



Introduction

The LW Scientific E8 is available in the E8F (Fixed speed), E8V (Variable speed), and E8D (Digital speed). The E8F is an 8-place centrifuge that is designed for blood separations at a fixed speed of 3500 rpm only (1534 g-force). The E8V and E8D will separate blood at 3500 rpm and can be slowed to separate other fluids at lower g-force, such as urine specimens as outlined by C.L.I.A. regulations.

Features

30-minute mechanical timer (E8F and E8V), ON/OFF switch (indicator light), 8-tube capacity (3-15ml), lid safety switch (unlatching the lid turns the centrifuge off), one-piece plastic housing, high impact plastic lid allows for observation of samples and strobing for speed calibrations.

Installation and Set-up

- 1 Remove the centrifuge from the shipping container and inspect for any possible shipping damage. If the centrifuge appears to be damaged from shipping, please contact your distributor immediately.
- 2 Read and fill out the warranty form online. The warranty form documents your purchase. Failure to complete the warranty form may void any warranty claims on the unit.
- 3 Place the centrifuge on a sturdy, level surface. Unlock lid latch (U) and open to verify that there are no loose objects or packing material in the tube chamber and that all tube shields are properly "seated."
- 4 The large plastic tube shields are designed to hold large test tubes up to 15ml, and the smaller tube shields fit inside the large shields for spinning shorter test tubes (75mm length). Special size rubber cushions can be ordered from LW Scientific. Verify that all tubes are installed and balanced (See 7 below).
- 5 Verify that the power switch on the front of the unit is in the OFF position. Connect the power cable to the power supply adapter, and then connect the power supply adapter to the back of the centrifuge. Plug the power cable into an approved and properly grounded outlet. **Do not insert specimen tubes at this time!**
- 6 Close the lid, turn the latch to the (L) position and turn power switch ON. For fixed and variable units, turn the timer to 5 minutes. For digital units, adjust speed to 3500rpm, set the timer to 5 minutes, and press RUN. If there is a smooth whirring sound and the unit accelerates with little or no vibration, your E8 centrifuge is ready to operate. If there are loud, unusual sounds or if you experience excessive vibration, immediately turn the unit off. **DO NOT OPERATE** - Contact your dealer or LW Scientific, Inc.
- 7 For fixed and variable speed units, the mechanical timer should be turned past 5 minutes to engage the bell. The timer can be turned forward or backward to select time.
- 8 After each run cycle has ended, the lid must be opened and closed before the next cycle is run. This allows for re-loading and re-balancing each load.
- 9 Spin only balanced loads. Make sure that all tube shields are filled with equal weight tubes. Tubes of equal weight and size should be placed opposite each other. Use water-filled tubes to provide balance if necessary. Proper sample balancing will improve sample separation and will extend the life of the centrifuge. Out of balance loads may break glass test tubes. **DO NOT OPEN WHILE SPINNING.**

Care and Maintenance

With proper care and maintenance, the E8 centrifuge will provide years of laboratory service. Please follow the following recommended guidelines:

- 1 Use only quality test tubes which are rated for 1534 g-force or greater.
- 2 Never force a tube into the tube shield. The tube shields were designed to hold the most common sized tubes, Vacutainers, and SST's. Some plastic, conical, and glass test tubes are too large and should not be used in the E8.
- 3 Keep the tube shields clean. If a tube does break, either dispose of the entire tube shield (and remove the opposite shield for proper balance) or safely dispose of the sample and broken glass and thoroughly clean and disinfect the inside and outside of the tube shield. Additional tube shields are available for purchase from LW Scientific, Inc.
- 4 Motor and electrical maintenance: The E8 utilizes a PMDC motor and its bearings are permanently lubricated. It should not need servicing for the life of the centrifuge. Likewise, the electrical components were designed for high reliability and should not need regular service. However, if repairs should be needed, please contact LW Scientific, Inc.

Because of the safety issues with high g-forces in a centrifuge, it is recommended that rotors and tube sleeves be inspected every 6 months for corrosion and fatigue. If there is any indication of wear, the rotor and sleeves should be removed from service. Contact LW Scientific for return instructions so the rotor and tube sleeves can be evaluated by an LW Scientific technician for repair and replacement. It is also recommended that after 2 years of service, rotors and tube sleeves be returned to LW Scientific for inspection. Following these procedures will ensure safety of lab personnel as well as extend the life of the centrifuge.

Specifications

G-Force

RCF (g's)	Radius (mm)	RPM
31	112	500
80	112	800
125	112	1000
180	112	1200
245	112	1400
282	112	1500
321	112	1600
406	112	1800
501	112	2000
606	112	2200
721	112	2400
846	112	2600
982	112	2800
1127	112	3000
1282	112	3200
1364	112	3300
1450	112	3400
1534	112	3500

Maximum nominal:	3,500 RPM (+/-5%)
Maximum nominal RCF:	1,534 g
Max. Volume:	120 ml
Max. Power:	12V, 6.0A
Height:	9.5 inches
Width:	11 inches
Weight:	9.5 lbs.
Boxed Dimensions:	13.5 x 12 x 15 inches
Boxed Weight:	12 lbs.

Average Speeds for Variable Unit (E8V)

<u>Dial Setting:</u>	<u>RPM Range:</u>
Low (7:00 position)	500 +/- 5%
Medium (12:00 position)	1700 - 1950
Medium (3:00 position)	3150 - 3350
High(5:00 position)	3500 +/- 5%

Fluid Recommendations:

	Speed	Time
Whole Blood	3500	10 min.
Urine	1800	5-10 min.



Ideal Setting for Urine
(1700-1950rpm)



Ideal Setting for Blood
(3500rpm)

The USA E8 Centrifuge is intended for use as a general purpose laboratory centrifuge.

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