

## BOD Incubator



BOD incubator powered by Meditech Technology are Environmentally friend for BOD test and storage of sensitive cultures, vaccines, culture of bacteria microorganism and plant life; serum incubation studies, Immunological work, chemicals, etc

### What are BOD Incubators

BOD incubators are used to maintain a temperature range of 20°C below ambient to 45°C . BOD incubators are widely used in Medicine, research laboratories and agriculture industries. These incubators are used in study of biochemical oxygen demand in studies related to bacterial culturing, Germination, Plants, Fermentation and insect studies. The BOD incubators unit also comes with lights which are suitable for plant growth and insect studies. Nitrogen in waste water samples and levels of organic matter can be studied with the help of Refrigerated BOD incubators. This water must be treated with chemicals and recycled back to the environment without posing threat to regular water supply system. Government regulatory agencies have enforced monitoring of air and water. Many organizations now started to test their samples which are kept in BOD incubators.



### Stable Temperature Control

Temperature is controlled by two sensors located in the liquid-loaded **monitor bottles**.

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

**PLC and Microprocessor control** ensures the most accurate temperature control available.

### 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

Eye Level Digital display is easy to see, and is calibratable through the control panel Filterless construction eliminates bothersome filter cleaning

### Temperature Variations Prevented

The Meditech BBR Series is designed to minimize cold air loss even with frequent door openings.

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

### Alarm and Safety Functions

To ensure the safety of precious blood 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 on request

**Multi air-flow plenum system** ensures excellent temperature uniformity in larger capacity models.

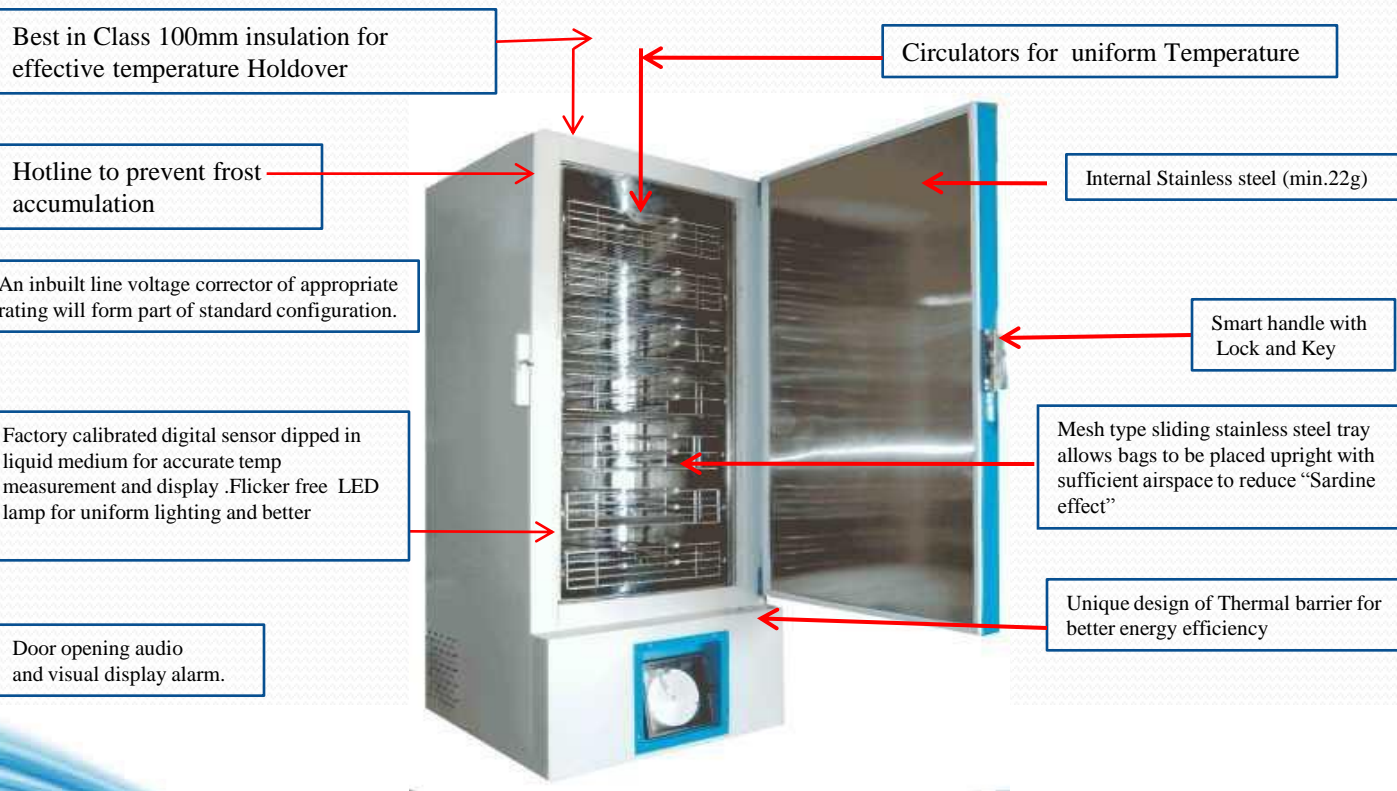
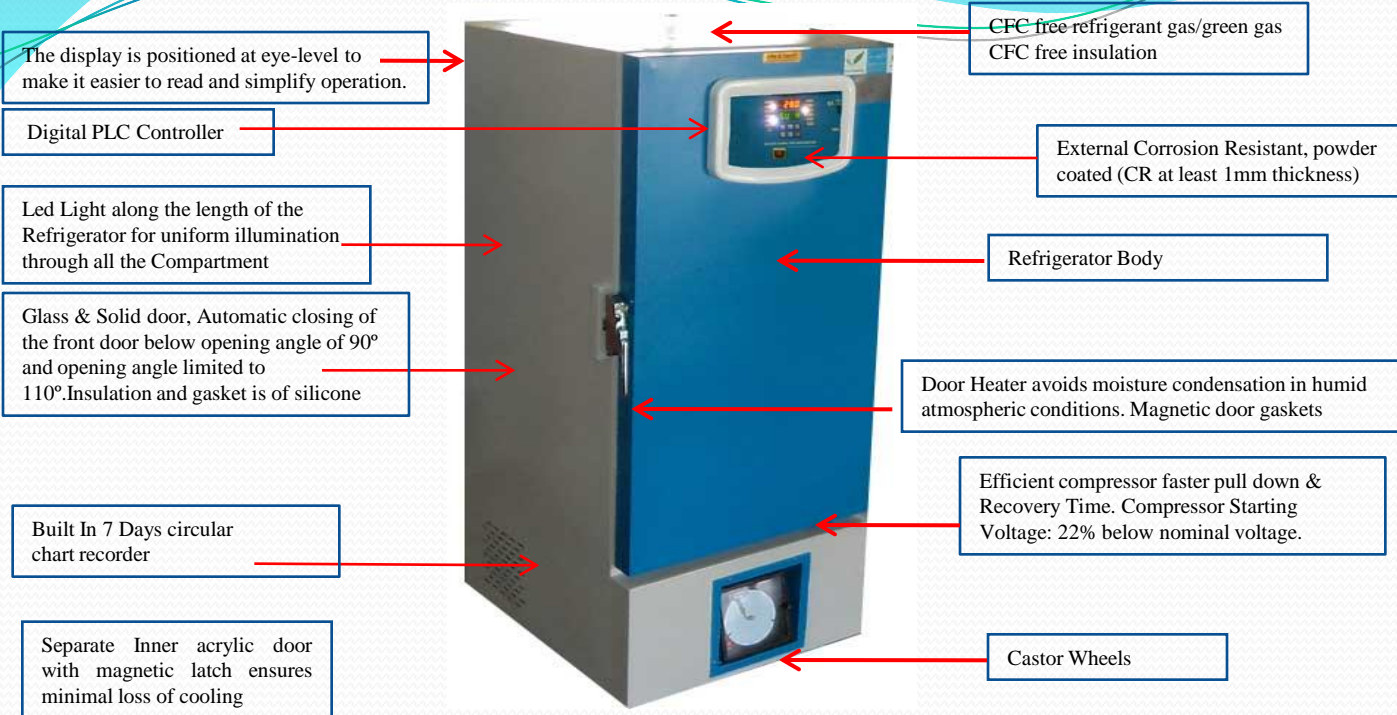
**Temperature-maintained defrost** designed with thermal sensors and heaters on the evaporator, all under precise microprocessor control.

**Meditech** is most trusted manufacturer, exporter and supplier of BOD incubators or biological oxygen demand incubators in India. Meditech designs and supplies excellent range of incubator BOD with different sizes and temperature. All these BOD incubators (often called low temperature incubators) by Meditech come with user friendly features and are used for applications including Bio Chemical Oxygen Demand tests, storage of sensitive cultures, vaccines, serum incubation, seed germination, fermentation studies, bacterial culturing, insects and plant studies.

These **BOD incubators** are widely acclaimed by scientists and professionals worldwide as finest quality laboratory incubators. The range of incubators BOD comes from 3.2 cu. ft. to 30 cu. Ft. and available in portable and bench top design. BOD Incubators from and above 27 cu. Ft. are designed and manufactured by order with specific requirements.

# 2 Know your Machine

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



# PLC Based Controller



## 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

## 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

## User Friendly Settings

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

# Touch Screen LCD Controller





Model	MTBBR1	MTBBR2	MTBBR3	MTBBR4	MTBBR5	MTBBR6	MTBBR7
Type	Vertical						
Effective storage volume liters	120 liters	200 liters	324	450	600	800	1000
Effective storage volume cu feet	4 Cu Feet	8 Cu Feet	12 Cu Feet	16 Cu Feet	21 Cu Feet	28 Cu Feet	34 Cu Feet
Trays (removable type) Stainless Steel slide out trays	4 stainless steel slide out trays	5 stainless steel slide out trays	5 stainless steel slide out trays	5 stainless steel slide out trays	5 stainless steel slide out trays	6 stainless steel slide out trays	6 stainless steel slide out trays
Miniature Circuit Breaker (MCB)	240V / 10 A						
Cabinet material	18 swg CR Sheet - powder coated						
Inner chamber	22 SWG Stainless Steel Sheet						
Input voltage of BBR	160 - 270 V, 50Hz, single phase AC						
Stabilizer	1KVA Built in stabilizer						
Chamber temperature range	-5°C to +60°C						
Air circulation inside the chamber	Continuously operated forced air circulation using the evaporator fan						
Slide out rail	Heavy duty telescopic rail						
Lamp	CF Lamp 14W / LED Lamp						
Compressor	Hermetically sealed compressor						
Refrigerant	R134a						
Wheels	Caster wheels						
Temperature sensing method	Encapsulated digital sensor dipped in 0.25% glycerine solution kept in a plastic bottle						
Temperature controller	Temperature Recorder and Control Unit (TRCU)						
Accuracy of temperature sensor	(+/- 0.5°C)						
Display	4x7 segment LED (red) and 4x7 segment LED (green)						
Display resolution	0.1°C						
Alarms & Indications	Line in			Visual			
	Power			Visual			
	Compressor ON			Visual			
	Heater ON			Visual			
	Temperature High			Audio - Visual			
	Temperature Low			Audio - Visual			
	Door open			Audio - Visual			
	Battery Low			Visual			
	Battery ON			Visual			
	Power failure			Audio - Visual			
	Sensor failure			Audio - Visual			
	Chart change			Visual			

## Guidelines to Maintain BOD Incubators

Following are the guidelines to make optimum usage of your BOD Incubators. The power cord of BOD incubator should be unplugged from the power socket, if the unit is not be used on regular intervals or for a long period of time.

Always Inform service centre for Preventive Maintenance whenever it is due. Do not play or use BOD incubator abnormally. This may lead to damage of machine and electrical failure in the locality.

### Cleaning BOD Incubators:

BOD incubators should be cleaned and maintained for prolong and efficient functioning. Following are the steps

The power cord of incubator should be disconnected prior to cleaning to prevent electric shock and fire

Neutral detergent free from Alkaline should be used with the help of soft cloth. Rough Cloth, Strong chemicals and Organic solutions might damage the unit. Water, Thinner, spirit and alcohol should be used as cleaning agent. This may result in fire and abnormal colour change of the body.

### Cleaning the Inner Chamber of BOD Incubators:

Please follow the instructions to clean the interiors of BOD incubators

Remove the shelves of incubator installed in the chamber. Check out for the contaminated portions inside and clean them very softly. Do not use extra force as it may damage the coating or painting of the interior. Similarly clean the shelves and parts. Dry the incubator after cleaning. Reassemble the shelves appropriately. Contact Meditech service team if you face any fitting problems. Kindly clean the display panel and the buttons softly to avoid any damaged.

It is very essential to properly clean and maintain your BOD incubators to ensure their proper working and a longer life.

## Web Based Software (SAIFIN53) - Remote BOD Incubator and BOD Room Management

**Access Anywhere Anytime!! Around the Globe**

**Instantly connect and control your BOD Incubator and Rooms without installing software**

For more than a decade, Meditech SAIFIN53 software has gained popularity among operators and end users for its reliability and ease. SAIFIN53 is available remotely via a web browser using internet facility. SAIFIN53 is designed to meet the increasing demands for improved efficiencies. This web based software also adds extra capabilities of data logging, user-configuration and features of all alarm notifications via SMS and Email.

### Features

- Eliminate the need for multiple software installations and Qualifications
- Web based software accessible through browser
- Compatible with server-based OS, android, Windows-7/8/9/10
- Ensure one-time software installation on your plants server and access the software anytime, anywhere through a web browser from any Desktop/Laptop (same LAN Network)
- View Status, take printouts or execute any of your tasks from anywhere
- Department wise segregation of users, equipment & Data
- Harmonization of reporting format (header, footer, etc) and other such operations through the plant

Centralized user defined Alarms, alerts and Notifications through SMS & emails

Configure the type & no. of alarms to be sent via email/SMS & configure delay time too

Running time calculation of MKT and Moving Average Component running hours to determine the shelf-life of major components

Real-time display of all connected equipment in single screen

Automatic data backup facility

System Diagnosis for troubleshooting via Team Viewer

Ethernet communication with chambers

Complying US FDA 21 CFR Part 11

### Key Features

- A Truly innovative data handling and communication options
- Plug and Play fashion via Ethernet to connect local or plant networked PC or Laptop
- One can view LIVE system parameters and historical graphs as well as receive alarms, reports, data log files over email
- Settings with just a standard browser
- Access live or stored data remotely within the facility (LAN network) or from anywhere in the world



**Secure audit trails**  
 -Audit protection  
 -Provide certified proof of process control

# FEATURES AND FUNCTIONS

## A REVOLUTIONARY MONITORING & ALARM SYSTEM



**Say No To Manual Recording**  
 -Error Free  
 -Separate signatures for data reviews & data approval  
 -No mistake in record maintaining  
 -Data analysis  
 -Tabular and graphical data representation

**Wireless Display with Humidity, Temperature CO2 Sensors for Visibility and audit**

**USES : Freezers, Stability Chambers, Warehouse Labs, Cold Rooms and Blood Banks**

**Record and alarm Temperature, Relative Humidity, Flow, Differential Pressure, CO2, O2, LN2, Status and Contacts**



**View Multiple areas or selected locations on PC**

**Audio and Visual Alarms for Settable Range**

**Compact size chart recorders and alarms system**

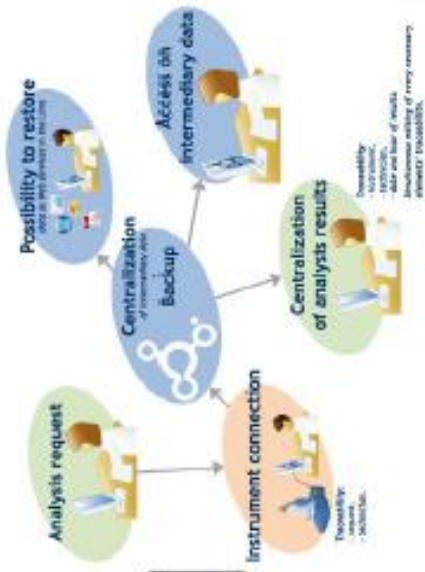
**Data recorders are easy to relocate and swap for service and calibration**



**View Data from Any part of the World**  
 -Browser base application software  
 -view from PC, smart phones and tablets



**Alarms**  
 Alarms for parameter deviation  
 SMS Alerts  
 Alarm log with acknowledgement and user comments  
 Email alerts for supervisor



### Traceability

- Instant response to data request
- Continues Data saving
- Data Protection and backups



### Supervisor Function

Alerts users for pending activity  
 Escalates unattended issues to higher authority



**Receive SMS and Email alarm notification**

# BOD INCUBATOR





Environmentally friendly BOD INCUBATOR powered by Meditech Technology for safe testing of specimens

## Screen Shots of Touch Screen Controller










ISO 9001:2008, ISO 14001, ISO 13485  
WHO-GMP & CE Certified Company

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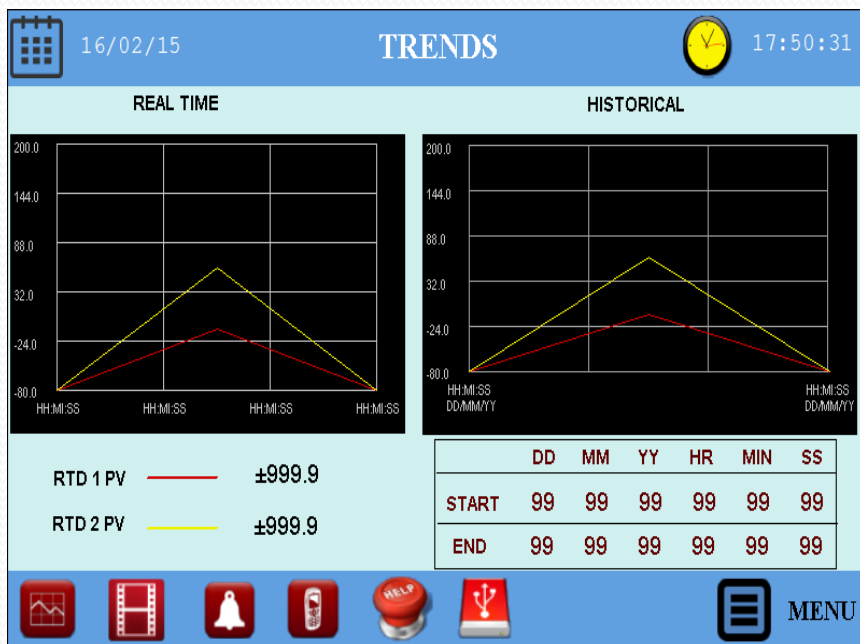
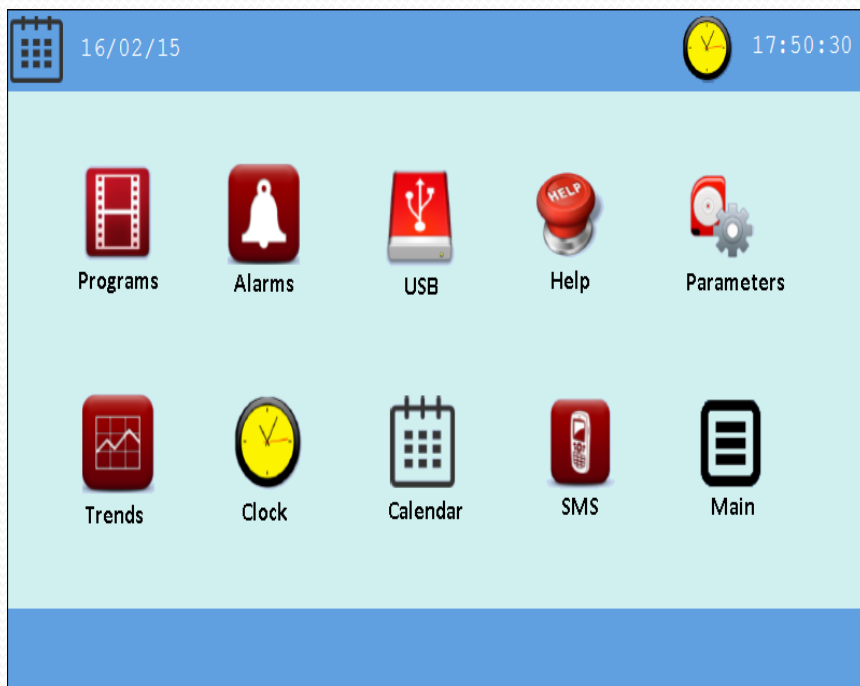
16/02/15		PARAMETERS		17:50:31	
DESCRIPTION	VALUE	UNIT	DESCRIPTION	VALUE	UNIT
Heater On Time	±99999	Min			
Temp Set RTD1	±9999.9	°C			
Temp Set RTD2	±9999.9	°C			
Comp. Sel.	Comp1				
Comp 1 Time	±9999.9	Min			
Comp 2 Time	±9999.9	Min			



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