

# Model JSBI-250DCPL Dual Chamber Programmable Refrigerated Incubator with Light ON/OFF Control





Dual Chamber Refrigerated BOD Incubator provides 2 x 250 liter chambers and each chamber has an individual temperature controller. 10 Steps of temperature programming with day and night light simulation control as well as constant temperature operation range from +0  $^{\circ}$ C to +70  $^{\circ}$ C for more versatile use. It gives an excellent performance for incubation of microorganisms and various QA / QC Tests.

## **MAIN FEATURES**

#### **PERFORMANCE**

- -Control Temperature Range from +0°C to +70°C
- -Forced air circulation for excellent thermal accuracy and uniformity
- -Aero-dynamic chamber designed with circulation blower to achieve superior thermal uniformity
- -Separate heating compartment located on back wall for contamination free and maintenance free
- -Air cooled refrigeration system with hermetically sealed compressor

# **CONSTRUCTION**

- -Dual Chamber configuration with individual temperature controller.
- -Durable epoxy powder coated metallic casing
- -Corrosion resistant Stainless Steel 304 chamber with seamless round cornered edge allows easy cleaning and prevent leakage
- -Tempered safety inner glass door for easy observation of samples

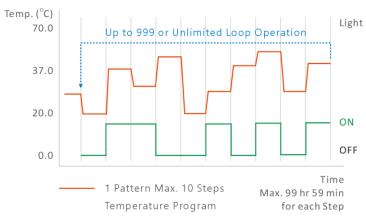


#### **CONTROLLER**



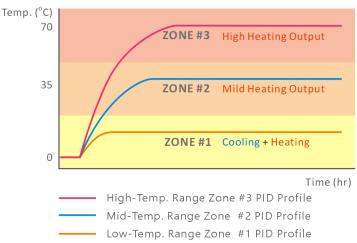
## -10 STEP DAY-NIGHT PROGRAMMING CAPABILITY

User can compose 10 steps of varying temperature and light ON/OFF program and can save it in a memory. Composed program can be repeated 1  $^{\sim}$  999 times or unlimited number of time.



# -3 ZONE PID ALGORITHM

Usable temperature range divided into three zones (LOW/MIDDLE/HIGH) and each ZONE has its individual PID parameters optimized to the range, and it provides precise and superior temperature control characteristic to whole temperature range.



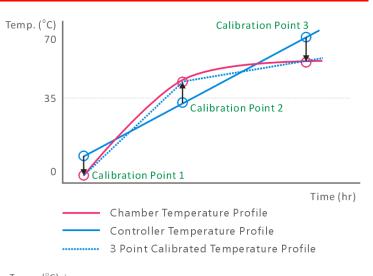


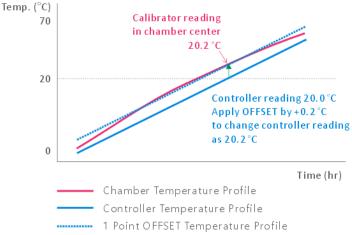
## -3 POINT CALIBRATION FUNCTION

A perfect calibration tool to calibrate chamber at THREE DIFFERENT TEMPERATURE POINTS to adjust multiple temperature bias to increase the temperature accuracy of WHOLE TEMPERATURE RANGE.



Provides simple and easy calibration tool to calibrate chamber at ONE SPECIFIC TEMPERATURE POINT in frequent use.







#### **CONTROLLER**

- -DIGITAL MICROPROCESSOR PID TEMPERATURE CONTROLLER
- Integrated Digital Microprocessor Control System
- -GRAPHIC LCD DISPLAY
- Back Light Graphic LCD Display provides user-friendly operating information
- -UV COATED POLYCARBONATE TOUCH PANEL
- Equipped with Capacitive LED Lighting Touch Button provides sensitive touching operation and durability
- -ENCODER TYPE JOG DIAL
- Push to Start and Stop, Rotary turn to change values provides easy and simple user interface
- -0.1 °C CONTROL RESOLUTION
- -10 Step Programming Capability, 1 ~ 999 times repeatable
- -Light ON/OFF Program on each program step for Day-Night simulation
- -Auto-Stop Timer 1 min ~ 99 hour 59 min and alarm
- -Auto-Start Timer 1 min ~ 99 hour 59 min and alarm
- -Temperature and Timer Memory Function in frequent use
- -3-ZONE PID ALGORITHM
- -3-POINT CALIBRATION / 1-POINT OFFSET CALIBRATION
- -POWER and TIMER RESTORE FUNCTION in case electric power outage
- -CLASS A PT-100 Ω Sensor
- -Delay starter to protect compressor.
- -RS-232C PC COMMUNICATION INTERFACE [OPTION]

#### **CONVENIENCE**

- -Outer door with self-adhesive magnetic packing
- -Inner glass door with high density silicone gasket and air-tight door lock
- -Removable and height adjustable shelf by 25mm spacing

## **SAFETY**

- -PT SENSOR SHORT OR DISCONNECTION AUDIO VISUAL ALARM
- -DUAL OVER TEMPERATURE CUT-OFF BY CONTROLLER AND INDEPENDENT THERMOSTAT
- Controller cut-off heater, compressor and AUDIO VISUAL ALARMS
- ALARM HIGH: +5 °C above set temp.
- ALARM LOW: -5 °C below set temp.
- Independent analog thermostat cut-off heater above set temperature
- -DOOR OPEN AUDIO VISUAL ALARM
- -OVER CURRENT CUT-OFF: Electric Circuit Breaker



#### **SPECIFICATIONS**

#### MODEL JSBI-250DCPL

## **Dimension Data**

Chamber Volume 250 Liters x 2 chambers

Inner Dims. (W x D x H mm) 500 x 500 x 1000 x 2 chambers

Outer Dims. (W x D x H mm) 1365 x 825 x 1760

Inner Glass Door (W x H mm) 561 x 1077

No. of Shelf Positions 36 ea by 25mm spacing / chamber

No. of Shelf included 6 ea

## **Performance Data**

Heating System Forced Air Convection

Cooling System 2 ea x CFC Free Hermetically Sealed Air Cooled Compressor

Temp. Range  $+0 \,^{\circ}\text{C} \,^{\sim} +70 \,^{\circ}\text{C}$ 

Accuracy  $\pm 0.2$  °C at +20.0 °C Uniformity  $\pm 0.5$  °C at +20.0 °C

Lamp Type, Length LED 570 mm

Lamp Configuration 15 watt x 5 ea / chamber

## Controller

Processor Digital Microprocessor PID Temperature Controller

Display Back Light Graphic LCD Display

Panel UV Coated Polycarbonate Solid Touch Panel
Button Capacitive touch LED Lighting Touch Button
Interface Push and Rotary encoder type Jog Dial

Control Logic 3 Zone PID Control

Calibration 1 Point Temperature OFFSET

3 Point Temperature Calibration

Resolution 0.1 °C

Programming 10 Step Temperature Program, 1 ~ 999 or unlimited times repeat

 $\label{light on one ach program step for Day-Night simulation} \label{light on one ach program step for Day-Night simulation}$ 

Auto-Stop Timer  $1 \text{ min.} \sim 99 \text{ hr } 59 \text{ min}$  Auto-Start Time  $1 \text{ min.} \sim 99 \text{ hr } 59 \text{ min}$  Sensor CLASS A PT-100  $\Omega$  Sensor

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Power Restoration Power and Timer Restoration Function in case of power outage

PC Communication Interface RS-232C PC COMMUNICATION INTERFACE [OPTION]



**Safety Data** 

Safety Device Sensor short or disconnection AUDIO VISUAL ALARM

Controller cut-off heater, compressor and AUDIO VISUAL ALARM

HI-ALARM: +5 °C above set temp.

LO-ALARM: -5 °C below set temp.

Independent analog thermostat cut-off heater above set temperature

Door open AUDIO VISUAL ALARM

**Material Data** 

Body Epoxy Powder Coated Steel
Chamber Stainless Steel 304 (AISI304)

Inner Glass Door Tempered Safety Glass, 5 mm thick

**Electrical Data** 

Rated voltage  $220 \pm 10\%$  VAC

Power frequency 50 / 60Hz

Heater Output 1.0 kW / chamber

Nominal power 2 ea Separate Plug x 1.8 kW 8.2 amp

Phase 1 Phase

Plug configuration CEE 7/7 Schuko or BS 1363

**Usable Condition** 

Temp. & Humidity  $5^{\circ}\text{C}$  -  $40^{\circ}\text{C}$ , < 80% RH

**Packaging Data** 

Type of packaging Wooden Crating

Shipping Dims. (W x D x H mm ) 1520 x 980 x 1960 mm

Net Weight 271.0 kg Shipping Weight 350.0 kg



# **ORDERING INFORMATION**

Art. No.	Descriptions	Voltage
JSBI-250DCPL	Dual Chamber Refrigerated BOD Incubator, 250 L x 2 Chambers	220 VAC 1~ ph 50/60Hz
	with Light	
	including standard accessories	
	6 ea x PVC Coated Wire Shelf	
	24 ea x Shelf Support	
	1 ea x Instruction Manual	
	1 ea x Warranty Certificate	

# **OPTIONAL ACCESSORIES**

Art. No.	Descriptions
PHS-A06	Perforated Shelf, Stainless Steel 304, W470 x D480 mm
PHS-C05	PVC Coated Wire Shelf, W470 x D480 mm
PHS-A99	Shelf Support, Set of 4 ea

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