

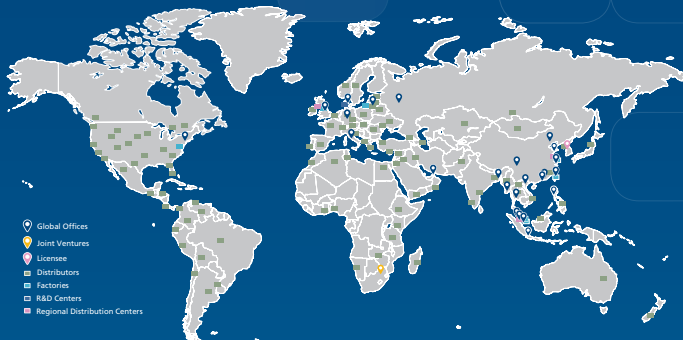
INTRODUCTION

A laboratory shaker is a general equipment used for shaking and mixing procedures in the laboratory. Shakers are ideal for chemistry and biological applications like bacterial suspension, solubility, growth of bacteria and yeast, extraction procedures, washing procedures, diagnostics tests, hybridization, general mixing, staining and destaining, mixing and extracting.

Esco offers laboratory shakers that fit all your needs. Esco OrbiCult™ versatile models are designed with outstanding features to provide reliable results. Cutting Edge Technologies, Robust Mechanism, Flexible Accessories, Intuitive Interface and Environment-friendly Design – making sure that Esco laboratory shakers deliver outstanding features and excellent performance year after year.

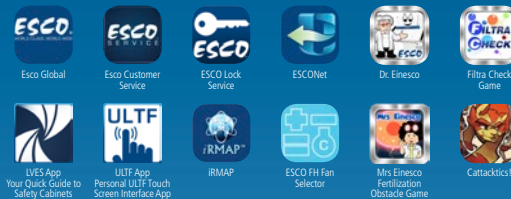


ESCO LIFESCIENCES GROUP 42 LOCATIONS IN 21 COUNTRIES ALL OVER THE WORLD



- 📍 Global Offices
- 🏢 Joint Ventures
- 🏠 Licenses
- 🏢 Distributors
- 🏢 Factories
- 🏢 R&D Centers
- 🏢 Regional Distribution Centers

Join us on Social Media and Download our Apps!



Filtra Check App
The World's First Chemical
Evaluation App



Esco Social Media
and Apps

ESCO
SCIENTIFIC



Esco Laboratory Shaker Services

www.escolifesciences.com



Esco Laboratory Shaker Services

PREVENTIVE MAINTENANCE SERVICES

Scheduled Maintenance

No.	Description of Task to Perform	Maintenance to be carried out		
		Week	Year	As Needed
1	Cleaning External and Internal Surfaces	✓		
2	General Inspection		✓	
3	Calibration of speed		✓	
4	Calibration of temperature sensor*		✓	
5	Decontamination			✓

**For Incubator Benchtop Shaker models only.*

Notes

- Always turn off the shaker and disconnect the power cord from the power supply before performing any maintenance on the shaker.
- Personnel involved in the cleanup of any spill should wear applicable safety equipment such as gloves, safety glasses, respirator masks and a laboratory coat during the cleanup process.

Cleaning External and Internal Surfaces

- Disinfect surfaces weekly using a cloth dampened with water or any standard, household or laboratory cleaner to wipe down the shaker's outer surfaces.
- Never use abrasive or corrosive compounds to clean the instrument, as they may damage the shaker and void the warranty.



General Inspection

Check the following regularly – at least annually:

- Functionality of touch screen and device control.



- Electrical safety in accordance with the relevant regulations.



- Tightness of hinge screws on hood's moving parts.



Calibration of Speed & Temperature

- The speed and temperature can be calibrated to reference instruments.
- It is recommended to calibrate at least once a year to ensure continuous and optimal performance of the laboratory shaker.

**Temperature sensor calibration is applicable for Incubator Benchtop Shaker models only.*



Speed Calibration



Temperature Sensor Calibration

Decontamination

Commercially available bleach solutions diluted at a 1:10 ratio are effective in routine decontamination of the shaker.



The method for decontamination of a spill depends upon the type of the spill.

- Spills involving fresh cultures or samples known to have low concentrations of biomass should be flooded with decontamination solution and soaked for 5 min before cleanup.
- Spills involving samples with high concentrations of biomass, or involving organic matter, or occurring in areas warmer than room ambient temperature, should be exposed to decontamination solution for at least one hour before cleanup.

TROUBLESHOOTING AND PARTS REPLACEMENT

Esco provides replacements for consumable elements as well as any components that might fail while the product is in service.

IQ/OQ VALIDATION

Esco provides our customers instructions for Installation /Operation Qualification (IQ/OQ) protocol of our products. Esco also can perform these services directly on behalf of its customers or arrange them through independent approved local certifiers. The availability may vary from country to country and region to region. Also, Esco can train customer employees to perform IQ/OQ.

TRAINING AND WORKSHOPS

Esco offers training for users of Laboratory Shakers on the procedures in its User and Service Manuals.

SERVICES TO OTHER BRANDS

Esco does not only provide services to its own product line but also for other brands. Esco assures that your laboratory shaker will be properly checked according to your needs.