



Thermo Scientific Revco High-Performance Laboratory Refrigerators and Freezers

Laboratory

Blood Bank

Chromatography

Pharmacy

Plasma

Enzyme

your samples
our obsession



Thermo Scientific Revco High-Performance Laboratory Refrigerators and Freezers

It's a cold hard fact:

Temperature variation can have an impact on the viability of samples and the efficacy of reagents. These variations can shorten product shelf life, degrade enzymes and reduce vaccine effectiveness. Therefore, it's important to choose a high-performance refrigerator or freezer that has been designed for the demanding standards of your laboratory.

Our Thermo Scientific™ Revco™ high-performance lab refrigerators and freezers are designed from the ground up for your most demanding applications, with features not found in domestic units, including:

Advanced microprocessor-controlled setpoints for precise temperature regulation

Directional airflow for uniform temperature at all shelf levels

Key-operated alarms and setpoint security

Easy-to-read digital displays

Multi-pane, glass doors

Optional temperature recording charts to confirm storage parameters

Standard 1-inch access ports



We continually search for ways to enhance our products and processes responsibly:

- Reduce the use of refrigerants in our cold storage equipment
- Use solvent-free, paint technology
- We recycle scrap metal, copper and aluminum in our production facilities
- Fluorescent lighting in our refrigerators replaced with mercury-free, LED lights

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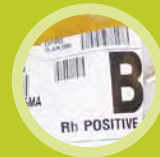


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**Services, Accessories
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Advanced design. Quality construction.

Sample protection that fits your application.

Like a vault protecting your valuables, protection starts with a solid foundation:

- Powerful industrial compressors provide fast recovery from door openings and the addition of new samples
- Heavy walled, CFC-free insulation ensure temperature stability and minimize energy use
- Microprocessor control provides flexibility in setpoints and alarms, plus accurate temperature control

Our high-performance refrigerators and freezers are designed to meet UL and CE criteria for safety and performance. See ordering charts for certifications per specific voltages.



45.8 cu. ft. sliding door, chromatography refrigerator

Clockwise from L to R: 4.9 cu. ft. undercounter lab freezer,
29.2 cu. ft. blood bank refrigerator, 51.1 cu. ft. lab refrigerator,
23.3 cu. ft. enzyme freezer

SELECTOR GUIDE	4°C	-20°C	-30°C
Feature Selections			
UL/CE compliant	•	•	•
Keyed door security	•	•	•
Adjustable setpoint/alarm	•	•	•
Remote alarm contact	•	•	•
Electronic alarm/probe test	•	•	•
Available chart recorder	•	•	•
Standard access ports	•	•	•
Choice of shelves/drawers	•	•	•
Self-closing 90° stop door	•	•	•
Door type	solid or glass	solid	solid
Forced air cooling	•		•
Automatic defrost	•		•
Convection cooling		•	
Manual defrost		•	
Interior lighting	•		
Applications			
General storage	•	•	•
Reagents and kits	•		
Whole blood	•		
Plasma			•
Enzymes and temperature sensitive materials		•	
Chromatography apparatus and instrumentation	•		
Test samples	•	•	•
Biologicals	•	•	•
Culture media	•		
Patient medication	•	•	
Vaccines	•	•	•
Shelf life testing	•		
PCR reagents and primers	•	•	

Microprocessor-Based Controller

simplifies operation, improves reliability

Setpoint Security

Key-operated triple position switch for main power and alarm; locks in temperature and alarm setpoints to minimize setpoint error and prevent tampering

Graphic Thermometer

Easy to view, shows normal, high or low temperature condition; steady green for normal, flashing top bar for overtemperature, flashing bulb for undertemperature

Power Failure

Illuminated when main power is interrupted

Service Required

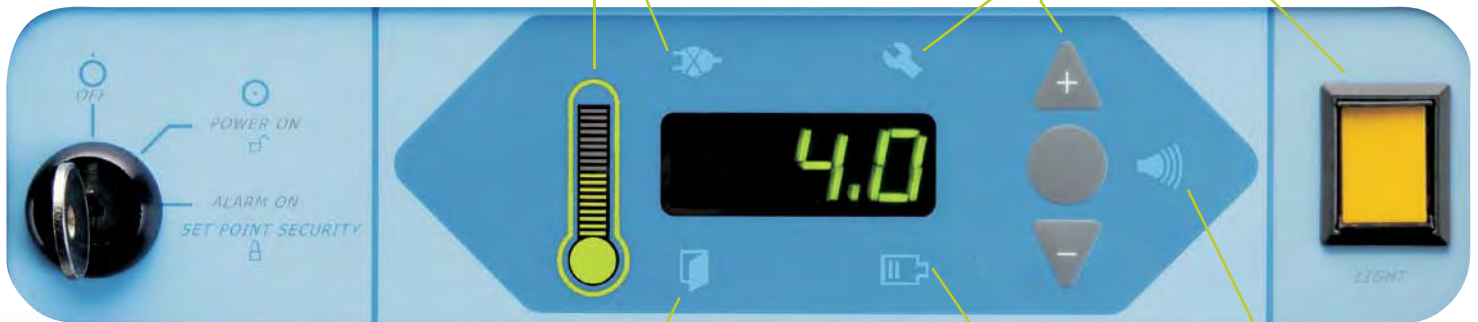
Illuminated when controller is in programming mode, or if simulated warm or cold conditions fail to occur during alarm test function

Touchpad Data Entry

Increases or decreases setpoint values in programming mode

Interior Light Switch

Enables interior lighting system (on glass door cabinets)



Automatic Defrost System

Defrost sensor manages automatic defrost cycle (except manual defrost models)

Door Ajar

Illuminated when door is left open (not available on sliding glass door cabinet)

Battery Backup

Continuous charge provides full alarm function in case of power failure

Low Battery Alarm

Illuminated when the alarm system battery backup charge is low

Audible Alarm

Simulates in the event of warm, cold or power loss conditions. Mute will silence audible alarm with 6 minute ring back interval; display remains flashing

TempTest™ Alarm Test

Creates simulated overtemperature and undertemperature condition and activates audible and visual alarms; display flashes momentarily when test is complete



Bright, Easy-to-Read Display

Lets you know at-a-glance if your unit is running within range. Visual and audio alarms are designed to alert you in the event of a problem. Immediate access to high and low temperature parameters with the press of a button.

Touchpad Scan

Changes main display; also used to access various programming and service functions (alarm mute, recall 6 minutes).

Digital Display

Indicates cabinet temperature during normal operation, flashes during alarm condition or setpoint adjustment. Displays other values with touchpad sequence.

Service Parameters

Touchpad sequence allows override access to control function defaults for troubleshooting functions.

Automatic and Manual Defrost Selection Guide



Cu. Ft. (L)	4.7 (133)	11.5 (326)	23.3 (659)	29.2 (826)	45.8 (1297)	51.1 (1447)	78.8 (2231)
Automatic Defrost Models							
Chromatography Refrigerators			•	•	•	•	•
High-Performance Lab Refrigerators	•	•	•	•	•	•	•
Blood Bank Refrigerators	•	•	•	•		•	
Pharmacy Refrigerators		•	•	•		•	
High-Performance Lab Freezers, -30°C	•	•	•	•		•	
Plasma Freezers, -30°C	•	•	•	•		•	
Manual Defrost Models							
Enzyme Freezer, -20°C			•	•			
High-Performance Lab Freezers, -20°C			•	•			

Remote alarm contacts are included on all models.

Laboratory Refrigerators

Our Revco **high-performance, laboratory refrigerators** are available in a wide range of cabinet sizes to fit virtually any application need. Each refrigerator combines advanced microprocessor temperature control with the highest quality cabinet construction and alarm systems. Positive-forced air circulation maintains temperature uniformity to protect your valuable samples and inventory.

- Forced air circulation for uniform temperature and fast door opening recovery
- Heat-free defrost for maximum uniformity
- Choice of glass or solid doors
- Four casters, front two are lockable
- 1" (2.5cm) insulated access port
- Bright, LED interior lighting
- Adjustable, epoxy-coated wire shelves are standard (optional drawers)
- TempTest electronic probe/alarm test
- Keyed on/off switch with setpoint security
- Self-closing door with 90° stop (except 45.8 cu. ft. model)
- Built-in remote alarm contacts
- Optional 4-20 milliamp output
- **NEW!** Optional +5°C setpoint can be customized for users validating lab refrigerators in the +2 to +8°C setpoint (not available on 45 cu. ft. sliding door or 78 cu. ft. trip door models; order option 7508TA with your lab refrigerator)

Thermo Scientific Revco High-Performance Laboratory Refrigerators With Glass Doors

Temperature Range: +1°C to +8°C, factory preset to +4°C (auto defrost) Optional +5°C setpoint available (order option 7508TA)

Model No.	Cu. Ft. (L)	Voltage (Hz)	Certification	Amps/ Breaker (Plug)	Cabinet	Door	Adjustable Shelves	Int. Dimensions* H x D x W inches (mm)	Ext. Dimensions* H x D x W inches (mm)	Ship Weight lb (kg)
RGL404A RGL404D	4.9 (133)	115 (60) 208/230 (60)	UL UL	8.0/15 (P1) 6.0/15 (P4)	undercounter	single	3	20.0 x 20.5 x 20.0 (508 x 521 x 508)	33.4 x 26.0 x 24.0 (850 x 660 x 610)	220 (100)
Exterior height before caster installation.										
RGL1204A RGL1204D	11.5 (326)	115 (60) 208/230 (60)	UL UL	9.4/15 (P1) 6.0/15 (P4)	space saver	single	4	52.4 x 21.75 x 20.0 (1331 x 553 x 508)	73.6 x 29.4 x 24.0 (1869 x 748 x 610)	280 (127)
RGL2304A RGL2304D	23.3 (659)	115 (60) 208/230 (60)	UL UL	9.4/15 (P1) 6.0/15 (P4)	upright	single	4	58.0 x 29.0 x 24.0 (1473 x 737 x 610)	79.2 x 37.2 x 28.0 (2012 x 945 x 711)	370 (168)
RGL3004A RGL3004D	29.2 (826)	115 (60) 208/230 (60)	UL UL	9.4/15 (P1) 6.0/15 (P4)	upright	single	4	58.0 x 29.0 x 30.0 (1473 x 737 x 762)	79.2 x 37.2 x 34.0 (2012 x 945 x 864)	435 (197)
13-991-139 13-991-140	45.8 (1297)	115 (60) 208/230 (60)	UL UL	15.0/20 (P2) 8.5/15 (P4)	upright	double sliding	8	58.0 x 26.0 x 52.5 (1473 x 660 x 1334)	79.1 x 34.5 x 56.5 (2010 x 876 x 1435)	670 (304)
RGL5004A RGL5004D	51.1 (1447)	115 (60) 208/230 (60)	UL UL	15.0/20 (P2) 8.5/15 (P4)	upright	double	8	58.0 x 29.0 x 52.5 (1473 x 737 x 1334)	79.2 x 37.2 x 56.5 (2012 x 945 x 1435)	585 (265)
RGL7504A RGL7504D	78.8 (2231)	115 (60) 208/230 (60)	UL UL	16.0/20 (P2) 10.5/15 (P4)	upright	triple	12	58.0 x 29.0 x 81.0 (1473 x 737 x 2057)	79.2 x 37.2 x 85.0 (2012 x 945 x 2159)	805 (365)

* Published interior volumes are nominal; useable cu.ft. (L) capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application. 4.7 cu. ft. exterior dimensions are without casters.



Optional, inkless, seven day, graphic, chart recorder

Control Panel:

Keyed on/off switch with set point security

Microprocessor control system with audio and visual alarms

Bright, digital temperature display

Doors:

Spring-loaded, self closing doors with 90° stay-open feature

Lockable doors for added sample security

Cabinets shown: 23.3 cu. ft. single door lab refrigerator with glass door and 51.1 cu. ft. double door lab refrigerator with solid doors

Thermo Scientific Revco Laboratory Refrigerators With Solid Doors

Temperature Range: +1°C to +8°C, factory preset to +4°C (auto defrost) Optional +5°C setpoint available (order option 7508TA)

Model No.	Cu. Ft. (L)	Voltage (Hz)	Certification	Amps/ Breaker (Plug)	Cabinet	Door	Adjustable Shelves	Int. Dimensions* H x D x W inches (mm)	Ext. Dimensions* H x D x W inches (mm)	Ship Weight lb (kg)
13-990-156	4.9	115 (60)	UL	8.0/15 (P1)	undercounter	single	3	20.0 x 20.5 x 20.0	33.4 x 26.0 x 24.0	220
13-990-155	(133)	208/230 (60)	UL	6.0/15 (P4)				(508 x 521 x 508)	(850 x 660 x 610)	(100)
Exterior height before caster installation.										
13-991-89	11.5	115 (60)	UL	9.4/15 (P1)	space saver	single	4	52.4 x 21.75 x 20.0	73.6 x 29.4 x 24.0	280
14-259-230	(326)	208/230 (60)	UL	6.0/15 (P4)				(1331 x 553 x 508)	(1869 x 748 x 610)	(127)
13-991-52	23.3	115 (60)	UL	9.4/15 (P1)	upright	single	4	58.0 x 29.0 x 24.0	79.2 x 37.2 x 28.0	370
13-991-1	(659)	208/230 (60)	UL	6.0/15 (P4)				(1473 x 737 x 610)	(2012 x 945 x 711)	(168)
13-991-130	29.2	115 (60)	UL	9.4/15 (P1)	upright	single	4	58.0 x 29.0 x 30.0	79.2 x 37.2 x 34.0	435
13-991-131	(826)	208/230 (60)	UL	6.0/15 (P4)				(1473 x 737 x 762)	(2012 x 945 x 864)	(197)
13-991-53	51.1	115 (60)	UL	15.0/20 (P2)	upright	double	8	58.0 x 29.0 x 52.5	79.2 x 37.2 x 56.5	585
13-991-2	(1447)	208/230 (60)	UL	8.5/15 (P4)				(1473 x 737 x 1334)	(2012 x 945 x 1435)	(265)
13-991-3	78.8	115 (60)	UL	16.0/20 (P2)	upright	triple	12	58.0 x 29.0 x 81.0	79.2 x 37.2 x 85.0	805
13-991-4	(2231)	208/230 (60)	UL	10.5/15 (P4)				(1473 x 737 x 2057)	(2012 x 945 x 2159)	(365)

* Published interior volumes are nominal; useable cu.ft. (L) capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application. 4.7 cu. ft. exterior dimensions are without casters.

Chromatography Refrigerators

Our **Revco high-performance chromatography refrigerators** are designed for a variety of applications requiring close temperature control, full access to chromatography instrumentation, and easy set-up of instrumentation and apparatus within the chamber.



- Forced air circulation for uniform temperature and fast door opening recovery
- Heat-free defrost for maximum uniformity
- Two 2" (5 cm) access ports with insulated hinged covers
- Duplex interior plug
- Four casters, front two are lockable
- Bright, LED interior lighting
- Adjustable, epoxy-coated wire shelves are standard (optional drawers)
- TempTest electronic probe/alarm test
- Keyed on/off switch with setpoint security
- Self-closing door with 90° stop (except 45.8 cu. ft. model)
- Built-in remote alarm contacts
- Optional 4-20 milliamp output

Thermo Scientific Revco High-Performance Chromatography Refrigerators

Temperature Range: +1°C to +8°C, factory preset to +4°C (auto defrost)

Model No.	Cu. Ft. (L)	Voltage (Hz)	Certification	Amps/Breaker (Plug)	Door	Full Adjustable Shelves	Half Adjustable Shelves	Int. Dimensions* H x D x W inches (mm)	Ext. Dimensions* H x D x W inches (mm)	Ship Weight lb (kg)
22-245-957 13-989-231	23.3 (659)	115 (60) 208/230 (60)	UL UL	9.4/15 (P1) 6.0/15 (P4)	single, glass	0	2	58.0 x 29.0 x 24.0 (1473 x 737 x 610)	79.2 x 36.4 x 28.0 (2012 x 925 x 711)	425 (193)
13-991-136 REC3004D	29.2 (826)	115 (60) 208/230 (60)	UL UL	9.4/15 (P1) 6.0/15 (P4)	single, glass	0	2	58.0 x 29.0 x 30.0 (1473 x 737 x 762)	79.2 x 36.4 x 34.0 (2012 x 925 x 864)	435 (197)
13-991-142 13-991-143	45.8 (1297)	115 (60) 208/230 (60)	UL UL	15.0/20 (P2) 8.5/15 (P4)	double, sliding glass	4	2	58.0 x 26.0 x 52.5 (1473 x 660 x 1334)	79.1 x 34.5 x 56.5 (2010 x 838 x 1435)	670 (304)
13-990-17A 13-990-17B	51.1 (1447)	115 (60) 208/230 (60)	UL UL	15.0/20 (P2) 8.5/15 (P4)	double, glass	4	2	58.0 x 29.0 x 52.5 (1473 x 737 x 1334)	79.2 x 36.4 x 56.5 (2012 x 925 x 1435)	580 (263)
13-991-85 13-991-86	78.8 (2231)	115 (60) 208/230 (60)	UL UL	16.0/20 (P2) 10.5/15 (P4)	triple, glass	8	2	58.0 x 29.0 x 81.0 (1473 x 737 x 2057)	79.2 x 36.4 x 85.0 (2012 x 925 x 2159)	965 (438)

* Published interior volumes are nominal; useable cu.ft. (L) capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application.



Optional inless, seven day, graphic, chart recorder

Control Panel:

Keyed on/off switch with set point security

Microprocessor control system with audio and visual alarms

Bright, digital temperature display

Bright, LED interior lighting illuminates the entire cabinet



Epoxy-coated, wire open shelves, adjustable in 1 in. increments for flexibility, available in both full and half shelf

Doors:

Robust, spring-loaded, self closing doors with 90° stay-open feature (sliding glass on 45 cu. ft. model)

Safety glass, double-pane doors

Lockable doors for added sample security



Cabinets shown: 78.8 cu. ft. triple-door and 45.8 cu. ft. sliding door chromatography refrigerators



Blood Bank Refrigerators

Our **Revco high-performance blood bank refrigerators** are designed to meet strict requirements established by the AABB and FDA for storage of whole blood and blood components. DIN 58371 compliant for our 326, 659 and 826 liter capacity units (230V/50Hz only).

The complete selection of +4°C refrigerators feature simplified push-button alarm test functions and reliable, field-proven refrigeration systems.

- Forced air circulation for uniform temperature and fast door opening recovery
- Heat-free defrost for maximum uniformity
- Standard, stainless steel interior
- Built-in chart recorder (freestanding on 4.9 cu. ft. undercounter model)
- Second cabinet temperature probe
- Four casters, front two are lockable
- 1" (2.5cm) insulated access port
- Bright, LED interior lighting
- Stainless steel, full extendable and adjustable drawers (optional shelves)
- TempTest electronic probe/alarm test
- Keyed on/off switch with setpoint security
- Self-closing door with 90° stop
- Built-in remote alarm contacts
- Optional 4-20 milliamp output

Thermo Scientific Revco High-Performance Blood Bank Refrigerators

Temperature Range: +1°C to +8°C, factory preset to +4°C (auto defrost)

Model No.	Cu. Ft./L (Blood Bag Capacity)**	Voltage (Hz)	Certification	Amps/ Breaker (Plug)	Cabinet	Door	Drawers	Int. Dimensions* H x D x W inches (mm)	Ext. Dimensions* H x D x W inches (mm)	Ship Weight lb (kg)
13-990-260 14-259-232	4.9/133 (64)	115 (60) 208/230 (60)	UL UL	8.0/15 (P1) 6.0/15 (P4)	undercounter	single, solid	2	20.0 x 20.5 x 20.0 (508 x 520 x 508)	33.4 x 26.0 x 24.0 (850 x 660 x 610)	220 (100)
An additional 2" is added when standard casters are installed.										
22-266-177 14-259-231	11.5/326 (192)	115 (60) 208/230 (60)	UL UL	9.4/15 (P1) 6.0/15 (P4)	space saver	single, glass	6	52.4 x 21.75 x 20.0 (1331 x 552 x 508)	73.6 x 29.4 x 24.0 (1869 x 762 x 610)	320 (145)
13-990-60 13-990-650	23.3/659 (385)	115 (60) 208/230 (60)	UL UL	9.4/15 (P1) 6.0/15 (P4)	upright	single, glass	7	58.0 x 29.0 x 24.0 (1473 x 737 x 610)	79.2 x 36.4 x 28.0 (2012 x 925 x 711)	470 (213)
13-991-121 13-990-651	29.2/826 (426)	115 (60) 208/230 (60)	UL UL	9.4/15 (P1) 6.0/15 (P4)	upright	single, glass	6	58.0 x 29.0 x 30.0 (1473 x 737 x 762)	79.2 x 36.4 x 34.0 (2012 x 925 x 864)	505 (229)
13-990-54 REB5004D	51.1/1447 (770)	115 (60) 208/230 (60)	UL UL	15.0/20 (P2) 8.5/15 (P4)	upright	double, glass	14	58.0 x 29.0 x 52.5 (1473 x 737 x 1334)	79.2 x 36.4 x 56.5 (2012 x 925 x 1435)	640 (290)

* Published interior volumes are nominal; useable cu.ft. (L) capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application. 4.9 cu. ft. exterior dimensions are without casters.

** Nominal capacity based on 450 mL whole blood bags.

Independent automated monitoring is required such as a chart recorder. Note: this medical application is considered Class II for FDA but is currently Class I for MDD.

Blood Bank Refrigerators



Standard, built-in, inkless, seven day, graphic, chart recorder (freestanding on undercounter model)

Control Panel:

Keyed on/off switch with set point security

Microprocessor control system with audio and visual alarms

Bright, digital temperature display

Bright, LED interior lighting illuminates the entire cabinet

Doors:

Spring-loaded, self closing doors with 90° stay-open feature

Lockable doors for added sample security

Safety glass, double-pane doors

Full extension, adjustable stainless steel drawers



Cabinets shown: 51.1 cu. ft. double door and 11.5 cu. ft. single door blood bank refrigerators

► See pages 22-24 for Options and Accessories



Pharmacy Refrigerators

Available in four sizes, **our Revco high-performance pharmacy refrigerators** deliver stable temperature control over a range of +1°C to +8°C. They can be configured easily for accurate storage and retrieval of pharmacy products, and feature full extension stainless steel roll-out drawers.

- Forced air circulation for uniform temperature and fast door opening recovery
- Heat-free defrost for maximum uniformity
- Four casters, front two are lockable
- 1" (2.5cm) insulated access port
- Bright, LED interior lighting
- Stainless steel, full extendable and adjustable drawers
- TempTest electronic probe/alarm test
- Keyed on/off switch with setpoint security
- Self-closing door with 90° stop
- Built-in remote alarm contacts
- Optional 4-20 milliamp output
- Optional shelves

Thermo Scientific Revco High-Performance Pharmacy Refrigerators

Temperature Range: +1°C to +8°C, factory preset to +4°C (auto defrost)

Model No.	Cu. Ft. (L)	Voltage (Hz)	Certification	Amps/ Breaker (Plug)	Cabinet	Door	Drawers	Int. Dimensions* H x D x W inches (mm)	Ext. Dimensions* H x D x W inches (mm)	Ship Weight lb (kg)
13-991-202 RPR1204D	11.5 (326)	115 (60) 208/230 (60)	UL UL	9.4/15 (P1) 6.0/15 (P4)	upright	single, glass	5	52.4 x 21.8 x 20.0 (1320 x 552 x 500)	73.6 x 29.4 x 24.0 (1869 x 762 x 610)	320 (145)
13-991-200 13-991-201	23.3 (659)	115 (60) 208/230 (60)	UL UL	9.4/15 (P1) 6.0/15 (P4)	upright	single, glass	6	58.0 x 29.0 x 24.0 (1473 x 737 x 610)	79.2 x 36.4 x 28.0 (2012 x 925 x 711)	470 (213)
13-991-133 13-991-134	29.2 (826)	115 (60) 208/230 (60)	UL UL	9.4/15 (P1) 6.0/15 (P4)	upright	single, glass	6	58.0 x 29.0 x 30.0 (1473 x 737 x 762)	79.2 x 36.4 x 34.0 (2012 x 925 x 864)	505 (227)
13-991-204 13-991-205	51.1 (1447)	115 (60) 208/230 (60)	UL UL	15.0/20 (P2) 8.5/15 (P4)	upright	double, glass	12	58.0 x 29.0 x 52.5 (1473 x 737 x 1334)	79.2 x 36.4 x 56.5 (2012 x 925 x 1435)	640 (290)

* Published interior volumes are nominal; useable cu.ft. (L) capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application.



Optional, inkless, seven day, graphic, chart recorder

Control Panel:

Keyed on/off switch with set point security
Microprocessor control system with audio and visual alarms
Bright, digital temperature display

Doors:

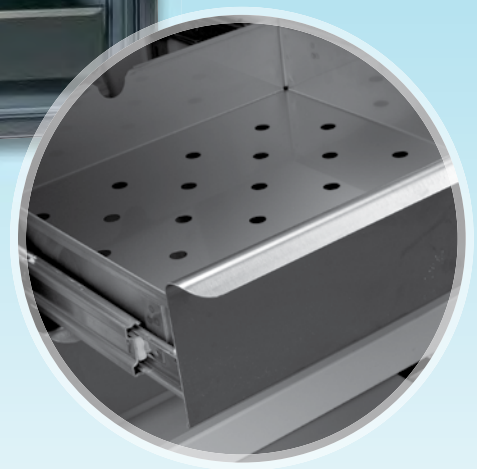
Spring-loaded, self closing doors with 90° stay-open feature
Lockable doors for added sample security
Safety glass, double-panel doors



Cabinets shown: and 11.5 cu. ft. single door and 51.1 cu. ft. double door pharmacy refrigerators

Bright, LED interior lighting illuminates the entire cabinet

Adjustable, full extension, stainless steel drawers



Automatic and Manual Defrost Laboratory Freezers

Our **Revco high-performance, laboratory freezers** are designed for medical and scientific applications requiring storage of reagents, pharmaceuticals, biologicals, and other commonly used laboratory materials such as primers, siRNA molecules and FBS. A range of models offers cabinet sizes to fit your specific space needs and storage volume requirements, from undercounter units to full size models. Available in both automatic and manual defrost options (manual defrost only available on 23.3 cu. ft./659L and 29.2 cu. ft. (826L.)

Automatic Defrost Models:

- Forced air circulation for uniform temperature and fast door opening recovery
- Non-invasive defrost with time and temperature guided cycle

Manual Defrost Models:

- Cold wall convection cooling for temperature uniformity
- Manual defrost for optimum control

All Models:

- Four casters, front two are lockable
- 1" (2.5cm) insulated access port
- Adjustable, epoxy-coated wire shelves are standard (optional drawers)
- TempTest electronic probe/alarm test
- Keyed on/off switch with setpoint security
- Self-closing door with 90° stop
- Built-in remote alarm contacts
- Optional 4-20 milliamp output

Thermo Scientific Revco High-Performance Freezers with Automatic Defrost

Temperature Range: -30°C (auto defrost)

Model No.	Cu.Ft. (L)	Voltage (Hz)	Certification	Amps/ Breaker (Plug)	Cabinet	Door	Adjustable Shelves	Int. Dimensions* H x D x W inches (mm)	Ext. Dimensions* H x D x W inches (mm)	Ship Weight lb (kg)
13-990-266 14-259-233	4.9 (133)	115 (60) 208/230 (60)	UL UL	8.0/15 (P1) 6.0/15 (P4)	undercounter	single	3	20.0 x 20.5 x 20.0 (508 x 521 x 508)	33.4 x 26.0 x 24.0 (850 x 660 x 610)	220 (100)
Exterior height before caster installation.										
22-285-655	11.5 (326)	115 (60)	UL	8.0/15 (P1)	space saver	single	4	52.4 x 21.0 x 20.0 (1331 x 553 x 508)	73.6 x 30.0 x 24.0 (1869 x 748 x 610)	280 (127)
13-990-70 13-989-229	23.3 (659)	115 (60) 208/230 (60)	UL UL	16.0/20 (P1) 12.0/15 (P4)	upright	single	4	58.0 x 29.0 x 24.0 (1473 x 737 x 610)	79.2 x 37.2 x 28.0 (2012 x 945 x 711)	425 (193)
13-991-127 13-989-230	29.2 (826)	115 (60) 208/230 (60)	UL UL	16.0/20 (P1) 12.0/15 (P4)	upright	single	4	58.0 x 29.0 x 30.0 (1473 x 737 x 762)	79.2 x 37.2 x 34.0 (2012 x 945 x 864)	445 (197)
22-285-651 22-285-652	51.1 (1447)	115 (60) 208/230 (60)	UL UL	16.0/20 (P2) 12.0/15 (P4)	upright	double	8	58.0 x 29.0 x 52.5 (1473 x 737 x 1334)	79.2 x 37.2 x 56.5 (2012 x 945 x 1435)	600 (272)

* Published interior volumes are nominal; useable cu.ft. (L) capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application. 4.7 cu. ft. exterior dimensions are without casters.

▶ See pages 22-25 for Options and Accessories



Optional, inkless, seven day, graphic, chart recorder

Control Panel:

Keyed on/off switch with set point security

Microprocessor control system with audio and visual alarms

Bright, digital temperature display

Doors:

Spring-loaded, self closing doors with 90° stay-open feature

Lockable doors for added sample security

Cabinets shown: 23.3 cu. ft. single door lab freezer and 51.1 cu. ft. double door lab freezer

Thermo Scientific Revco High-Performance Freezers with Manual Defrost

Temperature Range: -20°C (manual defrost)

Model No.	Cu.Ft. (L)	Voltage (Hz)	Certification	Amps/ Breaker (Plug)	Cabinet	Door	Adjustable Shelves	Int. Dimensions* H x D x W inches (mm)	Ext. Dimensions* H x D x W inches (mm)	Ship Weight lb (kg)
13-990-205	23.3	115 (60)	UL	13.5/20 (P2)	upright	single,	4	58.0 x 29.0 x 24.0	79.2 x 37.2 x 28.0	425
13-990-207	(659)	208/230 (60)	UL	5.6/15 (P4)		solid		(1473 x 737 x 610)	(2012 x 945 x 711)	(193)
UGL3020A	29.2	115 (60)	UL	16.0/20 (P1)	upright	single	4	58.0 x 29.0 x 30.0	79.2 x 37.2 x 34.0	445
UGL3020D	(826)	208/230 (60)	UL	12.0/15 (P4)				(1473 x 737 x 762)	(2012 x 945 x 864)	(197)

* Published interior volumes are nominal; useable cu.ft. (L) capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application.



Plasma Freezers

Our **pre-set Revco high-performance -30°C plasma freezers with automatic defrost** are designed to meet AABB and FDA standards for safety and performance in plasma storage. Sample security and protection are especially critical when storing plasma.

Our units feature setpoint security with master switch control, plus a clearly visible temperature display and audio/visual alarm systems to assure proper operating conditions.

Five different models are available to meet your particular storage volume and lab space requirements.

- Forced air circulation for uniform temperature and fast door opening recovery
- Smart defrost with temperature guided cycle
- Standard, stainless steel interior
- Built-in chart recorder (4.9 cu. ft. model freestanding)
- Four casters, front two are lockable
- 1" (2.5cm) insulated access port
- TempTest electronic probe/alarm test
- Keyed on/off switch with setpoint security
- Self-closing door with 90° stop
- Built-in remote alarm contacts
- Optional 4-20 milliamp output

Thermo Scientific Revco High-Performance Plasma Freezers with Automatic Defrost

Temperature Range: -30°C (auto defrost)

Model No.	Cu.Ft./L (Plasma Box Capacity)**	Voltage (Hz)	Certification	Amps/ Breaker (Plug)	Cabinet	Door	Drawers	Int. Dimensions* H x D x W inches (mm)	Ext. Dimensions* H x D x W inches (mm)	Ship Weight lb (kg)
13-991-148 14-259-234	4.9/133 (78)	115 (60) 208/230 (60)	UL UL	8.0/15 (P1) 6.0/15 (P4)	undercounter	single	2	20.0 x 20.5 x 20.0 (508 x 521 x 508)	33.4 x 26.0 x 24.0 (850 x 660 x 610)	220 (100)
Exterior height before caster installation										
13-990-83	11.5/326	115 (60)	UL	8.0/15 (P1)	space saver	single	7	52.4 x 21.0 x 20.0 (1331 x 533 x 508)	73.6 x 30.0 x 24.0 (1869 x 762 x 610)	365 (166)
22-285-706 13-990-423	23.3/659 (532)	115 (60) 208/230 (60)	UL UL	16.0/20 (P2) 12.0/15 (P4)	upright	single	7	58.0 x 29.0 x 24.0 (1473 x 737 x 610)	79.2 x 37.2 x 28.0 (2012 x 945 x 711)	425 (193)
13-991-124 13-990-652	29.2/826 (665)	115 (60) 208/230 (60)	UL UL	16.0/20 (P2) 12.0/15 (P4)	upright	single	7	58.0 x 29.0 x 30.0 (1473 x 737 x 762)	79.2 x 37.2 x 34.0 (2012 x 945 x 864)	580 (263)
22-285-707 13-990-653	51.1/1447 (1064)	115 (60) 208/230 (60)	UL UL	16.0/20 (P2) 12.0/15 (P4)	upright	double	14	58.0 x 29.0 x 52.5 (1473 x 737 x 1334)	79.2 x 37.2 x 56.5 (2012 x 945 x 1435)	600 (272)

* Published interior volumes are nominal; useable cu.ft. (L) capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application. 4.7 cu. ft. exterior dimensions are without casters.

** Nominal capacity based on 250 mL plasma boxes.

Independent automated monitoring is required such as a chart recorder. Note: this medical application is considered Class II for FDA but is currently Class I for MDD.



Standard, built-in inkless, seven day, graphic, chart recorder (free-standing on undercounter model)

Control Panel:
Keyed on/off switch with set point security

Microprocessor control system with audio and visual alarms

Bright, digital temperature display

Doors:
Spring-loaded, self closing doors with 90° stay-open feature

Lockable doors for added sample security



Adjustable, full extension, stainless steel drawers

Cabinets shown: 51.1 cu. ft. double door undercounter and 23.3 cu. ft. single door plasma freezers

▶ See pages 22-25 for Options and Accessories

Manual Defrost Enzyme Freezers

Our manual defrost **Revco high-performance, -20°C upright freezers** are designed for storage applications in which even slight intermittent coil warming during auto defrost cycles cannot be tolerated. Models feature gravity convection air systems for maximum temperature stability without blowers or fans.

- Cold wall convection cooling for temperature uniformity
- Manual defrost for optimum control
- Four casters, front two are lockable
- 1" (2.5cm) insulated access port
- Adjustable, epoxy-coated wire shelves are standard (optional drawers)
- TempTest electronic probe/alarm test
- Keyed on/off switch with setpoint security
- Self-closing door with 90° stop
- Built-in remote alarm contacts
- Optional 4-20 milliamp output



Optional, inless, seven day, graphic, chart recorder

Control Panel:

- Keyed on/off switch with set point security
- Microprocessor control system with audio and visual alarms
- Bright, digital temperature display

Easily accessible inventory system

Doors:

- Spring-loaded, self closing doors with 90° stay-open feature
- Lockable doors for added sample security
- Smooth, ergonomic handle

▶ See pages 22-24 for Options and Accessories

Thermo Scientific Revco High-Performance Enzyme Freezers with Manual Defrost

Temperature Range: -20°C (manual defrost)

Model No.	Cu.Ft. (L)	Voltage (Hz)	Certification	Amps/ Breaker (Plug)	Cabinet	Door	Shelves	Int. Dimensions* H x D x W inches (mm)	Ext. Dimensions* H x D x W inches (mm)	Ship Weight lb (kg)
13-990-206	23.3 (659)	115 (60)	UL	13.5/20 (P1)	upright	single	9	58.0 x 29.0 x 24.0 (1473 x 737 x 610)	79.2 x 37.2 x 28.0 (2012 x 945 x 711)	425 (193)
13-990-654		208/230 (60)	UL	5.6/15 (P4)						
UEN3020A	29.2 (826)	115 (60)	UL	16.0/20 (P1)	upright	single	9	58.0 x 29.0 x 30.0 (1473 x 737 x 762)	79.2 x 37.2 x 34.0 (2012 x 945 x 864)	445 (197)
UEN3020D		208/230 (60)	UL	12.0/15 (P4)						

* Published interior volumes are nominal; useable cu. ft. (L) capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application.

Services

Electrical Information

Thermo Scientific Revco high-performance refrigerators and freezers are designed to meet UL and CE criteria for safety and performance. See ordering charts for certifications per specific voltages. All connections must comply with local electrical codes.

- Selection charts for each standard model list voltage, rated amperage, recommended circuit breaker size, and NEMA (National Electrical Manufacturers' Association, USA) electrical plug information
- Most refrigerators and freezers are supplied with line cord plugs, which require corresponding receptacles illustrated on the line cord plug reference chart to the right
- Site preparation requires availability of the proper receptacle; a dedicated circuit is required
- Special voltage selections may be available at extra cost and must be specified when ordering
- For questions regarding site preparation, installation and electrical connection, contact your sales representative

Certification of Calibration

Control, alarm and temperature recording systems are systematically calibrated at the factory for accurate performance. An optional Certificate of Calibration to an NIST (National Institute of Standards and Technology, formerly National Bureau of Standards) traceable instrument includes a Model Number and Serial Number Certificate (single point calibration). Multiple point calibration is also available. Calibration certificates must be requested when ordering; for details contact your sales representative.

Validation Testing Program

Validation testing services in advance of shipment can accelerate in-house FDA Installation Qualification (IQ) and Operation Qualification (OQ) programs. Validation services include documentation and performance reports, compressor and subsystem component specifications, microprocessor flow diagrams, software specifications and more. For more details, contact your sales representative.














Ordering Information

Your sales representative will assist you with choosing the correct refrigerator or freezer for your application.

- Each model number is voltage specific. For clarity, please include the voltage of your selected refrigerator or freezer when ordering
- When ordering your refrigerator or freezer, please consider current or future accessory requirements such as temperature recorders, extra shelves and alarm/monitoring systems
- Many accessories on the following pages are factory installed and must be specified when ordering

Standard Plug Option Configurations

Choose one of our specialty plugs to configure your freezer to meet local requirements

Model No.	Plug Description	Male End
Standard Plugs		
US125V20A	NEMA 5-20	
US230V15A	NEMA 6-15	
EU230V16A	Continental EU	
Specialty Plugs		
IT230V16A	Italy	
UK230V13A	Great Britain	
IN230V16A	India	
IS230V16A	Israel	
AU230V16A	Australia	
CH230V16A	China	
DK230V16A	Denmark	
AR230V16A	Argentina	
SW230V16A	Switzerland	
BR230V16A	Brazil	

Refrigerators and 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.

Options & Accessories

Productive use of your refrigerator or freezer can be enhanced with options and accessories specifically designed to improve utility and convenience. Many accessories are factory installed and must be specified with your original order. Field installed accessories may require the services of a factory authorized technician.

Note that some options and accessories may affect refrigerator or freezer performance; for more information contact your sales representative.



Shelves

Voltages and Serial Numbers

Serial number tags on all of our Revco units provide model numbers and voltage information needed for accurate selection of accessories ordered for field installation.

It is recommended that accessories be ordered when your refrigerator or freezer is ordered. Factory-installed accessories allow proper set-up without power-down or emptying the cabinet.

Glass Doors

Solid doors are standard on most refrigerators unless otherwise specified. Dual-pane glass doors are optional and must be specified when ordering. Contact your sales representative for information on heated glass doors.

Shelves

Additional epoxy-coated, open-wire shelves are designed to fit individual cabinets; shelves are available in full- and half-sizes. Undercounter models use full-size only.

Rollout Drawers

Optional stainless steel drawers, offered as an alternative to standard open wire shelving are adjustable with full extension. Drawers are factory installed and must be specified when ordering cabinet.





Rollout Doors



Enzyme Storage Bins



Alarm Delay Module

Temperature Chart Recorders

Optional 6" (152 mm) chart, 7-day temperature recorders use pressure sensitive chart paper; one box of 50 charts included. Built-in recorders must be specified when ordering. Recorders are standard on all blood bank refrigerators and plasma freezers.

Enzyme Storage Bin

Bins are supplied standard on our enzyme freezers. Additional bins are useful for storage and inventory management. Formed of high impact ABS plastic, off-white. Labels not included.

Digital Temperature Monitor

Simple, accurate and cost-effective, the digital temperature and power monitor provides both alarm/monitoring and digital temperature display in a single, self-contained unit. Standard features include high alarm, alarm mute and chirp, audio delay timer, remote alarm contacts (SPDT), NiCad battery backup, and low voltage AC power supply, 120V, AC.

- The monitor can be installed on or adjacent to any refrigerator or freezer
- Activates an audible and visual warning in case of power failure or overtemperature condition
- Choose from single probe digital models or multiple probe, microprocessor-based models
- Temperature range is -100°C to +25°C
- Probe size 1.25" L x 0.25" diameter (32 mm x 6 mm)

Alarm Delay Module

The alarm delay eliminates nuisance alarms due to intermittent or transitory conditions such as lightning or brief power outages. The adjustable delay requires an alarm condition to exist continuously for a pre-determined time (adjustable) before a signal is released to a central alarm/monitoring system or telephone dialer.

- Adjustable delay from 0.5 to 32 minutes
- Red alarm indicator light remains flashing after transient condition is corrected; requires manual reset
- Signals chronic alarm conditions which may indicate impending component failure; allows time for inspection or corrective maintenance
- Inserts variable time interval between detection of alarm condition and transmission of signal
- Includes accurate digital timing circuit adjustable from 0.5, 1, 2, 4, 8, 18, or 32 minutes
- Operates independent of line power; built-in battery and alarm test function uses customer supplied 9V battery

-20°C Laptop Cooler

- Protects enzymes, cells, reagents and solutions by maintaining freezer temperatures while on the laboratory bench ($T^{\circ} < 20^{\circ}\text{C}$ maintained up to 1 hour)
- Maintains freezer temperature during the frost free cycle, power failure and accidental door opening
- Printed grid on one way keyed lid for proper orientation and sample identification
- Molded of impact resistant polycarbonate; stackable, with locking handle

Options & Accessories Ordering Guide

Laboratory Refrigerators

		4.9 cu. ft. (133 L)	11.5 cu. ft. (326 L)	23.3 cu. ft. (659 L)	29.2 cu. ft. (826 L)	45.8 cu. ft. (1297 L)	51.1 cu. ft. (1447 L)	78.8 cu. ft. (2231 L)
	MODEL NO.	MODEL NO.	MODEL NO.	MODEL NO.	MODEL NO.	MODEL NO.	MODEL NO.	MODEL NO.
Shelves								
Epoxy-coated, full size	12-370-653	12-370-653	12-370-653	12-370-607	13-990-163	13-990-163	13-990-163	13-990-163
Epoxy-coated, half size	n/a	n/a	13-990-164	6697	13-990-164	13-990-164	13-990-164	13-990-164
Door Options and Accessories								
LH swing, solid	12-370-651	6995	12-370-628	12-370-630	n/a	n/a	n/a	n/a
LH swing, glass	n/a	12-370-627	12-370-629	12-370-631	n/a	n/a	n/a	n/a
LH swing, heated glass	n/a	12-370-640	12-370-642	12-370-644	n/a	n/a	n/a	n/a
RH swing, glass	7118	12-370-636	12-370-633	70-13	n/a	n/a	n/a	n/a
RH swing, heated glass	n/a	7074	12-370-643	12-370-645	n/a	n/a	n/a	n/a
LH/LH swing, solid	n/a	n/a	n/a	n/a	n/a	12-370-632	n/a	n/a
LH/LH swing, glass	n/a	n/a	n/a	n/a	n/a	12-370-637	n/a	n/a
LH/LH swing, heated glass	n/a	n/a	n/a	n/a	n/a	12-370-646	n/a	n/a
RH/RH swing, solid	n/a	n/a	n/a	n/a	n/a	7068	n/a	n/a
RH/RH swing, glass	n/a	n/a	n/a	n/a	n/a	12-370-639	n/a	n/a
RH/RH swing, heated glass	n/a	n/a	n/a	n/a	n/a	7090	n/a	n/a
LH/RH swing, glass	n/a	n/a	n/a	n/a	n/a	12-370-635	n/a	n/a
LH/RH swing, heated glass	n/a	n/a	n/a	n/a	n/a	12-370-648	n/a	n/a
LH/RH swing, solid	n/a	n/a	n/a	n/a	n/a	7019	n/a	n/a
Roll-Out Drawers								
Complete Set	Cat. No. (qty)	50-869-768 (2)	12-370-655 (5)	13-990-167 (6)	12-370-616 (6)	n/a	13-990-170 (12)	12-370-613 (18)
(Single Drawers)		7122	7122	12-370-614	13-990-226	n/a	12-370-614	12-370-614
Drawers Dividers								
For blood bank refrigerators	Cat. No. (qty)	50-868-180 (4)	50-868-180 (4)	6206 (4)	50-868-165 (5)	n/a	13-990-162 (4)	12-370-649 (4)
Casters (2" casters standard)								
3" casters (76 mm), set of 4*		6041-1	6041-1	6041-1	6041-1	13-990-162	6041-1	6041-1
Finishes (adds 1" or 25 mm to unit height)								
Stainless steel interior (Not available on -20°C units)		12-370-649	6199-3A	6115	6709	6711	6116	6117
Temperature Chart Recorders								
(Standard on blood bank units)								
Built-in, factory installed		n/a	13-990-217	13-990-217	13-990-217	13-990-217	13-990-217	13-990-217
Free-standing, customer installed		6199-3	6199-3	6199-3	6199-3	6199-3	6199-3	6199-3
Replacement chart paper, -40 to +25 box of 50		13-990-16A	13-990-16A	13-990-16A	13-990-16A	13-990-16A	13-990-16A	13-990-16A
Surge Suppressor								
Specify voltage with order		50-870-064	50-870-064	50-870-064	50-870-064	50-870-064	50-870-064	50-870-064
Deluxe Electronic Remote Alarm								
Requires dedicated phone line		13-991-111	13-991-111	13-991-111	13-991-111	13-991-111	13-991-111	13-991-111
Remote Alarm Module								
Specify voltage with order		13-986-32	13-986-32	13-986-32	13-986-32	13-986-32	13-986-32	13-986-32
Alarm Delay Module								
Specify voltage with order		13-992-91	13-992-91	13-992-91	13-992-91	13-992-91	13-992-91	13-992-91
Digital Temperature Monitor (Specify voltage with order)								
-50°C to +50°C		13-992-86	13-992-86	13-992-86	13-992-86	13-992-86	13-992-86	13-992-86
-100°C to +100°C		13-992-88	13-992-88	13-992-88	13-992-88	13-992-88	13-992-88	13-992-88
-100°C to +125°C		6902	6902	6902	6902	6902	6902	6902
4-20 Milliamp Transmitter								
Factory installed		11-731-001	11-731-001	11-731-001	11-731-001	11-731-001	11-731-001	11-731-001
+5°C Setpoint								
(Not Available for Blood Bank, Pharmacy or Chromatography Units)		13-990-605	13-990-605	13-990-605	13-990-605	n/a	13-990-605	n/a
Seismic Restraint Kits								
Seismic restraint kit (basic)		N/A	TFR210	TFR210	TFR210	TFR210	TFR210	TFR210
Seismic restraint kit for OSHPD		N/A	TF-LRF12	TF-LRF23	TF-LRF30	TF-LRF45	TF-LRF50	7TF-LRF75

2" casters are pre-installed on all units, except 4.9 cu. ft. where casters are shipped uninstalled.

Options & Accessories Ordering Guide

Laboratory Freezers

	4.9 cu. ft. (133 L)	11.5 cu. ft. (326 L)	23.3 cu. ft. (659 L)	29.2 cu. ft. (826 L)	51.1 cu. ft. (1447 L)	
	CAT. NO.	CAT. NO.	CAT. NO.	CAT. NO.	CAT. NO.	
Shelves						
Epoxy-coated, full size	12-370-653	12-370-653	13-990-163	12-370-607	13-990163	
Epoxy-coated, half size	n/a	n/a	13-990-164	6697	13-990-164	
Door Options and Accessories						
LH swing, solid	12-370-651	6995	12-370-628	12-370-630	n/a	
LH/LH swing, solid	n/a	n/a	n/a	n/a	12-370-632	
RH/RH swing, solid	n/a	n/a	n/a	n/a	7068	
LH/Rh swing, solid	n/a	n/a	n/a	n/a	7019	
Roll-Out Drawers						
Freezer Complete Set	Cat. No. (qty)	50-869-768 (2)	7446 (7)	13-990-167 (7)	12-370-616 (7)	13-990-170 (14)
(Single Drawers)		7122	7122	12-370-614	13-990-226	12-370-614
Drawers Dividers						
For plasma freezers	Cat. No. (qty)	50-868-180 (4)	50-868-180	6206 (4)	50-868-165 (5)	6206 (4)
Casters (2" casters standard)						
3" casters (76 mm), set of 4*	6041-1	6041-1	6041-1	6041-1	6041-1	
Finishes (adds 1" or 25 mm to unit height)						
Stainless steel interior (Not available on -20°C units)	12-370-649	6199-3A	6115	6709	6116	
Temperature Chart Recorders (Standard on plasma units)						
Built-in, factory installed	n/a	13-990-217	13-990-217	13-990-217	13-990-217	
Free-standing, customer installed	13-990-220	13-990-220	13-990-220	13-990-220	13-990-220	
Replacement chart paper, -40° to +25° box of 50	13-990-16A	13-990-16A	13-990-16A	13-990-16A	13-990-16A	
Surge Suppressor						
Specify voltage with order	50-870-064	50-870-064	50-870-064	50-870-064	50-870-064	
Thermo Scientific Lab Cooler Modules						
Lab Cooler II (holds 24 1.5 mL tubes and 8 0.5 mL tubes)	13-992-100	13-992-100	13-992-100	13-992-100	13-992-100	
Deluxe Electronic Remote Alarm						
Requires dedicated phone line	13-991-111	13-991-111	13-991-111	13-991-111	13-991-111	
Remote Alarm Module						
Specify voltage with order	13-986-32	13-986-32	13-986-32	13-986-32	13-986-32	
Alarm Delay Module						
Specify voltage with order	13-992-91	13-992-91	13-992-91	13-992-91	13-992-91	
Digital Temperature Monitor (Specify voltage with order)						
-100°C to +25°C	13-992-86	13-992-86	13-992-86	13-992-86	13-992-86	
Enzyme Storage Bin						
Labels not included	n/a	n/a	13-990-209	n/a	13-990-209	
4-20 Milliamp Transmitter						
For freezer	11-731-001	11-731-001	11-731-001	11-731-001	11-731-001	
Seismic Restraint Kits						
Seismic restraint kit (basic)	N/A	TFR210	TFR210	TFR210	TFR2100	
Seismic restraint kit for OSHPD	N/A	TF-LRF12	TF-LRF23	TF-LRF30	TF-LRF50	

2" casters are pre-installed on all units, except 4.9 cu. ft. where casters are shipped uninstalled.

Media, Reagents and Consumables

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Thermo Scientific™ Nalgene™ Mr. Frosty™ 5100 Cryo 1°C Freezing Container

Delivers low-cost cell cryopreservation and recovery, and features:

- Polycarbonate construction
- Blue high-density polyethylene closure
- White high-density polyethylene vial holder
- Foam insert

Mr. Frosty offer the critical, repeatable $-1^{\circ}\text{C}/\text{minute}$ cooling rate required for successful cell cryopreservation and recovery. Requires only 100% isopropyl alcohol and -70°C mechanical freezer. It is labeled with graphic, step-by-step instructions and holds up to 18 vials. The holder is designed to prevent vials from contacting alcohol so there's no contamination by wicking; no removal of labels or printing on vials. Containers with alcohol can be stored at room temperature, saving valuable freezer space.



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Thermo Scientific Smart-Vue

with so much at stake,
obsessive is smart

The Thermo Scientific™ Smart-Vue™ wireless monitoring solution safeguards the integrity of precious samples by continuously monitoring critical parameters of laboratory equipment and securely logging data to give you peace-of-mind. This wireless solution features audit trail traceability to assist with conformance to 21 CFR part 11, and other regulatory requirements.



Smart

Continuous, real-time monitoring of critical parameters – alerting you remotely when sample integrity is threatened

Scalable

Flexibility to grow with your expanding laboratory needs

Simple

Easy to install, use and maintain

For more information, contact your sales representative. Smart-Vue is not available in all Radio Frequency (RF) regions.

Note: Smart-Vue wireless monitoring kits are designed for first time users monitoring critical temperature parameters in ultra-low temperature freezers. Smart-Vue modules and sensors are available for temperature, RH, CO₂ concentration, differential pressure, 4-20mA output, ambient conditions and alarm/relay dry contacts. Solutions vary by RF regions worldwide and are compatible with multiple types of laboratory equipment. Please ask your sales representative to evaluate a Smart-Vue wireless monitoring solution that best meets your specific needs.





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