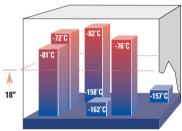
Our Thermo Scientific Revco Ultima II cryogenic freezers maintain uniform temperatures of -140°C and -150°C, safely below the -130°C glass transition temperature of water. Cell viability is improved because biologically relevant, thermally driven reactions are not known to occur.

Thermo Scientific Revco Ultima II Cryogenic Freezers

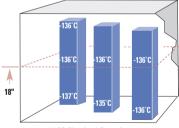
Mechanical cryopreservation for long-term biological storage

Liquid Nitrogen Vapor Storage



Liquid Nitrogen (-196°C)

Mechanically Refrigerated Cryogenic Freezer



-140°C Nominal Setpoint

Superior Uniformity

Comparison of temperature distribution in a liquid nitrogen freezer (vapor phase) and mechanically refrigerated cryogenic freezer (i.e. Ultima II Model ULT10140-9). Graph represents temperatures at relative locations within the chamber. Data suggests that 100% of the Ultima II storage space maintains uniform storage temperatures safely below -130°C, while temperature in $\rm LN_2$ vapor system is dependent on storage location.



Safer, More Convenient Than LN₂

- Our cryogenic freezers include all features, control and performance attributes of the Ultima II Series freezers, plus many important advantages not available when using LN₂
- Stable cryogenic temperature of -140°C and -150°C without LN₂ as a cooling medium
- Patented, single compressor, orbital refrigeration system
- Top-to-bottom temperature uniformity dramatically improved when compared to LN2 vapor
- Lower operating costs than LN₂ freezers of similar capacity
- 100% of interior space is usable, with stored samples maintained below critical temperature

- Ample interior volume with capacity of up to 21,600 samples in Model ULT-10140 and up to 14,400 samples in Model ULT-7150 (2 ml vials in boxes)
- Uses standard Thermo Scientific Revco inventory racks and fiberboard boxes

Refrigeration System

- Exclusive mixed refrigerant autocascade with a single, orbital refrigeration compressor, air-cooled
- CFC-free refrigerants
- Downfeed evaporator for most efficient refrigerant flow
- High-capacity air-cooled condenser with dual condenser fans, aerodynamically shaped fan blades
- Washable condenser filter keeps fins free of dust to maintain peak cooling efficiency; no tools required for removal



Thermo Scientific Revco Ultima II -140°C Cryogenic Chest Freezers

Operating Temperature: -140°C								
Model No.	Cu.Ft. (L)	Electrical	Amps/ Breaker (Plug)	Interior Dimensions* H x D x W inches (mm)	Exterior Dimensions* H x D x W inches (mm)	Ship Weight lb (kg)		
ULT-10140-9-D		208/230V 60Hz 1Ø	20.0/30 (P6)					
ULT-10140-9-E		208/230V 60Hz 3Ø	16.0/20 (HW1)					
ULT-10140-9-M	10.3	380V 50Hz 3Ø	11.0/15 (HW1)	26.5 x 19.0 x 35.25	42.75 x 29.0 x 69.0	1065		
ULT-10140-9-R	(292)	200V 50Hz 3Ø	16.0/20 (HW1)	(670 x 480 x 890)	(1090 x 740 x 1760)	(483)		
ULT-10140-9-V		230V 50Hz 1Ø	20.0/30 (HW1)					

Thermo Scientific Revco Ultima II -150°C Cryogenic Chest Freezers

Operating Temperature: -150°C							
Model No.	Cu.Ft. (L)	Electrical	Amps/ Breaker (Plug)	Interior Dimensions* H x D x W inches (mm)	Exterior Dimensions* H x D x W inches (mm)	Ship Weight lb (kg)	
ULT-7150-9-D ULT-7150-9-E		208/230V 60Hz 1Ø 208/230V 60Hz 3Ø	20.0/30 (P6) 16.0/20 (HW¹)				
ULT-7150-9-M ULT-7150-9-R ULT-7150-9-V	6.8 (193)	380V 50Hz 3Ø 200V 50Hz 3Ø 230V 50Hz 1Ø	11.0/15 (HW ¹) 16.0/20 (HW ¹) 20.0/30 (HW ¹)	26.5 x 19.0 x 23.5 (670 x 480 x 590)	42.75 x 29.0 x 58.0 (1090 x 740 x 1480)	825 (374)	

^{*}All dimensions and specifications subject to change without notice. External dimensions include allowances for cabinet door, hinges, latches, handles, and control panel protrusions. ¹No plug provided; requires hardwire connection by customer.

Line Cord Plug Reference

Models with	have this	require this	NEMA Reference		
this code	plug	receptacle	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		

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.

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