

Corning® LSE™ Nutating Mixer

CORNING

Instruction Manual

Catalog Numbers:

6720

6721

6722



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1.0 Introduction

The Corning® LSE™ Nutating Mixer is a 3-dimensional shaker typically used for maintaining the uniform suspension of blood components in blood collection tubes without foaming. This Nutating Mixer is also ideal for mixing large strands of DNA into solution in microcentrifuge tubes or mixing blood into a buffer in large centrifuge tubes. The Nutating Mixer achieves its 3-dimensional mixing by combining the rotating motion of an orbital shaker with the rocking motion of a platform rocker.

2.0 Installation

The Corning LSE Nutating Mixer can be used on a bench, in a cold room, or in an incubator up to 40°C. Place the unit on a flat stable surface and be sure to leave sufficient room around the unit to allow the platform to run freely. A minimum of 4 inches (10 cm) clearance on all sides of the mixer is advised.

Plug the unit into a properly grounded outlet of the appropriate voltage as shown on the unit's data plate label.

3.0 Operation

Tubes may be placed directly on to the dimpled mat. The dimple pattern is configured to allow blood tubes and centrifuge tubes to be securely placed on the mat without additional strapping in most cases. If tubes are to be stacked, they should be secured with rubber bands or bungee cords. Holes in the corners of the platform edges are provided for this purpose.

NOTE: Always load the platform in a uniform and balanced fashion.

Use the power switch to turn the unit on. The direction of rotation in which the unit starts is random and does not affect mixing. If desired, the rotational direction can be reversed by holding the unit's base and very briefly touching the rotating platform on the bottom at one corner. This technique can also be used to select the quietest direction of rotation.

4.0 Maintenance

NOTE: Always disconnect the cord from the power source before maintaining or servicing.

The Corning LSE Nutating Mixer requires no maintenance other than occasional cleaning with a damp cloth with mild detergent. The dimpled mat may be washed with soap and water. Do not immerse the unit in water or spill liquids over the unit. Be sure the unit is dry before reconnecting to power.

5.0 Technical Specifications

Mixing Action	3-dimensional rocking motion
Mixing Speed	24 rpm fixed (120V) 20 rpm fixed (230V)
Platform Tilt Angle	20 degrees fixed
Platform Dimensions	9.5 x 6.75 in. (24 x 17 cm)
Mixer Dimensions (L x W x H)	9.5 x 5.75 x 6.75 in. (24 x 14.6 x 17 cm)
Mixer Weight	1.88 lbs. (0.85 kg)
Platform Load Capacity	1.75 lbs. (0.8 kg) balanced
Platform Capacity without Stacking	60 x 1.5 mL microcentrifuge tubes; 30 x 3 L pediatric blood tubes; 17 x 15 mL centrifuge tubes; 21 x 7 mL standard blood tubes; 9 x 50 mL centrifuge tubes
Ambient Operating Range	4°C to 40°C, up to 80% humidity, non-condensing
Electrical	120V, 50/60Hz, 0.03 amps 230V, 50/60Hz, 0.015 amps

6.0 Symbols and Conventions

The following chart is an illustrated glossary of the symbols that may be used in this manual or on the product.



The electrical warning indicates the presence of a potential hazard which could result in electrical shock.



CAUTION This symbol refers you to important operating and maintenance (servicing) instructions within the product Instruction Manual. Failure to follow this information may present a risk of damage or injury to persons or equipment.



This symbol identifies a Protective Earth (PE) terminal, which is provided for connection of the supply system's protective earth (green or green/yellow) conductor.

7.0 Limited Warranty

Corning Incorporated (Corning) warrants that this product will be free from defects in material and workmanship for a period of two (2) years from date of purchase. CORNING DISCLAIMS ALL OTHER WARRANTIES WHETHER EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. Corning's sole obligation shall be to repair or replace, at its option, any product or part thereof that proves defective in material or workmanship within the warranty period, provided the purchaser notifies Corning of any such defect. Corning is not liable for any incidental or consequential damages, commercial loss, or any other damages from the use of this product.

This warranty is valid only if the product is used for its intended purpose and within the guidelines specified in the supplied instruction manual. This warranty does not cover damage caused by accident, neglect, misuse, improper service, natural forces, or other causes not arising from defects in original material or workmanship. This warranty does not cover motor brushes, fuses, light bulbs, batteries, or damage to paint or finish. Claims for transit damage should be filed with the transportation carrier.

In the event this product fails within the specified period of time because of a defect in material or workmanship, contact Corning's Customer Service at 800.492.1110. Outside the United States, call +1.978.442.2200 or contact your local Corning sales office..

Corning Customer Service will help arrange local service where available or coordinate a return authorization number and shipping instructions. Products received without proper authorization will be returned. All items returned for service should be sent postage prepaid in the original packaging or other suitable carton, padded to avoid damage. Corning will not be responsible for damage incurred by improper packaging. Corning may elect for onsite service for larger equipment.

Some states do not allow limitation on the length of implied warranties or the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights. You may have other rights which vary from state to state.

No individual may accept for, or on behalf of Corning, any other obligation of liability, or extend the period of this warranty.

For your reference, make a note of the serial and model number, date of purchase, and supplier here.

Serial No. _____ Date Purchased _____

Model No. _____

Supplier _____

8.0 Equipment Disposal



According to Directive 2012/19/EU of the European Parliament and Council of 4 July 2012 on waste electrical and electronic equipment (WEEE), the Corning® LSE™ Nutating Mixer is marked with the crossed-out wheeled bin and must not be disposed of with domestic waste.

Consequently, the buyer shall follow the instructions for reuse and recycling of waste electronic and electrical equipment (WEEE) provided with the products and available at www.corning.com/weee.

Register your product warranty online at
www.corning.com/lifesciences/warranty.

For more specific information on claims, visit the Certificates page at www.corning.com/lifesciences.

Warranty/Disclaimer: Unless otherwise specified, all products are for research use only. Not intended for use in diagnostic or therapeutic procedures. Corning Life Sciences makes no claims regarding the performance of these products for clinical or diagnostic applications.

For additional product or technical information, visit www.corning.com/lifesciences or call 800.492.1110. Outside the United States, call +1.978.442.2200 or contact your local Corning sales office.

CORNING

Corning Incorporated *Life Sciences*

836 North St.
Building 300, Suite 3401
Tewksbury, MA 01876
t 800.492.1110
t 978.442.2200
f 978.442.2476

www.corning.com/lifesciences

ASIA/PACIFIC

Australia/New Zealand
t 61 427286832

Chinese Mainland
t 86 21 3338 4338
f 86 21 3338 4300

India
t 91 124 4604000
f 91 124 4604099

Japan
t 81 3-3586 1996
f 81 3-3586 1291

Korea
t 82 2-796-9500
f 82 2-796-9300

Singapore
t 65 6572-9740
f 65 6735-2913

Taiwan
t 886 2-2716-0338
f 886 2-2516-7500

EUROPE

CEurope@corning.com

France
t 0800 916 882
f 0800 918 636

Germany
t 0800 101 1153
f 0800 101 2427

The Netherlands
t 020 655 79 28
f 020 659 76 73

United Kingdom
t 0800 376 8660
f 0800 279 1117

All Other European Countries
t +31 (0) 206 59 60 51
f +31 (0) 206 59 76 73

LATIN AMERICA
grupoLA@corning.com

Brazil
t 55 (11) 3089-7400

Mexico
t (52-81) 8158-8400