

Thermo Scientific Revco -20°C Enzyme and Laboratory Freezers

Featuring IntrlLogic Microprocessor Control

Our manual defrost -20°C upright freezers are designed for storage applications where slight intermittent coil warming during an auto defrost cycle is not desired. Two models feature gravity convection air systems for maximum stability without blowers or fans.



The -20°C UEN-2320 enzyme freezer stores 45 enzyme bins on 9 shelves. Shown with optional casters and temperature recorder.



Our -20°C freezers feature the IntrlLogic microprocessor control system, gravity air circulation, industrial quality cabinet construction, and extra-strength refrigeration compressors selected for industrial, clinical and scientific use.

The UEN-2320 enzyme freezer features an easily accessible inventory system, while the UGL-2320 general lab freezer offers flexible utility value with four-wire shelves.

IntrlLogic Microprocessor Control

Our -20°C enzyme and laboratory freezers feature enhanced digital electronic technology designed to simplify operation and deliver greater accuracy (see pages 4 and 5).

- Pre-set -20°C operation
- Icon-based controls and displays include graphic references for universal operation
- Setpoint security with key-operated triple-position master switch controls power to all systems for added safety

- Audible/visual warnings for over-temperature, undertemperature and power failure, with visual status reports on critical functions
- Graphic thermometer confirms proper operation at-a-glance, shows normal, high or low temperature condition; steady green for normal, flashing top bar for overtemperature, flashing bulb for undertemperature
- Enlarged digital display, resolution to within 0.1°C, improves visibility
- Alarm silence, ringback and automatic reset functions
- Push button alarm test verifies sensor continuity
- Battery backup assures control panel function during power failure
- Remote alarm contacts are standard on all models

High impact plastic enzyme storage bins enable easily accessible, highly concentrated inventory storage. Additional bins are useful for managing loose material in general purpose applications; see Accessories section.



ORDERING INFORMATION

Enzyme Freezers

Temperature Range: -20°C (manual defrost)

Model No.	Cu.Ft. (L)	Voltage (Hz)	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)
UEN-2320A	23.3 (659)	115 (60)	13.5/20 (P2)	upright	single, solid	9	58.0 x 29.0 x 24.0 (1470 x 730 x 610)	77.5 x 35.5 x 28.0 (1970 x 910 x 720)	425 (193)
UEN-2320D		208/230 (60)	5.6/15 (P4)						
UEN-2320V		230 (50)	5.6/15 (P7)						

General Purpose Freezers

Temperature Range: -20°C (manual defrost)

Model No.	Cu.Ft. (L)	Voltage (Hz)	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)
UGL-2320A	23.3 (659)	115 (60)	13.5/20 (P2)	upright	single	4	58.0 x 29.0 x 24.0 (1470 x 730 x 610)	77.5 x 35.5 x 28.0 (1970 x 910 x 720)	425 (193)
UGL-2320D		208/230 (60)	5.6/15 (P4)	solid					
UGL-2320V		230 (50)	5.6/15 (P7)						

* 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.

Cabinet Construction

- Upright 23.3 cu.ft. (659 L) cabinet
- High-density, CFC-free urethane foam insulation protects cabinet from ambient temperature fluctuations and minimizes operating costs
- Solid door with keyed door lock for added security
- Self-closing door closes against closed-cell peripheral gasket
- Door locking provision on all models
- Full-length door handle
- Adjustable leveling feet standard; optional casters are available
- Scratch resistant painted interior and exterior finish for easy cleaning

Inventory System

- Epoxy-coated, open wire shelves, adjustable in 1" (25 mm) increments; no tools required
- Model UEN-2320 Enzyme Freezer includes nine shelves with enzyme storage system of five bins per shelf, maximum 45 bins; labels not provided
- Model UGL-2320 Freezer includes four epoxy coated shelves, standard

Refrigeration System

- Heavy duty, industrial-grade, hermetically sealed compressors
- Manual defrost

Optional Accessories

- Voltage safeguard, free-standing
- Built-in 6" (152 mm), 7-day circular chart recorder
- Access port, 1" (25 mm) diameter
- Stainless steel exterior
- 2" (50 mm) casters
- Additional shelves
- Additional bins



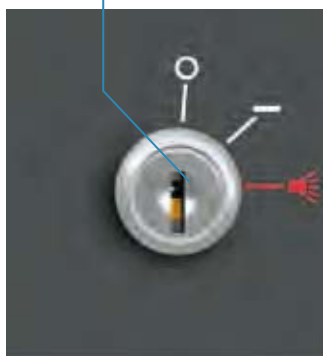
UGL-2320 General Purpose -20°C freezer shown with optional casters and temperature recorder.

Thermo Scientific IntrLogic Controller Simplifies Operation, Improves Reliability

Intuitive
Graphics and
Microprocessor
Technology

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



Instrument-Grade Components

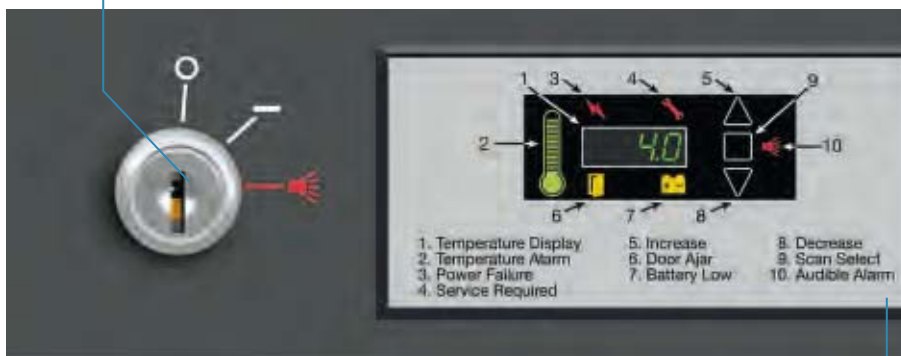
Electronic components and sub-systems are selected for performance and reliability under demanding laboratory conditions

Service Parameters

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

Modular Control Design

Self-contained control housing integrated into main control panel for efficient maintenance, as required



IntrLogic control panel is standard on Revco refrigerators and freezers (except BOD models).

Microprocessor-Based Control

IntrLogic microprocessor manages setpoint and actual conditions to provide the highest level of security for the stored product

Automatic Defrost System

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

IntrLogic Guide

Offers information at-a-glance for all control and display functions

Power Down Mode

During power failure digital display dims to conserve backup battery

Thermo Scientific Revco lab refrigerators and freezers include enhanced digital electronic technology designed to simplify operation and deliver greater accuracy.

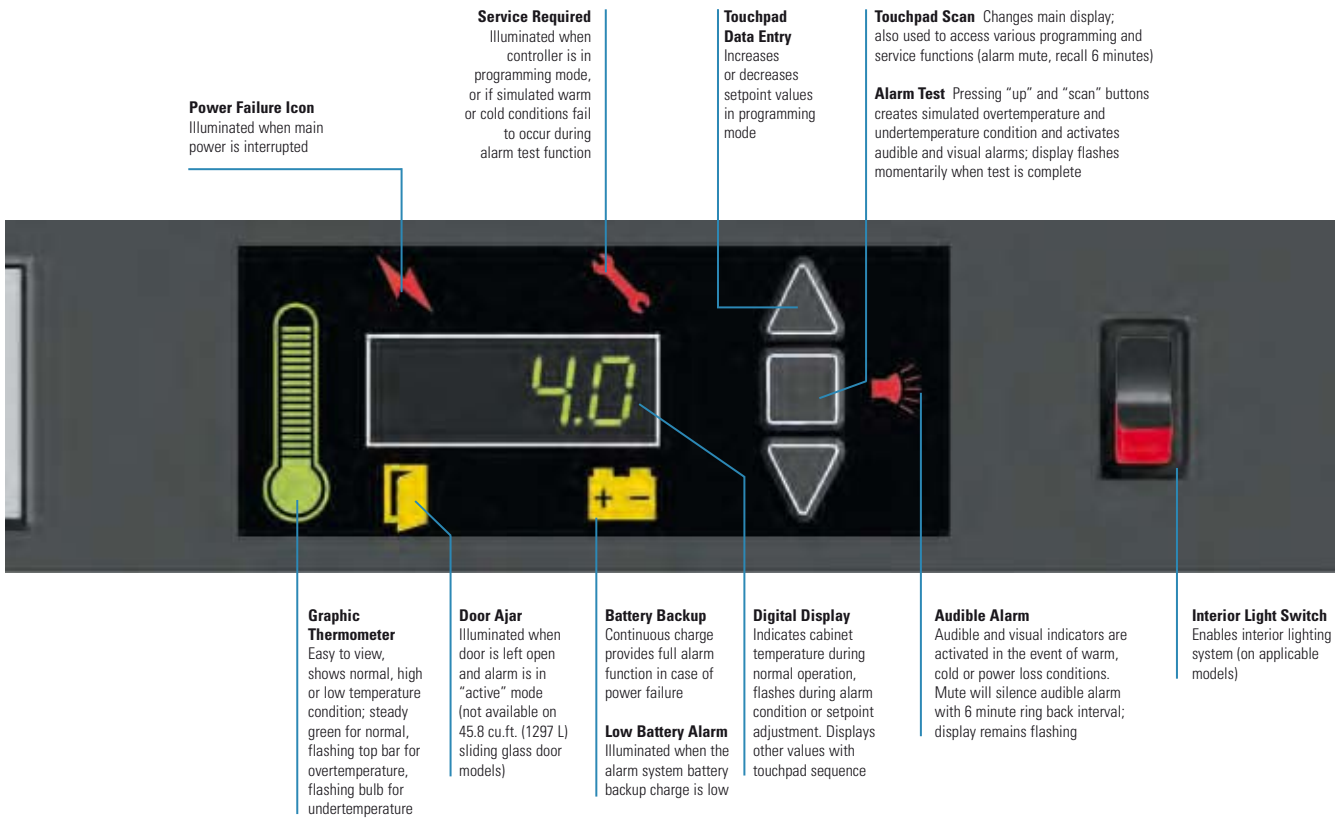
- Icon-based controls and displays include graphic references for universal operation
- Setpoint security with key-operated triple-position master switch controls power to all systems for added safety
- A graphic thermometer confirms proper operation at-a-glance, shows normal, high or low temperature condition; steady green for normal, flashing top bar for overtemperature, flashing bulb for undertemperature
- Auto defrost models feature an advanced defrost sensor which manages the defrost cycle, minimizing trace amounts of frost build-up to maintain refrigeration coil efficiency

IntrLogic Control Alarm Sequence

Event	Audible Alarm	Visual Alarm	Self Corrected Event	Remote Alarm Contacts Activated	
Overtemperature	continuous*			slow flash, icon only	yes
Undertemperature	continuous*			slow flash, icon only	yes
Power Loss	continuous*			slow flash, icon only	yes
Door Ajar	delay				no
Low Battery	no				no
Service Required	no				no

Audible and visual warnings for door ajar, low alarm battery, system maintenance and power failure provide immediate status of critical functions. A push-button alarm test verifies sensor continuity, while the battery backup assures system readiness. The enlarged digital display improves visibility, taking the guesswork out of setpoint and performance management.

*Mute will silence audible alarm with 6-minute ring back interval; display remains flashing. Moving triple position key switch to middle position disables alarm and audible and visual warnings.



Laboratory Quality Cabinet Construction

Our refrigerators and freezers are available in 10 sizes, from compact 4.9 cu.ft. (133 L) undercounter models to spacious, triple-door 78.8 cu.ft. (2231 L) cabinets. All models are built to meet UL, CUL, CE and TUV standards for safety.

- Hermetically sealed refrigeration compressor, air-cooled condenser and automatic condensate removal for auto defrost models
- An efficient, high-capacity air circulation system optimizes top-to-bottom temperature uniformity, accelerates temperature recovery following door openings, and accommodates insertion of warm product
- CFC-free refrigerants, insulation and product packaging
- Depending on model selection, standard or optional shelves, drawers, temperature recorders, cabinet casters and other accessories are available to meet most laboratory needs

Laboratory Refrigerator and Freezer Selection Guide

Automatic Defrost Models	Cu.Ft. (L)	4.9 (133)	6.1 (173)	11.5 (326)	20 (566)	23.3 (659)	29.2 (826)	45.8 (1297)	51.1 (1447)	78.8 (2231)
Chromatography Refrigerators						IntrLogic	IntrLogic	IntrLogic	IntrLogic	IntrLogic
General Purpose Lab Refrigerators		IntrLogic		IntrLogic		IntrLogic	IntrLogic	IntrLogic	IntrLogic	IntrLogic
Blood Bank Refrigerators		IntrLogic		IntrLogic		IntrLogic	IntrLogic		IntrLogic	
Pharmacy Refrigerators				IntrLogic		IntrLogic	IntrLogic		IntrLogic	
General Purpose Lab Freezers, -30°C		IntrLogic		IntrLogic		IntrLogic	IntrLogic		IntrLogic	
Plasma Freezers, -30°C		IntrLogic		IntrLogic		IntrLogic	IntrLogic		IntrLogic	
Refrigerated Incubators, Programmable					micro					
Refrigerated Incubators, Non-Programmable			micro		micro					
Manual Defrost Models										
Enzyme Freezer, -20°C						IntrLogic				
General Purpose Freezer, -20°C						IntrLogic				

Remote alarm contacts are included on all models.