific's lab equipment is legendary for design innovation, quality construction and long-term durability. Our -86°C freezers are no exception. Energy efficient, quiet running and dependable, they're offered in over ten models and three product ranges to accommodate a variety of needs; and are stocked for ready delivery:

Innova® Freezers — use Vacuum Insulation Panel technology to provide up to 30% more storage capacity than traditionally-insulated freezers — without increasing external dimensions.

Premium Freezers — are high quality and full-featured, using conventional polyurethane insulation to provide a cost-saving alternative.

New "Green" Freezers — use environmentally-friendly hydrocarbon-based refrigerants to reduce power consumption by another 5 - 10% over our already energy-efficient models. Currently only available in 50 Hz voltages. For details on our "Green" models, see our website at www.nbsc.com or contact your NBS sales representative.



For labs short on space, we offer an ultra-slim model, Innova U360. Use of ultra-efficient vacuum insulation panel technology enables the U360 to hold 25,200 samples, yet measure under 27" (67 cm) wide, including the handle. It features our advanced new controller with extra-large display and built-in data logging and graphing capability.



More storage — same space. That's the advantage of our Innova freezers, available in chest or upright styles. It's room you won't have to make room for.

NBS INNOVA® & PREMIUM FREEZERS

Energy Efficient

NBS Freezers Consume Less Power per Kilowatt-Hour

than ultra-low temperature freezers of similar size, resulting in lower energy bills.

Rapid Temperature Recovery After Door Opening

offers enhanced sample stability

1 Outer Door Seals

flexible, low-temperature seals prevent cold air loss for lower energy bills and less maintenance

Inner Door Seals

reduce cabinet temp. fluctuations and limit cold air loss, reducing recovery time and energy consumption. (Innova models)

2 Quiet Powerful Fan

reduces noise and maintenance

3 Multiple Compartments

with insulated inner doors & sub-lids protect samples and improve energy efficiency

Sample Security

4 Keyed Locks on Outer Doors & Lids

prevent unauthorized access. Optional padlock adapter kit available for added security

5 User-Defined Password

prevents unauthorized changes to alarm and temperature setpoints

5 Audible and Visual Alarms

indicate high & low temperature conditions, power failure, low battery, blocked filter & fault condition

6 Lockable Plate

over power & alarm switches prevent accidental shutdown

Automatic Restart with Non-Volatile Memory

returns setpoints to user-programmed levels after power interrupt

Battery Back-Up

maintains temperature settings and activates alarms during power outage

Optional CO₂ & LN₂ Back-Up Systems

protect freezer contents

Remote Contacts

provide connection to an external, user-supplied, security system

Other Design Advantages

7 Innova Models

increase storage by up to 30% over freezers of equal size

Top-Quality Stainless-Steel Interior

prevents oxidation, scratches or rust; easily cleaned

Two Pass-Through Ports

allow CO₂/LN₂ injection or addition of probes

8 Two-Stage Cascade Refrigeration

system uses industrial-grade, commercially-available, hermetically-sealed compressors

Unique Automatic Reset

protects the microprocessor controller from damage by electrical spikes

Internal Voltage Stabilizer

evens out voltage fluctuations to protect your freezer and maintain stable power. (Innova 60 Hz models only, excluding U101 & U360. Slide-in stabilizer optional on U360. External option on U101 and Premium models)



Premium Freezer Specifications*

Construction

Insulation: Polyurethane foam, 5.1", 130 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; easy access by quarter turn screws

Access Ports: Two pass-through ports, ¾", 20 mm dia.

Casters & Feet: Heavy-duty, lockable casters

Temperature Control System

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

Control: Microprocessor-controlled temperature and alarms with non-volatile memory

Display: Large, bright, digital LED characters, ½", 1.3 cm high, mounted at eye level on uprights

Optional Remote Monitoring: Factory-installed RS-485 port with optional BioCommand® SFI software monitors multiple freezers simultaneously

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 adequate 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"

Security Features

Unique 4-Digit Password: For temperature setpoint and alarms, prevents unauthorized changes

Lock and Key: For outer doors/lids. Barrel lock is removable

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 temperature, power out, system fail, battery low, filter clean and fault analysis. LED lamp for remote control operation

Audible Alarms: High/low temperature, power out and system fail

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: Five compartments with four adjustable-height, stainless-steel shelves. Additional shelving available

Inner Doors: Five insulated doors on U410 & U570. Stainless-steel hinges unscrew for defrosting/cleaning

Cabinet & Outer Door: Insulated and fitted with low-temperature seals on outer door

Chest Models Features

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

Sub-Lids: Two insulated Fomex panels with stainless steel edging on C340; three on C660

Certifications

CE and UL Certified; and meets European WEEE Directives

(*) Specifications subject to change without notice



Chest: Model C340



Chest: Model C660

PREMIUM RANGE FREEZERS

Advanced Features at a Great Value

Premium Freezers are the result of over two decades of design innovations, yielding an efficient refrigeration system proven to perform reliably year after year. Like Innova freezers, Premiums are high-quality, full-featured freezers, with the ability to safely preserve your samples over the long term. The distinction is that Premium Freezers use traditional urethane insulation to achieve and maintain ultra-low temperatures.



Premium freezers offer external dimensions nearly identical to the Innova models and are available in two upright and two chest style models. Shown clockwise starting from back left: U410, U570, C660, and C340.

Capacity & Dimensions

Model No. Style	Catalog No.	Electrical	Capacity		Max. Box Capacity			Dimensions (H x W x D)†		Shipping Weight
			L	Cu. Ft.	2"	3"	4"	External	Internal	
U410 Upright	U9260-0000	120 V, 60 Hz	410	14.5	240	180	120	75.4" x 31.5" x 33.5" 191.5 x 80 x 85.2 cm	49.8" x 21.7" x 22.6" 126.5 x 55 x 57.5 cm	518 lbs 235 kg
	U9260-0002	208/230 V, 60 Hz								
	U9260-0001	220/240 V, 50 Hz*								
U570 Upright	U9270-0000	120 V, 60 Hz	570	20	400	300	200	75.8" x 40.4" x 33.5" 192.5 x 102.5 x 85.2 cm	49.8" x 30.1" x 22.6" 126.5 x 76.5 x 57.5 cm	584 lbs 265 kg
	U9270-0002	208/220 V, 60 Hz								
	U9270-0001	230 V, 50 Hz*								
C340 Chest	U9230-0000	120 V, 60 Hz	340	12	260	180	120	42.3" x 52.8" x 33.1" 107.5 x 134 x 84 cm	30.0" x 30.0" x 23.2" 76 x 76 x 59 cm	441 lbs 205 kg
	U9230-0001	220/240 V, 50 Hz*								
C660 Chest	U9250-0002	208/230 V, 60 Hz	660	23.3	520	360	240	42.3" x 80.7" x 33.1" 107.5 x 205 x 84 cm	30.0" x 57.9" x 23.2" 76 x 147 x 59 cm	617 lbs 280 kg
	U9250-0001	220/240 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 U410
(Models not shown to scale)



Upright: Model U570



Upright: Model U570

Flush, Front-Mounted Microprocessor Control Panel

- Ergonomically located
- Easy to read and operate
- Membrane keypad is easily cleaned

Convenience

- 9 Flush, Front-Mounted Control Panel** is easy to read and reach
- 10 Easy-to-Open Door** provides one-handed operation; cam latch ensures secure door closure
- 11 Heated Vent with Spring-Assisted Plunger to Break Icing** prevents vacuum formation, allowing door to be re-opened quickly. (On Premium models, located at top of unit)
- Low Noise & Low Heat Output** allow freezer to be placed directly in the lab
- New Innova Inner Door System with Molded Grip and Ice-Proof Latch** provides improved accessibility
- 12 Easy Mobility** all models fit through standard doors and elevators and include heavy-duty casters. (Compact U101 provided with rear rollers)
- Remote Data Logging** using optional software with RS-485 interface allows data capture from multiple freezers using a single PC
- 13 Optional Data Loggers,** from chart recorders to independent temp. monitoring systems, simplify validation. (Innova U360 includes built-in, automated data logging & storage capability for up to 30 days of data)
- 14 Optional Inventory Racking** is available to optimize your storage space
- 15 Front-Mounted, Washable Filter** easily accessed without tools
- 16 Stainless-Steel Shelves** provided in all uprights. Adjustable height, high quality
- 17 Inner Doors Easily Lift Off Without Tools** for defrosting & cleaning. (Door hinges in Premium models unscrew)

Remote Control Indicator
Illuminates when control is via RS-485 port and BioCommand® SFI software

Filter Clean Indicator
Lights when filter needs cleaning to prevent overheating the compressor

Bright Red LED Display
Displays temperature, alarm setpoints, and fault codes

Setpoint Keypad
Allows quick setpoint entry

Programming Keys
Used to program password, setpoints and alarms

Alarm Test / Mute
Allows testing of audible and visual alarms. "Mute" silences alarm for 30 min., allowing alarm condition to be corrected

Battery Back-up
Continuously-charged system provides full alarm functions and displays, in case of power failure
Low Battery Indicator flashes when battery is low

Fault Indicator*
Indicates a system failure
S.M.A.R.T. Plus™ self-diagnostic software identifies fault codes for quick diagnosis

High & Low Temperature Alarms*
Indicate temperature has exceeded user-defined setpoints

Power Failure Indicator*
Indicates loss of power. Light remains on, until reset, after power is restored

NEW BRUNSWICK SCIENTIFIC

(Remote alarm contacts are provided to allow external alarm and auto-dialer systems to communicate with our freezers, where asterisk is shown.)*

Why Vacuum Insulation is Advantageous

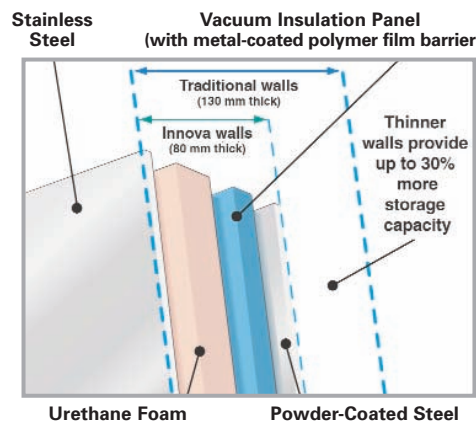
Vacuum insulation is an advanced thermal insulation technology that significantly outperforms insulating materials such as closed-cell foams (urethane), foam beads or fiber blankets. These conventional technologies attempt to trap gasses to reduce heat transfer. Vacuum insulation removes the gasses within the insulating space, so the material is placed under a "vacuum." With air molecules removed, heat transfer is greatly reduced. The result is:

- Thermal insulation performance that far exceeds traditional insulating materials
- Ultra-thin walls for up to 30% more room to store samples

There are other freezers that use vacuum insulation panel technology, but none use Vacupor™ NT.

Vacupor panels provide:

- The best thermal insulation of any traditional or vacuum insulation material on the market
- An environmentally friendly design, using biodegradable, CFC-free and HCFC-free materials
- A metal-coated polymer film barrier seal to maintain its vacuum. Competitive models are subject to accumulation of gasses over time, resulting in a loss of vacuum level and therefore reduced thermal performance. Even under complete vacuum barrier failure, Vacupor outperforms foams. (Vacupor is a registered trademark of Porextherm GmbH.)



INNOVA FREEZERS WITH VACUUM INSULATION PAN

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
- **Leveling Feet** provide stability on uneven floors
- **Two Unique Upright Models for Cramped Labs.** Space-saving Innova U101 fits on or under the bench (as shown at right), or can be stacked two high. Innova U360 is an ultra-slender model with advanced new controller and sophisticated display (shown under the flap at right)



Keep your samples safe, secure 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 No.	Electrical	Capacity		Max. Box Capacity			Dimensions (H x W x D)†		Shipping Weight
			L	Cu. 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	220/240 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	595 lbs 270 kg
	U9425-0001	220/240 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	208/240 V, 60 Hz								
	U9430-0001	220/240 V, 50 Hz*								
U725 Upright	U9440-0002	208/230 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	220/240 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	208/230 V, 60 Hz								
	U9400-0001	220/240 V, 50 Hz*								
C760 Chest	U9410-0002	208/230 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	220/240 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
(Models not shown to scale)



Chest: Model C585



Chest: Model 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 quarter turn screws

Access Ports: Two pass-through ports, ¾", 20 mm diameter

Casters & Feet: Heavy-duty, lockable casters with 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, ½", 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 Monitoring: Factory-installed RS-485 port with optional BioCommand® SFI software monitors multiple 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"

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. Lift flap at right for details

Audible Alarms: High/low temperature, power out & system fail, with battery back-up. 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: Three 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)

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 and UL Certified; and meets European WEEE Directives

(*) Specifications subject to change without notice



Upright: Model U360



Upright: Model U535



Upright: Model U725

SLIM-STYLED INNOVA U360

Advanced Design, Sophisticated Control & Automated Data Logging

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



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

Innova U360 Advantages

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

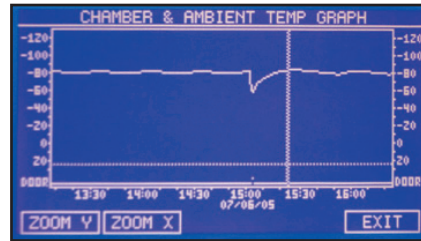
Significantly Reduced Noise Levels

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

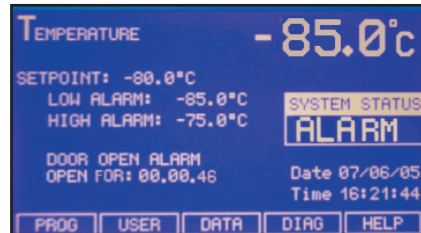
Large Capacity, Small Footprint

360 liters (12.7 cubic feet): Holds up to 252 2" boxes

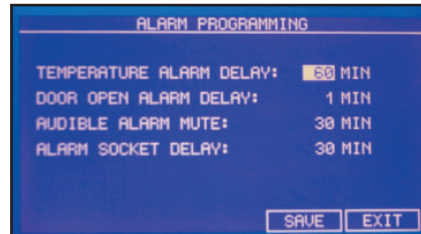
Narrow Design: Only 26.4" (67 cm) wide, with the handle



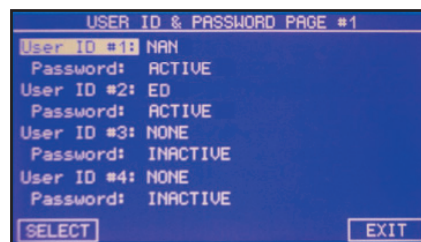
Multiple sensors and Up To 30 days of data storage provide a graphic record of all system temperatures and activity, including door openings



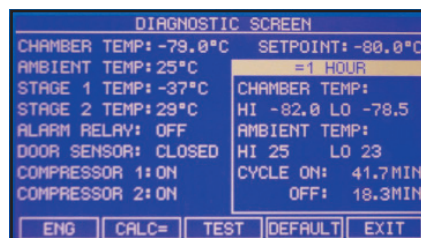
On-screen messaging with time-date stamp identifies and logs current and past system status and events



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, provide 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