GETINGE
GETINGE GROUP

GETINGE 1410 INCUBATOR
USER MANUAL

Always with you

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PREFACE

The Getinge 1410 Incubator is designed for 60°C *(Geobacillus stearothermophilus)* incubation of Getinge AccuFast biological indicators. The incubator features a built-in thermometer with LED display, an integrated crushing activation (crushing) cavity, and 13 incubation cavities.

A Getinge AccuFast self-contained biological indicator consists of a capped thermoplastic culturing vial containing a glass media ampoule and a carrier inoculated with bacterial spores. Upon removal from the sterilizer, the indicator is activated by flexing the plastic culturing vial to crush the inner glass ampoule which allows the growth medium to contact the spore carrier. The activated indicator is then incubated for a specified length of time and observed for color change of the growth medium. If the medium turns yellow during incubation, the test is positive indicating growth and inadequate sterilization.

SAFETY

Handle with caution. The surface of the incubator may become hot to the touch.

The incubator has been designed with function, reliability, and safety in mind. It is the user's responsibility to install it in conformance with local electrical codes. For safe operation, please pay attention to the alert boxes throughout the manual.

Warning

Refer to manual

Caution

Cautions alert you to potential equipment damage and hazards

Note

Notes alert you to pertinent facts and conditions

Use Only as Directed

- Indoor use only
- Temperature 10°C to 35°C
- Maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 35°C
- Main power supply voltage fluctuations not to exceed ±10% of the nominal voltage
- Installation Class 2 service
- Pollution-Degree 2 environments
- Altitude less than 2000 m

INTRODUCTION

Installation and Warm Up

The incubator is designed for continuous operation and does not have a power switch. The incubator will power up when it is plugged into a power source.

Note: The incubator must be installed in a location where temperature is maintained between 10°C (50°F) and 35°C (95°F).

1. Remove the incubator from its packaging.
2. Unpack the power supply. The power supply ships with four interchangeable blades (plugs). Select the appropriate blades for your region and attach the blades to the power supply.
3. Plug the power supply into a power source.
4. Insert the small connector from power supply into the matching receptacle in the back of incubator.

   The incubator will automatically power on and perform a self-test. Upon completion, the installed firmware revision will be displayed on the LED screen for two seconds.

   The incubator will begin its warm-up phase. During this time the configured temperature setpoint will fade in and out on the LED screen.

   The incubator is ready to use when the LED screen displays the current operating temperature of the incubator.

Temperature Selection

The incubator can be configured to operate at 60°C for biological indicators containing *Geobacillus stearothermophilus*. The incubator is initially configured to operate at 60°C

Note: It may take between 15 and 30 minutes for the incubator to come up to operating temperature, depending on the selected incubation temperature and the temperature of the environment in which the incubator is installed.

OPERATION

Note: Refer to the instructions for use supplied with your biological indicators for information on processing, incubation, interpretation of results, and using positive controls.

When the incubator has warmed up to the configured temperature, the actual temperature of the incubator will be shown on the LED display, indicating that the unit is ready to accept biological indicators. Verify that the temperature displayed is within the allowable range for your biological indicator before proceeding (see the instructions for use that came with your biological indicators).

Biological Indicator Activation

Prior to incubation, the biological indicator must be activated by crushing its internal glass medium ampoule. This allows the color-change medium from the ampoule to contact the spore carrier.

Warning: Allow a processed BI to cool for at least 15 minutes upon removal from the sterilizer. Failure to do so may cause the glass medium ampoule to burst during activation, resulting in injury from hot liquid or flying debris.

The incubator contains an activation (crushing) cavity to simplify activation. Place the processed or positive control biological indicator into the left side of the activation cavity and flex the indicator to the right until the glass ampoule breaks.

Note: You may have to grip the incubator by the base while activating a BI so that it does not tip over.

Incubation

To confirm adequate sterilization – negative result (no bacterial growth), self-contained biological indicators must be incubated for the appropriate length of time ("incubation time"). Refer to the instructions for use that came with your biological indicators for the proper incubation time and temperature.

Immediately upon activation, place the indicator into one of the thirteen numbered incubation cavities. Record the incubation start time and cavity number.

Observe the color of the growth medium in the BI at regular intervals during incubation. A color change to yellow during the incubation time indicates bacterial growth (positive test). If the incubation time expires and no color change to yellow is observed, this indicates a negative test (no bacterial growth).

Caution: If a positive control does not grow, do not use the remaining units from the box and contact your dealer immediately. A positive control that does not turn yellow is a serious problem. Fortunately, the causes are few: a grossly malfunctioning incubator, inadvertent sterilization of the control vial, inadvertent sterilization of the box of indicators, or improper storage. If the control is negative because of one of the latter two causes, do not use any of the other biological indicators in the same box.

Dispose of positive or negative BIs immediately per the instructions for use that accompany each box of indicators, or per your organization's policy.

MAINTENANCE

The incubator requires no maintenance other than cleaning as necessary.

Cleaning

1. Unplug the incubator before cleaning.
2. To clean the exterior, use a cloth dampened with isopropyl alcohol.
3. To clean the incubation and activation cavities, use a cotton swab dampened with isopropyl alcohol.

Caution: Do not immerse the unit in any liquid and do not spray or pour liquid directly onto the unit. Doing so may damage the incubator and void your warranty.

Temperature Verification

The incubator, including the LED temperature display, is factory calibrated using an NIST traceable temperature standard and does not require user calibration.

Incubation temperature can be verified by placing an NIST traceable thermometer into one of the incubation cavities and allowing 30 minutes for temperature stabilization. The temperature reading should be within ± 2°C of the incubator setpoint temperature.

Service

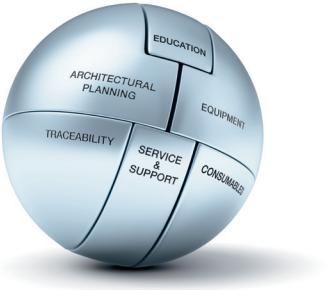
The incubator is not field-servicable. In the unfortunate event of an incubator malfunction, please contact Getinge Service immediately.

When requesting service, have ready the model and serial number of the incubator. The model and serial number are located on the bottom of the unit.

SPECIFICATIONS

Getinge 1410 Incubator		
Getinge Part Number: 61301606649		
Overall Dimensions	Width	3.5 in / 9 cm
	Height	2.0 in / 5.8 cm
	Depth	4.0 in / 10.2 cm
	Weight	0.89 lb / 0.4 kg
Incubation Cavities	Number	13
	Diameter	0.375 in / 0.94 cm
	Depth	1 in / 2.54 cm
Thermometer	Accuracy	± 1°C
Electrical Ratings (for use with certified Class 2 power supply)	Volts	12 Vdc
	Watts	18.0
	Amps	1500 mA
Operating Temperature	Temperature	60°C
Environmental Conditions	Ambient Temperature	10°C - 35°C
	Relative Humidity	20 - 80% Non-condensing
Conformance	CSA/C/US, CE, RoHS, FCC Part 15 Class A, ICES-003 Class A	

Power Supply	
Catalog Number	**P6-1000**
Rated Input Voltage	100 – 240 Vac
Input Voltage Range	90 – 264 Vac
Rated Frequency	50-60Hz
Rated Input Current	1.0A
Output Voltage	12 Vdc
Max Output Current	2.5A
Max Output Wattage	30W
Safety Approvals	UL/cUL, GS, CCC, RCM
EMC/EMI	FCC class B, CE, VCC I class II
RoHS Compliant	Yes
Storage Temperature	-10°C – 70°C
Storage Humidity	10 – 90%
Operating Temperature	0 – 40°C
Operating Relative Humidity	20 – 80%



COMPLETE SOLUTIONS FOR INFECTION CONTROL

Getinge is the world's leading provider of solutions for effective cleaning, disinfection and sterilization in the healthcare and life science sectors. We are dedicated to helping our customers provide better care at a lower cost. We do this by offering well-thought-through and customized solutions. This means that we are with our customers all the way from architectural planning and education to traceability and support – with complete solutions, long-term commitment and global presence. Getinge – Always with you.

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