

# **INSTRUCTION MANUAL**

## **CAT. 71834-10, 71834-20 Roto-Shake Genie 6-in-1**



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# Roto-Shake Genie<sup>®</sup> Operating Instructions

The Roto-Shake Genie is designed to provide rotating, rocking, and orbital shaking in one compact unit. A magnetic stainless steel platform can easily change from rocking to rotating, and securely holds a non-skid metal rocker tray, various spring-clip mounting plates and bag mounting strips. An optional orbital shaker attachment (3-D or Horizontal) transforms the unit into an orbital shaker. All speeds can be easily controlled with a knob.

## APPLICATIONS

The stainless steel platform is magnetized to securely hold samples of all types and sizes. The following attachments are supplied with the Roto-Shake Genie:

- 1 non-skid metal rocker tray
- 4 magnetic stainless steel bag mounting strips
- 1 clip plate for 12 each 10-13mm tubes
- 1 clip plate for 6 each 15-17mm tubes
- 1 clip plate for 3 each 28-30mm tubes

Additional attachments are available. Please visit [www.emsdiasum.com](http://www.emsdiasum.com) for more information.

The Roto-Shake Genie is ideal for mixing or washing of any sample type in life science, chemical, clinical/hospital, food, cosmetic, or environmental laboratories and can withstand temperatures from 0°C to 38°C to allow operation in cold rooms and incubators.

## ASSEMBLY INSTRUCTIONS

We recommend that you retain your original packaging for 90 days in the case that you need to return the product for any reason to your distributor or to Electron Microscopy Sciences.

1. Carefully unpack the magnetic platform. The platform is shipped detached from the housing and must be assembled first (see fig. 1). Unscrew the lock shaft (D) from the right side of the housing (E) and remove it from the hole.
2. Affix the platform (B) into the housing with the hex hole (J) facing left,

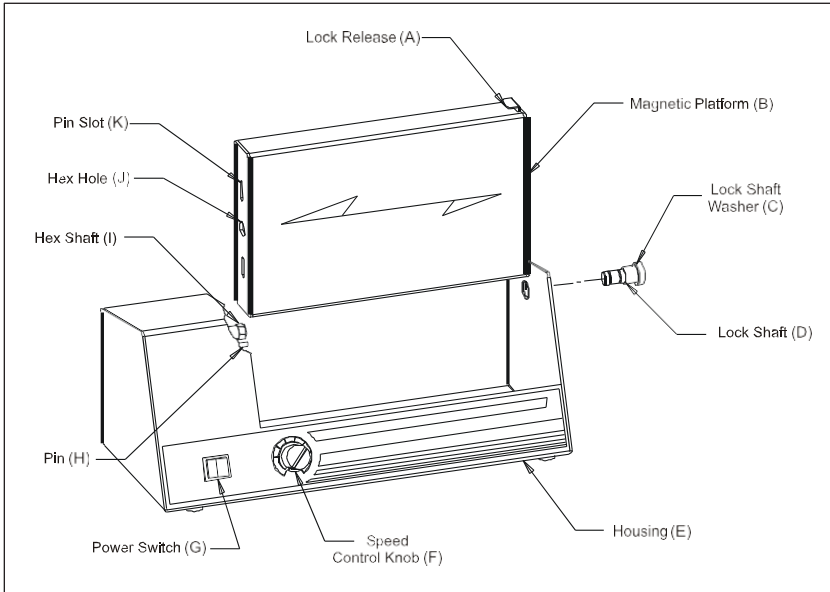
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and the lock release (A) facing right, as shown. Rotate the platform to line up the hex shaft (I) with the hex hole and slide it onto the hex shaft.

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**Figure 1**

3. Depress and hold the lock release. Slide the lock shaft through the hole in the housing into the platform. Carefully screw the lock shaft fully into place - do not force it. Hand-tighten only. Release the lock release.
4. To remove the magnetic platform assembly (B), press and hold the lock release (A). Unscrew the lock shaft (D) from the right side of the housing (E) and remove it while supporting the right end of the platform. Release the lock release. Slide the platform to the right and rotate it to line up with the hex shaft (I). Slide the platform off of the hex shaft and remove it. The platform may be immersed for cleaning or decontamination. Do not autoclave.

**⚠ CAUTION! The Roto-Shake Genie® platform is magnetic. Do not place materials on the platform that will be damaged by strong magnets.**

## **OPERATING INSTRUCTIONS**

### **1. Rotating Mode**

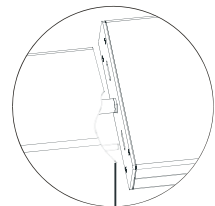
- a. Press lock release (A).

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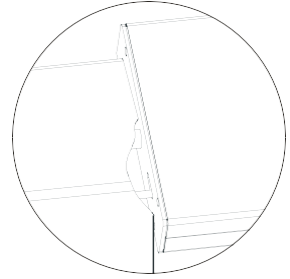


- b. Shift the magnetic platform (B) to the right.
- c. While shifting the platform right, release the lock release, and line up the hex shaft (I) to engage the lock shaft (D) properly.
- d. The platform will lock in place when it reaches the correct position.

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## 2. Rocking Mode

- a. Press the lock release (A).
- b. Shift the magnetic platform (B) to the left.
- c. While shifting the platform left, release the lock release and rotate the platform to line up the pin (H) with the pin slot (K) in the end of the platform. Shift the platform onto the pin.
- d. The platform will lock in place when it reaches the correct position.

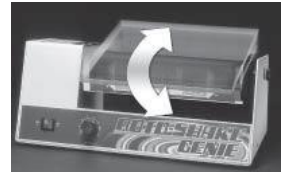


## 3. Orbital Mode Requires optional orbital shaker attachment

- a. Remove magnetic platform (B) and all accessories from the Roto-ShakeGenie®.
- b. Place orbital shaker attachment on the Roto-Shake Genie base, aligning the hex shaft (I) with the hex on the pulley of the orbital shaker attachment. Ensure that the base feet are in direct contact with the bottom of the Roto-Shake Genie.

## To Load Samples:

1. Both sides of the versatile magnetic platform can be loaded
  - a. **To rock open vessels (rocking):** Select rocking mode. Center the metal rocker tray on the magnetic platform. Place samples anywhere on the tray. **(NOTE: Metal rocker tray can only be used in rocking mode)**
  - b. **To shake/mix open vessels (orbital shaking):** Insert optional orbital shaker attachment. Center sample containers on the platform.
  - c. **To rotate or rock bags:** Select mode of operation and secure bags in the desired position using 2 - 4 magnetic stainless steel mounting strips. Additional mounting strips and tray expansion kit are available for higher sample quantities



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- d. **To rotate or rock tubes:** Select mode of operation and load samples into the appropriate clip plate. Three tube clip plate sizes

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are available (one clip plate of each size is supplied with the Roto-Shake Genie). Additional clip plates are available for holding additional tubes (refer to "Roto-Shake Genie Accessories")

Size	Diameter of Tube	Maximum Volume of Tube
Large	28 - 30mm	50ml
Medium	15 - 17mm	15ml
Small	10 - 13mm	1.5 - 2.0ml

**NOTE:** Clip plates may be aligned at various angles to produce different motions within the tubes. Before operation, rotate the platform to ensure that the tubes will clear the Roto-Shake Genie housing.

2. Turn the speed control knob to the lowest setting and turn the power switch on. The platform will begin to rotate, rock or orbital shake.
3. Select the speed by turning the speed control knob until the desired speed is attained. If using the Roto-Shake Genie in a cold room, allow the unit to acclimate to the room temperature before setting the exact speed.

 **CAUTION!** Failure to follow operating instructions can compromise user's safety.

 **CAUTION!** Ensure that the power is off before shifting operating modes.

 **CAUTION!** Ensure that the power is off before removing the magnetic platform assembly.

## CARE AND HANDLING

### 1. Roto-Shake Genie® and Accessories:

The Roto-Shake Genie should be given the care normally required for any electrical appliance. Avoid wetting or unnecessary exposure to fumes. The surface may be cleaned with most cleaning agents. It cannot and should not be autoclaved. The magnetic platform assembly is stainless steel and can be cleaned with most cleaning agents. It cannot and should not be autoclaved. For thorough cleaning and decontamination, the platform should be removed from the Roto-Shake Genie. The clip plates and mounting strips are made of magnetic stainless steel and can be cleaned with most cleaning agents or autoclaved. The metal rocker tray cannot and should not be autoclaved. Be sure to clean of any spills to prevent damage. Replacement parts are

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available through most laboratory equipment distributors or directly from Electron Microscopy Sciences.

**⚠ CAUTION! Ensure that the power is off before cleaning the Roto-Shake Genie.**

**⚠ CAUTION! Do not immerse.**

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## 2. Fuses:

The electronics are protected by a quick blow 5 x 20mm Fuse, 0.5 amp for all models.

To replace the fuse, locate the fuse holder on the back of the housing. Insert a screwdriver into the slot in the cap and push in gently while turning ¼ turn counterclockwise. Allow the cap to come off with the fuse. Remove the fuse from the cap and insert the proper replacement fuse. Push the fuse and cap back into the fuse holder and rotate the cap clockwise until it secures in place.

 **CAUTION! Replace fuse with the correct type and value only.**

 **CAUTION! Ensure that the power is off before replacing the fuse.**

## SPECIFICATIONS

<b>Dimensions (HxWxD):</b>	267 x 508 x 252mm (10.5 x 20.0 x 9.9in)
<b>Depth with Rocker Tray:</b>	305mm (12in)
<b>Weight:</b>	11.8 Kg (26 lb)
<b>Speed:</b>	Rocking - 10-70 cycles per minute Rotating - 5-35 RPM Orbital Shaking - 10-70 RPM (3-D, cat. no. SI-1150) 15-100 RPM (Horizontal, cat. no. SI-1175)
<b>Rocking Angle:</b>	±10 degrees from horizontal
<b>Environmental:</b>	The Roto-Shake Genie® is classified as "Installation Category 2". 0°C (32°F) to 38°C (100°F), 95% maximum relative humidity.
<b>Maximum Load:</b>	4.5 Kg (10 lb)

### Standard Accessories:

- 1 clip plate for 12 each 10-13mm tubes
- 1 clip plate for 6 each 15-17mm tubes
- 1 clip plate for 3 each 28-30mm tubes
- 4 magnetic stainless steel bag mounting strips
- 1 non-skid metal rocker tray (305 x 305mm / 12 x 12in)

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Additional accessories are available for increased capacity.

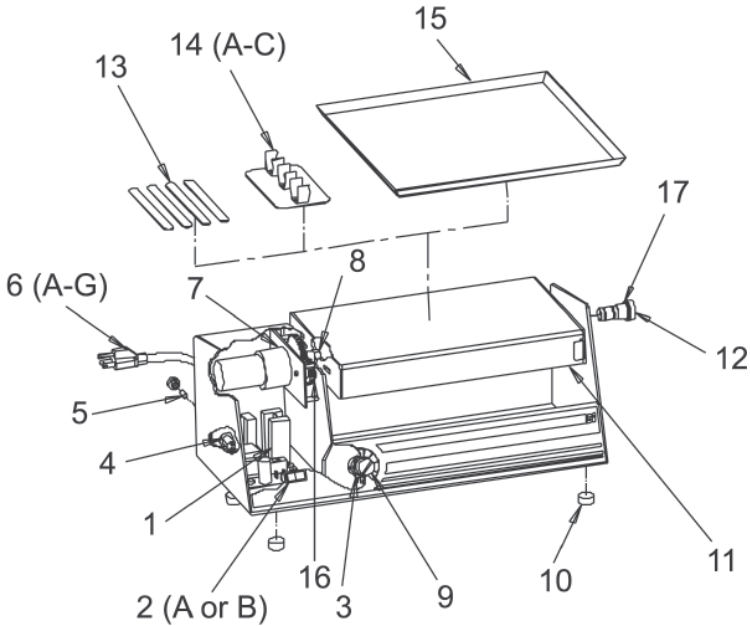
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# ROTO-SHAKE GENIE®

## PARTS ASSEMBLY LIST

**To order parts for the Roto-Shake Genie:**  
Contact your local distributor or visit  
[www.emsdiasum.com](http://www.emsdiasum.com). Please specify Part  
No., quantity and electric voltage.



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