



**NEW!** Thermo Scientific  
Revco<sup>®</sup> PLUS -86°C Freezers

Protecting Your Life's Work



# Your life's work. What is it worth to you?

You spend countless lab hours developing valuable samples. Many are irreplaceable. Protecting the integrity of your work is not just important, it's immeasurable.

For more than 50 years, Thermo Scientific Revco cold storage products have been trusted by the world's leading global biotechnology, pharmaceutical, academic, government, and clinical laboratories.

More than two billion samples are stored in Thermo Scientific cold storage equipment worldwide – more than any other brand. Recognized for our dependability and quality, our cold storage solutions cover the broadest spectrum of temperature needs from +4°C to -196°C.

**Revco Ultima® PLUS:**  
Advanced Performance,  
Controls and Monitoring

**6**

**Revco Elite® PLUS:**  
High Performance  
and Controls

**8**

**Revco Value® PLUS:**  
Basic Functionality  
and Controls

**9**

# Thermo Scientific Revco PLUS -86°C Freezers

*Our life's work is safeguarding your life's work.*

Introducing the new Thermo Scientific Revco PLUS -86°C upright freezers, combining the highest reliability and superior performance with cost-effective operation and innovative features.

Leveraging years of R&D expertise, our new Revco PLUS freezers are designed with a patented refrigeration system and new robust electronics platform to deliver:

## **Maximum Temperature Recovery**

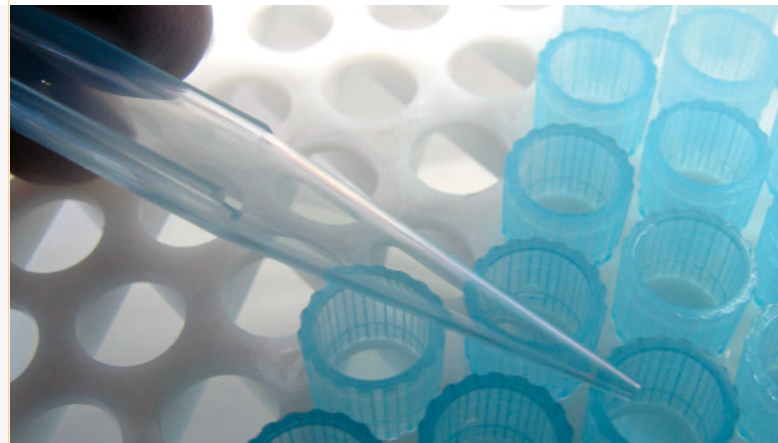
20% more heat removal capacity over other leading freezers, ensuring faster temperature recovery after door openings.\*

## **Operational Efficiency**

Uses 15% less power to maintain cabinet temperature compared to other leading freezers.\* In addition, the Revco PLUS emits 15% less heat into the lab environment, minimizing air conditioning costs.\*

## **Comfortable Lab Environment**

Quiet, comfortable operation allows our -86°C freezers to reside directly in the lab, creating a more productive and efficient work environment.



\* based on internal performance data

## Advanced Technology, Exceptional Quality

*Our Revco PLUS freezers meet the sample storage and protection needs of different lab environments.*

*All Revco PLUS models feature the same technology platform with the advanced refrigeration, microprocessor controls and high-quality construction.*

Our Revco PLUS -86°C upright freezers include three models, with varying levels of monitoring, reporting and alarms. Whatever controls your environment requires, we have a Revco PLUS model to meet your needs.



### **Revco Ultima PLUS:**

Advanced, eye-level control platform designed for applications requiring very detailed, sophisticated monitoring, alarm and communication functions.



### **Revco Elite PLUS:**

Mid-range, knee-level control platform designed for applications requiring a moderate level of monitoring, alarm and communication functions.



### **Revco Value PLUS:**

Basic, knee-level control platform designed for applications requiring basic monitoring, alarm and communication functions.

# Innovative Features and Rewarding Benefits

Refrigeration System	Ultima PLUS	Elite PLUS	Value PLUS	Benefit
<b>NEW</b> Revco PLUS refrigeration system	•	•	•	*20% more reserve heat removal capacity for quick temperature recovery after door openings; ensures protection of critical samples
1 HP Industrial grade compressors	•	•	•	Provides refrigeration power
CFC-free refrigerants	•	•	•	Delivers environmentally friendly performance
DuPont® Suva low-stage refrigerants	•	•	•	Specially formulated for ultra low applications
Downfeed evaporator	•	•	•	Smoother refrigerant flow
Washable condenser filter	•	•	•	Maintains peak condenser efficiency
<b>Control Technology</b>				
Programmable microprocessor control	•	•	•	Enables precise temperature settings and flexibility for alarm set points
Setpoint security	•	•	•	Locks in alarm and operating setpoints
Alarm setpoints	•	•	•	Allows for setting high and low temperature alarm setpoints
<b>NEW</b> PLUS Time Delay	•	•	•	Programmable feature delays restart after building power failure; allows stabilized power, uniform re-start and reduced stress on compressor and electrical components
<b>NEW</b> On-board diagnostics	•	•	•	Continuously monitors system sensors to ensure proper performance; reports error codes to identify probable cause
<b>NEW PLUS Power Management System</b>				
<b>NEW</b> Automatic voltage buck/boost system	•	•	•	Buck reduces incoming line voltage if too high. Boost provides additional incoming line voltage if too low; adds longevity to compressors and electronics with voltage stabilization
<b>NEW</b> Low voltage surge protection	•	•	•	Minimizes voltage spikes to protect sensitive electronic devices
<b>Alarm System</b>				
A.I.M. (Automatic Incident Monitor)	•	•	•	Identifies temperature deviations
Audible/visual warning	•	•	•	Automatic
Battery backup	•	•	•	Automatic
<b>NEW</b> Battery capacity indicator touchpad alarm test	•	•	•	Displays battery voltage
RS-232 data port	•	Optional	•	Includes software for data export to PC
Remote alarm contacts	•	•	•	For connecting to remote monitoring systems
<b>NEW</b> 4-20mA temperature output	Optional	Optional	•	For connecting to remote monitoring systems
<b>Monitoring System</b>				
Life-Guard compressor protection	•	•	•	Monitors/adjusts compressor performance
Extreme ambient alert	•	•	•	Alerts if room temperature is too warm
<b>NEW</b> Voltage indicator (Power Monitoring)	•	•	•	Displays incoming line voltage
Clean filter indicator	•	•	•	Advises when to remove and clean filter
<b>Cabinet Construction</b>				
Foamed-in-place polyurethane insulation	•	•	•	Higher "R" value
1" (2.54cm) diameter access port	•	•	•	Easy access through wall
Enhanced acoustic insulation	•	•	•	Reduces compressor sound
<b>NEW</b> Robust tandem 2 in. casters	•	•	•	Side by side locking casters for durability and high impact resistance
<b>NEW</b> Door-mounted Pressure Equalization Port (PEP)	•	•	•	Maximizes storage space/eliminates maintenance for ice removal
<b>NEW</b> Recessed power switch	•	•	•	Prevents inadvertent switch off
<b>NEW</b> Reinforced shelves	•	•	•	Reinforcement channels on shelves to support excessive loads and impact
LN <sub>2</sub> /CO <sub>2</sub> Backup System	Optional	Optional	Optional	Built in and free standing available

## NEW Operational Efficiency

**15% lower power consumption** reduces ownership cost and is environment friendly

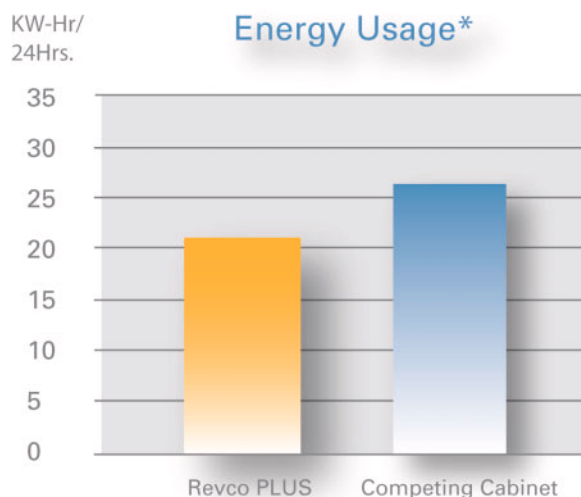
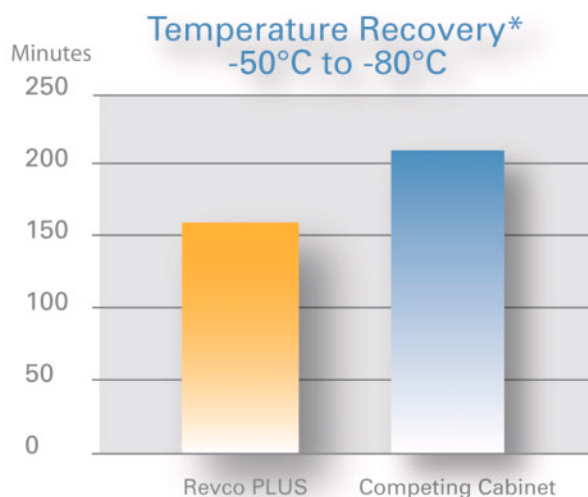
**15% lower heat rejection** into surrounding environment

**Reduced noise levels** for quieter, comfortable lab surroundings



## The Revco PLUS Advantage: Highest Sample Integrity

*Our Revco PLUS -86°C freezers deliver the best sample protection with advanced refrigeration technology. We guard your samples by combining the highest temperature stability, maximum recovery time and outstanding energy efficiency.*



### Maximum Heat Removal

Our Revco PLUS -86°C freezers feature 20% more heat removal capacity. This delivers very quick temperature recovery after door openings for stable, uniform temperatures and ultimate sample protection.

### Energy Efficiency

Greater than 15% energy savings and 15% less heat rejection over other leading freezers, our Revco PLUS -86°C freezers conserve valuable energy resources to keep your lab comfortable and samples protected.



## Minimized Noise Output

Featuring advanced noise abatement technology and insulation, our Revco PLUS -86°C freezers are 40% quieter so they can reside right in your lab. This speeds sample preparation and minimizes sample exposure to ambient air.

*Protect your valuable samples:  
cryoboxes  
microplates  
bulk storage*

Our Revco racks are quality-built for ultimate sample protection. With proven reliability you can depend on year after year, our racks are completely interchangeable with all Revco PLUS -86°C freezers for additional flexibility.

**See our Rack and Accessories Guide for all your accessories needs.**



**Access Port:**  
1" diameter for easy  
access through wall

**Robust Cabinet  
Design:** constructed  
of high-strength steel  
with a corrosion-  
resistant coating

**Cabinet Insulation:**  
Minimum 5"  
(127mm) CFC-Free,  
foamed-in-place  
urethane for  
thermal protection  
and structural  
strength

**Remote Alarm Contacts:**  
physical connection  
to external alarm/  
monitoring system

**Recorder:** optional  
7-day, 6" (152 mm)  
circular chart

**Heavy Duty Casters:** new 2" locking,  
tandem wheel design; easy, smooth  
mobility

**Washable Filter:** protection from  
dust build-up on condenser

**PLUS Power Management System:**  
low voltage surge protection, voltage  
buck/boost capabilities



**Advanced Compressor Deck:**

superior heat removal and energy  
efficiency; excellent insulation for  
a very quiet work environment

**CFC-Free Refrigerants:**

DuPont Suva 95 in low stage models

**Door-Mounted Pressure  
Equalization Port (PEP):**

maintenance-free PEP allows  
for quick re-entries after door  
openings and eliminates the  
need for ice removal  
(PEP is hidden from view)





**Strong Outer Door:** minimum 3.5" (89mm) high strength foamed-in-place urethane insulation

**Outer Door Gasket:** secure door seal with five points of sealing contact

**Secure Inner Doors:** high-impact ABS plastic with recessed handle



**Easy-to-Use Microprocessor Controls:** programmable temperature/alarm set points and on-board diagnostics



**Stainless Steel Interior Shelves:** new reinforced shelves, developed for excessive loads and impacts

**Inventory Racks:** optional stainless steel with fiberboard boxes and dividers for complete sample protection

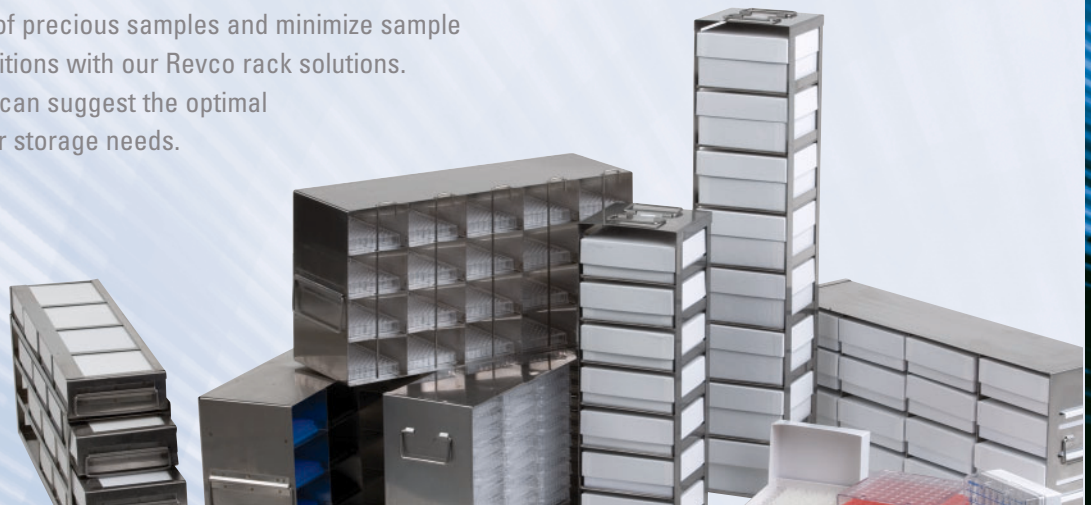


**Cryolatch™:** integrated door handle and latch for one-hand operation; built-in key lock and padlock compatible

## Quality-Built for Maximum Reliability

*For optimized performance and operation, our Revco PLUS -86°C freezers feature robust, high-quality construction with advanced insulation, flexible storage and precision controls.*

Ensure the easy retrieval of precious samples and minimize sample exposure to ambient conditions with our Revco rack solutions. Your sales representative can suggest the optimal rack configuration for your storage needs.



# Thermo Scientific Revco Ultima PLUS

*Advanced Performance and Controls*

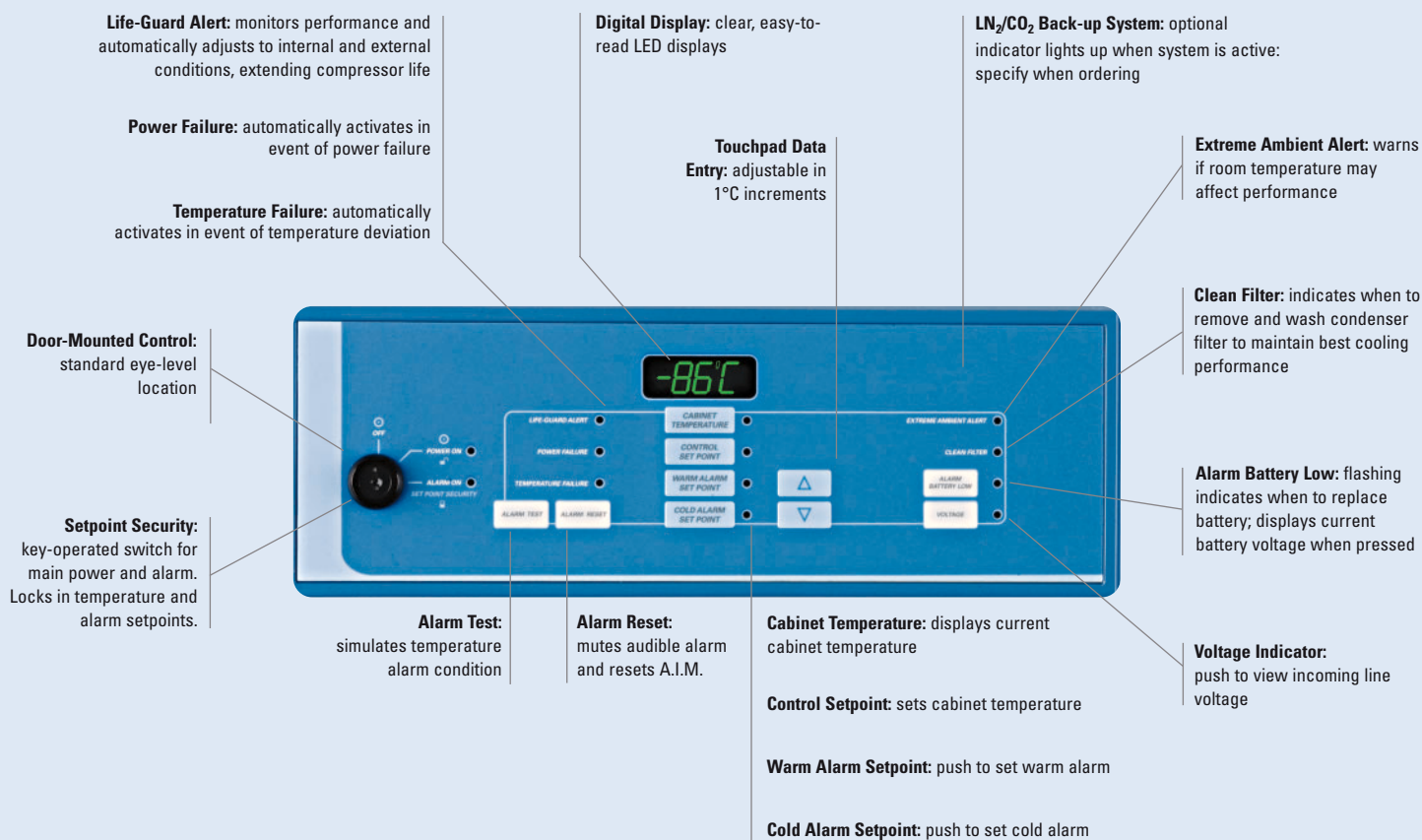
Our Revco Ultima PLUS -86°C freezer is available in 17, 21 and 25 cubic feet capacities.

## Microprocessor Controls: Real-Time Monitors and Alarms

Our Revco Ultima PLUS is suited for laboratories that require sophisticated electronic monitors and alarms.

Its programmable, easy-to-use microprocessor controls provide real-time visibility and precise setpoints on temperature, power and other critical measurements to continuously ensure the security of your work.





## Additional Features:

### PLUS Power Management System:

- **Low Voltage Surge Protection:** minimizes voltage spikes; protects sensitive electronics
- **Voltage Buck/Boost:** protective device used to correct low or high voltage into the unit; protects and extends the life of electrical components

### A.I.M. Automatic Incident Monitor:

identifies temperature deviation (due to power failure or temperature failure) beyond alarm setpoint

**Battery Backup:** continuous charge provides full function to control panel in case of power failure

**On-Board Diagnostics:** continuously monitors sensors to ensure proper performance

## Thermo Scientific Revco Ultima PLUS -86°C Upright Freezers

Temperature Range -50°C to -86°C						
Fisher Cat. No.	Capacity Cu Ft (L)	Electrical	Amps/Breaker (Plug)	Interior Dimensions H x W x D inches (mm)	Exterior Dimensions H x W x D inches (mm)	Shipping Weight lbs (kg)
13-989-717	17.2 (487)	115V/60 Hz 1Ø	16/20 (P2)	50.5 x 23.5 x 25 (1283 x 597 x 635)	77.8 x 36.7 x 35.5 (1975 x 931 x 901)	720 (326)
13-989-718		208-230V/60 Hz 1Ø	12/15 (P4)			
13-989-727		230V/50 Hz 1Ø	12/16 (P7)			
13-989-719	20.2 (572)	115V/60 Hz 1Ø	16/20 (P2)	50.5 x 28.5 x 24.3 (1283 x 724 x 616)	77.8 x 41.7 x 36.2 (1975 x 1058 x 920)	770 (349)
13-989-720		208-230V/60 Hz 1Ø	12/15 (P4)			
13-989-730		230V/50 Hz 1Ø	12/16 (P7)			
13-989-721	24.4 (691)	115V/60 Hz 1Ø	16/20 (P2)	50.5 x 34.5 x 24.3 (1283 x 876 x 616)	77.8 x 47.7 x 36.2 (1975 x 1210 x 920)	830 (376)
13-989-722		208-230V/60 Hz 1Ø	12/15 (P4)			
13-989-733		230V/50 Hz 1Ø	12/16 (P7)			

# Thermo Scientific Revco Elite PLUS

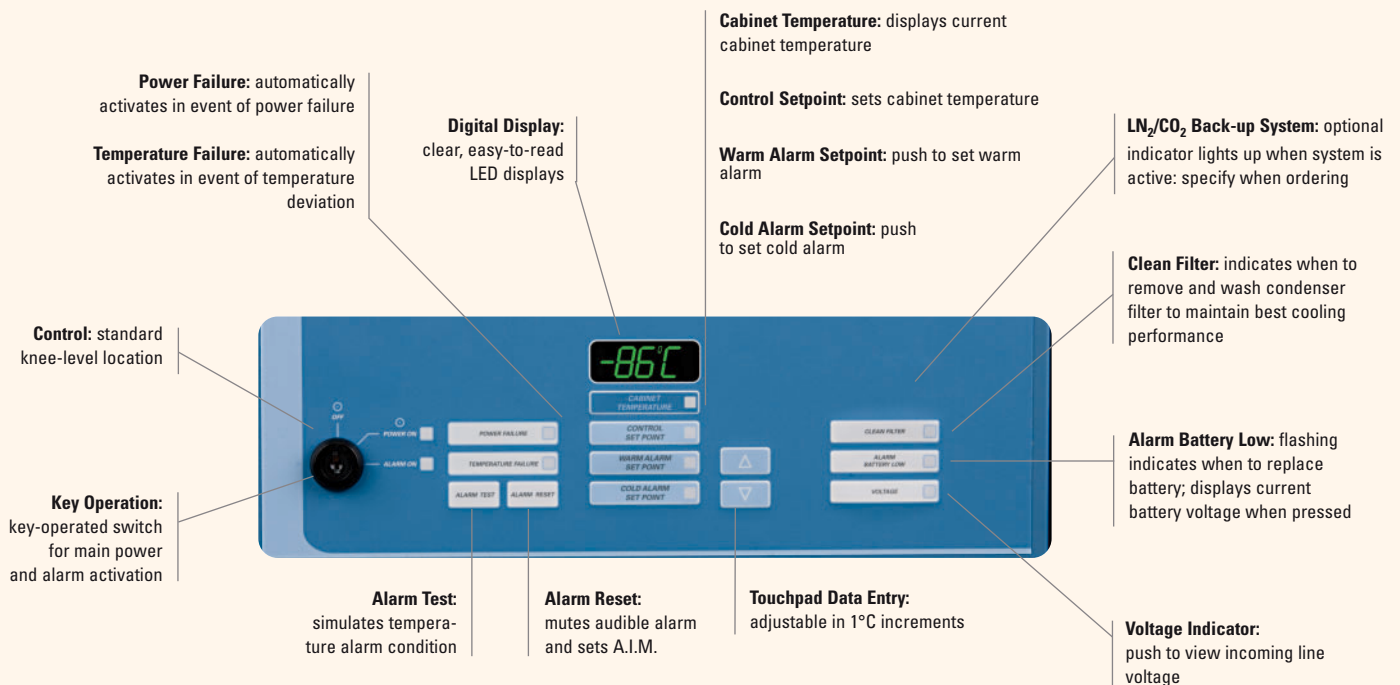
*High Performance  
and Controls*

Our Revco Elite PLUS -86°C freezer is available in 17, 21 and 25 cubic feet capacities.



## Microprocessor Controls: Real-Time Monitors and Alarms

Our Revco Elite PLUS is suited for environments that require a moderate level of electronic monitors and alarms. Featuring programmable, easy-to-use microprocessor controls, the Revco Elite PLUS delivers real-time visibility and precise setpoints on temperature, power and other critical measurements to protect your work.



## Additional Features:

### PLUS Power Management System:

- **Low Voltage Surge Protection:** minimizes voltage spikes; protects sensitive electronics
- **Voltage Buck/Boost:** protective device used to correct low or high voltage into the unit; protects and extends the life of electrical components

### A.I.M. Automatic Incident

**Monitor:** identifies temperature deviation (due to power failure or temperature failure) beyond alarm setpoint

**Battery Backup:** continuous charge provides full function to control panel in case of power failure

### On-Board Diagnostics:

continuously monitors sensors to ensure proper performance

# Thermo Scientific Value PLUS:

*Basic Performance and Controls*

Our Revco Value PLUS -86°C freezer is available in 17, 21 and 25 cubic feet capacities.



## Microprocessor Controls: Real-Time Monitors and Alarms

Our Revco Value PLUS is suited for laboratories that require a fundamental level of electronic monitors and alarms.



**LN<sub>2</sub>/CO<sub>2</sub> Back-up System:** optional indicator lights up when system is active: specify when ordering

**Control:** standard knee-level location

**Key Operation:** key-operated switch for main power and alarm activation

**Audible Warning:** activates automatically in event of temperature deviation

**Power Failure:** automatically activates in event of power failure

**Digital Display:** clear, easy-to-read LED displays

**Touchpad Data Entry:** adjustable in 1°C increments; alarm setpoint in 5°C increments

**Cabinet Temperature:** displays current cabinet temperature

**Control Setpoint:** sets cabinet temperature

## Additional Features:

### PLUS Power Management System:

- **Low Voltage Surge Protection:** minimizes voltage spikes; protects sensitive electronics
- **Voltage Buck/Boost:** protective device used to correct low or high voltage into the unit; protects and extends the life of electrical components

**Battery Backup:** continuous charge provides full function to control panel in case of power failure

**On-Board Diagnostics:** continuously monitors sensors to ensure proper performance

**Thermo Scientific Revco Elite PLUS -86°C Upright Freezers**

Temperature Range -50°C to -86°C

Fisher Cat. No.	Capacity Cu Ft (L)	Electrical	Amps/Breaker (Plug)	Interior Dimensions H x W x D inches (mm)	Exterior Dimensions H x W x D inches (mm)	Shipping Weight lbs (kg)
13-989-704 13-989-705 13-989-725	17.2 (487)	115V/60 Hz 1Ø 208-230V/60 Hz 1Ø 230V/50 Hz 1Ø	16/20 (P2) 12/15 (P4) 12/16 (P7)	50.5 x 23.5 x 25 (1283 x 597 x 635)	77.8 x 36.7 x 35.5 (1975 x 931 x 901)	720 (326)
13-989-706 13-989-707 13-989-729	20.2 (572)	115V/60 Hz 1Ø 208-230V/60 Hz 1Ø 230V/50 Hz 1Ø	16/20 (P2) 12/15 (P4) 12/16 (P7)	50.5 x 28.5 x 24.3 (1283 x 724 x 616)	77.8 x 41.7 x 36.2 (1975 x 1058 x 920)	770 (349)
13-989-715 13-989-716 13-989-732	24.4 (691)	115V/60 Hz 1Ø 208-230V/60 Hz 1Ø 230V/50 Hz 1Ø	16/20 (P2) 12/15 (P4) 12/16 (P7)	50.5 x 34.5 x 24.3 (1283 x 876 x 616)	77.8 x 47.7 x 36.2 (1975 x 1210 x 920)	830 (376)

**Thermo Scientific Revco Value PLUS -86°C Upright Freezers**

Temperature Range -50°C to -86°C

Fisher Cat. No.	Capacity Cu Ft (L)	Electrical	Amps/Breaker (Plug)	Interior Dimensions H x W x D inches (mm)	Exterior Dimensions H x W x D inches (mm)	Shipping Weight lbs (kg)
13-989-723 13-989-724 13-989-726	17.2 (487)	115V/60 Hz 1Ø 208-230V/60 Hz 1Ø 230V/50 Hz 1Ø	16/20 (P2) 12/15 (P4) 12/16 (P7)	50.5 x 23.5 x 25 (1283 x 597 x 635)	77.8 x 36.7 x 35.5 (1975 x 931 x 901)	720 (326)
13-989-702 13-989-703 13-989-728	20.2 (572)	115V/60 Hz 1Ø 208-230V/60 Hz 1Ø 230V/50 Hz 1Ø	16/20 (P2) 12/15 (P4) 12/16 (P7)	50.5 x 28.5 x 24.3 (1283 x 724 x 616)	77.8 x 41.7 x 36.2 (1975 x 1058 x 920)	770 (349)
13-989-713 13-989-714 13-989-731	24.4 (691)	115V/60 Hz 1Ø 208-230V/60 Hz 1Ø 230V/50 Hz 1Ø	16/20 (P2) 12/15 (P4) 12/16 (P7)	50.5 x 34.5 x 24.3 (1283 x 876 x 616)	77.8 x 47.7 x 36.2 (1975 x 1210 x 920)	830 (376)

**Warranty Information**

**United States and Canada:**

Standard Revco PLUS models carry a 2-year warranty on parts and labor and a total 3, 4, or 5 year warranty on compressor parts for the Value PLUS, Elite PLUS, and Ultima PLUS, respectively.

**International (Outside of U.S. and Canada):**

Standard Revco PLUS models carry a 16-month full warranty for parts and a total 60-month warranty on compressor parts for the Value PLUS, Elite PLUS, and Ultima PLUS.

**Certification information and Line Cord Info**

- Meets NEMA, UL61010-1, UL471, CUL, CE, TUV, IEC60335-2-89/Climate Class T (Tropical) criteria
- Calibration Certification Available
- Validation Testing Program Available



Freezers supplied with line cord plugs (P) require corresponding receptacles illustrated in the Line Cord Plug Reference. Catalog selection charts list each standard model with voltage, rated amperage, recommended circuit breaker size and NEMA electrical plug information.

**Line Cord Plug Reference**

Models with this code	have this plug	require this receptacle	NEMA Reference	
			Plug	Receptacle
P1			5-15P	5-15R
P2			5-20P	5-20R
P3			5-30P	5-30R
P4			6-15P	6-15R
P5			6-20P	6-20R
P6			6-30P	6-30R
P7 European				
P8 British				



For customer service, call 1-800-766-7000.  
To fax an order, use 1-800-926-1166.  
To order online: [www.fishersci.com](http://www.fishersci.com)