



VWR™ Chest and Upright Freezers

-40°C and -86°C
Freezers for Safe
Sample Storage



*14230-152 chest and 14230-104 upright freezers
shown with optional circular chart recorders*



14230-122 chest and 14230-104 upright freezers shown with optional circular chart recorders

VWR Signature™ Ultra-Low Temperature Freezers

- Safe storage at -50°C to -86°C
- Multiple capacities
- Modern design
- Reliable performance
- Centralized message center
- Non-CFC refrigerants, insulation, and packaging
- Two year warranty

VWR Signature -86°C Chest and Upright Freezers combine refrigeration engineering expertise, safe storage, and temperature stability with a modern design that focuses on functionality, convenience, and ease of use.

Ergonomic Design for Convenience and Ease of Use

- Easy-to-grasp handle promotes one-handed operation. Samples can be held in one hand while opening or closing the door or lid. Vacuum relief port on uprights causes pressure to equalize, allowing easy re-entry after door closings.
- Advanced Microprocessor Control/Monitoring System with centralized message center simplifies programming, setup, and monitoring of freezer parameters and conditions. Audible/alarms (e.g., high/low temp, power fail, probe fail, door open, etc.) offer peace-of-mind. Controls and optional built-in chart recorder or datalogger are conveniently located at eye level on uprights and within easy reach on chests.
- Dual wheel, locking, swivel casters allow mobility as well as secure positioning.
- Acoustical mufflers and sound-absorbing foam in the base of the uprights reduces noise, resulting in more comfortable working conditions in the lab.
- Spring-loaded hinges counterbalance the chest lid to ensure proper alignment, smooth closure, and a tight seal.
- Hinged grille swings out, exposing the foam air filter for easy cleaning or replacement.

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**VWR Signature Products:
Delivering high quality and superior performance**



Quality Construction and Optimum Performance

- Durable, heavy-gauge, cold-rolled steel cabinet has a powder coat paint finish that resists chipping and rust. Powder-coated, galvanized interior is designed for maximum capacity.
- Uprights include three fixed position shelves and four interior compartment doors, which reduce cold air loss. Chests include polystyrene sub-lid(s) to reduce cold air loss.
- Automatic Voltage Compensator detects line frequency, monitors incoming voltage, and dynamically adjusts compressor voltage to reduce wear and tear on the compressor(s).
- Specially designed hermetic compressor(s) provide improved product protection, better temperature recovery times, and increased heat removal per kilowatt of energy used.
- Temperature control system maintains constant freezer temperature and can be set in 1°C increments.
- Carefully crafted, front-to-back air circulation system results in cooler compressor temperatures, increased performance, and longer compressor life.
- RS-232 and 4-20 milliamp analog outputs are standard. Other options are available (see *Accessories* section).

Specifications

-50°C to -86°C Uprights						
VWR No.	Volume Cu. Ft.	Interior Dimensions W x H x D, cm (inches)	Exterior Dimensions* W x H x D, cm (inches)	Electrical**	Amps/ Breaker	Shipping Wt. kg (lbs.)
14230-104	13	58 x 131 x 49	85 x 198 x 79	120V, 60 Hz	16/20	313 (690)
14230-102		(23 x 51-1/2 x 19-9/32)	(33-1/4 x 78 x 31)	230V, 50/60 Hz	12/15	
14230-106	17.3	58 x 131 x 64	85 x 198 x 94	120V, 60 Hz	16/20	358 (790)
14230-108		(23 x 51-1/2 x 25-3/16)	(33-1/4 x 78 x 37)	230V, 50/60 Hz	12/15	
14230-110	23	78 x 131 x 64	104 x 198 x 94	230V, 50/60 Hz	12/15	390 (860)
		(30-3/4 x 51-1/2 x 25-3/16)	(41 x 78 x 37)			
-50°C to -86°C Chests						
14230-112	3	47 x 42 x 47	72 x 111 x 73	115V, 60 Hz	10.5/15	159 (350)
14230-114		(18-1/2 x 16-1/2 x 18-1/2)	(26-1/2 x 43-3/4 x 28-13/16)	230V, 50 Hz	5.4/15	
14230-116	6.7	97 x 42 x 47	122 x 111 x 73	115V, 60 Hz	10.5/15	263 (580)
14230-118		(38 x 16-1/2 x 18-1/2)	(48 x 43-3/4 x 28-13/16)	230V, 50 Hz	5.4/15	
14230-122	12.7	108 x 71 x 47	183 x 103 x 73	120V, 60 Hz	16/20	338 (745)
14230-120		(43-1/2 x 28 x 18-1/2)	(72 x 40-1/2 x 28-13/16)	230V, 50/60 Hz	12/15	
14230-124	17	149 x 71 x 47	223 x 103 x 73	120V, 60 Hz	16/20	383 (845)
14230-126		(58-3/4 x 28 x 18-1/2)	(87-3/5 x 40-1/2 x 28-13/16)	230V, 50/60 Hz	12/15	
14230-130	20	169 x 71 x 47	244 x 103 x 73	120V, 60 Hz	16/20	386 (852)
14230-128		(66-1/2 x 28 x 18-1/2)	(96 x 40-1/2 x 28-13/16)	230V, 50/60 Hz	12/15	

Continuing research and improvements may result in specification changes at any time.

Freezers are UL Listed to Canadian and United States requirements (cUL_{US}) and bear the CE Mark.

*Clearance requirements: for uprights, add 9cm (3-1/2") to width for latch/hinge and 18cm (7") for control panel bezel/wall spacer; for chests, add 20cm (7-9/10") to depth for wall spacer/handle.

**Operating range of 115V units is 103-127V, 120V units is 108-130V, and 230V units is 208-240V.



14230-134 upright and 14230-142 chest freezers, chest shown with an optional circular chart recorder

VWR Low and Ultra-Low Temperature Freezers

- Safe storage at -10°C to -40°C and -50°C to -86°C
- Multiple capacities
- Dependable performance
- Audible/visual alarm system
- Non-CFC refrigerants, insulation, and packaging
- Two year warranty

Cost-effective VWR -40°C and -86°C Freezers provide reliable performance, temperature stability, and short- or long-term storage protection when sophisticated controls and alarm systems are not required.

Fundamental Design

- Rugged, heavy-gauge, cold-rolled steel cabinet has a powder coat paint finish that resists chipping and rust. Powder-coated, galvanized interior is designed for maximum capacity.
- Uprights include three fixed position shelves. The -86°C uprights include four interior compartment doors, which reduce cold air loss. Chests include polystyrene sub-lid(s) to reduce cold air loss.
- Easy-to-grasp handle promotes one-handed operation by minimizing the effort required to open or close the door or lid. Vacuum relief port on uprights causes pressure to equalize, allowing easy re-entry after door closings.
- Dual wheel, locking, swivel casters allow mobility as well as secure positioning.
- Acoustical mufflers and sound-absorbing foam in the base of the uprights reduces noise, resulting in more comfortable working conditions in the lab.
- Spring-loaded hinges counterbalance the chest lid to ensure proper alignment, smooth closure, and a tight seal.
- Hinged grille swings out, exposing the foam air filter for easy cleaning or replacement.

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VWR:

Providing value at competitive prices



Reliable Short- or Long-Term Storage

- Microprocessor controller maintains a constant temperature. Audible/visual alarms (e.g., high/low temp, power fail, probe fail, door open, etc.) ensure peace-of-mind monitoring.
- Automatic Voltage Compensator detects line frequency, monitors incoming voltage, and dynamically adjusts compressor voltage to reduce wear and tear on the compressor(s).
- Specially designed hermetic compressor(s) provide improved product protection, better temperature recovery times, and increased heat removal per kilowatt of energy used.
- Temperature control system maintains constant freezer temperature and can be set in 1°C increments.
- Front-to-back air circulation system results in cooler compressor temperatures, increased performance, and longer compressor life.

Specifications

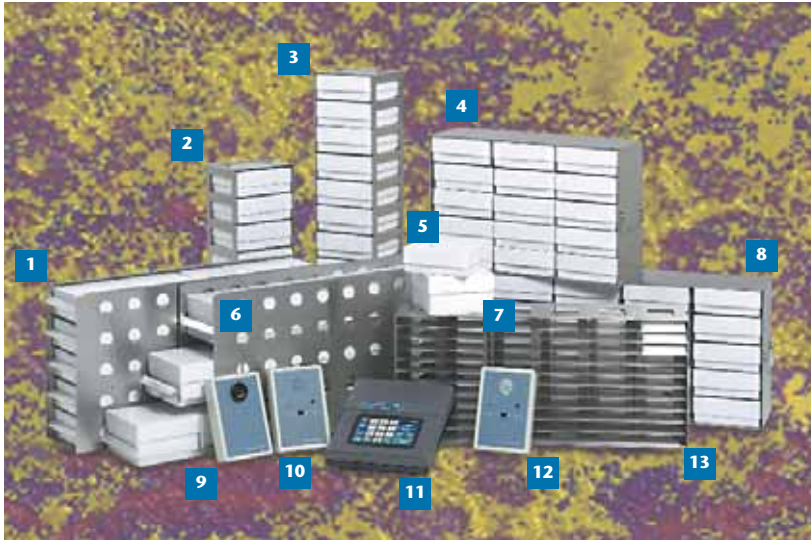
-10°C to -40°C Uprights						
VWR No.	Volume Cu. Ft.	Interior Dimensions W x H x D, cm (inches)	Exterior Dimensions* W x H x D, cm (inches)	Electrical**	Amps/ Breaker	Shipping Wt. kg (lbs.)
14230-162	13	58 x 131 x 49	85 x 198 x 79	120V, 60 Hz	10/15	265 (585)
14230-164		(23 x 51-1/2 x 19-1/4)	(33-1/4 x 78 x 31)	230V, 50/60 Hz	6.5/15	
14230-166	17.3	58 x 131 x 64	85 x 198 x 94	120V, 60 Hz	10/15	345 (760)
14230-168		(23 x 51-1/2 x 25-1/4)	(33-1/4 x 78 x 37)	230V, 50/60 Hz	6.5/15	
-50°C to -86°C Uprights						
14230-134	13	58 x 131 x 49	85 x 198 x 79	120V, 60 Hz	16/20	313 (690)
14230-132		(23 x 51-1/2 x 19-1/4)	(33-1/4 x 78 x 31)	230V, 50/60 Hz	12/15	
14230-136	17.3	58 x 131 x 64	85 x 198 x 94	120V, 60 Hz	16/20	358 (790)
14230-138		(23 x 51-1/2 x 25-1/4)	(33-1/4 x 78 x 37)	230V, 50/60 Hz	12/15	
14230-140	23	58 x 131 x 64	104 x 198 x 94	230V, 50/60 Hz	12/15	390 (860)
		(23 x 51-1/2 x 25-1/4)	(41 x 78 x 37)			
-50°C to -86°C Chests						
14230-142	3	47 x 42 x 47	72 x 111 x 73	115V, 60 Hz	10.5/15	159 (350)
14230-144		(18-1/2 x 16-1/2 x 18-1/2)	(26-1/2 x 43-3/4 x 28-13/16)	230V, 50 Hz	5.4/15	
14230-146	6.7	97 x 42 x 47	122 x 111 x 73	115V, 60 Hz	10.5/15	263 (580)
14230-148		(38 x 16-1/2 x 18-1/2)	(48 x 43-3/4 x 28-13/16)	230V, 50 Hz	5.4/15	
14230-152	12.7	108 x 71 x 47	183 x 103 x 73	120V, 60 Hz	16/20	338 (745)
14230-150		(43-1/2 x 28 x 18-1/2)	(72 x 40-1/2 x 28-13/16)	230V, 50/60 Hz	12/15	
14230-154	17	149 x 71 x 47	223 x 103 x 73	120V, 60 Hz	16/20	383 (845)
14230-156		(58-3/4 x 28 x 18-1/2)	(87-5/8 x 40-1/2 x 28-13/16)	230V, 50/60 Hz	12/15	
14230-160	20	169 x 71 x 47	244 x 103 x 73	120V, 60 Hz	16/20	386 (852)
14230-158		(66-1/2 x 28 x 18-1/2)	(96 x 40-1/2 x 28-13/16)	230V, 50/60 Hz	12/15	

Continuing research and improvements may result in specification changes at any time.

Freezers are UL Listed to Canadian and United States requirements (cULUS) and bear the CE Mark.

*Clearance requirements: for uprights, add 9cm (3-1/2") to width for latch/hinge and 18cm (7") for control panel bezel/wall spacer; for chests, add 20cm (7-9/10") to depth for wall spacer/handle.

**Operating range of 115V units is 103-127V, 120V units is 108-130V, and 230V units is 208-240V.



- 1) 14230-208, 2) 25000-062, 3) 25000-068, 4) 25000-070,
 5) 25000-134, 6) 14230-212, 7) 25000-136, 8) 25000-074,
 9) 25000-128, 10) 25000-132, 11) 13305-300,
 12) 25000-130, 13) 25000-098

VWR Freezer Accessories

- Inventory systems
- Storage boxes and dividers
- Temperature recorders
- Safety back-up systems
- Remote alarms
- ...and more

Accessories for VWR Signature -86°C and VWR -40°C and -86°C Freezers allow you to take full advantage of the storage space as well as tailor the freezer to meet your specific requirements.

Inventory Control Systems for Uprights

VWR No.	Rack Description (Dimensions = W x H x D)	Number of Racks Needed for Max. Capacity		
		13 cu. ft.	17.3 cu. ft.	23 cu. ft.
	Rack with handle and adjustable shelves, 14 x 27-7/10 x 41-9/10cm (5-1/2 x 10-9/10 x 16-1/2")			
25000-066	9-position rack with 3" boxes	16		
25000-082	9-position rack without 3" boxes	16		
25000-070	15-position rack with 2" boxes	16		
25000-086	15-position rack without 2" boxes	16		
	Rack with handle and adjustable shelves, 14 x 27-7/10 x 55-9/10cm (5-1/2 x 10-9/10 x 22")			
25000-072	12-position rack with 3" boxes		16	20
25000-088	12-position rack without 3" boxes		16	20
25000-074	20-position rack with 2" boxes		16	20
25000-090	20-position rack without 2" boxes		16	20
	Microplate rack with handle			
25000-094	30-position Deepwell microplate rack 14 x 24-2/5 x 55-9/10cm (5-1/2 x 9-3/5 x 22")		16	20
25000-096	36-position Deepwell microplate rack 14 x 30-1/2 x 55-9/10cm (5-1/2 x 12 x 22")		16	20
25000-098	66-position microplate rack 14 x 24-2/5 x 55-9/10cm (5-1/2 x 9-3/5 x 22")		16	20
	Rack with sliding drawers, 14 x 30-1/5 x 42-1/5cm (5-1/2 x 11-9/10 x 16-2/5")			
14230-200	Rack with (15) 2" boxes	16		
14230-202*	Rack without 2" boxes	16		
14230-204	Rack with (9) 3" box	16		
14230-206	Rack without 3" boxes	16		
	Rack with sliding drawers, 14 x 30-1/5 x 55-9/10cm (5-1/2 x 11-9/10 x 22")			
14230-208	Rack with (20) 2" boxes		16	20
14230-210*	Rack without 2" boxes		16	20
14230-212	Rack with (12) 3" boxes		16	20
14230-214	Rack without 3" boxes		16	20

*Rack capacity: 60 standard or 20 Deepwell microplates in 13 cu. ft. uprights and 90 standard or 30 Deepwell microplates in 17.3 and 23 cu. ft. uprights.

Inventory Control Systems for Chests

VWR No.	Rack Description (Dimensions = W x H x D)	Number of Racks Needed for Max. Capacity				
		3 cu. ft.	6.7 cu. ft.	12.7 cu. ft.	17 cu. ft.	20 cu. ft.
	Rack with handle, 14 x 40-3/5 x 14cm (5-1/2 x 16 x 5-1/2")					
25000-060	5-position rack with 3" boxes	9	18			
25000-076	5-position rack without 3" boxes	9	18			
25000-062	7-position rack with 2" boxes	9	18			
25000-078	7-position rack without 2" boxes	9	18			
	Rack with handle, 14 x 67-1/4 x 14cm (5-1/2 x 26-1/2 x 5-1/2")					
25000-064	8-position rack with 3" boxes			21	29	33
25000-080	8-position rack without 3" boxes			21	29	33
25000-068	12-position rack with 2" boxes			21	29	33
25000-084	12-position rack without 2" boxes			21	29	33
	Microplate rack with handle, 13-1/2 x 65-1/2 x 9-1/10cm (5-1/4 x 25-3/4 x 3-3/5")					
25000-092	27-position microplate rack			33	48	51

Storage Boxes and Cell Dividers for Boxes

VWR No.	Description
25000-134	2" box with 81-cell divider, 13-1/2 x 13-1/2 x 5-1/10cm (5-1/4 x 5-1/4 x 2")
25000-136	3" box with 81-cell divider, 13-1/2 x 13-1/2 x 7-3/5cm (5-1/4 x 5-1/4 x 3")
25000-138	16-cell divider, 1.22" nominal opening
25000-140	25-cell divider, 0.98" nominal opening
25000-142	49-cell divider, 0.70" nominal opening
25000-144	64-cell divider, 0.61" nominal opening
25000-146	81-cell divider, 0.54" nominal opening
25000-148	100-cell divider, 0.49" nominal opening

Temperature Recorders

VWR No.	Description
14230-178	Built-in 6", 7 day circular chart recorder, -100°C to 38°C, single pen, customer installed*
14230-180	Built-in 6", 7 day circular chart recorder, -100°C to 38°C, single pen, factory installed
14230-196	Built-in digital datalogger,** -90°C to 140°C, customer installed*
14230-198	Built-in digital datalogger,** -90°C to 140°C, factory installed
25000-124	Paper for No. 14230-178 and 14230-180 recorders
14231-832	Red felt-tip pen for chart recorders

Safety Back-Up Systems

VWR No.	Description
14230-170	Deluxe CO ₂ back-up system with hose and fittings, factory installed
14230-172	Deluxe CO ₂ back-up system with hose and fittings, customer installed*
14230-174	LN ₂ back-up system with hose and fittings, factory installed
14230-176	LN ₂ back-up system with hose and fittings, customer installed*
25000-112	CO ₂ cylinder wall clamp

*Must be installed by qualified personnel

** Dataloggers meet the following U.S. Food and Drug Administration (FDA) guidelines: cGLP 21 CFR Part 58, Software Validation 21 CFR Part 820, and Electronic Records 21 CFR Part 11.

Remote Alarms

VWR No.	Description
25000-128	Audible signal; 120V, 60 Hz
25000-130	Audible/visual signals; 120V, 60 Hz
25000-132	Audible/visual signals; 230V, 50 Hz

Telephone Dialing Systems

VWR No.	Description
13305-300	Four channel system, monitors up to four inputs and dials up to four different telephone numbers; 120V, 60 Hz; 19-4/5 x 5-1/10 x 21-4/5cm (7-3/4 x 2 x 8-3/5"); factory installed
13305-302	Same as No. 13305-300 but monitors up to eight inputs and dials up to eight different telephone numbers

Data Outputs and Sample Probes for Signature Series Freezers

VWR No.	Description
14230-182	RS-232, 0-1V, factory installed
14230-184	RS-232, 0-5V, factory installed
14230-186	RS-485, 4-20 milliamps, factory installed
14230-188	RS-485, 0-1V, factory installed
14230-190	RS-485, 0-5V, factory installed
14230-192	Sample probe kit for Signature Series uprights, customer installed*
14230-194	Sample probe kit for Signature Series uprights, factory installed

Inner Doors for -40°C Uprights

VWR No.	Description
25000-150	Four interior compartment doors, factory installed



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