CLIFTON MINI INCUBATOR
NE1M-25

Clifton Range®

High quality products at affordable prices

Dear Customer

The Clifton Range® is part of Nickel-Electro Ltd a family firm based in Weston-Super-Mare which was incorporated as a limited company in 1941 but its roots can be traced back to 1935 when the business first started. Now in its 3rd generation of family members, the company prides itself on being a strongly established, independent British manufacturer.

Thank you for purchasing this piece of Clifton Range® temperature control equipment. To get the best performance from your equipment and for your own safety please read these instructions carefully before use.

GENERAL NOTES

1. This product is designed for laboratory use only. Always follow good laboratory practice.
2. The mains supply cord fitted to this product is heat resistant and should be replaced with an equivalent type by a qualified electrician.
3. Ensure that the power supply has a safety earth (ground) terminal.
4. Ensure that the mains switch and power supply connector are accessible during use.
5. Before using any cleaning or decontamination method please refer to the Maintenance and Cleaning section to ensure the proposed method will not damage the unit.
6. Connect only to a power supply with the corresponding voltage to that specified on the rating label positioned on the rear of the unit.
7. Do not block ventilation slots during use and always follow installation instructions.
8. Only trained personnel should use this equipment. Please read these instructions before use.

SAFETY DO'S AND DONT'S

DO NOT:

1. Place objects on the base of the incubator - only use the shelves supplied.
1. Block ventilation slots during use.
2. Use metal instruments or scouring agents to clean the interior of the incubator.
3. Install the instrument outside, in damp environments or areas which can be flooded.
4. Install the instrument near flammable or volatile substances, acids or in corrosive environments.
5. Store inflammable or volatile substances inside the instrument, touch live parts of the instrument, operate the instrument with damp hands, place vessels containing fluids on the instrument, climb or place any objects on the instrument.
6. Do not use without appropriate training.
7. Lift using the door.
8. Place combustible items, aerosols or any other items inside the chamber that could give off explosive vapours or fumes.

DO:

1. Ensure the mains switch and power supply connector are accessible during use.
2. Disconnect from the power supply before moving the instrument.
3. Ensure that the mains supply cord fitted is replaced with an equivalent type if damaged.
4. Follow the installation instructions.
5. Follow the operating and maintenance instructions. If the instrument is not used in accordance with these instructions then basic safety protection offered by the equipment may be affected.
6. Always follow good laboratory practice.

SAFETY

Do not touch any electrical contacts or open any closure panels.
RISK OF ELECTRIC SHOCK!!

POWER LEAD AND CONNECTION TO ELECTRICAL SUPPLY

Check the electrical supply is compatible with the rating label.
IF IN DOUBT CONSULT AN ELECTRICIAN. THE PRODUCT MUST BE EARTHED!
Where the mains supply or plug connection differs refer to local regulations or consult an electrician.

SPECIFICATION

Temperature range	Ambient +5°C to 60°C
Temperature alarm	Over temp alarm automatically set 5°C above set point
Temperature control	PID digital, LED display showing actual or set temp resolution 1°C
Temperature fluctuation	@ 37°C +/-0.2°C
Temperature variation	@ 37°C +/-0.5°C
Chamber convection	Gravity convection
Door	Singe clear polycarbonate, lockable
Heater power	260 watts
Voltage	230V 50/60Hz
Shelves	2 fitted/max load 10Kg per shelf
Dimensions, external	451w x 377d x 467h mm
Dimensions, internal	400w x 250d x 320h mm

POSITIONING AND LEVELLING

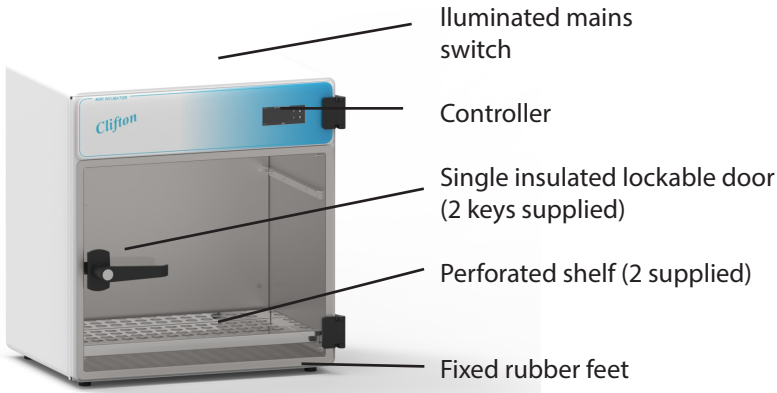
1. Lift the Mini Incubator from its packaging from the bottom of the unit. DO NOT lift using the door.
2. The instrument should be placed on a level hard surface in a dry airy place with low relative air humidity (maximum 60% RH, no condensation). The ambient temperature should be +10˚C to +28˚C.
3. The instrument should not be placed in direct sunlight or near energy/heat sources.
4. The instrument has not been designed to work in highly dusty environments.
5. The instrument should be placed at least 100mm away from the wall on all sides and rear.

BEFORE SWITCHING ON...

1. The perforated shelves are supplied wrapped inside the chamber.
2. Remove the shelves before switching the incubator on.
3. Fit the bottom shelf on the runners located 20mm from the base of the chamber and the top shelf on the runner located 60mm from the top of the chamber.
4. Ensure shelves are positioned horizontally and securely before loading.
5. The loading weight must not exceed 10kg per shelf.
6. Do not place objects on the base of the incubator.
7. Ensure vessels or objects being heated are evenly spread across the shelf for even airflow and heating. Do not position samples near the sidewalls or door of the chamber - recommend a 15mm gap for consistency.

Please note: during the first few days of use it is normal for odours to persist as the components are commissioned. Use in a well ventilated area.

GUIDE TO FEATURES AND CONTROLS



CONTROLLER KEYS

U:	To run autotune
P:	To program set point temperature
UP ARROW:	To increase temperature
DOWN ARROW:	To decrease temperature

OPERATING INSTRUCTIONS

Switch the incubator ON using the green mains switch located on the rear of the unit.

SETTING THE TEMPERATURE

1. Press the P button. The display will flash to show SP1 alternating with the current set temperature.
2. Use the UP and DOWN arrow keys to change the set temperature.
3. Press the P key to save.
4. Display will return to normal function mode.
5. The Mini Incubator will now heat to set temperature.

AUTOTUNE OPERATION

1. The controller is supplied already programmed for use at 37°C.
2. Press the U key to run. Display will indicate autotune is running.
3. Depending on the load, this temperature can be adjusted by pressing the UP and DOWN arrow keys.

OVER TEMPERATURE LIMITER

The incubator is fitted with an over temperature thermostat to protect the chamber from exceeding its maximum temperature.

OVER TEMPERATURE WARNING

The incubator is fitted with an over temperature warning 5°C above set temperature. Heating is stopped until the incubator has naturally cooled, and an indicator is visible on the display. Always investigate the cause:

1. Check there is sufficient space surrounding the unit.
2. Check the shelves are fitted correctly and not overloaded.

During use the stainless steel chamber will tarnish from a bright polish to yellow/orange/brown colour depending on the operating temperatures used. This is normal and does not affect the incubators operation.

CARE AND MAINTENANCE

Please ensure that the washing agent and sanitizing agent are BSI accredited and approved by the H&S department for use on laboratory equipment and stainless steel within your laboratory.

DISCONNECT FROM THE POWER SUPPLY PRIOR TO CLEANING

Cleaning the Exterior of the Mini Incubator

1. The housing of the incubator and control panel should be cleaned at least once a week (depending on working conditions) using a small quantity of mild detergent applied using a soft cloth.
2. The base of the chamber can become discoloured over time due to the location of the heaters. This is completely normal and does not effect the performance.
3. Electrical parts should not be in contact with either water or detergent.

When Incubator Not In Use:

1. Remove all objects from the chamber.
2. Disconnect the oven from the main power supply.
3. Clean and dry the heating chamber.
4. Leave the door open to avoid smells.
5. Store in temperature between 0˚C and 50˚C and a maximum relative humidity of 70%.

EXTERIOR ANTI BACTERIAL PAINTED SURFACES

The mini incubator should be cleaned at regular intervals by wiping external surfaces with a cloth or sponge soaked in warm water with a mild detergent. DO NOT USE STRONG SOLVENTS OR SOLUTIONS CONTAINING CHLORINATED HYDROCARBONS, ESTERS, KETONES OR ABRASIVE CLEANERS AS THIS MAY DAMAGE THE BUILT IN ANTI BACTERIAL PROPERTIES.

The “anti-bacterial” paint finish inhibits the growth of bacteria. It has been tested by independent specialist houses using internationally recognised test methods and proven to be effective against a wide range if bacteria including Escherichia Coli and Staphylococcus Aureus (MRSA).

We recognise hygienic coatings are part of a controlled approach to a cleaner working environment. Within the paint formulation is an active ingredient with proven anti-bacterial properties which is maintained throughout its life span. In a laboratory environment this is one less source of contamination. Unlike detergents the anti-bacterial paint finish does not offer an instantaneous action, but is intended for long term general protection against bacterial growth.

Moisture on the painted surface is necessary for the bacterium to absorb the agent and be affected by it. The coating is therefore less active in very dry conditions although moisture in the atmosphere will maintain some activity. Areas where moisture is trapped are difficult to clean and allow bacteria to proliferate but these areas are most active for the anti-bacterial coating improving defence against bacterial growth.

WARRANTY TERMS AND CONDITIONS

1. Nickel Electro Ltd warrants to the Customer that the product purchased is free from defects in materials and workmanship.
2. Provided the terms of payment are duly complied with, Nickel Electro Ltd undertakes to remedy any original defects arising from faulty materials or workmanship, in any goods manufactured/supplied by Nickel Electro Ltd, which under proper and normal conditions of use, may develop within a period of two years from the date of delivery.
3. In the case of components which by their nature of application have an unpredictable life, this guarantee shall only be to the extend of the guarantee given by the manufacturers of these articles.
4. Nickel Electro Ltd will accept no liability, where in the opinion of the company the defect has been caused by damage due to the Customers failure to follow operating instructions, correct installation, wear and tear, or damage due to the use of spare parts other than those spare parts of Nickel Electro Ltd or which are recommended by Nickel Electro Ltd, the defect has been caused by alterations or repairs being undertaken by a person(s) other than an authorised representative of Nickel Electro Ltd.
5. Any damage claim must be in writing, and give the serial number and description of the goods, order number and date of delivery, and will not apply where any names or serial numbers or other information which may be attached to or inscribed upon the goods have been removed, covered up or defaced in any way.
6. Any goods or parts thereof, which may require repair or replacement, shall be repaired or replaced (at the discretion of Nickel Electro Ltd) at the works of Nickel Electro Ltd. The product to be repaired shall be delivered carriage paid back to Nickel Electro Ltd by the customer at the Customer's risk and expense. Any such goods or parts will be delivered by Nickel Electro Ltd to the Customer free within the United Kingdom but if required to be borne by the Customer. All faulty parts removed from the equipment will become Nickel Electro Ltd's property. Any other repairs or work by Nickel Electro Ltd will be carried out under the terms and conditions for specialist engineers currently in force.

7. In the event of replacement with a new or reconditioned model, the replacement unit will continue the warranty period of the original equipment.
8. If any goods or parts thereof are returned unnecessarily all cost involved, including a charge for inspection, handling and the return carriage must be paid by the sender. In no circumstances shall any of the goods be returned to Nickel Electro Ltd without its prior written consent.
9. Please retain the original packaging over the warranty period.

NON WARRANTY INFORMATION

Spare parts shall be made available for a period of 3 years after a piece of equipment is discontinued.

PORTABLE APPLIANCE TESTING

These tests should be conducted by a qualified person.

DO NOT Flash Test!!

SPARE PARTS

Part Number	Description	Quantity Req
EX1236	Temperature Controller	1
EX0854	Power Entry Module	1
EH1252	Thermal Cutout 70°C	1
EF0614	Fuse 1.6A	2
BF1099	Black Feet	4
EX1035	Solid State Relay	1
ES0241	Mains Switch	1

DECLARATION OF CONFORMITY	
We herewith confirm the following product: NE1M-25 Mini Incubator	
Conforms with the requirements outlined by the following European Directives:	Conforms with the requirements outlined in the following United Kingdom Directives:
Low Voltage Directive 2014/35/EU	Electromagnetic Compatibility Regulations 2016
EMC Directive 2014/30/EU	Electrical Equipment (Safety) Regulations 2016
RoHS Directive 2011/65/EU	RoHS Directive 2011/65/EU

Conforms with the requirements of the following standards:	
BS EN 61010-1: 2010	Safety requirements for electrical equipment for measurement, control and laboratory use
BS EN 61010-2-010: 2014	
BS EN 61326-1: 2013	Electrical equipment for measurement, control and laboratory use - EMC requirements

Designed and manufactured in the United Kingdom by:
Nickel Electro Limited Oldmixon Crescent Weston super Mare North Somerset BS24 9BL United Kingdom t 01934 626691 f 01934 630300 e info@nickel-electro.co.uk

FINAL INSPECTION AND ELECTRICAL SAFETY TEST REPORT

BX1110 Issue 1: April 2025

NICKEL - ELECTRO LTD.

Manufacturers of the Clifton Range