

# Model JSBI-840CP Programmable Refrigerated BOD Incubator





JSBI-xxxCP series Programmable Refrigerated BOD Incubator provides 10 Steps of temperature programming as well as constant temperature operation range from +0 °C to +70 °C for more versatile use. It gives excellent performance for incubation of microorganisms, BOD (Biological Oxygen Demand) Test 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**

- -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



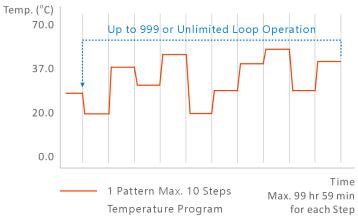
#### **CONTROLLER**



# -10 STEP PROGRAMMING CAPABILITY

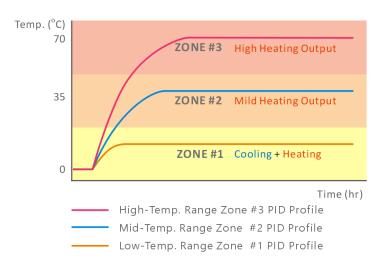
User can compose 10 steps of varying temperature program and can save it in a memory.

Composed program can be repeated 1 ~ 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.



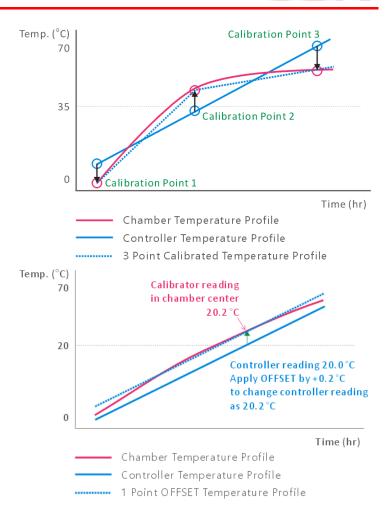


#### -3 POINT CALIBRATION FUNCTION

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.

#### - 1-POINT OFFSET FUNCTION

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
- -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**

#### JSBI-840CP

# **Dimension Data**

Chamber Volume 840 Liters

Inner Dims. (W x D x H mm)  $1400 \times 600 \times 1000$ Outer Dims. (W x D x H mm)  $1580 \times 925 \times 1770$ 

Inner Glass Door (W x H mm) 661 x 1077

No. of Shelf Positions 72 ea

No. of Shelf included 6 ea

#### **Performance Data**

Heating System Forced Air Convection

Cooling System Hermetically Sealed Air Cooled Compressor

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

Accuracy  $\pm 0.2$  °C at  $\pm 20.0$  °C Uniformity  $\pm 1.0$  °C at  $\pm 20.0$  °C

#### 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

Auto-Stop Timer 1 min. ~ 99 hr 59 min

Auto-Start Time 1 min. ~ 99 hr 59 min

Sensor CLASS A PT-100  $\Omega$  Sensor

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 3.0 kW

Nominal power 5.0 kW 22.0 amp

Phase 1 Phase

Plug configuration CEE 7/7 Schuko or BS 1363

# **Usable Condition**

Temp. & Humidity 5°C - 40°C, < 80% RH

# **Packaging Data**

Type of packaging Wooden crating Shipping Dims. (WxDxH mm )  $1760 \times 1100 \times 1900$ 

Net Weight 220.0 kg Shipping Weight 280.0 kg



# **ORDERING INFORMATION**

Art. No.	Descriptions	Voltage
JSBI-840CP	Programmable Refrigerated BOD Incubator, 840 L	220 VAC 1~ ph 50/60Hz

# **OPTIONAL ACCESSORIES**

Art. No.	Descriptions
PHS-A14	Perforated Shelf, Stainless Steel 304, W675 x D525 mm for JSBI-840CP
PHS-C07	PVC Coated Wire Shelf, W675 x D525 mm for JSBI-840CP
PHS-A99	Shelf Support, Set of 4 ea

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