

# Ultima II Series

## Ultra-Low Temperature Freezers



Refrigeration	Control
★★★★★ Legaci®	★★★★★ IntrLogic™

Choose from four upright and six chest models, temperatures to  $-86^{\circ}\text{C}$  and  $-40^{\circ}\text{C}$ . Temperature recorders, racks, boxes, and gloves optional.

### Ultima II Series Operating Temperature

- $-86^{\circ}\text{C}$ , Range  $-40^{\circ}\text{C}$  to  $-86^{\circ}\text{C}$
- $-40^{\circ}\text{C}$ , Range  $-10^{\circ}\text{C}$  to  $-40^{\circ}\text{C}$
- Air-cooled refrigeration systems are engineered to maintain design temperatures in warm  $32^{\circ}\text{C}$  ( $+90^{\circ}\text{F}$ ) ambient conditions

### Refrigeration System

- Exclusive Legaci system with air-cooled compressor(s), 1 HP
- CFC-free refrigerants, DuPont Suva® 95 low-stage refrigerants
- Downfeed evaporator for most efficient refrigerant flow
- High-capacity air-cooled condenser with dual condenser fans, aerodynamically shaped fan blades

### Control System

- Exclusive IntrLogic microprocessor control system with touchpad data entry and digital display of all functions
- Setpoint security system with key-operated switch for main power and alarm locks in temperature and alarm setpoints
- Independent operating temperature and high/low limit alarm functions with factory-set defaults for quick start-up, all setpoints adjustable in  $1^{\circ}\text{C}$  increments

### Electrical System

- Automatic voltage boost compensates for low voltage and brownout conditions
- On-board power monitoring with digital readout of incoming line voltage
- Built-in surge suppressor minimizes effect of voltage spikes from incoming electrical service



Door-mounted control panel is standard on Ultima II upright models.

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the future, inside

# Ultima II Series Ultra-Low Temperature Freezers



## Alarm System

- A.I.M. (Automatic Incident Monitor) identifies any temperature deviation beyond alarm setpoints, with rapid flash for current event, slow flash if event was self-corrected; A.I.M. archives most deviated temperature
- Adjustable safety alarm with automatic, continuous charge battery backup provides full alarm function in case of power failure
- Power failure or temperature deviation triggers audible and visual warning

- Digital battery indicator displays battery capacity; flashing low battery indicator advises when to replace battery
- Touchpad alarm test function physically warms internal probe to simulate alarm condition
- RS-232 data port with system software package
- Exterior alarm contacts for connection to remote monitoring system

## Monitoring System

- Lifeguard compressor protection monitors performance and automatically adjusts to internal and external conditions, extending compressor life
- Extreme ambient alert warns if room temperature may affect performance

- Voltage boost indicator advises of low source voltage below safe parameters and indicates voltage boost system is activated
- Surge suppressor indicator advises to check intercept fuse
- Clean filter indicator light advises when to remove and wash condenser filter

## Cabinet Construction, All Models

- Minimum 5" (12.7cm) foamed-in-place urethane insulation, closed-cell, CFC-free, to protect product against high ambient conditions
- Heavy-gauge steel cabinet with high-impact powder paint finish
- Rounded interior corners for easy cleaning

Refrigeration	Control
★★★★★ Legad®	★★★★★ IntrLogic™

Choose from four upright and six chest models, temperatures to -86°C and -40°C. Temperature recorders, racks and boxes optional.

	Model No.	Cu.Ft./Liters	Voltage	Amps/Breaker (Plug)	Interior Dimensions inches/cm	Exterior Dimensions inches/cm	Ship Weight	
Ultima II -40°C Upright Freezers Temperature Range -10°C to -40°C	ULT-1340-9A ULT-1340-9D ULT-1340-9V ULT-1340-9W	13.4/379	115V 60Hz 1Ø 208/230V 60Hz 1Ø 220V 50Hz 1Ø 240V 50Hz 1Ø	10.0/15 (P1) 5.7/15 (P4) 5.7/15 (P7) 5.7/15 (P8)	50.5"H x 19.5"F-B x 23.5"W 128cm x 49cm x 59cm	77.5"H x 29.75" F-B x 33.5"W 197cm x 76cm x 85cm	595 lbs/270 kg	
	ULT-1740-9A ULT-1740-9D ULT-1740-9V ULT-1740-9W	17.2/487	115V 60Hz 1Ø 208/230V 60Hz 1Ø 220V 50Hz 1Ø 240V 50Hz 1Ø	10.0/15 (P1) 5.7/15 (P4) 5.7/15 (P7) 5.7/15 (P8)	50.5"H x 25"F-B x 23.5"W 128cm x 63cm x 59cm	77.5"H x 35.25"F-B x 33.5"W 197cm x 90cm x 85cm	630 lbs/286 kg	
	ULT-2140-9A ULT-2140-9D ULT-2140-9V ULT-2140-9W	20.2/572	115V 60Hz 1Ø 208/230V 60Hz 1Ø 220V 50Hz 1Ø 240V 50Hz 1Ø	11.1/15 (P1) 5.8/15 (P4) 5.8/15 (P7) 5.8/15 (P8)	50.5"H x 24.25"F-B x 28.5"W 128cm x 61cm x 72cm	77.5"H x 34.5"F-B x 38.5"W 197cm x 88cm x 98cm	680 lbs/309 kg	
	ULT-2540-9A ULT-2540-9D ULT-2540-9V ULT-2540-9W	24.4/691	115V 60Hz 1Ø 208/230V 60Hz 1Ø 220V 50Hz 1Ø 240V 50Hz 1Ø	11.1/15 (P1) 5.8/15 (P4) 5.8/15 (P7) 5.8/15 (P8)	50.5"H x 24.25"F-B x 34.5"W 128cm x 61cm x 87cm	77.5"H x 34.5"F-B x 44.5"W 197cm x 88cm x 113cm	770 lbs/350 kg	
	ULT-350-9A ULT-350-9D ULT-350-9V ULT-350-9W	3.1/88	115V 60Hz 1Ø 208/230V 60Hz 1Ø 220V 50Hz 1Ø 240V 50Hz 1Ø	10.0/15 (P1) 5.4/15 (P4) 5.4/15 (P7) 5.4/15 (P8)	17"H x 17"F-B x 19"W 43cm x 43cm x 48cm	45.5"H x 27"F-B x 29"W 116cm x 69cm x 74cm	355 lbs/161 kg	
	ULT-750-9A ULT-750-9D ULT-750-9V ULT-750-9W	6.8/193	115V 60Hz 1Ø 208/230V 60Hz 1Ø 220V 50Hz 1Ø 240V 50Hz 1Ø	8.5/15 (P1) 4.5/15 (P4) 4.5/15 (P7) 4.5/15 (P8)	26.5"H x 19"F-B x 23.5"W 67cm x 48cm x 59cm	41"H x 29"F-B x 48.5"W 104cm x 74cm x 124cm	470 lbs/213 kg	
	ULT-1050-9A ULT-1050-9D ULT-1050-9V ULT-1050-9W	10.3/292	115V 60Hz 1Ø 208/230V 60Hz 1Ø 220V 50Hz 1Ø 240V 50Hz 1Ø	8.5/15 (P1) 4.5/15 (P4) 4.5/15 (P7) 4.5/15 (P8)	26.5"H x 19"F-B x 35.25"W 67cm x 48cm x 89cm	41"H x 29"F-B x 60.25"W 104cm x 74cm x 153cm	500 lbs/227 kg	
	ULT-1450-9A ULT-1450-9D ULT-1450-9V ULT-1450-9W	13.7/388	115V 60Hz 1Ø 208/230V 60Hz 1Ø 220V 50Hz 1Ø 240V 50Hz 1Ø	8.5/15 (P1) 4.5/15 (P4) 4.5/15 (P7) 4.5/15 (P8)	26.5"H x 19"F-B x 47"W 67cm x 48cm x 119cm	41"H x 29"F-B x 72"W 104cm x 74cm x 183cm	650 lbs/295 kg	
	ULT-1750-9A ULT-1750-9D ULT-1750-9V ULT-1750-9W	17.1/484	115V 60Hz 1Ø 208/230V 60Hz 1Ø 220V 50Hz 1Ø 240V 50Hz 1Ø	8.5/15 (P1) 4.5/15 (P4) 4.5/15 (P7) 4.5/15 (P8)	26.5"H x 19"F-B x 58.75"W 67cm x 48cm x 149cm	41"H x 29"F-B x 83.75"W 104cm x 74cm x 213cm	650 lbs/295 kg	
	ULT-2050-9A ULT-2050-9D ULT-2050-9V ULT-2050-9W	20.5/580	115V 60Hz 1Ø 208/230V 60Hz 1Ø 220V 50Hz 1Ø 240V 50Hz 1Ø	8.5/15 (P1) 4.5/15 (P4) 4.5/15 (P7) 4.5/15 (P8)	26.5"H x 19"F-B x 70.5"W 67cm x 48cm x 179cm	41"H x 29"F-B x 95.5"W 104cm x 74cm x 243cm	685 lbs/311 kg	
	Ultima II -40°C Chest Freezers Temperature Range -10°C to -40°C							



Access port, 1" (2.54cm) diameter, with cap  
Recessed heavy duty swivel casters

**Upright Cabinet Construction**

CryoLatch™ integrated door handle and latch assembly allows for easy right- or left-handed operation, and includes standard key lock and provision for padlock  
Pressure equalization port combats vacuum created by pressure differential upon door closing, allowing re-entry to cabinet within 30 seconds  
Low-profile design, only 77.5" (197cm) high  
Eye-level controls mounted in door  
Five high-impact plastic inner doors with independent door hinges and positive magnetic latches

- Four shelves (three adjustable) to create five interior compartments
- Minimum 3.5" (7.6cm) high-density door insulation, CFC-free

**Chest Cabinet Construction**

- Low-profile design for easier access to inventory
- Heavy duty counterbalanced lid with integrated keyed lid lock for security; 3.1 cu.ft. (88 liter) model includes locking provision only
- Double seal lid gaskets to minimize frost buildup
- Independent sub-lids provide additional protection

**Inventory System and Accessories**

- Optional inventory components including racks, boxes and dividers may be ordered separately or as full-load inventory systems
- See Accessories section for information on optional temperature recorders, LN<sub>2</sub>/CO<sub>2</sub> backup systems, inventory components, validation testing, calibration certificates and associated product

**Line Cord Plug Reference**

Freezers with this code	have this plug	require this receptacle	NEMA Reference	
			Plug	Receptacle
P1			5-15P	5-15R
P2			5-20P	5-20R
P4			6-15P	6-15R
International				
P7			European	
P8			British	

**Ultima II -86°C Upright Freezers**  
Temperature Range -50°C to -86°C

	Model No.	Cu.Ft. /Liters	Voltage	Amps/Breaker (Plug)	Interior Dimensions inches/cm	Exterior Dimensions inches/cm	Ship Weight
	<b>ULT-1386-9A</b>	13.4 /379	115V 60Hz 1Ø	16.0/20 (P2)	50.5"H x 19.5"F-B x 23.5"W 128cm x 49cm x 59cm	77.5"H x 29.75"F-B x 33.5"W 197cm x 76cm x 85cm	655 lbs/297 kg
	<b>ULT-1386-9D</b>		208/230V 60Hz 1Ø	7.5/15 (P4)			
	<b>ULT-1386-9V</b>		220V 50Hz 1Ø	7.5/15 (P7)			
	<b>ULT-1386-9W</b>		240V 50Hz 1Ø	7.5/15 (P8)			
	<b>ULT-1786-9A</b>	17.2 /487	115V 60Hz 1Ø	16.0/20 (P2)	50.5"H x 25"F-B x 23.5"W 128cm x 63cm x 59cm	77.5"H x 35.25"F-B x 33.5"W 197cm x 90cm x 85cm	660 lbs/300 kg
	<b>ULT-1786-9D</b>		208/230V 60Hz 1Ø	7.5/15 (P4)			
	<b>ULT-1786-9V</b>		220V 50Hz 1Ø	7.5/15 (P7)			
	<b>ULT-1786-9W</b>		240V 50Hz 1Ø	7.5/15 (P8)			
	<b>ULT-2186-9A</b>	20.2 /572	115V 60Hz 1Ø	16.0/20 (P2)	50.5"H x 24.25"F-B x 28.5"W 128cm x 61cm x 72cm	77.5"H x 34.5"F-B x 38.5"W 197cm x 88cm x 98cm	745 lbs/338 kg
	<b>ULT-2186-9D</b>		208/230V 60Hz 1Ø	8.5/15 (P4)			
	<b>ULT-2186-9V</b>		220V 50Hz 1Ø	8.5/15 (P7)			
	<b>ULT-2186-9W</b>		240V 50Hz 1Ø	8.5/15 (P8)			
	<b>ULT-2586-9A</b>	24.4 /691	115V 60Hz 1Ø	16.0/20 (P2)	50.5"H x 24.25"F-B x 34.5"W 128cm x 61cm x 87cm	77.5"H x 34.5"F-B x 44.5"W 197cm x 88cm x 113cm	830 lbs/377 kg
	<b>ULT-2586-9D</b>		208/230V 60Hz 1Ø	8.5/15 (P4)			
	<b>ULT-2586-9V</b>		220V 50Hz 1Ø	8.5/15 (P7)			
	<b>ULT-2586-9W</b>		240V 50Hz 1Ø	8.5/15 (P8)			

**Ultima II -86°C Chest Freezers**  
Temperature Range -40°C to -86°C

	<b>ULT-390-9A</b>	3.1 /88	115V 60Hz 1Ø	16.0/20 (P2)	17"H x 17"F-B x 19"W 43cm x 43cm x 48cm	45.5"H x 27"F-B x 29"W 116cm x 69cm x 74cm	415 lbs/188 kg
	<b>ULT-390-9D</b>		208/230V 60Hz 1Ø	11.2/15 (P4)			
	<b>ULT-390-9V</b>		220V 50Hz 1Ø	11.2/15 (P7)			
	<b>ULT-390-9W</b>		240V 50Hz 1Ø	11.2/15 (P8)			
	<b>ULT-790-9A</b>	6.8 /193	115V 60Hz 1Ø	16.0/20 (P2)	26.5"H x 19"F-B x 23.5"W 67cm x 48cm x 59cm	41"H x 29"F-B x 48.5"W 104cm x 74cm x 124cm	525 lbs/238 kg
	<b>ULT-790-9D</b>		208/230V 60Hz 1Ø	11.2/15 (P4)			
	<b>ULT-790-9V</b>		220V 50Hz 1Ø	11.2/15 (P7)			
	<b>ULT-790-9W</b>		240V 50Hz 1Ø	11.2/15 (P8)			
	<b>ULT-1090-9A</b>	10.3 /292	115V 60Hz 1Ø	16.0/20 (P2)	26.5"H x 19"F-B x 35.25"W 67cm x 48cm x 89cm	41"H x 29"F-B x 60.25"W 104cm x 74cm x 153cm	680 lbs/308 kg
	<b>ULT-1090-9D</b>		208/230V 60Hz 1Ø	11.2/15 (P4)			
	<b>ULT-1090-9V</b>		220V 50Hz 1Ø	11.2/15 (P7)			
	<b>ULT-1090-9W</b>		240V 50Hz 1Ø	11.2/15 (P8)			
	<b>ULT-1490-9A</b>	13.7 /388	115V 60Hz 1Ø	16.0/20 (P2)	26.5"H x 19"F-B x 47"W 67cm x 48cm x 119cm	41"H x 29"F-B x 72"W 104cm x 74cm x 183cm	650 lbs/295 kg
	<b>ULT-1490-9D</b>		208/230V 60Hz 1Ø	11.2/15 (P4)			
	<b>ULT-1490-9V</b>		220V 50Hz 1Ø	11.2/15 (P7)			
	<b>ULT-1490-9W</b>		240V 50Hz 1Ø	11.2/15 (P8)			
	<b>ULT-1790-9A</b>	17.1 /484	115V 60Hz 1Ø	16.0/20 (P2)	26.5"H x 19"F-B x 58.75"W 67cm x 48cm x 149cm	41"H x 29"F-B x 83.75"W 104cm x 74cm x 213cm	770 lbs/350 kg
	<b>ULT-1790-9D</b>		208/230V 60Hz 1Ø	11.2/15 (P4)			
	<b>ULT-1790-9V</b>		220V 50Hz 1Ø	11.2/15 (P7)			
	<b>ULT-1790-9W</b>		240V 50Hz 1Ø	11.2/15 (P8)			
	<b>ULT-2090-9A</b>	20.5 /580	115V 60Hz 1Ø	16.0/20 (P2)	26.5"H x 19"F-B x 70.5"W 67cm x 48cm x 179cm	41"H x 29"F-B x 95.5"W 104cm x 74cm x 243cm	940 lbs/427 kg
	<b>ULT-2090-9D</b>		208/230V 60Hz 1Ø	11.2/15 (P4)			
	<b>ULT-2090-9V</b>		220V 50Hz 1Ø	11.2/15 (P7)			
	<b>ULT-2090-9W</b>		240V 50Hz 1Ø	11.2/15 (P8)			