



Porta-Spin™ Centrifuge

12 Volt DC with Fixed Speed and Timer

Item # C826 with 6 place rotor

Item # C828 with 8 place rotor

OPERATION MANUAL

United Products & Instruments, Inc.
182 Ridge Road, Suite E, Dayton, NJ 08810 USA
Tel 732-274-1155 Fax 732-274-1151
Toll Free 800-588-9776
www.unicosci.com

Introduction

UNICO (United Products & Instruments, Inc.) located in Dayton, New Jersey, provides quality laboratory equipment for the veterinary, medical and educational markets. With a range of bench top centrifuges designed to meet today's stringent lab needs as well as a full range of microscopes, UNICO is constantly improving existing products with new technology.

Features

- Six or eight place rotor designed for use with standard 2-15 ml tubes
- Will spin 2 ml and or 4-7.5 ml tubes with adapters
Note Will handle up to three 15 ml tubes (six place rotor)
- Can be powered by 12 Volt DC Car lighter, or optional 12V AC/DC Power Adapter available separately (pn#C800-12).
- Fixed speed at $3,700 \pm 250$ RPM ** with input range 10-13A , 12VDC
- Dependable mechanical 30-minute timer with bell signal at end of run
- Fish-Eye Level built into the lid to make sure the unit is level before operation
- Safety switch in lid shuts off motor when lid is raised. Latch release located on the right front side of unit

Construction

The enclosures of the UNICO Porta-Spin Centrifuges are made of high impact plastic, which is acid and reagent resistant. The internal chamber is made of stainless steel. A safety switch is built into the lid and disconnects the power to the motor whenever the lid is unlatched. The motor is mounted on rubber mounts to provide quieter running and less vibration. The Stainless steel rotor chamber can be easily cleaned and disinfected.

Performance

Maximum speed depends on the number and size of the test tubes being spun. The nominal speed is $3,700 \pm 250$ rpm when input is 12VDC, 10-13A Please note that due to the variances in individual car batteries the RPM readings may fluctuate.

Unpacking and Installation

The centrifuge is packed in cushioning styrofoam in a box for maximum protection during shipping. Please examine the unit upon receiving and retain all packing until the unit has been tested. The warranty excludes any damage caused by shipping. Inspect for any possible shipping damage. If you note any damage, please contact your customer service. Save the original packaging. If it becomes necessary to return the unit to us, we ask that it be returned in the original packaging. Unpack the shipping box carefully and verify that the shipment is complete. It should include the following items

Porta-Spin Centrifuge	1 unit
DC Car Adapter Power cord	1 pc.
Operation manual	1 pc.

No on-site installation is required. Follow simple procedures below to begin using your new centrifuge

- Take the centrifuge from the Styrofoam and place it on a sturdy flat surface.
- Press the lid latch release buttons located on the both sides and open the centrifuge cover. A special styrofoam disc is packed inside the lid of the centrifuge to prevent damage during shipping. **REMOVE THIS PACKING DISC PRIOR TO OPERATION OF THE CENTRIFUGE**
- The centrifuge rotor is pre-installed. No rotor installation and calibration is required
- The power inlet is located in the back of the centrifuge. Plug in one end of the power cord to the inlet and the other end to the 12 Volt DC car lighter electrical outlet, or to the wall plug if you have the optional 12V AC/DC Power Adapter

Operation

1. Set the timer to 0.
2. Plug the centrifuge into a power source (12 VDC or 12V AC/DC Power Adapter)
3. Open the lid by pressing the lid-opening buttons on each side of the lid.
Place the specimen tubes into the tube shields of the rotor. **Make sure that the specimen tubes are balanced. See safety section below.**
4. Make sure the centrifuge is LEVEL before spinning, using the level built into the lid.
5. Close the lid firmly.
6. Set the timer clockwise to the desired time. (2 minutes or more)
7. Turn on the on/off switch.
8. After the centrifuge rotor has come to a complete stop (following the end of the run bell), open the lid by pressing the lid release button.

Safety

Your Porta-Spin centrifuge is a carefully designed and built instrument. When operated properly, it presents no safety hazards, however, please take note of these safety precautions.

Lid

NEVER OPEN THE LID UNTIL THE ROTOR HAS COME TO A COMPLETE STOP!

Load Balance

Always make sure that the load is balanced before operating the instrument.

It is very important that test tubes with equal loads are placed opposite each other in the rotor. Also, when spinning a single specimen tube, another specimen tube of the same size filled with water must be installed directly across from the specimen tube to maintain balance. If the centrifuge is not properly balanced, damage could occur. If excessive noise or vibration is noticed during a run, stop the centrifuge and recheck the balance.

MAINTENANCE

Disconnect the power cord before attempting to clean the centrifuge. This centrifuge is designed to be relatively maintenance free. The motor is a brushless type and has permanently sealed bearings so oiling is not necessary. A surface cleaner such as Formula 409 can be used to clean the outside of the instrument. The rotor chamber and cover can be disinfected with a mild solution of bleach or other disinfecting liquid and allowed to dry. Do not drench or immerse the unit in any liquid. Do not use any cleaning solvents on any part of the centrifuge as the chemicals can cause damage to the instrument.

PERIODIC ROTOR AND TUBE HOLDERS INSPECTION AND REPLACEMENT

Rotors and tube holders should be removed and inspected for defects at least every 6 months or each time the rotor is removed for cleaning.

CALIBRATION

CFR Title 21 requires centrifuge verification or calibration as follows

1. Before initial use.
2. After repair or adjustments.
3. 6 months after use.

The centrifuge timer should be checked for accuracy at least every 3 months. The mechanical timer is designed to be accurate to 5min \pm 30sec.

The speed should be 3700 \pm 250 RPM with 12VDC @10-13A input.

Replacement packages

C800-00P – 6 place rotor and 6 tube shields

C800-01P – 8 place rotor and 8 tube shields



(PowerSpin LX model C856H shown)

Speed is checked using
UNICO digital tachometer.
Order part# C800-75

What to do if your inspection finds rotor or tube shield damage, defects or other problems?

If you detect any problems or damage or other defects in your centrifuge rotor or tube shields discontinue use of the centrifuge and rotor immediately! **Do not under any circumstances continue to use a rotor that you think has damage** as it could create a safety problem. Contact your supplier immediately, or contact UNICO at 732-274-1155. Please be prepared with the serial # (found on the rear of the machine near the electrical plug) and any information you may have about where and when it was purchased.

Electrical Shock Hazard

Do not attempt to operate this instrument near water or liquid spill. Unplug the unit before cleaning or repairing. Periodically check the condition of the power cord for cuts or damage. Do not operate with a damaged cord.

Biohazard

If a tube breaks, a biological hazard may exist. Unplug the instrument. Clean using approved laboratory procedures. Always wear the proper protective eye protection, protective clothing and gloves. Use a suitable disinfectant and dispose of the sample properly. Refer to the guidelines set forth by OSHA, CLIA, etc.

Service

If you feel that your centrifuge needs factory service, please call us and speak to a customer service representative to determine the nature of the problem. Simple problems may be resolvable over the telephone. If the instrument needs to be returned to UNICO, a R.G.A. (return goods authorization) number will be issued. Please reference the R.G.A. number on the paperwork packed with the instrument, and on the outside of the carton.

REPAIRS OR MODIFICATIONS MADE TO THE CENTRIFUGE BY AN UNAUTHORIZED PARTY WILL VOID THE WARRANTY.

Problem Solving

1. Centrifuge does not start
 - a) Check to determine if centrifuge is plugged in 12 VDC power source
 - b) Check that timer has been set.
 - c) Check that lid is closed and latched.
 - d) Check that Power switch is in the "on" position.
 - e) Check the 15A fuse inside the cord DC plug(Unscrew the top holding nut on the plug to remove the fuse)
2. Excessive noise when running. If the noise is irregular or different in tone, be sure that there is no paper or debris in the rotor or rotor chamber. Make sure that the load is balanced.
3. Intermittent motor operation; or no operation. Call your service department or UNICO customer support at (732) 274-1155

Specifications

Speed	3,700 ± 250 RPM** with 10-13A 12VDC input
Timer	30min
Width	10.2 inches
Depth	11.8 inches
Height	8 inches
Weight	15 lbs.

** Please note that the actual speed depends on the Amperage input from the battery or DC adapter.

Warranty

This instrument is warranted against defects in materials and workmanship for a period of one (1) year from the date of shipment to the customer. This warranty is limited to the repair and replacement of parts, which prove to be defective during the warranty period. This warranty is not valid for parts damaged, lost, or which fail because of accident, fire, theft, acts of nature, negligence, or the use of chemicals, which have a deleterious effect. This warranty is conditioned upon the manufacturer retaining the option of replacing parts up to and including the entire instrument.

Note This warranty will not extend to any repairs or modifications made to the instrument by some party other than the manufacturer or a party authorized by UNICO. Also, this warranty shall be in effect only upon the notice of the defect to the manufacturer or it's authorized distributor, or dealer, within five (5) days after the occurrence of said defect

No other warranty of any kind is made expresses or implied. The warranty described above shall be the sole and exclusive remedy available to the purchaser. Correction of defects, in the manner and for the period of time described above, shall constitute complete fulfillment of all liabilities and responsibilities of the manufacturer to the purchaser with respect to the product, and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall the manufacturer be liable, or in any way responsible for any damages or defects in the product that were caused by repairs or attempted repairs performed by anyone other than the manufacturer's dealer or station, nor shall the manufacturer be liable or in any way responsible for any incidental or consequential economic or property damages. Some states do not allow the exclusion of incidental or consequential damage, so the above exclusion may not apply to you.

Porta-Spin™ Centrifuge C826H with optional side mounted tube rack

