

Incubator and Agitator



Environmentally friendly blood bank refrigerator powered by Meditech Technology for safe agitation of Plasma bags.

Stable Temperature Control

Temperature is controlled by two sensors located in the liquid-loaded **monitor bottles**, which are in the shape of a blood bag

Two thermistor sensors constantly monitor the temperature in both the upper and the lower part of chamber.

Microprocessor control ensures the most accurate temperature control available.



Designed to conform to AABB criteria, the series ensures stable and reliable temperature control utilizing Meditech original technology. A special highly efficient compressor designed and used by Meditech provides rapid cooling and quiet performance for each model.

Temperature-maintained defrost designed with thermal sensors and heaters in the evaporator, all under precise microprocessor control.

Temperature Variations Prevented

Foamed-in-place insulation in the walls and magnetic sealed outer doors with **double-pane glass window** prevent chamber air leakage and promote complete door closings

Large air circulation fan enables rapid temperature recovery after door openings

FEATURES

Digital temperature recorder controller unit coupled with a unique air flow system maintains the chamber uniformly at the AABB recommended temperature of $22 \pm 0.1^\circ\text{C}$.

Digital sensor placed inside the solution-filled bottle ensures error-free readings and matches the exact temperature inside the bag.

Agitation at 70 ± 5 cycles per minute to avoid platelet clumping and to ensure maximum viability.

SS304 grade sliding stainless steel trays.

Pause switch provided to arrest agitator motion for 10 seconds, for easy placement and removal of bags.

Toughened glass door for safety and better visibility of platelet bags.

Magnetic gaskets for doors ensure no air is lost in a 'door closed' condition.

The internal fan switches off when the door is opened to avoid the loss of cold air.

Eyelevel positioning of TRCU for better visibility.

Automatic illumination when the door is opened allows for better visibility.

The stabilizer protects the incubator from input voltage fluctuations and ensures that the equipment has a long life-cycle



User Friendly Design

Selectable storage system **Fluorescent interior lamp** with ON/OFF switch and a **large view window** in the outer door provide a clear view of stored items

Alarm and Safety Functions

To ensure the safety of precious plasma supply, the Meditech Series provides the following safety functions

Audible and flashing LED visual alarms with remote alarm contacts, in case of power failure, high or low temperature
Door Alarm and key lock are standard features

Built-in temperature recorder.

Know your machine

Equipment meets electrical safety specification such as that of IEC (ClassI)

The display is positioned at eye-level to make it easier to read and simplify operation.

Digital PLC Controller

Led Light along the length of the Refrigerator for uniform illumination through all the Compartment

Glass & Solid door, Automatic closing of the front door below opening angle of 90° and opening angle limited to 110°.Insulation and gasket is of silicone

4 Castor Wheels, 2 Lockable & 2 Movable

Best in Class 80mm insulation for effective temperature Holdover

Hotline to prevent frost accumulation

An inbuilt line voltage corrector of appropriate rating will form part of standard configuration.

Factory calibrated digital sensor dipped in liquid medium for accurate temp measurement and display .Flicker free LED lamp for uniform lighting and better

Door opening audio and visual display alarm.

CFC free refrigerant gas/green gas
CFC free insulation

External Corrosion Resistant, powder coated (CR at least 1.2mm thickness)

Refrigerator Body

Door Heater avoids moisture condensation in humid atmospheric conditions. Pane heated glass door insulates the refrigerator from atmospheric temperature Magnetic door gaskets

Built In 7 Days circular chart recorder

Efficient compressor faster pull down & Recovery Time. Compressor Starting Voltage: 22% below nominal voltage.

Circulators for uniform Temperature

Internal Stainless steel (min.22g)

Smart handle with Lock and Key

Blood Storage Shelves . Mesh type sliding stainless steel tray allows bags to be placed upright with sufficient airspace to reduce "Sardine effect"

Unique design of Thermal barrier for better energy efficiency

USB Data Logger

Agitator

Removable Plates

Pause Button

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Advance LED based PLC Based Controller



Scrolling LIVE Data logger on LED screen

1. Temperature
2. Incoming Voltage
3. Ambient Temperature
4. Time in hours of revolution chart
5. Current Date
6. Current Time
7. Battery Voltage

LED INDICATION

1. Line In
2. Power
3. Comp On
4. Heater On
5. Battery On
6. Battery Low
7. Temp High
8. Temp Low
9. Power Fail
10. Sensor Fail
11. Chart Change
12. System On

User Friendly Settings

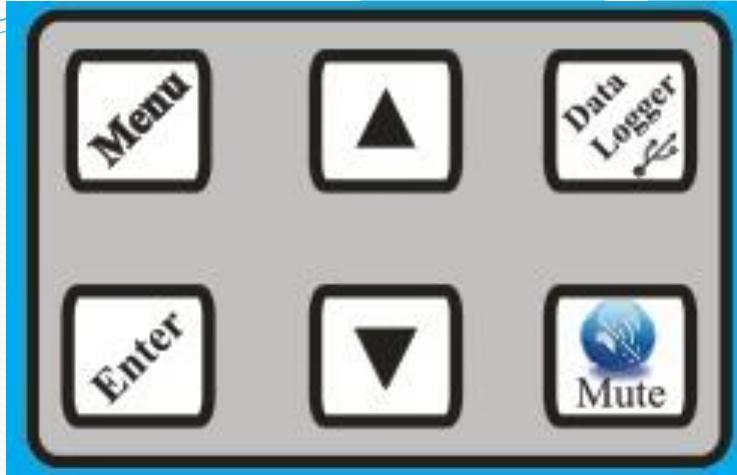
1. Date
2. Time
3. High Temp Alarm
4. Low Temp Alarm
5. Hysteresis
6. Compressor Delay

	Model	Bags, 350 ml	Capacity	Temperature Recording Device
Incubator-Agitator	MTIA01	48 Bags	150 litres	7 days Chart recorder
	MTIA02	96 bags	275 litres	7 days Chart recorder
	MTIA12A	130 Bags	330 Litres	7 days Chart recorder
	MTIA03	168 bags	500 Litres	7 days Chart recorder

6.0 LED Indicators

Sl.No	Photos	Function Indication
1.		This LED is on when there is a power supply to the machine from the main source
2		This LED is on when the Controller is in working condition.
3		This LED is on when the compressor is in working condition
4		This LED is on when the heater is in working condition
5		This LED is on when the battery is in working condition
6		This LED is on when the battery is discharged
7		This LED is on when the inside compartment temperature of the refrigerator is high above the set temp
8		This LED is on when the inside compartment temperature of the refrigerator is Low below the set temp
9		This LED is on when there is power failure.
10		This LED is on when there is sensor fail
11		This LED is on when after 162 hours of charge change (6 hours before the completion of 7 days)
12		This LED is on when all functions of the System is in working condition

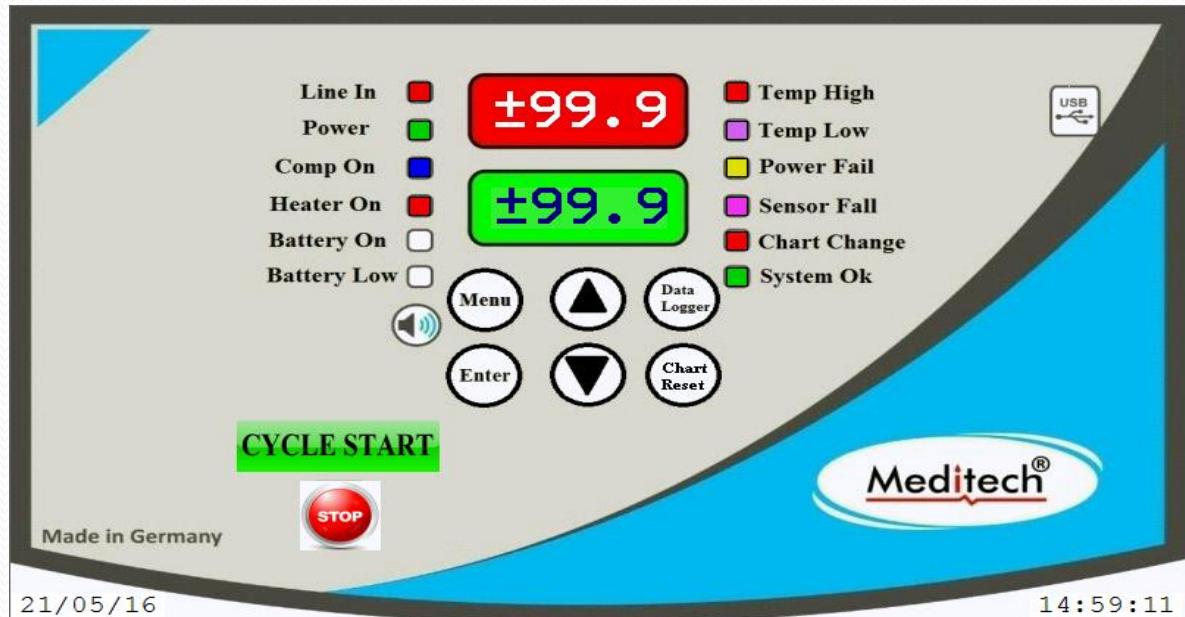
7.0 Keypad Functions



Sl.No	Photos	Function Indication
1		The Menu button is pressed to enter into MENU option.
2		The Enter button is pressed to enter into "ENTER" option.
3		The Up Arrow button is pressed to go Upwards in the menu option.
4		The Down Arrow button is pressed to go Downwards in the menu option.
5		The data logger is pressed to get the data from the PLC to the computer
6		The MUTE button is pressed to MUTE any Alarms and sounds
7		The Door Open LED is activated along with the buzzer sound indicating the Door Open function
8		The ON button is pressed to switch on the refrigerator
9		The USB is provided to connect the Refrigerator to the computer system.

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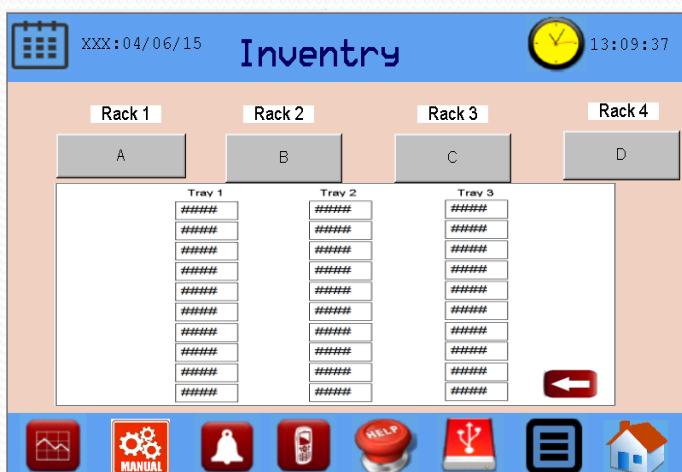
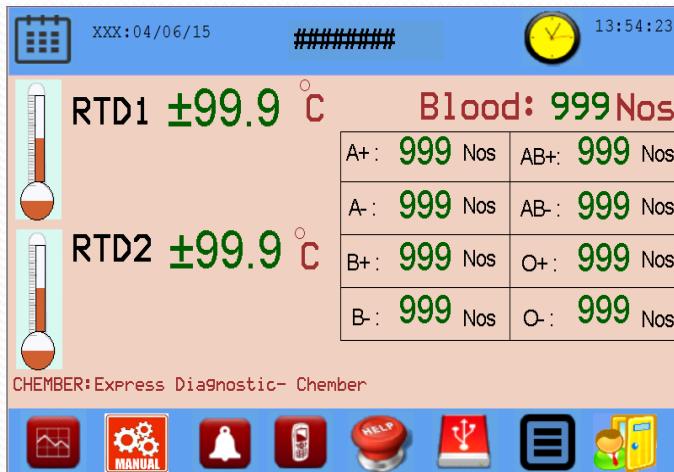
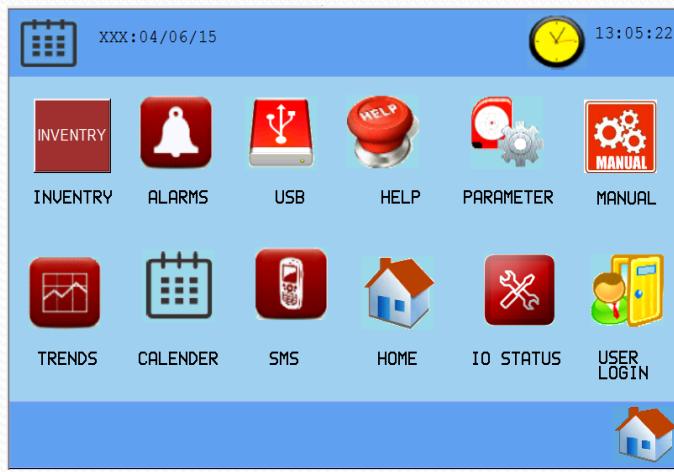
Touch Screen LCD Controller



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TOUCH SCREEN FUNCTIONS



INVENTORY: Now maintain inventory of Blood Groups Electronically. No need of bulky registers and manual confusion. Meditech Helps to maintain Blood groups row wise , tray wise and partition wise so that the touch screen always displays the current stock in Refrigerator. Also Meditech screen displays blood stock group wise such as A, A+, B+, B-, AB+, AB-, O+ and O-

SCADA software is also available for full Blood Bank management system.

ALARMS: Low Temperature and high temperature alarms history and graphs can be viewed or printed or transferred using PEN drive.

USB: USB Menu helps to transfer all logs to a flash PEN Drive

TRENDS: This Menu displays higher and lower temperature parameters with time in Historical and Real Time.

CALENDAR: Time and Date can be set using this MENU

SMS: This MENU is set to sent SMS of all critical parameters to a predefined number

IO STATUS: This MENU is used at the time of trouble shooting

USER LOGIN: Keep your Refrigerator and data protected with passwords. User are created using this MENU