



North Sciences/Traceable® Model TEC² Ultra-Low Temperature Freezers

The next generation of the safest ULT for biomedical
and pharmaceutical cold storage

- Cloud-based monitoring with TraceableLIVE®
- Lockable, ergonomically designed door handle for easy and secure access
- USB interface to download historical temperature data



North Sciences/Traceable® Model TEC² Ultra-Low Temperature Freezers

Total sample security and peace of mind

North Sciences series of ultra-low temperature (ULT) freezers with TEC² technology with natural, hydrocarbon-based refrigerants to lower GWP (Global Warming Potential), with 100% redundancy provided by two complete and independent refrigeration systems.

Standard ultra-low freezers rely on a cascade refrigeration system. If this system fails, an LN₂ or CO₂ backup can only sustain temperatures for approximately 7 hours. Your samples will need to be moved quickly. Maintenance, refilling, and supervision are also required with LN₂ and CO₂ backups. With TEC² technology, there is no need to move your samples in a rush or worry about LN₂ or CO₂ backups.

Maintaining temperature and uniformity is important, but being aware of external conditions and forces that have the potential to influence the freezer's performance makes the TEC² the world's first ULT freezer offering smart, situational awareness for complete performance monitoring and total sample security.

Monitoring everything from inside out, 24/7. TEC² ULT freezers have an integrated Traceable® data logger, plus a one-year subscription to Standard TraceableLIVE® cloud-based control and monitoring services, supported by Cole-Parmer.

Overall Specifications

Cooling type	direct cooling
Controller	microprocessor
Sensor	PT100
Port	USB and RS-232
Material	inner chamber: SUS304
Refrigerant	natural low GWP, hydrocarbon, CFC free
Alarms	high/low temperature alarm, power-off failure, abnormal voltage, sensor error, filter screen check, controller failure, low battery, condenser malfunction, high ambient temperature, door ajar

x2
DUAL

Dual cooling system enables faster pull down and door opening recovery times after 2-min door opening



SMARTEST

Smart, situational awareness for complete performance monitoring



Sample security – system maintains temperature if one of the two cores, controls or systems is disabled



Cloud-based control and monitoring service

North Sciences/Traceable® Model TEC² Ultra-Low Temperature Freezers

Unmatched performance and reliability, total sample security

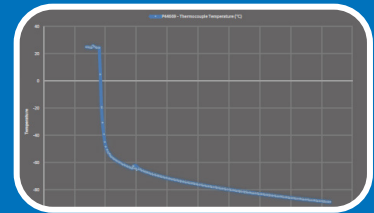
- Perfect for COVID-19 vaccines, critical material storage in biorepositories, medical research facilities, BSL4 labs, hospitals, or anywhere valuable samples need to be stored safely
- Sample security: 2 cores, 2 refrigeration systems, 2 control commands for compressors, enabling one system to maintain temperature if the other is disabled
- Fast, dual cooling system enables faster pull-down (4.5 hr) and door opening recovery times (80 min) after 2-minute door opening
- Above industry standard (± 2.5 °C) uniformity ensures your samples are being stored within the proper temperature range to maintain integrity
- 50 to 90% more sample storage in the same space
- Frost free: interlocking gasket design and heated door seal reduce frost accumulation on the inner compartment doors
- Only freezer aware of its own environment with smart, self-monitoring features
- Lockable, ergonomically designed door handle for easy and secure access
- 7-inch color touch screen panel allows full user control
- GLP conformity makes transferring logged data to a PC simple and convenient
- Best insulation: combining vacuum insulation panels with high-efficiency dual-layered insulated inner doors ensures longest cold retention and recovery times



Ergonomic Locking Handle



Touch-screen Interface

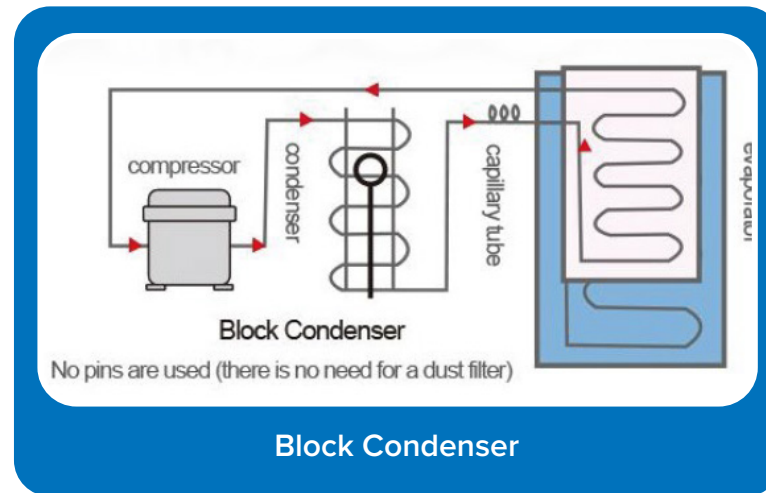
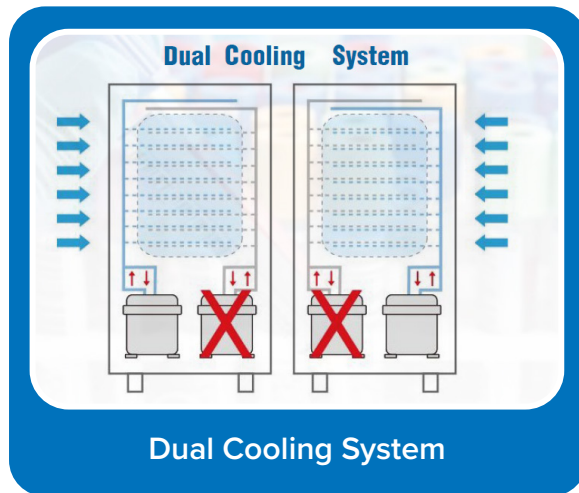


Temperature Monitoring

North Sciences/Traceable® Model TEC² Ultra-Low Temperature Freezers

Advantages:

- Two complete and independent refrigeration systems
- Advanced 7-inch touch screen control panel with data monitoring
- Vacuum Insulated external door panel
- Ergonomic and safety door latch
- Magnetic door gasket to ensure proper sealing
- Door switch to protect samples
- Air intake vent grille
- Easy-access condensing filter
- Accessible front panel
- Heavy-duty adjustable casters
- USB port for data download of recent 10,000 readouts
- Remote alarm contacts
- Power switch
- Spacers to ensure proper positioning of the freezer
- Two access ports
- Removable inner doors with latches for easy cleaning or defrosting



TraceableLIVE® – Remote monitoring from the cloud

TraceableLIVE is a cloud-based, subscription software solution for connected data logging devices that sends alerts when an out-of-range condition, lost network connection, low battery charge, or device due for calibration is detected. Push notifications on screen via the TraceableLIVE app so you know what's happening in your fridge or freezer, even when you're at your desk.

- Notifications for peace of mind
- Simple setup
- Subscription plans to fit your needs
- Cloud-based, no software to install

Learn more at coleparmer.com/traceablelive

TraceableLIVE Subscription Plans

Free	Standard	Premium
<p>Try TraceableLIVE for free. Get Premium benefits for 30 days.</p> <ul style="list-style-type: none">• E-mail and push alarms• 1 user only• 1 month data storage• Up to 3 devices can be added to the account• Calibration due and other notifications	<p>Equip your team to protect your sensitive items and meet most national and local regulations.***</p> <p>\$8.99 / Month / Device \$100 / 1 Year / Device \$200 / 2 Years / Device</p> <ul style="list-style-type: none">• E-mail and push alarms• SMS text notifications*• Unlimited users and data storage• No limit to devices that can be added to account (each device must have subscription)• Calibration due and other notifications• Pre-loaded templates set up for monitoring Spex® chemical products	<p>“Future-proof” your vaccine and sample monitoring for ever-changing compliance requirements.</p> <p>\$14.99 / Month / Device \$165 / 1 Year / Device \$330 / 2 Years / Device</p> <ul style="list-style-type: none">• E-mail and push alarms• Apple Watch compatibility• SMS text notifications included• Voice notification escalation• Ideal for high importance escalations• Unlimited users and data storage• No limit to devices that can be added to account (each device must have subscription)• Create your own monitoring and notification templates• Unlimited templates• Pre-loaded templates set up for monitoring Spex chemical products• 21 CFR Part 11 compliance**

*SMS Text notification is available on monthly credit card subscription add \$2+/month/device or comes included in Premium. | **Meets 21 CFR Part 11 North American Compliance and Annex 11 for Europe. | ***Check all national, local, and industry regulations.

North Sciences/Traceable® Model TEC² Ultra-Low Temperature Freezers

Ordering Information

Freezer capacity	Temperature range	No. of shelves	Capacity for 2-in boxes	Display	Internal Dimensions (W x H x D)	External Dimensions (W x H x D)	Power	Electrical	Item number
425 L (15 cu ft)	–86 to –40 °C (–123 to –40 °F)	3	288	Touchscreen	61 x 118 x 57.5 cm (24" x 46.5" x 23")	90 x 194 x 94 cm (35.5" x 77" x 37")	845 watts, 5.3 amps	120 VAC, 60 Hz	44260-85
							420 watts, 2.6 amps	220 VAC, 50 Hz	44260-86
588 L (21 cu ft)	–86 to –40 °C (–123 to –40 °F)	3	400	Touchscreen	61 x 131 x 74 cm (24" x 52" x 29")	90 x 199.5 x 115.5 cm (35.5" x 79" x 45.5")	815 watts, 18.2 amps	120 VAC, 60 Hz	44260-87
							405 watts, 9.1 amps	220 VAC, 50 Hz	44260-88
728 L (26 cu ft)	–86 to –40 °C (–123 to –40 °F)	3	500	Touchscreen	96.6 x 135 x 57 cm (38" x 53" x 22")	125 x 199.5 x 97.5 cm (49" x 79" x 38")	850 watts, 8.8 amps	120 VAC, 60 Hz	44260-89
							425 watts, 8.8 amps	220 VAC, 60 Hz	44260-90
								220 VAC, 50 Hz	44260-91
838 L (30 cu ft)	–86 to –40 °C (–123 to –40 °F)	3	600	Touchscreen	89.5 x 131 x 72 cm (35" x 51.5" x 28")	118 x 199.5 x 113.5 cm (46.5" x 79" x 45")	900 watts, 9.8 amps	220 VAC, 60 Hz	44260-92
							450 watts, 9.8 amps	220 VAC, 50 Hz	44260-93

Units supplied with integrated Traceable® data logger and 1-year subscription to Standard TraceableLIVE® cloud-based control and monitoring service.

coleparmer.com

USA:
+1.800.323.4340
+1.847.549.7600

5001

Canada: +1.800.363.5900
China: +86.21.5109.9909
France: +33 (0) 1486 37800
Germany: +49 (0) 9377 92030

India: +1.800.266.1244
Italy: +39 (0) 2 84349215
UK: +44 (0) 1480.272279
All other countries: +1.847.549.7600

Cole-Parmer®