



CAPRICORN
laboratory equipment

**OPERATING INSTRUCTIONS FOR THE
CAPRICORN BENCH TOP CENTRIFUGE**



MODEL NO. CEP 2000



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***CES INSTRUCTIONS SONT PRÉSENTES DANS D'AUTRES
LANGUES SUR NOTRE EMPLACEMENT DE WEB***



***DIESE ANWEISUNGEN SIND IN ANDEREN SPRACHEN IN
UNSERER WEB SITE VORHANDEN***



***ESTAS INSTRUCCIONES ESTÁN PRESENTES EN OTRAS
IDIOMAS EN NUESTRO WEB SITE***



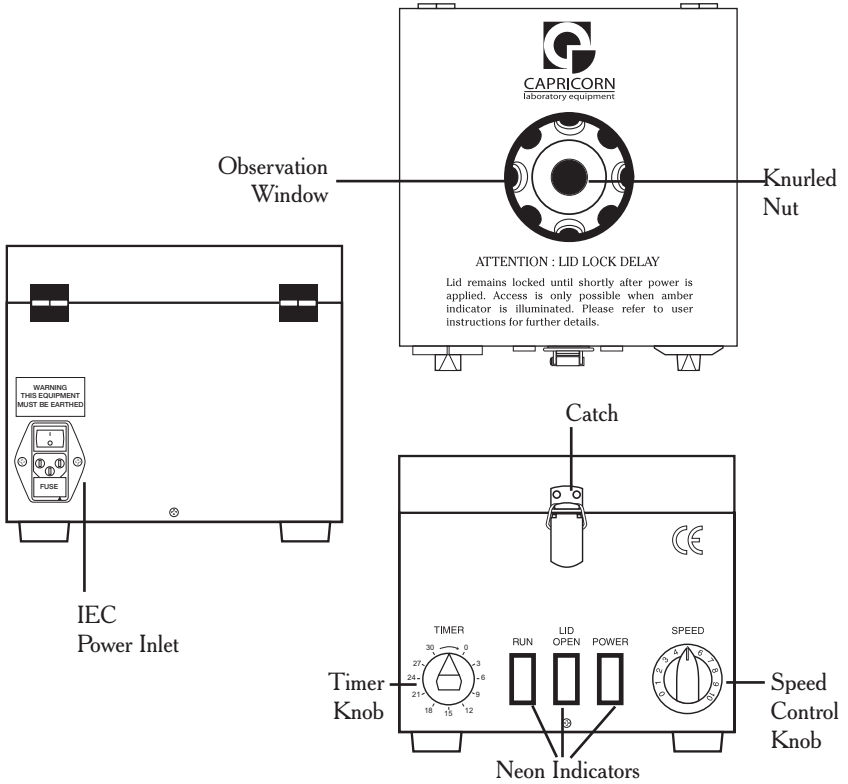
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CAPRICORN BENCH TOP CENTRIFUGE MODEL NO. CEP 2000



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English

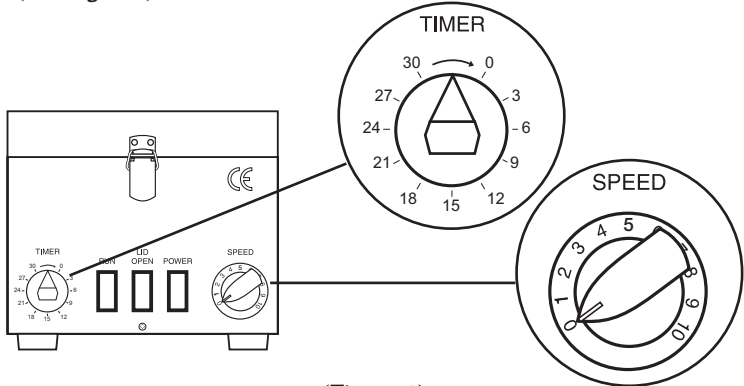


OPERATING INSTRUCTIONS FOR THE CAPRICORN BENCH TOP CENTRIFUGE MODEL NO. CEP 2000

SETTING UP

⚠ WARNING - THIS EQUIPMENT MUST BE EARTHED ⚠

1. Insert the mains lead into the IEC power inlet at the rear of the unit.
2. Plug the unit into a grounded power socket - **DO NOT SWITCH ON** (OFF is indicated by '0', ON is indicated by '1').
3. Ensure that the **TIMER** is in the OFF position, signified by the pointer being in a vertical position, and that the **SPEED** control knob is set to '0' (see **Figure 1**).



(Figure 1)

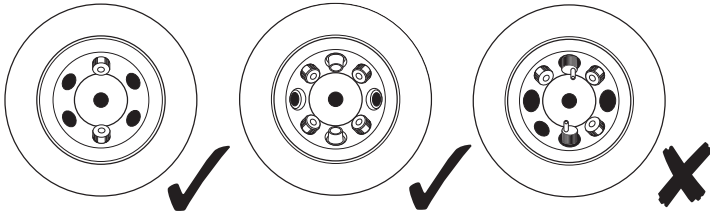
4. Switch the power on at the rear of the unit. At this point the green 'POWER' neon indicator will come on and, after a short delay, the amber 'LID OPEN' neon indicator will also come on, indicating that the lid may be opened.

LOADING

1. Open the lid by undoing the catch on the front of the unit and lifting the lid.
2. Place the sample tubes in the rotor, ensuring that:
 - (a) The correct tubes are inserted into their corresponding places in the rotor, if the rotor accommodates more than one size of tube.
 - (b) The rotor is loaded symmetrically, using tubes of equal size with contents of equal weight. If you are unable to balance the rotor, due to an odd number of tubes, fill an empty tube with water and use this as a balance. This water filled tube can, if necessary, be used continually for this purpose.(see **Figure 2**).

WARNING - DO NOT RUN THE CENTRIFUGE

⚠️ OUT OF BALANCE! ⚠️



(Figure 2)

- Once the rotor is loaded, close the lid and secure the catch

WARNING - ALWAYS ENSURE THAT THE POWER IS ON WHEN ATTEMPTING TO CLOSE THE LID ⚠️

STARTING

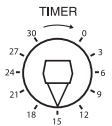
- Turn the “SPEED” control knob to the desired setting:-

SPEEDS AT ROTOR HEAD

SETTING	R.P.M.	RCF x g
0	1750	300
1	2000	400
2	2500	500
3	3350	1000
4	4000	1600
5	4700	2200
6	5250	2750
7	5850	3500
8	6300	4000
9	6700	4500
10	7000	5000

THE ABOVE FIGURES ARE APPROXIMATE AND INTENDED FOR GUIDANCE PURPOSES ONLY.

- Turn the ‘TIMER’ knob in a clockwise direction to the required run time. At this point the amber ‘LID OPEN’ neon indicator will go out, the red ‘RUN’ neon indicator will come on and the rotor will start to rotate.



(Timer set to 15mins).

PLEASE NOTE: if the required run time is less than 10 minutes, turn the ‘TIMER’ knob up to 15 minutes or more and then back to the desired setting. This will ensure that the timing is accurate.

3. The centrifuge is now locked and it will not be possible to open the lid until the rotor has stopped and the amber 'LID OPEN' neon indicator has come on.
4. The centrifuge may be subject to some vibration initially, while the rotor accelerates through a critical stage, but this should cease once it has reached a reasonable speed. However, if the vibration continues, it is most likely that the centrifuge is unbalanced. If this is the case, the 'TIMER' knob must be turned OFF and the rotor will slow down and come to a stop. Once the amber 'LID OPEN' neon indicator has come on, the lid should be opened and the balance checked.

COMPLETION

1. Once the run has been completed, the timer will switch off and the rotor will start to decelerate. The red 'RUN' neon indicator will go out and the green 'POWER' neon indicator will remain on. Once the rotor has stopped, the amber 'LID OPEN' neon indicator will come on, after a short delay, indicating that the lid may be opened.
2. Remove the sample tubes and close the lid, securing the catch on the front of the unit. Once the lid has been closed, the power should be turned off at the rear of the unit.

WARNING - ALWAYS ENSURE THAT THE POWER IS

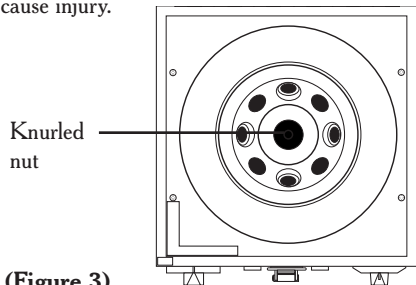


ON WHEN ATTEMPTING TO CLOSE THE LID



BREAKAGES

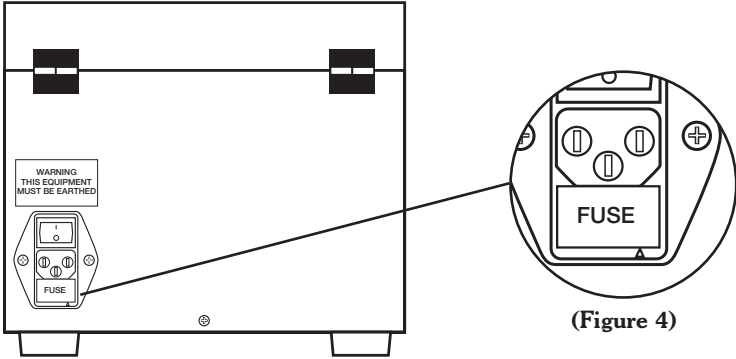
1. In the event of tube breakage, the 'TIMER' should be turned OFF, by turning it in an anti-clockwise direction back to the vertical position. Once the amber 'LID OPEN' neon indicator has come on, the lid should be opened and the rotor should be removed by unscrewing the knurled nut that secures it to the unit (see **figure 3**). The rotor should then be thoroughly cleaned and washed, being careful not to allow any broken glass to cause injury.



(Figure 3)


2. After any breakages, the rotor must be completely free of any glass fragments or other materials. If this is not the case, it will not be possible to successfully balance the rotor on future operations.
3. Once the rotor has been successfully cleaned and the imbalance rectified, the centrifuge may be re-loaded with samples and operated in line with the procedures set out in the preceding sections.

In the event of any operational or technical problems,
 please contact Capricorn Laboratory Equipment on
 +44 (0)1425 65 00 88 and ask for Technical Support



TECHNICAL SPECIFICATION

Model No: CEP 2000
 Motor: AC Series 1/15 HP
 Max RCF: 4000g
 Max Speed : 6000 rpm
 Power Requirements: 220-240 VAC 50Hz, 3A Fused Supply (UK)
 IEC Inlet 1.6A Quick Blow Fuse

DECLARATION OF CONFORMITY			
Manufacturers Name:	Capricorn Laboratory Equipment		
Manufacturers Address:	Glasshouse Studios, Fryern Court Road, Fordingbridge, Hants, SP6 1NG		
Declares that the product:			
Product Name:	Bench Top Centrifuge		
Model Number:	CEP 2000		
Conforms to the following Product Specifications:			
EMC:	EN61326-1	: 1997 Emissions & Immunity	EN61000-4-2 : 1995
			EN61000-4-3 : 1995
	EN55022	: 1998 Class B	EN61000-4-4 : 1995
	EN61000-3-2	: 1995 Class A	EN61000-4-5 : 1995
	EN61000-3-3	: 1995	EN61000-4-6 : 1993
			EN61000-4-11 : 1994
Supplementary Information:			
The product herewith complies with the requirements of the EMC Directive 89/336/EEC and carries the CE marking accordingly. The product was tested in a typical configuration. This declaration only applies to those centrifuges manufactured after the date shown below.			
Fordingbridge, Hants. U.K. 01 November 2005			
 D J Prevet Technical Manager			
For sales or technical support, please contact Capricorn Laboratory Equipment:			
Telephone: +44 (0)1425 65 00 88 Fax: +44 (0)1425 65 00 92			
e-mail: info@capricorn-labs.co.uk			



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