

# Digital Dry Block Incubator Operator's Manual For Self-Contained Biological Indicators



Revision 1.0

Thank you for purchasing Crosstex International, Inc. Infection Control Products. This manual contains guidance on the function and operation of our incubators which are used in conjunction with Crosstex Self-Contained Biological Indicators (SCBIs) and 1 mL Spore Ampoules. Please read the manual carefully before using the incubator.

Please check the incubator and Packing List (Page 13) to ensure all components have been properly received. If you do not find all components within the original packaging, please contact Crosstex Products Customer Service at 800.860.1888 (toll-free) or 567.803.1220, ProductOrders@crosstex.com or by fax to 419.666.1715.

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#### **Crosstex Warranty**

Crosstex warrants to the original purchaser that the Digital Dry Block Incubator is free from manufacturing defects that would adversely affect its performance, under normal use and service, for a period of twelve (12) months from the date the product shipped from Crosstex. Should the incubator prove defective, Crosstex will exchange the defective device or refund the purchase price, as Crosstex determines.

This warranty shall not apply if the incubator is used contrary to label instructions. Crosstex will not be liable for any other loss, costs or damage and shall not be liable for any incidental or consequential damages.

There are no other expressed or implied warranties, and there is no implied warranty or merchantability and no implied warranty of fitness for a particular purpose.

### Introduction

The Crosstex Digital Dry Block Incubator is designed for convenient and reliable incubation of Crosstex 1 mL Spore Ampules, SporView<sup>®</sup> SCBIs, SporView<sup>®</sup>10 SCBIs and Traditional SCBIs (all sterilization processes).

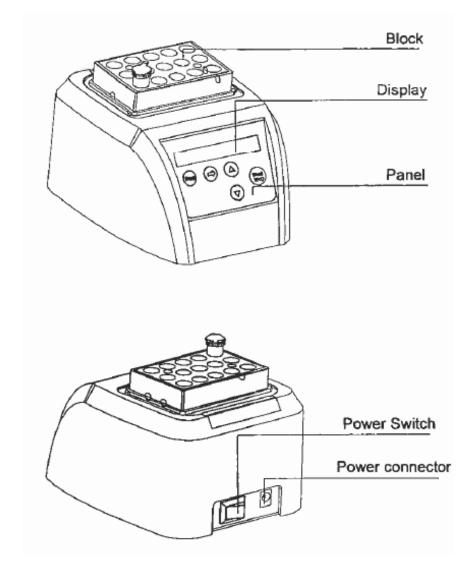
Crosstex's SCBI products consist of a carrier or carrying system for bacterial spores which have been identified as the most resistant to sterilization processes. The spores are a critical element to providing assurance that a sterilization process was effective.

When incubated under the proper conditions, the bacterial spores will either grow, indicating ineffective sterilization, or result in no growth which indicates the sterilization conditions were sufficiently achieved.

Before using this incubator, please read the Operator's Manual to ensure that proper incubation conditions are achieved to ensure the accuracy of the SCBI results.

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# **Incubator Diagram**



# Installation

Place the incubator onto a level, horizontal surface for use and long term storage.

Insert the column connector of the adaptor to the back of the incubator and the adaptor to the cord/plug. Insert the cord/plug into a power supply.

Turn on the main switch located on the back of the incubator. The incubator is ready to operate when the display becomes visible.

See "Setting the Temperature and Incubation Time" to adjust these parameters prior to use.

Once the incubator has reached the appropriate temperature for the SCBI configuration that will be incubated, place the SCBIs individually into the wells within the aluminum block. Once the SCBIs are in the wells, place the transparent lid over the SCBIs.

# **Technical Data**

Power Supply	DC24V
Maximum Power	35W
Temperature Range	5°C to 70°C
Timing Range	0 to 99h 59m
Accuracy of Temperature	±0.5°C
Display Accuracy	0.1°C
Heating Time	≤15 Minutes
Ambient Temperature	5°C to 35°C
Dimensions	120x152x112 mm
Weight	0.85 kg

# Troubleshooting

Display	Cause	Solution
None	No power	<ul> <li>Plug in incubator</li> <li>Check connections of adap- tor and cord/plug</li> </ul>
"Open"	Unit issue	Contact for service
"SHORT"	Unit issue	Contact for service

Error	Solution
No heating of block	Contact for service
Keys not working	Contact for service

# **Safety Precautions**

- ! For indoor use only.
- Do not attempt to access incubator internals or attempt to repair the incubator. Contact Crosstex in the event the incubator stops working properly, at: ProductOrders@crosstex.com 800.860.1888 or 567.803.1220.
- ! Use and store the incubator on a level, horizontal surface in a location with little or low levels of dust, moisture and sun. Select a location with good air movement.
- ! Turn power off when not in use.
- ! For long term storage, remove connectors and cover incubator or place in a location which offers protection to the incubator.
- ! Only press ▲ or ▼ when calibration is going to be performed.

# **Operation Guide**

#### **Control Elements - Buttons**

START/STOP	Starts and stops the procedure
PROG.	Selects various programs
<b>∆</b> or <b>∨</b>	Adjusts temperature and time
	Moves the cursor

#### **Setting Incubation Time**

Press the **PROG.** key to select various programs, from P1 to P9. Once program is selected, press  $\longrightarrow$  key to move the cursor and  $\triangle$  or  $\nabla$  to set time. After 3 seconds, the cursor will disappear.

#### **Setting Temperature**

The default temperature is 56.0°C. When other temperatures are required, press **PROG.** and  $\blacktriangle$  key simultaneously. The following will be displayed:

#### SetTemp: 56.0C

Then press  $\longrightarrow$  key to move the cursor and press  $\triangle$  or  $\bigtriangledown$  keys to set the desired temperature. After 5 seconds, the new temperature will be confirmed.

### Programming

Press **PROG.** key to select the program from P1 to P9. The incubator will begin to heat automatically according to previous set temperature or default temperature of 56.0°C, as displayed.

When the incubator reaches the set temperature, the display will read "OK". See section "Setting Temperature" to adjust temperature set point.

Press **PROG.** key again to display incubation time. After 3 seconds, the display will return to temperature. Press **START/STOP** key to start timing. The ":" will flash, when the time is 00:00, " $\sqrt{\sqrt{"}}$  will be displayed and the buzzer will alarm. If P1 was selected, one alarm will sound. For P2, two alarms will sound and so on.

Press **START/STOP** key for 2 seconds to stop countdown.

All programs (P1, P2, P3,...P9) are separate and can be used simultaneously.

### **Temperature Calibration**

The temperature of the incubator was calibrated prior to shipment. The calibration was linearly performed at 40°C and 100°C. The temperature accuracy is  $\pm 0.5$ °C based on the two temperatures.

If a difference is noted between the temperature of the well and the temperature displayed, adjustment can be made as follows:

After turning on the power to the incubator, make sure the temperature on the display is <35°C. If above 35°C, wait until the incubator cools to less than 35°C.

Place a calibrated thermometer suspended in solution, such as olefin oil, into a well of the aluminum block. Set temperature to 40.0°C and allow temperature to stabilize for a minimum of 20 minutes.

Once temperature has stabilized, press the  $\triangle$  and  $\nabla$  keys simultaneously. Temperature display will be 20.5C, then will rise to 40.0°C immediately.

## **Temperature Calibration (continued)**

After the calibration keys (▲ and ▼ simultaneously) have been pressed, "ADJ \*" will then be displayed.

Adjust the actual temperature displayed to match the temperature of the thermometer by pressing the ▲ or ▼ keys. Once at the appropriate temperature, press the **START**/ **STOP** key to confirm.

For a two point calibration, raise the temperature to 100.0°C by pressing "\*" and the **START/STOP** key.

When the temperature reaches 100°C, "ADJ \*" will be displayed. After the temperature has stabilized for a minimum of 20 minutes, adjust display temperature to match the temperature of the thermometer by pressing the  $\blacktriangle$  or  $\triangledown$  keys, then press the **START/STOP** key to confirm.

**P1 74.5°C NOTOK** will then be displayed. The incubator is ready for use.

### **Maintenance and Cleaning**

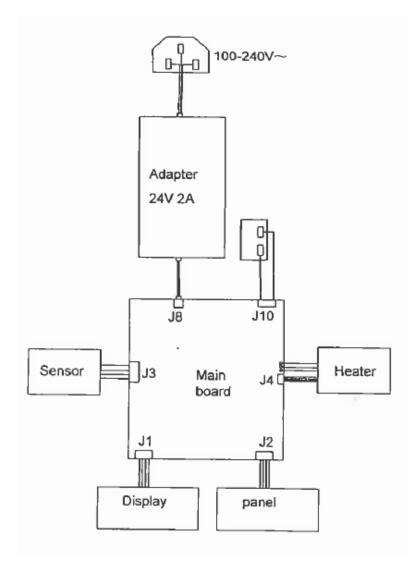
Before performing any type of maintenance or cleaning activities, turn the power off.

Each well in the aluminum heat block may be cleaned with alcohol to assure the heat is transferred effectively to the SCBI and to reduce the potential for contamination with microbial organisms other than the indicator organism, post-exposure.

Do not use any type of corrosive cleaning agent to clean the aluminum heat block or wells.

The exterior of the incubator may be wiped with a damp cloth.

# Wiring Diagram



# **Packing List**

ltem	Туре	Quantity
Incubator	13mm, 10 well	1
Adapter	24V 2A	1
Plug/Cord	American, European, China/ Australia or United Kingdom	1
Transparent Cover	Not Applicable	1
Operator's Manual	Not Applicable	1

# **Replacement Parts**

Code Number	Part Name
AS27-00-05	Front Panel
AS69-00-01	Heating Film 24V35W
AS28-00B 20091008	Control Board
N/A	DC Power Supply 48W (24V 2A)
AMT-130	Temperature Protection Switch
BR-12C-11L	On/Off Switch
HC161A	LCD Display (Blue)

**Distributed By:** 



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