

# PORTABLE CLIP-ON DIGITAL IMMERSION CIRCULATOR

FL4CA FOR CONSISTENT AND PRECISE SLOW COOKING

Always maintain adequate water levels when using the circulator.



## Contents

About this Manual	3
Symbols	3
Location	4
Unpacking	4
Safety	4
Power Supply Lead and Connection to Electrical Supply	4
Liquid Level	4
Fitting Immersion Circulator	5
- Gastronorm tanks	
- Pots	
Guard	6
Operating Instructions	7
- Switching On and Off	7
Control Panel	7
Keyboard Description	7
LED Indicators	7
Temperature Control	8
- Setting Temperature	8
- Setting Time	8
- Timer Operation	8
Low Liquid Level	9
Maintenance	9
Cleaning	9
Warranty	9
Portable Appliance Testing	9
Declaration of Conformity	10
Product Final Inspection and Electrical Safety Report enclosed	

### About this Manual

This Manual contains instructions for Portable clip-on digital immersion circulator which must be followed in order that the product operates correctly.

### General Notes

Please observe the following safety and operating precautions:

1. **Fill a tank or pot with water prior to connection to power supply.**
2. Connect only to a power supply with the corresponding voltage to that specified on the rating label positioned on the rear of the unit.
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. **DO NOT block or restrict ventilation slots; DO NOT place directly adjacent to or near hot heat sources. Ensure that there is sufficient space around the circulator to allow it to provide optimum temperature control.**
6. Always follow good safe kitchen practice.
7. If the alarm lamp is illuminated the liquid temperature may be above its recommended maximum.
8. The circulator is designed primarily for sous vide/low temperature method using water.
9. Use caution when topping up or draining the tank as the liquid in the tank may be very hot or cold.
10. In the event of the over temperature alarm being illuminated do not touch the water as it may be very hot.

### Amendments

Issue 1	February	2011	Initial issue instruction manual.
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### Symbols

**"Always use"**

At a glance quick tips on operating Foodrange baths



Caution refer to Instruction Book



Protective earth conductor terminal

### Location

The circulator should be used on a level and sturdy work surface, preferably near a sink or drain for emptying. Use in a ventilated kitchen in ambient temperatures upto 40°C.

The product is designed for kitchen use.



**DO NOT block or restrict ventilation slots; DO NOT place directly adjacent to or near hot heat sources. Ensure that there is sufficient space around the circulator to allow it to provide optimum temperature control.**

### Unpacking

Remove the circulator from its packaging. If damage is discovered please notify immediately. Retain the packaging over the warranty period. This circulator is supplied assembled complete ready for use (excludes cooking medium, tank and pot).

### Safety



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

Featuring built in Low liquid level protection “FILL” warning message and heating and stirring suspended.

### Power Supply Lead and Connection to Electrical Supply



**Before connecting the product to the electrical supply, check that the information on the rating label is compatible with the supply.**

**IF IN DOUBT CONSULT AN ELECTRICIAN. THE PRODUCT MUST BE EARTHED!** Where the mains supply or plug connection differs please refer to local regulations or a qualified electrician.

### Liquid Level

Fill a tank or pot with water before connecting circulator to the power supply. Minimum recommended water level - at least half the height of the circulator guard is immersed.



**If the circulator fails to maintain water temperature or heat up, please check to ensure that there is sufficient water in the tank or pot.**

**A “FILL” message will appear with low liquid level.**

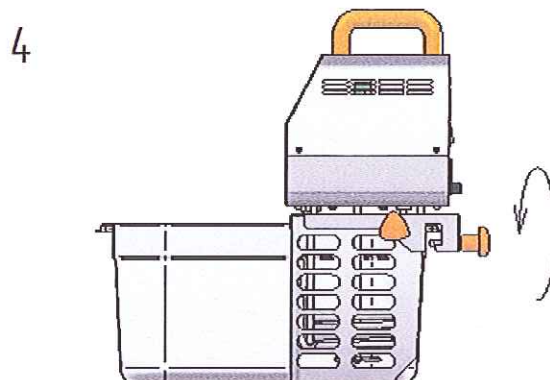
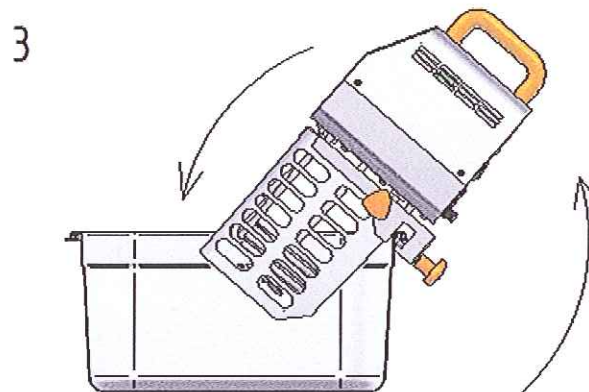
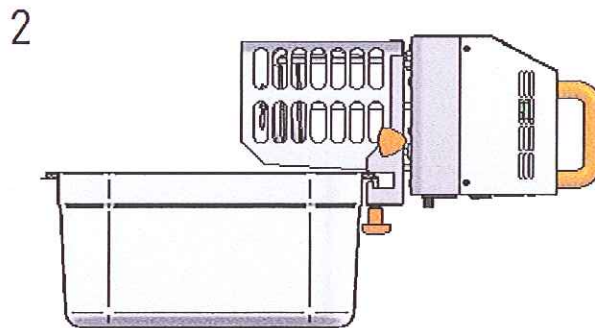
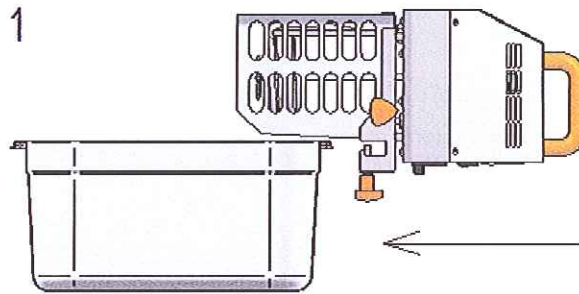
**We recommend that this is checked periodically when the circulator is in use - please see page 9.**

**Before filling or emptying the tank or pot, disconnect the unit from the mains electrical supply.**



### Fitting Immersion Circulator onto Gastronorm tanks or Pots

For fitting to standard gastronorm tanks or round straight sided vessels up to 50 litres (diameter 40cm). The unique clamping method eliminates the risk of the unit being inadvertently dropped into water.

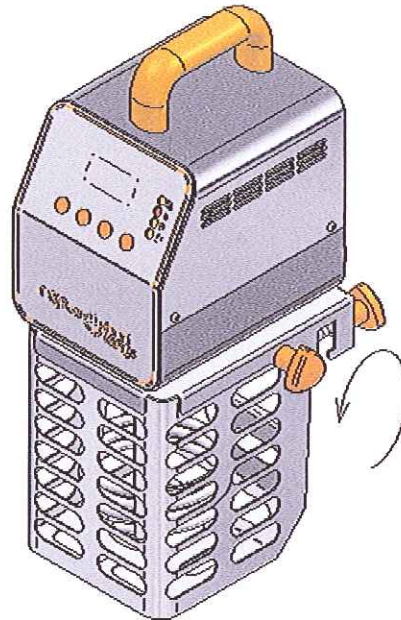


### Guard

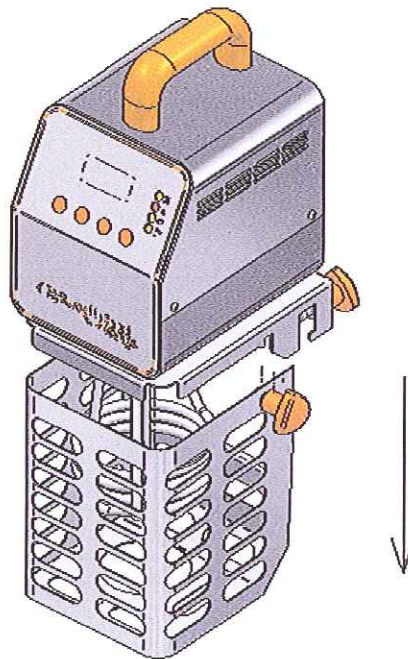
The heater and stirrer mechanism are completely surrounded by a stainless steel cage which prevents pouches coming into contact with them.

No tools are necessary to remove the cage easily and quickly.

1



2



## Operating Instructions

**Switching ON and OFF:** Switching ON - the unit may be turned ON (I) at the mains switch located **at the rear**. When ON (I) the switch is illuminated and unit performs a self test where all segments of the 3 digit LED display and indicators illuminate.

Switching OFF: the unit may be turned OFF(O) at the mains switch located at the rear. All current temperature and time values remain in memory.

## Keyboard Description



### FUNCTION

- Press once "SP1" is displayed.
- Press twice "t" is displayed, timer setting.



### DOWN ARROW

- Used to decrease a value. Hold continuously to scroll.
- When pressed for more than 1.5 seconds, "SP1" is displayed.



### UP ARROW

- Used to increase a value. Hold continuously to scroll.



### RUN

- When pressed for more than 1.5 seconds will activate/deactivate timer function.
- Used to turn off buzzer.

## LED Indicators



### HEATING INDICATOR

When LED is illuminated bath is being heated.



### TIMER INDICATOR

- Flashing illumination indicates timer is running back/counting down.



### SET TEMPERATURE INDICATOR

- Continuous illumination indicates set point is shown on display.

The circulator features a low liquid level protection system.

## **"FILL"**

If the liquid level drops below the predetermined point the heating and stirring will cease and display will flash between "FILL" and actual tank or pot temperature. To clear message and resume heating refill the tank or pot then switch the unit OFF and back ON.



## Setting Temperature



1. Press and hold the down arrow for more than 1.5 seconds to display "SP1" the set temperature.



The 'set temperature' indicator will illuminate.



2. Use up and down arrow keys to select required temperature. If the page button is pressed at this time it is immediately acknowledged and the timer can be set.



3. After setting temperature the display flashes between "SP1" and set temperature and will automatically revert to show actual water temperature. Heater indicator will illuminate.

4. The circulator is now set and will heat and control the water at set temperature.

## Setting Time



1. Repeatedly press FUNCTION button until "t" appears on the display. It will then alternate between showing "t" and time - displayed as hh:mm.



2. Press either up or down arrow to select desired number of hours:minutes.  
- Minimum time setting is 0 hours and 01 minutes - displayed as 00.01  
- Maximum time setting is 99 hours and 59 minutes - displayed as 99.59



3. Once the desired time is entered press the function button to confirm. Display reverts to actual liquid temperature.

## Timer Operation



1. To start timer press and hold RUN button for more than 1.5 seconds.



3. Heating indicator will flash when set temperature has been reached and is being maintained.



4. The timer indicator starts to flash showing the timer is running.



5. To view time remaining, press UP ARROW button, "t" appears and time remaining is displayed as h:mm.



6. An audible beeping and "End" message indicates timed period has finished. Press RUN button to deactivate buzzer and clear "End" message.



If power is interrupted during Timer mode, the displays shows "P.OFF" To clear, press and hold the RUN button until display reverts to actual temperature. Timer mode will then continue. To deactivate timer mode, press and hold RUN button.



### Low Liquid Level

If the water drops below the recommended minimum level, or the unit is inadvertently switched on without being immersed in water, "FILL" appears on the display as a visual alert and both heating and stirring are immobilised.

To reset the Low liquid level warning:

- top up liquid level
- switch the unit OFF and then ON.



Use caution when refilling the tank or pot as hot elements can spit and create scalding steam.

### Maintenance

The low liquid level float switch should be checked periodically by lowering the level of liquid in the tank and a "FILL" message should appear. In the event that this does not occur please contact our service department - details below.

### Cleaning



Important - please follow these cleaning instructions to avoid possible damage to the unit which may affect its performance.

Disconnect the circulator from the electrical supply before cleaning.

The circulator must be cleaned at regular intervals:-

**Casework:** wipe with a cloth or sponge soaked in warm soapy water.

Immersed parts descale regularly to ensure that the corrosion resistance and normal operating conditions are maintained through out its working life. Descale by adding 1 litre of vinegar to normal volume of water and gently heating to 50°C for an hour, empty and brush the lime away. Rinse thoroughly afterwards.

### Warranty

The circulator is covered by a 2 Year Warranty against defects in materials and workmanship. In the event of a problem contact our Service Department at Nickel-Electro Limited, Oldmixon Crescent, Weston super Mare, North Somerset BS24 9BL, England.  
Tel +44 1934 626691 Fax +44 1934 630300.

### Portable Appliance Testing

These tests should be conducted by a qualified person.



**DO NOT PAT TEST THE CIRCULATOR UNLESS THE HEATER IS IMMERSIED IN WATER.  
THIS EQUIPMENT MUST NOT BE FLASH TESTED!**



## EC Declaration of Conformity

We herewith confirm the following product:

### FL4CA Food Range

Conforms with the requirements outlined by the following European Directives:

Low Voltage Directive (73/23/EEC)  
EMC Directive (89/336/EEC)

Conforms with the requirements of following standards:

BS EN 61010:1  
BS EN 61010:2.010  
Safety requirements for electrical equipment for  
measurement, control and laboratory use.

BS EN 61326  
Electrical equipment for measurement  
control and laboratory use - EMC requirements.

Nickel-Electro Limited  
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Weston-super-Mare  
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## Final Inspection and Electrical Safety Test Report

NICKEL-ELECTRO Ltd.

Manufacturers of laboratory water baths for precise slow cooking.

Manufacturers of the Clifton Range.

Manufacturers of laboratory, medical and clinical equipment.

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Email: [info@cliftonfoodrange.co.uk](mailto:info@cliftonfoodrange.co.uk) [www.cliftonfoodrange.co.uk](http://www.cliftonfoodrange.co.uk)

## Testimonials

“ The Clifton Food Range Water Bath enables us to be consistent and precise in the preparation and cooking of our product. It also allows us to reach maximum potential within our dishes. The Clifton water bath can be used in many different ways and I believe that in the near future it will be an integral part of any award-winning kitchen. ”

**Peter Eaton, Head Chef, The Vineyard at Stockcross**



“ I have been using Water Baths in the kitchen at Midsummer House for six years, and over this time I have found the Clifton Food Range to be the most suited to the harsh kitchen environment. Nickel-Electro has successfully created a range to suit the needs of chefs - they are so versatile working at different temperatures. The stirred baths are fantastic for confiting fish in oil at low temperature. The unstirred baths are so addictive that once you start using them, you can't stop. ”

**Daniel Clifford, Midsummer House, Cambridge**



“ I was introduced to The Clifton food range by Claude Bosi of Hibiscus. Knowing that we have been using the sous-vide method for several years he suggested I give Melvin a call. From the first telephone conversation I knew that Clifton Foods understood my needs. Discussing which baths would be suitable, through to delivery, on site demonstrations and their continued aftercare. Their service has been second to none. The baths allow us to maintain consistency, accuracy and has added a new piece of armour to our artillery. ”

**Sat Bains, Restaurant Sat Bains with Rooms**



INVESTOR IN PEOPLE



CONFIDENCE IN QUALITY