



## **user instructions**

711 HULMAN STREET  
PO BOX 2128  
TERRE HAUTE, IN 47802  
812-235-6167  
FAX 812-234-6975

### **OPERATING AND SAFETY INSTRUCTIONS for**

### **LARGE CAPACITY MIXER**

**Model: 099A LC1012, 2.0 amps, 120 volts, 50/60 Hz.  
099A LC1024, 2.0 amps, 240 volts, 50/60 Hz.**

## Introduction

The Large Capacity Mixer is designed to mix the contents of multiple tubes and well as individual tubes, flasks, bottles, and a variety of vessels. Place the mixer on a sturdy bench that is clean and dust free. There are also holes on each end of the chassis for permanently mounting the mixer. Be sure the vibration absorbing feet are resting flat and not bent, or distorted when placing on the bench.

**NOTE: Due to the knobs being damaged in shipping please screw in the knobs. The knobs should always align to the back of the vortexer; perpendicular to the flats to the supports.**

## Operation: Front Panel Features

1. *SPEED POSITION KNOB*: This allows adjustable speed of the vortexer drive plate from 0 to 2000 rpm.
2. *POWER SWITCH*: On/Off.
3. *PULSAR SWITCH*: On/Off.
4. *FREQUENCY KNOB*: When turned on, this turns off the motor for a brief moment and then back on. The rate of On-Off is adjustable by turning the knob. An increase in the clockwise direction increases the number of On-Off cycles. Pulse rate varies from 60 to 80 pulses per minute.

## Pulsing Feature:

The pulser knob can adjust the mixing action of a liquid and periodically interrupt it. This provides an upper and lower mix as well as vortexing.

Increasing the speed may tend to throw a few drops out of the tube if they are not capped. Tube volume should not exceed one half of the overall tube height.

The motor Speed Control Knob may be left at any setting. Larger diameter tubes, bottles, or flask require a slower speed than test tubes. Start the vortexing for these a minimum speed and increase until mixing occurs.

Prior approval must be obtained from Glas-Col before any products can be returned. Call Glas-Col for a Returned Goods Authorization Number and include this number on labels and shipping papers.

## Safety

This product has been designed for safe operation when in normal use. Please read the following Safety Information before operating the equipment.

Unless specifically designated otherwise, Glas-Col mixers are not intended for use with flammables or in hazardous areas.

Do not charge or remove a vessel while still in motion.

Check the mixer before each operation. Damaged mixers should be removed from service immediately.

Do not place hand around drive plate edge during operation.

## Specifications:

Power:	LC1012	120 vac +/-10%
		50 to 60Hz. +/- 5%
	LC1024	240 vac +/-10%
		50 to 60Hz. +/- 5%
Ambient Temperature:		77° F/25° C +/-5° C
Operating Environment:		0 to 90% relative humidity
		32 to 100° F/0 to 37° C

## Maintenance

Glas-Col mixers do not require regularly scheduled maintenance. However, regular inspection is recommended. Glas-Col mixers should be protected from chemical spillage, mechanical damage and corrosive atmospheres so far as possible. Contamination, overheating and general misuse will greatly reduce the life of a mixer.

Replacement or different cartridge sizes are available for the Large Capacity Mixer. See the chart below for sizes available. For custom cartridge sizes consult the factory.

## Limited Warranty

Glas-Col warrants products of its manufacture to be free from defects in material and workmanship **for one year** and agrees to repair or replace without charge any products found defective upon examination at the factory. With proper care and operation, Glas-Col products will give long and efficient service. Chemical spillage, overheating,

overloading and general misuse will greatly reduce the service life. Glas-Col is not responsible for damage to apparatus due to improper installation or through attempts to operate the apparatus beyond its rated capacity, intentional or otherwise. Normally expendable parts are not covered by this warranty.

In the event of an incident due to a defective replacement component, Glas-Col will accept responsibility only if the component was defective from the outset. Glas-Col reserves the right to deny responsibility for the incident if the user fails to comply with any instructions provided by using spare parts which are not guaranteed.

**APART FROM SUCH WRITTEN STATEMENT OF WARRANTY, THERE ARE NO WARRANTIES, EXPRESSED, IMPLIED OR STATUTORY WHICH EXTEND BEYOND THE DESCRIPTION OF THE PRODUCTS ON THE FACE HEREOF.**

Glas-Col products are intended only for legal and legitimate purposes in commercial, laboratory and industrial settings.

Glas-Col reserves the right to make product refinements without prior notice.

## **Returns**

Call or fax Customer Service for a Return Goods Authorization (RGA) number before returning a Glas-Col product.

Reference the RGA number on the shipping box and on a written description of the problem.

A 20% restock charge of the net price is charged for all standard product returned to stock.

### **Glas-Col, LLC**

711 Hulman Street, P.O. Box 2128, Terre Haute, IN 47802-0128

Phone. (812) 235-6167, Fax. (812) 234-6975

E-mail: [pinnacle@glascol.com](mailto:pinnacle@glascol.com)

Web: [www.glascol.com](http://www.glascol.com)