

INDUSTRIAL ULTRASONIC BATHS:

SW SERIES

SW1H	SW30H
SW3H	SW45H
SW6H	SW90H
SW12H	

WARNING! Do not turn the power on or switch the ultrasonic bath on unless it is filled with liquid to the level mark. Otherwise serious damage will occur.

Always use tap water with detergent for correct operation of the liquid alarm.

Do not allow objects to rest on the base of the tank. Always use accessory baskets.

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. Fill the tank prior to connection to electrical supply.
3. Use caution when topping up/draining the tank. If this product is not used in accordance with these instructions then basic safety protection may be affected.
4. The mains supply cord fitted to this product is heat resistant and should be replaced with an equivalent type by a qualified electrician.
5. Ensure that the power supply has a safety earth (ground) terminal.
6. Ensure that the mains switch and power supply connector are accessible during use.
7. 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.
8. Connect only to a power supply with the corresponding voltage to that specified on the rating label positioned on the rear of the unit.
9. Do not block ventilation slots during use and always follow installation instructions.
10. Ensure substances being heated present no risk of a hazard (explosion, implosion or release of toxic or flammable gases) or that these have been addressed. When heating substances where liberation of gases occurs suitable extraction should be used.
11. This equipment is classified as Class 1 (IEC519) with regards to over temperature protection.
12. It is recommended that units are connected to the mains supply with RCD protection.

LOCATION

The product must be placed on a smooth, level and sturdy work surface, preferably near a drain for emptying. Use in a ventilated room. Suitable for use in ambient temperatures 5°C to 40°C with a maximum humidity 80% (temperature 31°C) decreasing to 50% (temperature 40°C).

DO NOT block or restrict ventilation slots. DO NOT place directly next to hot heat surfaces. ENSURE that there is sufficient space around the product to allow it to provide optimum temperature control.

UNPACKING

Remove the product from its packaging and retain over the warranty period. Contents consist of:

- Bath
- Power lead
- Instruction manual

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.

SAFETY SWITCH OFF

The bath will automatically switch off after 8 hours of inactivity.

START UP

1. Close the drain knob on the side of the bath before filling the tank.
2. Fill the tank with water to the level shown, approximately 2/3 full.
3. Check water level regularly to ensure sufficient levels are maintained throughout use.
4. When selecting cleaning chemicals, ensure they are suitable for the ultrasonic application. Recommended cleaners are decon or SW fluids.
5. DO NOT place items directly into the bath. ALWAYS use a basket.



Always ensure the product is disconnected from the electrical supply before filling and emptying.

DEGAS FUNCTION

After initial setup the fluid will need degassing before use to remove the air within the cleaning liquid. Using the timer knob set the time required (degassing takes approx 5-10 minutes depending on capacity of the bath. Press Degas/Boost key until mode is reached (LED will flash green). Press Start/Stop.

OPERATING INSTRUCTIONS

1. Press the On/Off key to switch the bath on. LED will light continuously.
2. Set the temperature using the temperature knob. LED will light at set temperature. Bath will start heating. LED will flash at current temperature while rising to set temperature.
3. Set the time required using the timer knob. LED will light at the set time.
4. Press the Start/Stop key to start the ultrasonics and the timer. Ultrasonic activity will run from the time required.
5. Press the Start/Stop at anytime to stop the ultrasonics.
6. To use the Boost facility, press the Degas/Boost key - LED will light solid to indicate Boost function. Press the Start/Stop key.

Preset Programmes:

7. To save a preset programme of time and temperature:
 - Switch the bath on.
 - Press Preset key. Preset LED lights and set values are indicated by corresponding LEDs. Ultrasonic activity will automatically start when set temperature is reached. Start/Stop LED flashes while bath is heating.
 - To exit a program during its operation press the On/Off key or the Preset key.
 - To exit a program after completion press the On/Off key.

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 THE BATH FROM THE POWER SUPPLY PRIOR TO CLEANING**

BASIC CLEANING

The stainless steel crevice free tank should provide years of valuable service and is resistant to chloride containing solutions but it is important to avoid high concentrations of halogens - particularly chloride. Halogen deposits may show as rust which can be cleaned off with nitric acid (10%) on a cloth. **WEAR PROTECTIVE EQUIPMENT!**

The Clifton Range® bath should be emptied at the end of each day, then for interior surfaces:

• WASH • RINSE • DRY •

Drain Outlet: Please ensure that the above cleaning process includes the outlet on the base of the tank, paying particular attention to flushing the outlet and tap thoroughly.

Scale Build Up: In hard water areas limescale can build up and reduce the efficiency of the water bath. Cleaning at the end of each day can prevent this but periodically it may be necessary to descale the bath. Add 1 litre of vinegar to the normal capacity of water and heat for 1 hour to 50°C.

Occasionally small spots may occur in the bath which resemble rust. These are usually small ferrous particles which have oxidised. Using a stainless steel cleanser such as Bar Keepers Friend® will remove these marks as well as mineral deposits.

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 three 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 extent 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.



EC Declaration of Conformity

We herewith confirm the following product:

SW Series of Ultrasonic Baths

Conforms with the requirements outlined by the following European Directives:

Low Voltage Directive 2014/35/EU

EMC Directive 2014/30/EU

RoHS Directive 2011/65/EU

Conforms with the requirements of the following standards:

BS EN 61010-1: 2010

BS EN 61010-2-010: 2014

Safety requirements for electrical equipment for measurement, control and laboratory use

BS EN 61326-1: 2013

Electrical equipment for measurement control and laboratory use - EMC requirements

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NICKEL - ELECTRO LTD.
Manufacturers of the Clifton Range