

## Product Final Inspection & Electrical Safety Report

THE *Clifton* RANGE

Cyclone+ Vortex Mixer, CM-2

BX0801

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## Declaration of Conformity

### Declaration

Manufacturer: Nickel-Electro Ltd

Declares the product: CM-2

Conforms, Product Standards: **Low Voltage Directive (73/23/EEC)**

**BS EN 61010:1:1993**

**BS EN 61010:2.010:1995**

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

**EMC Directive (89/336/EEC)**

**BS EN 61326:1997**

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

## CM-2 Cyclone+ Vortex Mixer

The Cyclone+ is designed for tube, microplate, flask and microtube mixing using accessory platforms which can be quickly interchangeable.

- Variable speed control, with the advantages of controlled mixing over a speed range.
- Where accessory platforms are fitted the unit is designed to operate at lower speeds for gentle mixing reducing damage to cell structures.
- Two modes of operation set for continuous running or press start operation suitable for use with accessory tube mixing cup.
- Unique design accessory platforms, which can be autoclaved.

Overall Dims, mm	150w x 175d x 150h
Overall speed range	200 – 2800rpm
Platform speed range	200 – 1400rpm
Orbit	5mm
Rating, Watts	75W
Voltage	230V
Weight	3kg

Catalogue No.	Description
CM-2	Cyclone+

### Accessories

Catalogue No.	Description
C1	Platform 2 off 25ml Flask Clips 
C2	Platform for micro titre plate 
C3	Platform for 1.5ml micro tubes
C4	Cup for tube mixing up to 25mm dia 
C5	Platform for PCR plate



## CM-2 Cyclone+ Vortex Mixer

### Accessory Platforms - operating instructions

Accessory Platforms available as standard:

<b>C1</b>	<b>Platform 2 off 25ml Flask Clips</b>
<b>C2</b>	<b>Platform for micro titre plate</b>
<b>C3</b>	<b>Platform for 1.5ml micro tubes</b>
<b>C4</b>	<b>Cup for tube mixing up to 25mm dia</b>
<b>C5</b>	<b>Platform for PCR plate</b>



1. Turn unit 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.**

Do not exceed 1400rpm when using Platforms.

When mixing ensure there is no splashing!

### Cleaning

Only use a damp cloth and mild detergent to wipe clean the outside surfaces.



**Disconnect the unit from the mains electrical supply before attempting any cleaning.**

**Ensure the unit is completely dry**

### Warranty

The Cyclones are covered by a 3 Year Warranty. In case of a problem contact your dealer for advice.

### Portable Appliance Testing



Where PAT testing is to be completed for future on this product ensure it is conducted by a qualified person and **must not be FLASH tested.**

### About this Manual

This user Manual contains instructions which must be followed in order that the product is operated correctly.

### General Notes

1. Always follow good laboratory practice by ensuring substances being mixed there is no risk of a hazard (explosion, implosion or release of toxic or flammable gases) or that these have been addressed.
2. If this product is not used in accordance with these instructions, then basic safety protection afforded by the unit may be affected.
3. The mains supply cord fitted to this products is a heat resistant type and should be replaced by an equivalent type.
4. Overvoltage category II (IEC 644)
5. Pollution Degree 2 (IEC 644).
5. It is recommended the units are connected to the mains supply with RCD protection.
6. Before using any cleaning or decontamination method except those recommended, check with your distributor that the proposed method will not damage the equipment.
7. **WEAR SAFETY GOGGLES WHEN MIXING WITH WHIRLIMIXERS.**

### Amendments

Issue 1      Aug      2002      Initial issue instruc. CE approved.

### Symbols/Symbole/Simboli/Symboles/Símbolos



Caution refer to Instructions  
Vorsicht! – siehe Anleitung.  
Attenzione, fare riferimento al manuale.  
Attention, se reporter aux instructions.  
Precaución, consultar las instrucciones.



Protective earth conductor terminal.  
Schutzerdleiterklemme  
Morsettiera conduttore di massa.  
Borne de conducteur de protection par mise à la terre.  
Borna conductora protectora de puesta a tierra.

## CM-2 Cyclone+ Vortex Mixer

### Location

The product must be placed on a smooth, level and sturdy work surface and used indoors. 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). Mains voltage fluctuations are not to exceed ±10% of the nominal supply. The product is designed for laboratory use.

### Unpacking

Remove the Cyclone+, mains lead and instruction book from the packaging.

NOTE: Platforms or mixing cups are accessories items.

Any damage please notify your dealer immediately. Retain the packaging over the warranty period.

### Safety



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

### Power supply - lead and connection electrical supply

Before connecting the unit to the main electrical supply, check the voltage and frequency information on the rating label matches the supply you have available.



**Before connecting the product to the electrical supply, check the information on the rating label is compatible. IF IN DOUBT CONSULT AN ELECTRICIAN. THE PRODUCT MUST BE EARTHED!**

**Where the mains supply or plug connection differs refer to local regulations or qualified electrician.**

### Operating Instructions

1. Switch the unit ON "I" on at the green rocker switch which will then illuminate.
2. Mixing speed can be varied by turning the dial anticlockwise to decrease or clockwise to increase mixing intensity.
3. **When mixing always select a low speed and gradually adjust the speed to produce required vortex/shaking.**
4. The unit operates in two ways, manual or automatic.



Manual mode - press start operation providing instant action the moment the tube or platform is pressed downwards.



Automatic mode - continuous mixing.

## CM-2 Cyclone+ Vortex Mixer

### Controls

1. Mains rocker switch, green. Illuminated it shows the unit is ON "I".
2. Rotary dial, variable speed control.
3. Mixing mode switch, automatic  or manual. 

