FOUR E'S SCIENTIFIC

Operating Instructions

Mini-Centrifuge

CF0201001



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General Information

The Mini Centrifuge is supplied with two rotors, one for microtubes and one for 0.2ml PCR strip tubes. The 6 x 1.5ml rotor is designed to centrifuge up to six individual 1.5ml plastic microcentrifuge tubes. It will also accept 0.5ml and 0.4ml tubes with the adapter supplied with the unit. Adapters are available separately for 0.2ml tubes. The strip tube rotor is designed to centrifuge two 8 x 0.2ml strip tubes. It will also accept up to 16 individual 0.2ml tubes. Both rotors are designed for applications requiring relatively g-forces, such as microfiltration, cell separation and quick spin downs from the walls of tubes. Please read this manual thoroughly before attempting to operate the centrifuge.

If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Installation

Place the centrifuge on a level, clean surface, position the centrifuge near an accessible power outlet so that the cord and outlet are within easy reach of the operator.

Correct Use

Before operating the centrifuge, be sure that the power switch is in the “on” position and equipment switch is in the “off” position. To begin a run, simply close the lid of the centrifuge and make the equipment switch to “on” position. No other controls are required. To stop rotation,

make the equipment switch to “off”. The rotor will slow gradually to a complete stop.

Caution: Do not attempt to open the lid or remove samples until the unit has come to a complete stop. After the rotor has stopped, the lid may be opened by grabbing it with the thumb on the front and fingers on the back then lifting the lid back on the hinge. Safe operation of the centrifuge requires that the rotor be loaded in a balanced fashion. Failure to load the rotor properly presents a hazardous condition and may damage the centrifuge. Individual tubes, strip tubes and/or adapters must always be loaded symmetrically to ensure proper balance. Never run the centrifuge with only one strip tube in place.

Safety Precautions

Never use the centrifuge in any manner not specified in these instructions.
Never put hands in the rotor area unless the rotor is completely stopped.
Never move the centrifuge while the rotor is spinning.
Never use solvents or flammables near this or other electrical equipment.
Never centrifuge flammable, explosive or corrosive materials.
Never centrifuge hazardous materials outside of a hood or proper containment facility.
Never continue to operate a centrifuge that is vibrating excessively.
Always load the rotor symmetrically. Each plate should

be counterbalanced by another plate of the same brand, type and volume.
Always use plates that have been sealed in some manner to avoid spillage.
Always load plates so that the sealed side faces the center of the rotor and the bottom of the plate faces out.
Always be sure the plates are pushed all the way to the bottom of the rotor slot before operating the centrifuge.
Always locate the centrifuge within easy access to an electrical outlet.

Cleaning

Before using any cleaning or decontamination methods except those recommended by the manufacturer, check with the manufacturer that the proposed method will not damage the equipment. To clean the centrifuge, a damp cloth and a mild, noncorrosive detergent (ph<8) should be used. After cleaning, ensure all parts are dried thoroughly before attempting to operate the unit.
Do not immerse the centrifuge in liquid or pour liquids over it.

Specifications

Dimensions:	6.9” x 5.5” (175 x 140mm)
Input:	100-240VAC, 50/60Hz
Output:	24VDC, 2A
Speed:	5400rpm
RCF:	2000 x g
Run time:	continuous
Ambient Operating Range:	0 to 40°C, <80%

Warranty

In accordance with 4E's warranty conditions, the warranty period is 24 months. For claims under the warranty please contact your local dealer. You may also send the machine directly to our factory, enclosing the delivery invoice and giving reasons for the claim. You will be liable for freight costs. The warranty covers the centrifuge and rotor. It is void in the event of incorrect operation, use of nonstandard spare parts or accessories and unauthorized modification of the rotor or centrifuge. The rotor warranty does not cover normal wear and tear or damage and/or weakening caused by radioactive contamination, cleaning agents, or over tightening of the allen screw.

Exchanging Rotors

The centrifuge is supplied with two interchangeable rotors. The rotors are easily exchanged. Pull up on the rotor to remove. Place the other rotor into position on the motor, be sure the rotor is locked completely before attempting to operate the unit.