



Salient Features :

- Efficient CFC free insulation with high core density reduces temperature loss
- Optimized compressor run ensures energy efficiency
- Hot line across the door assembly to prevent frost formation
- Efficient CFC free dual refrigeration system ensures fast temperature pull down
- Quadruplicate step silicon rubber gasket for complete insulation
- Independent internal foamed doors with plastic handle
- Smart Handle with LED door closure indication
- Port for calibration probes / safety back up
- **Audio Visual alarms for**
 - Temperature high / low
 - Power failure
 - Door Open
 - Compressor on (only visual)
 - Power on (only visual)
- **Settable points of**
 - Temperature high / low
 - High / low temperature alarm point
- Rounded inner chamber for easy cleaning
- Attractive door profile
- Weight carrying capacity of each tray : 30 Kg Uniformly distributed
- Vacuum Release Valve for easy door opening.

REMI's new range of Ultra-Low Temperature (ULT) freezers are specially designed for faster temperature pull down & optimized cryopreservation. Highly sensitive microprocessor control ensures precise temperature management at -86°C. Recommended Ambient Temperature < 27°C.

These cabinets are available in standard & GMP versions.

Optional

- (I) Touch screen display (TFT) with additional features (Details overleaf)
- (ii) Validation protocol with IQ, OQ, PQ Documentation

LCD Display

Features

- 4 Inch attractive LCD display
- Intelligent Controller helps maintain temperature in case of sensor failure
- Battery Backup for Temperature Controller
- Auto tuning of controller
- Self-Diagnosis for errors
- Histogram format of 24 hours temperature recording
- Settable High / low alarm points
- Memory for storage of upto 1000 records
- Centronic interface to record Temperature, Date, & Time by attaching Dot Matrix printer with adjustable print interval
- Alarm on equipment / output for remote alarm

Touch Screen Display

Features

- 7 inch big colour touch screen
- PLC (Programmable logic controller)
- Standby refrigeration (optional)
- Memory of 1500 records
- Centronic interface to record Temperature, Date & Time by attaching Dot Matrix printer with adjustable print interval
- Ethernet port
- Battery backup in case of power failure for display, alarms & off-line data logging (optional)
- Remi 'DataSoft' Data acquisition software complying to 21 CFR part 11 as per USFDA Guidelines (optional)

REMI 'Data Soft'

Features

- Multiple level alpha numerical password with password ageing
- Secured audit trail report
- Alarm report with mention of alarm condition
- Mean Kinetic Temperature able to be calculated for any days & alarm deviation report
- Reports in graphical and tabular form
- Data Stored in PC server with RS-485 connectivity and can be monitored on PC with password authentication
- Multi chamber data acquisition on single software
- Communication through RS 485 / TCP IP
- GSM Mobile Alert for six Numbers
- Power failure and resumption recorded with date and time

Optional Accessories

To be Ordered separately

- Data logger for 8 Point temperature recording with sensor printer interface and software
- Seven days circular chart recorder
- Software as per 21 CFR Part 11 requirements
- PLC Based Control System with HMI Touch Screen
- Biometrics Magnetic Door Access for Secured Door opening with software to maintain log
- Validation (mapping) consist of one cycle for temperature and humidity at any one set point for 24 hours on empty and loaded condition
- GSM alert through SIM card

Technical Data

Particulars	ULT-90	ULT-185	ULT-360
Internal Volume (Liters)	90	185	360
No. of trays	2	3	6
No. of Internal Doors	1	2	4
Internal Dimensions W x D x H (mm)	400 x 400 x 580	510 x 510 x 730	700 x 510 x 1000
External Dimensions W x D x H (mm)	711 x 877 x 1405	820 x 987 x 1560	1010 x 987 x 1830
Operating Temperature Range	-45°C to -86°C		
Insulation (CFC free polyurethane foam)	Body : 150 mm sides, 300 mm Back, Door : 110mm		
Temperature Control	Microprocessor with PT-100 sensor		
Display	4" LCD		
Power Failure Alarm	Audio Visual Alarm		
Door Open Alarm	Audio Visual Alarm in case door open for over one minute		
Internal Body Material	S.S. 304 (AISI Grade, Non Corrosive, Non Magnetic)		
External Body Material	Powder Coated CRCA Steel		
Noise Level	Less Than 65 db(A)		
Battery Backup	Rechargeable, Back Up 8 hrs (for alarm system & temperature recorder)		
Recommended Voltage Stabilizer	VS-05	VS-06	VS-07

Supply: 220-240 Volts, 50 Hz Single Phase.