

Biological Indicator Incubator Operator's Manual



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Revision 2.0

Thank you for purchasing Excelsior Scientific Products. This manual contains guidance on the function and operation of our incubators which are used in conjunction with Excelsior Scientific Self-Contained Biological Indicators (SCBIs) and 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 Excelsior Scientific Products Customer Service on +44 781 3762926 or sales@excelsiorscientific.com

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Excelsior Scientific Warranty

Excelsior Scientific warrants to the original purchaser that the INC-13 series self contained biological indicator 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 Excelsior Scientific. Should the incubator prove defective, Excelsior Scientific will exchange the defective device or refund the purchase price, as Excelsior Scientific determines.

This warranty shall not apply if the incubator is used contrary to label instructions. Excelsior Scientific 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.

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Introduction

This incubator is designed for incubation of Self-Contained Biological Indicators (SCBIs), including Excelsior Scientific's standard and Mini-SCBIs and Spore Ampoule product configurations.

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

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

Incubator Diagram



Installing the Incubator

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 aluminium 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	 Plug in incubator Check connections of adaptor and cord/plug
"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 Excelsior Scientific in the event the incubator stops working properly, at sales@excelsiorscientific.com or Tel: +44 7813762926

! 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 pres Δ or ∇ when calibration is going to be performed.!

Operation Guide

Control Elements - Buttons

START/STOP	Starts and Stops the procedure
PROG.	Selects various programs
Δ or ∇	Adjust temperature and time
	Moves the cursor

Setting the Time

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

Setting the Temperature

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

SetTemp: 56.0C

Then press \rightarrow key to move the cursor and press \triangle or ∇ 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 **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 $\pm 0.5^{\circ}$ 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 thermometer suspended in solution such as olefin oil, into a well of the aluminium block. Set temperature to 40.0°C and allow temperature to stabilise for a minimum of 20 minutes.

Once temperature has stabilised, press the Δ or ∇ keys simultaneously. Temperature display will be 20.5C, then will rise to 40.0°C immediately.

Maintenance and Cleaning

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

Each well in the aluminium 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 aluminium heat block or wells.

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

Incubator Wiring Diagram



Packing List

Item	Туре	Quantity
Incubator	13mm, 10 well	1
Adaptor	24VC 2A	1
Plug / Cord	American, European 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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