Power Spin™ Centrifuge
(Models: LX and FX)

OPERATION MANUAL

United Products & Instruments, Inc.
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CAUTION

Read this manual before operating your PowerSpin™ centrifuge:

Introduction:

UNICO (United Products & Instruments, Inc.) located in Dayton, New Jersey; has been providing quality laboratory equipment for the medical and educational markets since 1991. We offer a wide range of bench top centrifuges designed to meet today's stringent lab needs as well as a full range of microscopes and other lab equipment.

Description/Intended Use:

UNICO PowerSpin™ centrifuges are available with fixed and variable speed control and timers; are specially designed to run for years of demanding laboratory work in clinical labs, physician and veterinary practices as well as in any chemical, industrial or biological labs where separation for blood or other materials is required.

Features:

- Six place rotor for use with standard 2-10 ml tubes
- Six place rotor will hold up to three 15ml tubes
- Optional 8 place rotor is available
- Model C856 (LX version) with variable linear speed control: 500-4,000 RPM
- Model C806 (FX version) with fixed speed 3,400 RPM
- Dependable mechanical 30-minute timer with bell signal at end of run
- High Impact plastic housing for years of dependable use
- Safety switch in lid shuts off motor when lid is unlatched
- Power indicator light tells when unit is powered on
Construction:

The rotor chamber enclosure of UNICO PowerSpin™ Series Centrifuges is made of a high impact polymer which is acid and reagent resistant. The internal rotor chamber is made of stainless steel. A safety switch is built into the lid latch and disconnects the power to the motor whenever the lid is opened. The motor is mounted on rubber mounts to provide quiet, vibration-free runs. The stainless steel rotor chamber can be easily cleaned and disinfected.

Performance:

The PowerSpin FX (C806) is a 6 place fixed speed model at 3,400 RPM. The PowerSpin LX (C856) is 6 place variable speed model (8 place rotor is optional). The nominal speed is 3,400 RPM for model FX and 4,000 rpm for LX.

Accessories:

Each PowerSpin™ unit comes equipped with a fixed-angle head rotor with 6 or 8 place tube shields factory installed.

Unpacking and Installation:

The centrifuge is packed in Styrofoam and a shipping box. Please examine the shipment upon receipt 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 the shipping company first, then your distributor or you can call UNICO directly at (732) 274-1155. If it becomes necessary to return the instrument to us, we ask that it be returned in the original packaging.

Unpack the shipping carton carefully and verify that the shipment is complete. It should include one each of the following items:
Set-Up:

Please follow these simple directions below to set-up the centrifuge:

- Remove the centrifuge from its packaging and place it on a sturdy flat surface.
- Press the lid latch release button located on the right side and open the centrifuge cover. Special styrofoam disc is packed inside the lid of the centrifuge.

**REMOVE THIS PACKING DISC PRIOR TO OPERATION OF THE CENTRIFUGE!!!**

- Remove the black rubber washer on the lid latch pin.
- 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 a power outlet.
- If using model FX (C806 or C808) set the timer to “0”.
- If using model LX (C856 or C858) Turn the speed control to “0” RPM.

**Caution:** Make sure the voltage of the power source matches the voltage input of centrifuge.

**Basic Centrifuge Operation:**

1. Set the timer control to “off”.
2. Plug the centrifuge into a power source outlet.
3. If using model FX, turn on the power switch on the front panel.
4. If using model LX, turn the power rocker switch in rear of unit to “on” position.
5. Open the lid by pressing the lid-opening button, located on the right side.
6. Place the specimen tubes into the tube shields of the rotor.

**CAUTION!!**
Make sure that the specimen tubes are balanced. See safety section below.

7. Close the lid firmly.
8. Rotate the speed control knob slowly to the appropriate speed.
   For example, Blood at 3,400 or Urine at 2,000-2200 rpm (LX only)
9. Set the timer clockwise to the desired time. The centrifuge will start.
10. Open the lid only after the centrifuge rotor has come to a complete stop.

**Safety:**
Your Power 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 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:**

This centrifuge is designed to be relatively maintenance free. The brushless type motor has permanently sealed bearings so oiling is not necessary. The rotor chamber and cover can be disinfected with a mild solution of bleach or other disinfecting liquid and allowed to dry. The inner rotor chamber is stainless steel and can withstand harsh disinfectants. Do not drench or immerse the unit in any liquid! Be sure to disconnect the power before attempting to clean.

**Calibration:**

It is recommended that your centrifuge’s RPM be calibrated at least every 6 months. This period is suggested by both the FDA and C.L.I.A. guidelines. Simply check the RPM using a stroboscope or tachometer and the small circular window in the lid.

**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 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.
   b) check that timer has been set.
   c) check that lid is closed and latched.
   d) check that Power rocker switch in rear of unit is in the "on" position.
   e) check that the Power indicator light (on front panel) is lit. A failure of the power light to illuminate could indicate a need for a new fuse when the unit is properly plugged in, turned on and the lid closed.

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. Indicator light fails to light.
   a) Unit is not turned on.
   b) Lamp needs to be replaced
c) Fuse is blown.

4. Fuse Replacement

Caution: DISCONNECT THE POWER CORD BEFORE REPLACING FUSE.

Follow the procedures below to replace the fuse:

a) Unplug the power cord. Turn the on/off switch to "off".

b) Remove the power cord from the power inlet on the back of the centrifuge.

c) Locate the fuse holder. The fuse holder is a part of the power inlet.

d) Use a Philip type screwdriver to take the snap-in type holder cover off. Remove the blown fuse and replace it with the same type and rating fuse which is:

250V 3A

e) Put the snap-in fuse holder back.
5. Intermittent motor operation, or no operation. Call your service department. If it is under warranty, contact UNICO (800-588-9776) for possible motor replacement.

**Specifications:**

<table>
<thead>
<tr>
<th>Speed</th>
<th>800 – 3,400 RPM(VX)</th>
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<tbody>
<tr>
<td></td>
<td>500-4,000 RPM(LX)</td>
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<tr>
<td></td>
<td>3,400 RPM (FX)</td>
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<table>
<thead>
<tr>
<th>Width</th>
<th>10.2 inches</th>
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<tbody>
<tr>
<td>Depth</td>
<td>11.8 inches</td>
</tr>
<tr>
<td>Height</td>
<td>8 inches</td>
</tr>
<tr>
<td>Weight</td>
<td>15 lbs</td>
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**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. Fuses are excluded from warranty coverage.

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 express 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.
UNICO PowerSpin™ LX Centrifuge

Parts and Nomenclature

- Lid
- Latch Pin
- Lid window for RPM check with tachometer
- Tube Shields
- Rotor
- Color-Coded Speed Control (LX Model only)
- Timer
- Power Inlet with fuse On rear panel
- On/Off Switch
- Lid Latch Release Button

Model C856, Six place; Model C858, Eight place (PowerSpin LX)

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