

ULTRA LOW TEMP

PRODUCT
OVERVIEW



A NEW LEADER IN ULTRA LOW TEMP FREEZERS

Benefits you need, features that make it the perfect solution.

Available in 17, 21 & 25 Cubic Foot Models



Control Center

- Large LCD control panel
- Oversized LED temperature display
- Password protected

Ergonomic Door Handle

- Easy one-hand open & close
- Key lockable for sample security

Diagnostic Capabilities

- RS-232 accommodates downloading of event logs

External Monitoring

- 4-20mA output
- Remote alarm contacts
- Compatible with external alarms and monitoring systems
- Optional chart recorder

Added Sample Security

- 21 audible & visual alarms
- Voltage booster to protect the compressor during periods of low voltage
- Battery backup for alarms
- Rear access port for central building alarm system

Reserve Capacity with High Efficiency & Low Noise

- Two high efficiency compressors
- 300 BTUh reserve capacity
- Low decibel levels

User Friendly Maintenance

- Easy to access and clean condenser filter
- Low profile casters with locks

Triple Seal Gasket

- Reduces frost & ice build-up
- Maximum protection for sensitive samples

Vacuum Relief Port

- Eases door openings without sacrificing superior seal
- Accessible for cleaning

5 1/2" to 6" Thick Urethane Insulation

- Reduces power consumption while improving temperature performance

Five Individual Compartments with Adjustable Shelves

- Gain maximum versatility without sacrificing temperature performance
- Designed to utilize standard racks

Five Double Wall Insulated Inner Doors

- Reduces cold air loss and improves temperature recovery after door openings
- Better temperature uniformity



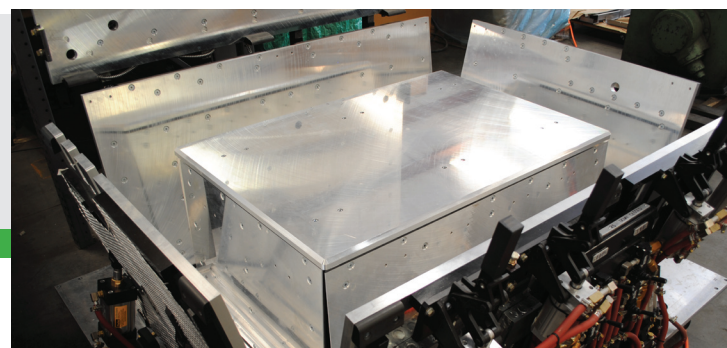
Shown with optional chart recorder

Designed to fit through a 34" doorway

Low Profile Casters with Locks

Environmentally Friendly

Two high efficiency compressors
CFC-HCFC Free Refrigerant and Insulation
6" Thick insulation
5 inner doors
All reduce energy consumption to only 15 kw/day



Quality

Superior strength, seal and durability guaranteed with state of the art molding fixtures that combine the strength of steel with high R-value structural foam

ADVANCED & CONFIGURABLE CONTROL

Easy to use, multi-function control is password protected, and monitors 24 functions and conditions.

Intuitive Interface

Easy to follow prompts simplify changing set points, calibration and accessing diagnostics.

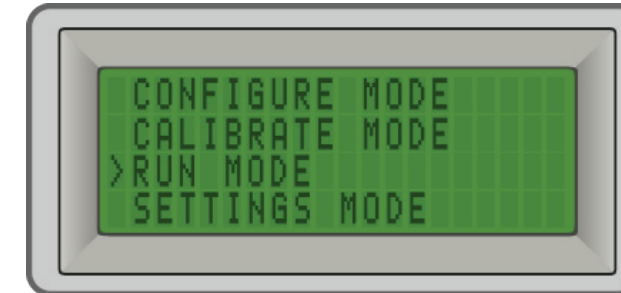
Simple to Troubleshoot

The control system monitors and records all specified conditions up to 4,000 events. This history can be downloaded for rapid assessment of any alarm.



PRECISE TEMPERATURE

100% Precision Control for your sensitive specimen



Configure

- Ring-back delay
- Password security (Access code)
- LCD contrast
- Run battery test
- Battery backup
- Sample

Calibrate

The owner's manual includes detailed calibration information and instructions.

Run

- Version details (control)
- Condenser temperature.
- Heat exchanger temperature
- Ambient temperature
- Control temperature
- Line voltage
- Cycle period
- Battery life

Settings

- Set time
- Set date
- Access code (status message)
- High alarm
- Temperature set
- Low alarm

Functions & Conditions

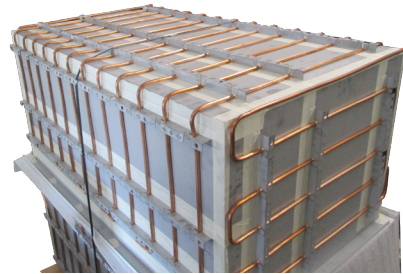
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|--|------------------------------|--|
| High control probe temperature | High stage system failure | Ambient probe failure |
| Low control probe temperature | Low stage system failure | Sample probe failure (if installed) |
| Door is ajar | Condenser air flow alarm | Control probe disconnected |
| Power failure — loss of AC input voltage | Low voltage alarm | Heat exchanger disconnected |
| Power failure — loss of 12V power supply | High voltage alarm | Condenser probe disconnected |
| Incorrect power connected | Control probe failure | Ambient probe disconnected |
| High ambient temperature | Heat exchanger probe failure | Sample probe disconnected (if installed) |
| Low battery voltage | Condenser probe failure | Failed battery test |

21 Audible & Visual Alarms

Ensure sample security
Extend freezer life by notifying user of:

- | | | |
|-------------------|------------------------------|----------------------------|
| High Temp Alarm | H S System Failure | Sample Probe Failure |
| Low Temp Alarm | L S System Failure | Ambient Probe Failure |
| AC Line Failure | Air Flow Problem | Line/Boost Voltage Sensing |
| 12V PS Failure | Low Line Voltage | Probe Unplugged |
| Incorrect Power | High Line Voltage | Failed Battery Test |
| High Ambient Temp | Control Probe Failure | Initializing Error |
| Low Battery | Heat Exchanger Probe Failure | Door Open |

ENGINEERED TO PERFORM & LAST



Power to Cool

- Five sides of direct contact copper evaporator tubes secured with steel tabs



Strength to Last

- Steel, double walled cabinet
- Double walled inner doors
- Triple contact gasket
- 6" of urethane insulation in critical areas



Designed to Standardize Your Lab

- Utilizes standard racks



Easy Access

- One-step filter access
- Removable sides, rear and front panels

SPECIFICATIONS

PRODUCT & INVENTORY



Model Number	ABT-115V-1786 ABT-230V-1786	ABT-115V-2186 ABT-230V-2186	ABT-230V-2586
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Temperature Range	-50°C to -86°C	-50°C to -86°C	-50°C to -86°C
Dimensions exterior (HWD) inches	78.5 x 37.6 x 36.3	78.5 x 43.3 x 36.3	78.5 x 49 x 36.3
Dimensions interior (HWD) inches	50 x 23.4 x 23	50 x 29.1 x 23	50 x 34.8 x 23
Inner doors	5 insulated	5 insulated	5 insulated
Security	All models feature key lockable door & passcode protectable control		
Compressors	½ HP x ½ HP cascade	½ HP x ½ HP cascade	½ HP x ½ HP cascade
Insulation	5.5" to 6" FIP urethane	5.5" to 6" FIP urethane	5.5" to 6" FIP urethane
Door gasket	3-point silicone sealing	3-point silicone sealing	3-point silicone sealing
BTU rejection	2150	2370	2580
Shipping weight	700	780	855

Electrical	115v/230v	115/230v	230v
Breaker requirement	115v / 20 amps dedicated 230v / 15amps dedicated	115v / 20 amps dedicated 230v / 15amps dedicated	230v / 15amps dedicated
Plug	115v / NEMA 5-20 230v / NEMA 6-15	115v / NEMA 5-20 230v / NEMA 6-15	230v / NEMA 6-15
Agency listings	UL 471	UL 471	UL 471

Performance			
Average stability	2°C	2°C	2°C
Average uniformity	±4.5°C	±4.5°C	±4.5°C
Reserve capacity	300 BTUh @ 25°C	300 BTUh @ 25°C	300 BTUh @ 25°C
Warm-up time	-80°C to -50°C in 5 hrs -80°C to 0°C in 12 hrs	-80°C to -50°C in 5 hrs -80°C to 0°C in 12 hrs	-80°C to -50°C in 5 hrs -80°C to 0°C in 12 hrs
Average energy consumption	15 kW Hour/day	16.5 kW Hour/day	18 kW Hour/day
Sound pressure level	55 - 65 db A scale @ 5 feet depending upon location and measurement testing		

Storage

Inventory racks will store sixteen (16) 2" boxes arranged four boxes high by four boxes deep or twelve (12) 3" boxes arranged three boxes high by four boxes deep. Rack dimensions are 8-7/8"H x 5-1/2"W x 22-1/4"D including the handles on the front and back of the rack.

Box Capacity			
2" Boxes	320	400	480
3" Boxes	240	300	360
# of Racks	20	25	30
Racks/Shelf	4	5	6

Supplying the tools and equipment the biotech industry needs to succeed

A Long Tradition of Excellence

Over 25 years' experience of delivering quality products to protect and preserve your life's work. Versatility & variety: from temperature presets to sizes, to shelf configurations, you get the exact products you need.

A Warranty to Stand Behind

The ULT line is backed by a full two-year warranty on parts and labor and an additional three years on compressor parts. A national network of trained service technicians supports this warranty.



Ordering & Contact Information

Please contact ABS for the nearest distributor or sales representative.

- **1-800-648-4041**
- **AmericanBiotechSupply.com**
- webmaster@americanbiotechsupply.com
- American BioTech Supply
125 Varnfield Dr.
Summerville, SC 29483