# LID Display. Instruction Manual & Details Pro-Vet

PrO-Vet

It is imperative to read the full manual before use. A full rotor manual is also supplied. Information is also available from our website.



## Before setting up

- Check the Centrifuge and the Packaging for any shipping damage.
  Inform the shipping company and Centurion Scientific immediately
- Check the order for completeness, if not contact Centurion Scientific

### Location

The Centrifuge should only be operated indoors.

- The set up location must fulfil the following requirements
  - A safety zone of at least 30Cm must be maintained around the Centrifuge
  - People and hazardous substances must be kept out of this zone during centrifugation

### Warning

- The bench or supporting structure must be stable and free from resonance
- The Bench or supporting structure must be suitable for horizontal use of the centrifuge
- The Centrifuge should Not be exposed to heat or strong sunlight
- Ultra violet rays can damage the stability of plastics and coatings
- Do not subject the Polypropylene, Delrin rotors or accessories to direct sunlight
- · The Zone location must be well ventilated at all times

### **Transporting the Centrifuge**

- Always remove the Rotor before transportation
- Due to its weight the Centrifuge should be carried by several people
- Transport the Centrifuge upright and if possible in its packaging
- Always lift the centrifuge at both sides (see below). NOT front to rear.



### Notice

• Store the original packaging, Keep this for future service to base , if required.

### Alignment after moving

The Horizontal alignment of the Centrifuge must be checked if the unit has been moved. Further the Bench used must be suitable (see Transport and set up page)

### Caution

If the Centrifuge is not level, Imbalances can occur and damage caused. Do not place objects under the feet to level, this is not safe or good practice.

### Mains connection



- Make sure the Voltage and Frequency correspond to the rating plate on the rear
- Check if the power cable supplied complies with the safety standards of your country
- If so connect the cable to the rear socket
- Plug the other end to your power source (Grounded Electrical socket only)
- Turn on the unit with the switch marked 0/1

### Storage

When removing the Centrifuge, rotors and accessories from use you must clean and if necessary decontaminate or disinfect all parts. Please contact us our Service department for assistance. Store each in supplied separate cartons.

Avoid storing in direct sunlight and always in a dust free environment.

Be sure the centrifuge is vertical and on its feet

### Shipping the Centrifuge and parts

- · Always remove the rotor and its components
- The Centrifuge, rotor and accessories must be clean and decontaminated
- · Certificate of Decontamination must be sent (Environmental & Health/Safety rules)
- Use the original packaging and pack safely with confidence. If not, the liability of damage will be your responsibility.

### Separate rotor manual supplied. Instructions must be followed

### PrO-VetHE



Dims HWD	235 x 235 x 3	50mm
Weight	12.8 Kg (with	out rotor)
Power	125 watts	
Rotor	BRK5401 &	BRK5424
Programs	Speed	Time
Haematocrit (Pcv)	12,000Rpm	300Secs
Serum 1	6,000Rpm	600Secs
Serum 2	5,000Rpm	300Secs
Unine	3,500Rpm	300Secs

### **PrO-Vet Serum**



Display indicative only

Dims HWD235	5 x 235 x 350r	nm	
Weight12	.8 Kg (without	rotor)	
Power12	5 watts		
RotorBRK5408			
Programs	Speed	Time	
Serum 1	6,000Rpm	180Secs	
Serum 2	6,000Rpm	240Secs	
Serum 3	5,000Rpm	300Secs	
Unine	3,500Rpm	300Secs	

### **PrO-Vet PCVs**



Display indicative only

Dims HWD235	i x 235 x 350m	m
Weight12.	8 Kg (without	rotor)
Power125	5 watts	
RotorBR	(5401 & BRK	(5408
Program 5401	Speed	Time
Haematocrit (Pcv)	12,000Rpm	300Secs
Serum 1	6,000Rpm	600Secs
Serum 2	5,000Rpm	300Secs
Urine	3,500Rpm	300Secs
Program 5408	Speed	Time
Serum 1	6,000Rpm	180Secs

Serum 2

Serum 3

Urine

6,000Rpm

5,000Rpm

3,500Rpm

240Secs

300Secs

300Secs

### **PrO-Equine**

(230V 50/60Hz)

### 1.PrO-Equine

(110V 60Hz)

Equine centrifuge for all horse semen, embryo transfer, faeces & blood work.



Display indicative only

### **PrO-Vet Multi**



Display indicative only

### **PrO-Vet Cyto**



Display indicative only

Dims (HWD mm) Weight (Kg) Power (watts) Rotor Speed (Rpm) RCF Max (G) Memory Accel Rates Decel Bates

275x325x470 22 (without rotor) 160 BRK5505 Swing out 500 - 4,000 2.200 10 Programs 10 Programs 10 Programs

Dims HWD 275x325x470mm Weight..... 21.8kg (without rotor) 175 watts Power. Rotor ..... BRK5401 & BRK5505

Program 5401 Time Speed Haematocrit (Pcv) 12000rpm 300sec Serum 1 6000rpm 600sec Serum 2 5000rpm 300sec Urine 300sec 3500rpm Program 5505 Speed Time 480sec Sperm 3500rpm Sperm 1275rpm 840sec Feaces 3000rpm 600sec Urine 2500rpm 500sec

Dims HWD	275x325x470mm
Weight	21.8KG (without rotor)
Power	175 watts
Rotor	4420 or 4430

Programs	Speed	Time
Slow	200rpm	600sec
Medium	500rpm	600sec
High	1000rpm	500sec
Maximum	2000rpm	500sec

	PrO-Vet		
	One Two Three Four		
Mode	Start/Stop	Lid Open	
		1	

The PrO-Vet range is designed with simplicity in mind. The LID display is inclusive of four pre-set runs with details of which can be found in this manual.

To change between the four pre-set runs press the **MODE** button. This will cycle between the lour options.

Druce the centrifuge has been correctly loaded with the samples [see previous page] close the lid and press the **START/STOP** button once to start the run.

To interupt the centrifuge during the programmed run for any reason press the START/STOP button once more.

Druce the centrifuge has completed the pre-set run it will come to a complete stop and a buzzer will indicate that the run is complete.

To retrive the samples press the LID OPEN button

## **Mechanical Emergency Door release**

During a power failure, you will not be able to open the Centrifuge lid via the Display A mechanical override is provided to allow sample recovery However this is for Emergency use only This should Not be used for normal use.

### Warning

The rotor can still be spinning at a high speed, if touched it can cause serious injuries. Always wait till the rotor has stopped.

Proceed as follows

- Make sure the Rotor has stopped (view via the port in the Lid)
- Once stopped unplug the power line
- Pull the Centrifuge slightly over the bench (as shown.
- · You will notice one or some models two plastic plugs
- Pop open with a screwdriver (tool) and pull downwards The lid will pop open

You can now retrieve your samples

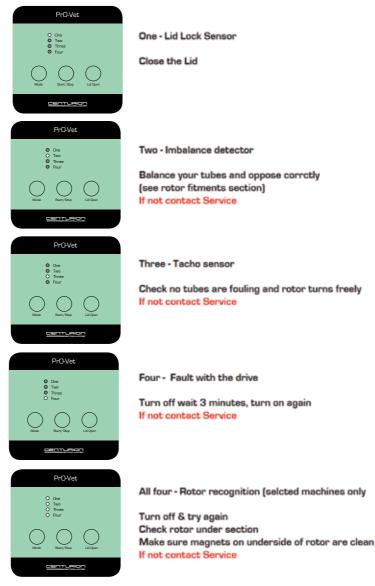


After replace the Plastic plugs back into their original position.

Reconnect the centrifuge power line once the mains power has been restored. Check all is working correctly by closing the lid, wait 5 seconds then press lid open. If not working refit or Contact your Distributor

# Error Codes Shown on the LID display

Error codes are displayed throught the four LED's on the display, if an error with the unit is detected then one of the four LED's will flash;



# Troubleshooting

# EC Declaration of Conformity

Declares that product: PrO-Vet Centrifuge Series Product options: Rotor plus Accessories

This instrument is fully guaranteed against manufacturing defect for a period of three years from date of purchase.

Service and technical manual can be obtained via our website and address below.

### Conform to the following Product Specifications:

IEC 1010-1, 1010-2 020, IEC 1010-2-0202 020, 7.2.101 EN 61010, EN 61010-1, 7.5 expelled parts, BS 5724, BS 7687:2.20 BS EN 61010-2-020 1195, 73/23/EEC Low voltage directive EMC EU 89 336 (INCLUSIVE 93/68/EEC)

### Supplementary Information CE Marking

The product herewith complies with the requirements of the following Directives and carries the CE mark accordingly.

The Low voltage Directive 73.23/EEC The EMC Directive 89/336/EEC (inclusive 93/68/EEC) This product was tested in a typical configuration with Centurion Scientific Ltd and other test House Facilities.

### Quality Control. ISO 90001:2008

internal systems for testing sub assemblies (5) and final product.

### IVD 98/79CE - European Directive.

Self certified group C.

IVD 9879EC

CE

I hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced specifications. The unit complies with all the applicable essential requirements of directives.

Certified by: K. Cooper QA Manager



Certificate of Origin Centurion Scientific Ltd of The Old Stables, Church Farm Stoughton, Chichester, West Sussex, PO18 9JL, UNITED KINGDOM, hereby confirm that all centrifuges and accessories supplied by us are of UNITED KINGDOM origin. Signed for and on behalf of Centurion Scientific I Granted 2016 pany Represen CERTIFICATE





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