



### Introduction

The LW Scientific E8 Portafuge 8-place centrifuge is available in three models: the E8F (Fixed speed), the E8V (Variable speed), and E8D (Digital variable speed). The E8F Portafuge is designed for blood separations at a fixed speed of 3500 rpm (1534 g-force) only. The E8V Portafuge and the E8D Portafuge will both separate blood at 3500rpm but can also be run at slower speeds for separation of other fluids at lower g-force such as urine specimens, as outlined by C.L.I.A. regulations. The E8 Portafuge is the only 8-place portable centrifuge designed for spinning blood while mobile.\*

**\*Do not operate centrifuge while driving.**



**Please note, if operating as a Portafuge (in a car with varying voltages), the top speed may vary.**

### 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: [www.lwscientific.com/warranty\\_form](http://www.lwscientific.com/warranty_form). 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 (the car's seat, the floor board, or other secure location). Verify that there are no loose objects or packing material in the tube chamber.
- 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 tube shields are installed and balanced (See 7 below).
- 5 Verify that the power switch is in the "OFF" position and plug the 12V car power cord into any power outlet located in your vehicle. Always be certain to operate the centrifuge while the vehicle is running to avoid draining the vehicle's battery. **Do not insert specimen tubes at this time!**

**Caution: Before plugging in your centrifuge, please inspect your vehicle's power outlet to make sure it is clean and free of dust, debris or corrosion. A clean connection is necessary to prevent heat buildup.**

- 6 Close the lid, and turn the power switch ON. For Fixed speed units, turn the timer to 5 minutes. For Variable speed units, turn the speed knob to high and turn the timer to five minutes. For Digital units, adjust the speed to 3500rpm and set the timer to 5 minutes. If there is a smooth whirring sound and the unit accelerates with little or no vibration, your E-8 Portafuge is ready to operate. If there are loud unusual sounds or if you experience excessive vibration, **DO NOT OPERATE. Contact your dealer or LW Scientific, Inc.**
- 7 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.**

**WARNING: Always ensure rotor is secure before each use!**

## Care and Maintenance

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

- 1 Regularly inspect your vehicle's power outlet and address any dust, debris, or corrosion that may impact the quality of your connection. Also, check periodically to ensure that your 12 volt car adapter is functioning properly with no heat buildup.
- 2 Use only quality test tubes which are rated for 1534 g-force or greater.
- 3 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 Portafuge.
- 4 Keep the tube shields clean. If a tube breaks, 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.
- 5 Motor and electrical maintenance: The E8 Portafuge 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

<b>Maximum nominal:</b>	3,500 RPM (+10% - 5%)
<b>Maximum nominal RCF:</b>	1,534 g
<b>Max. Volume:</b>	120 ml
<b>Max. Power:</b>	12V, 6.0A
<b>Height:</b>	9.5 inches
<b>Width:</b>	11 inches
<b>Weight:</b>	9.5 lbs.
<b>Boxed Dimensions:</b>	13.5 x 12 x 15 inches
<b>Boxed Weight:</b>	12 lbs.

### Fluid Recommendations:

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

### Average Speeds for Variable Unit (E8V)

Dial Setting:	RPM Range:
Low (7:00 position)	500 (+10% - 5%)
Medium (12:00 position)	1700 - 1950
Medium (3:00 position)	3150 - 3350
High(5:00 position)	3500 (+10% - 5%)

**The USA E8 Portafuge is intended for use as a general laboratory centrifuge.**