



CYCLONE+ VORTEX MIXER  
and ACCESSORIES

CM-2

CYCLONE VORTEX MIXER

CM-1

*Clifton Range*<sup>®</sup>

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® 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. If this product is not used in accordance with these instructions then basic safety protection may be affected.
3. The mains supply cord fitted to this product is heat resistant and should be replaced with an equivalent type by a qualified electrician.
4. Ensure that the power supply has a safety earth (ground) terminal.
5. Connect to a mains power supply with RCD protection if possible.
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. Over voltage category II (IEC 644) and Pollution Degree 2 (IEC 644).
10. WEAR SAFETY GOGGLES WHEN MIXING.



## LOCATION

The product must be placed on a smooth, level and sturdy work surface. 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). Mains voltage fluctuations are not to exceed +/- 10% of the nominal supply.

## UNPACKING

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

- Vortex mixer
- Power lead
- Instruction manual
- Platforms and mixing cups are supplied as accessories

Fit the power lead into the socket at the rear.

## 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.



## OPERATING INSTRUCTIONS CM-1 AND CM-2

1. Switch the cyclone mixer ON using the green rocker switch. The switch will illuminate.
2. The mixing speed can be varied by turning the dial anticlockwise to decrease or clockwise to increase the mixing intensity.
3. When placing the tube for mixing onto the Cyclone's rubber cup always select a slow speed and gradually adjust the dial to produce the desired vortex.
4. The Cyclone mixer can be operated in two ways - manually or automatic.



MANUAL MODE: press start operation providing instant action the moment the tube is pressed into the rubber cup.



AUTOMATIC MODE: the rubber mixing cup rotates continuously.

## OPERATING INSTRUCTIONS FOR ACCESSORIES CM-2

Accessory platforms available as standard:

C1	Platform for 2 off 25ml Flask Clips
C2	Platform for Micro Titre Plates
C3	Platform for 1.5ml Micro Tubes
C4	Cup for tube mixing up to 25mm diameter
C5	Platform for PCR Plate

1. Turn unit of OFF "O".
2. Turn the speed to LOW - anticlockwise.
3. Place a platform onto the unit by fitting it onto the drive spigot on top, push down gently to engage fully.
4. To start mixing turn ON "I".
5. Switch to desired mode.
6. **Gradually adjust the speed to produce required vortex/shaking.**

Note; do not exceed 1400rpm when using platforms. When mixing ensure there is no splashing!



## 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 MIXER FROM THE POWER SUPPLY PRIOR TO CLEANING

Only use a damp cloth and mild detergent to wipe clean the outside surfaces. Disconnect the unit from the mains electrical supply before cleaning. Ensure the unit is completely dry.

## PORTABLE APPLIANCE TESTING

These tests should be conducted by a qualified person.



DO NOT Flash Test!!

## SPARE PARTS

Description	Part Number	Quantity Required
Cup Washer	BP0373	1 off
Mains Switch	ES0272	1 off
Power Entry Module	EX0570	1 off
Fuse 1.6A	EF0614	2 off



## 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 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.





### DECLARATION OF CONFORMITY

We herewith confirm the following product:  
CM-1 Cyclone Vortex Mixer  
CM-2 Cyclone+ Vortex Mixer

Conforms with the requirements outlined by the following European Directives:

Low Voltage Directive 2014/35/EU

EMC Directive 2014/30/EU

RoHS Directive 2012/65/EU

Conforms with the requirements outlined in the following United Kingdom Directives:

Electromagnetic Compatibility Regulations 2016

Electrical Equipment (Safety) Regulations 2016

RoHS Directive 2012/65/EU

Conforms with the requirements of the following standards:

BS EN 61010-1: 2010

BS EN 61010-2-010: 2014

BS EN 61326-1: 2013

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

Electrical equipment for measurement, control and laboratory use - EMC requirements

Designed and manufactured in the United Kingdom by:



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**NICKEL - ELECTRO LTD.**  
Manufacturers of the Clifton Range