



PowerSpin™ LX Centrifuge
With linear speed control
500-4,000 RPM

Item # C856 with 6 place rotor
Item # C858 with 8 place rotor

OPERATION MANUAL

UNICO

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— CAUTION —

Read this manual before operating PowerSpin™ LX centrifuge

Introduction:

UNICO (United Products & Instruments, Inc.) located in Dayton, New Jersey, has been providing quality laboratory equipment for the medical and educational markets for over 12 years. 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 searching for newer and better technology. PowerSpin Centrifuge is released to meet the needs and offer the protection needed in the fast growing medical and health care industries.

Description/ Intended Use:

The UNICO PowerSpin centrifuges with variable (linear) speed control and timer are specially designed to run for years of demanding laboratory work in clinical labs, physician's offices as well as in any chemical, industrial or biological labs where separation for blood or other materials are desirable.

Features:

- Six/ eight place rotor for use with standard 5-10 ml tubes
- Note: Can spin up to three 15 ml tubes
- Can spin 2 ml and 4-5 ml tubes with available adapters
- Model C856 (LX version) with linear speed control allows use from 500rpm- 4,000 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. Latch release located on the right front side of unit
- Power indicator light tells when unit is powered on

Construction:

The enclosures of the UNICO Power Spin Series 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 rotor chamber can be easily cleaned and disinfected.

Performance:

Maximum speed depends on the number and size of the test tubes being spun. Power Spin model C856 is variable speed unit, with 6 tubes in place. The maximum speed is 4,000rpm.

Accessories:

Each Power Spin unit comes equipped with an angle head rotor with 6 place tube shields already installed. Optional 8-place rotor is available on request.

Unpacking and Installation:

The centrifuge is first packed in a Styrofoam and then put in a carton box for shipping. Please examine the shipment 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 distributor or you can call UNICO directly at (732) 274-1155. Save the original packaging. 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 the following items:

Power Spin centrifuge(LX)	1 unit
Power cord	1 pc.
Operation manual (LX version)	1 pc.

No on-site installation is required. Follow simple procedures below to set the centrifuge up:

- Take the centrifuge from the Styrofoam and place it on a sturdy flat surface.
- Press the lid latch release button located on the right side and open the centrifuge cover. A special packing Styrofoam disc is packed inside the lid of the centrifuge to prevent the rotor or shields from moving 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 a power outlet.
- Turn the speed control counterclockwise to “0” rpm.

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

Operation:

1. Set the timer control to “off”.
2. Plug the centrifuge into a power source outlet. Make sure the voltage is correct.
3. Turn the power rocker switch in rear of unit to “on” position.
4. Open the lid by pressing the lid-opening button.
5. Place the specimen tubes into the tube shields of the rotor.

CAUTION!!

Make sure that the specimen tubes are balanced; see safety section below:

6. Close the lid firmly.
7. Set the speed control knob at or close to “0” rmp.
8. Set the timer clockwise to the desired time.
9. Rotate the speed control knob slowly to the appropriate speed.
For example, Blood at 3,400 or Urine at 2,000- 2200 rpm.
10. After the centrifuge rotor has come to a complete stop (following the end of the run bell), open the lid.

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 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:

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! Be sure to disconnect the power before attempting to clean.

Routine Rotor Inspection and Maintenance:

All centrifuge Rotors should be removed and inspected for damage, defects or other problems:

- Before initial use
- Each time the rotor is removed for cleaning
- At least every 6 months

Plastic rotors and tube shields should be replaced every 12 months !!

Replacement packages

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

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

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

If you detect any problems or damage, or 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: 800-588-9776, or 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.

Calibration:

According to Code of Federal Regulations Title 21, centrifuges require verification or calibration as follows:

- 1) Before initial use; 2) after repair or adjustments; and 3) 6 month after use. The centrifuge timer, however, should be checked for accuracy at least every 3 month.
- 2) The speed should fall within ± 150 rpm of the speed display.



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

- 3) The timer is a mechanical one and designed to be accurate to 5min \pm 30sec.

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:

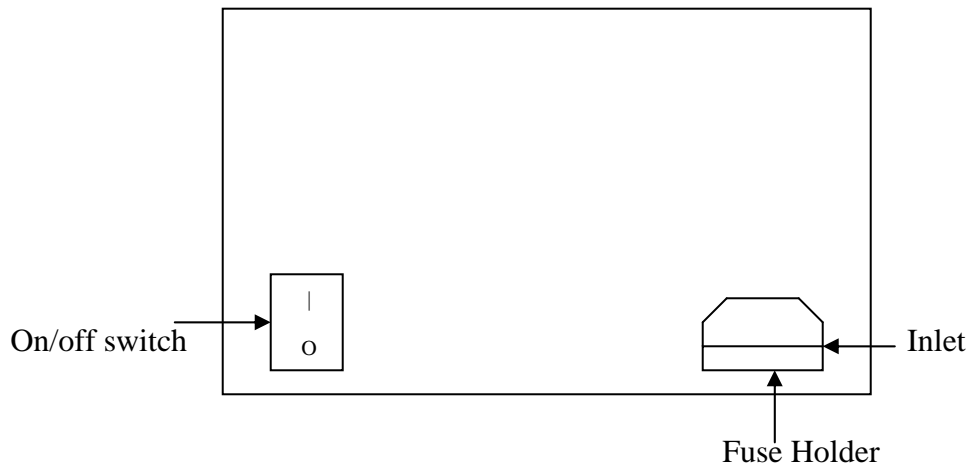
1. Centrifuge does not start
 - a) Check to determine if centrifuge is plugged in.
 - b) Check that timer has been set.
 - c) Check that lid is closed and latched.
 - d) Check that Power rocker switch in rear of unit is in the “on” position.
 - e) Check that the Power indicator light (on front panel) 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:

Speed_____500 – 4,000 rpm

Speed accuracy_____± 150 rpm

Width_____10.2 inches

Depth_____11.8 inches

Height_____8 inches

Weight_____18 lbs

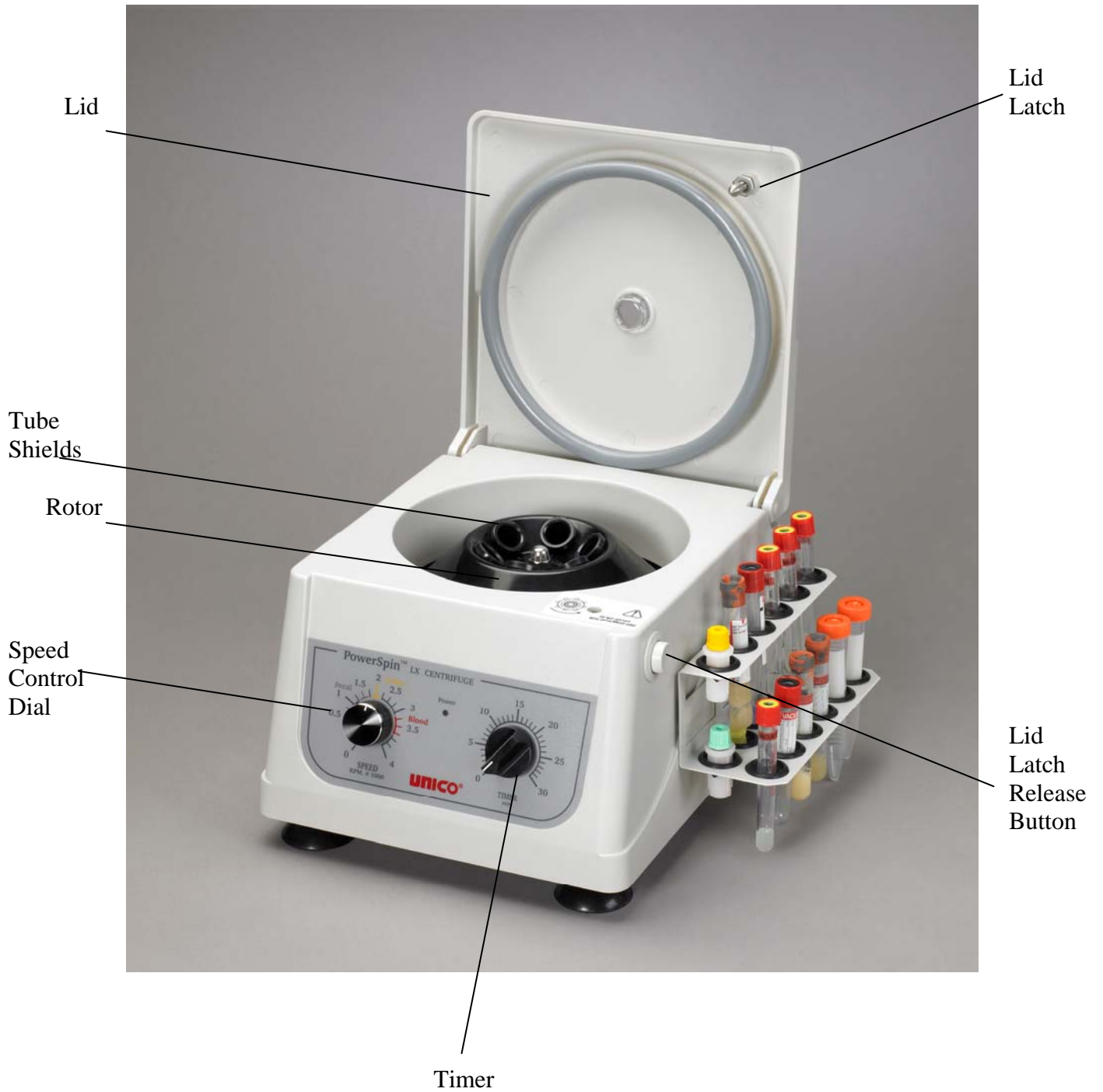
Warranty:

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 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.

PowerSpin™ LX Centrifuge

Parts and Nomenclature



Model C856 (PowerSpin™ LX) shown with optional 18 place TubeHoldster™