

**INSTRUCTIONAL MANUAL
CAT. 71840, 71840T, 71841, 71841T
Vortex Genie 2 & Vortex Genie 2T**



Electron Microscopy Sciences
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Applications



The 3-inch Platform is compatible with single or multiple test tubes, beakers and various flasks. The removable cover, made of thermoplastic rubber, has a high level of resistance to chemicals. We do recommend, however, that spills be blotted quickly to avoid damage. Do not attempt to use the 3-inch Platform without the rubber cover.

The Pop-off Cup can be used with tubes of virtually any size or shape from micro tubes to those up to 40mm in diameter and 200mm in length. In most instances, tubes without caps may be mixed with proper speed control. Tubes must be capped when potential aerosols may be hazardous.

Operating Instructions



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

- Plug the line cord into a properly grounded electrical outlet.
- The VORTEX-GENIE® 2T Mixer has the following modes of operation:

"TT" (TIMED TOUCH - 1 to 60 seconds).

For procedures that require **short duration vortex** mixing from 1 to 60 seconds. Or, for procedures that require **accurate and repetitive vortex mixing sequences** of 1 to 60 seconds each.

In the "TT" operating mode, place the toggle switch in the TOUCH position and set the 1 to 60 second **timer** (gray knob with white reference line) to the desired mixing time on the gray numbered scale. Next, set the **speed control** (black pointer shaped knob) to any position between 3 and 10 on the black numbered scale before initiating the "TT" operating mode. A setting of 3 is least vigorous mixing and 10 is the most vigorous mixing. When you touch a tube or other vessel to the 3-inch Platform or Pop-off Cup, the mixer will start and run for 1 - 60 seconds, depending on the timer setting. The mixer will automatically turn off at the end of the 1 - 60 second cycle. Releasing the pressure on the Platform or Cup and then re-applying the pressure will initiate another 1 - 60 second cycle. The mixing cycles will be precisely timed and you may initiate as many mixing cycles as you wish.



"CT" (CONTINUOUS TOUCH)

The "CT" mode is used when you desire to operate the VORTEX-GENIE 2T so that vortex mixing starts and runs continuously, without interruption, when you touch the vessel to either the 3-inch Platform, or to the Pop-off Cup. To set the "CT" operating mode, place the toggle switch in the TOUCH position and turn the gray timer knob completely counter-clockwise until it "clicks" into the continuous (NO TIMER) position. Set the speed control knob.

"FT" (HANDS FREE TIMED - 1 to 60 minutes)

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The "FT" mode allows for unattended operation that is timed from 1 to 60 minutes. In this mode, you may use any of the accessory attachments that are available for the VORTEX-GENIE® 2T Mixer. **Review instruction No. 3.0 before attempting to change attachments.**

To initiate the "FT" operating mode, place the toggle switch in the center (unmarked) position. With the desired accessory attachment installed and with the sample tubes or vessels in place, set the 1 to 60 minute timer (gray knob and gray numbered scale) to the desired run time. *With the toggle switch in the center position, the VORTEX- GENIE 2T is OFF until the toggle switch is depressed to the START/STOP position, held for a second and then released. This will start the mixing action of the*

"GENIE™". The mixer will run until the set time has elapsed. If for any reason you wish to stop the mixing action before the set time has elapsed, simply depress the toggle switch to the START/STOP position for a second time and release. The mixer will stop. Depressing the toggle switch a third time will initiate a completely new timed cycle.

"FC" (HANDS FREE CONTINUOUS)

The "FC" mode allows for unattended operation that will continue indefinitely until you stop the run by depressing the toggle switch. In this mode, you may also use any of the accessory attachments available for the VORTEX-GENIE 2T Mixer.

To initiate the "FC" mode, turn the gray timer knob completely counter-clockwise until it "clicks" into the continuous (NO TIMER) position. Next, depress the toggle switch to the START/STOP position for one second and then release. The VORTEX-GENIE 2T Mixer will start and continue to run, unattended, until you once again depress the toggle switch to the START/STOP position and hold it for a second before releasing. If you wish to restart the mixer once again, simply depress the toggle switch for a second and release.

NOTE: The speed control switch should be set between positions 3 and 10 to enable the mixing action to start. After the action has started, you may, if desired, reduce the speed below position 3 for the duration of the run. Before re- starting the mixer, re-set the speed control to a setting higher than position 3.

To change accessory mixing attachments, the following sequence is to be followed explicitly.

1. Turn the power OFF by first placing the toggle switch into the TOUCH position momentarily and then moving the toggle switch to the center (unmarked) position.
2. Grasp the installed attachment and pull straight up until it releases from the shaft. A technique of lifting the attachment with your fingertips while using your knuckles as a fulcrum will give you the leverage to remove the installed component smoothly.
3. Hold the part you wish to install so the "flat" part of the shaft is aligned with the "flat" of the receptacle in the attachment. Alternatively, you may place the attachment on the shaft and turn it until you feel the "flats" aligning.
4. Press attachment firmly downward until it "snaps" into place. The VORTEX-GENIE 2T is now ready to use with the newly installed accessory attachment. Follow instructions 1.0 through 2.4 for proper use of the mixer.

With prolonged use, your VORTEX-GENIE® 2T Mixer may become warm to the touch. The motor will radiate a certain amount of heat that will be dissipated by the cast zinc housing.

CAUTION

DO NOT LIFT YOUR VORTEXT GENIE 2/2T BY ITS ATTACHMENT. ALL ATTACHMENTS, INCLUDING THE POP-OFF CUP AND THE 3-INCH PLATFORM ARE REMOVABLE. THEY WILL POP OFF EASILY IF YO LIFT THEM, AND SNAP BACK ON AGAIN JUST AS EASILY BT ALIGNING THE FLATS AND PRESSING DOWN FIRMLY.

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Care and Handling

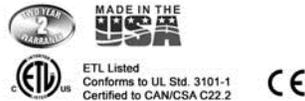
Your VORTEX-GENIE 2/2TT Mixer should be given the care normally required for any electrical appliance. Avoid wetting or unnecessary exposure to fumes. The finish can be washed with water (after unplugging) and soap or detergents, using a cloth or sponge. Keep the unit clean by immediately blotting any spills. Replacement parts are available through most laboratory equipment distributors or directly from Electron Microscopy Sciences. Refer to "Parts Assembly List" and enclosed multi-fold brochure.

CAUTION

UNPLUG THE POWER BEFORE CLEANING. DO NOT IMMERSE.

Specifications

The Vortex-Genie 2T Mixer is classified as "Installation Category 2" Environmental: 0°C - 38°C (32°F-100°F), 95% Humidity max. Weight: 4 Kg (8.8 lb. (Base Dimensions: (D x W x H) 165 x 122 x 165mm (6.5 x 4.8 x 6.5in).

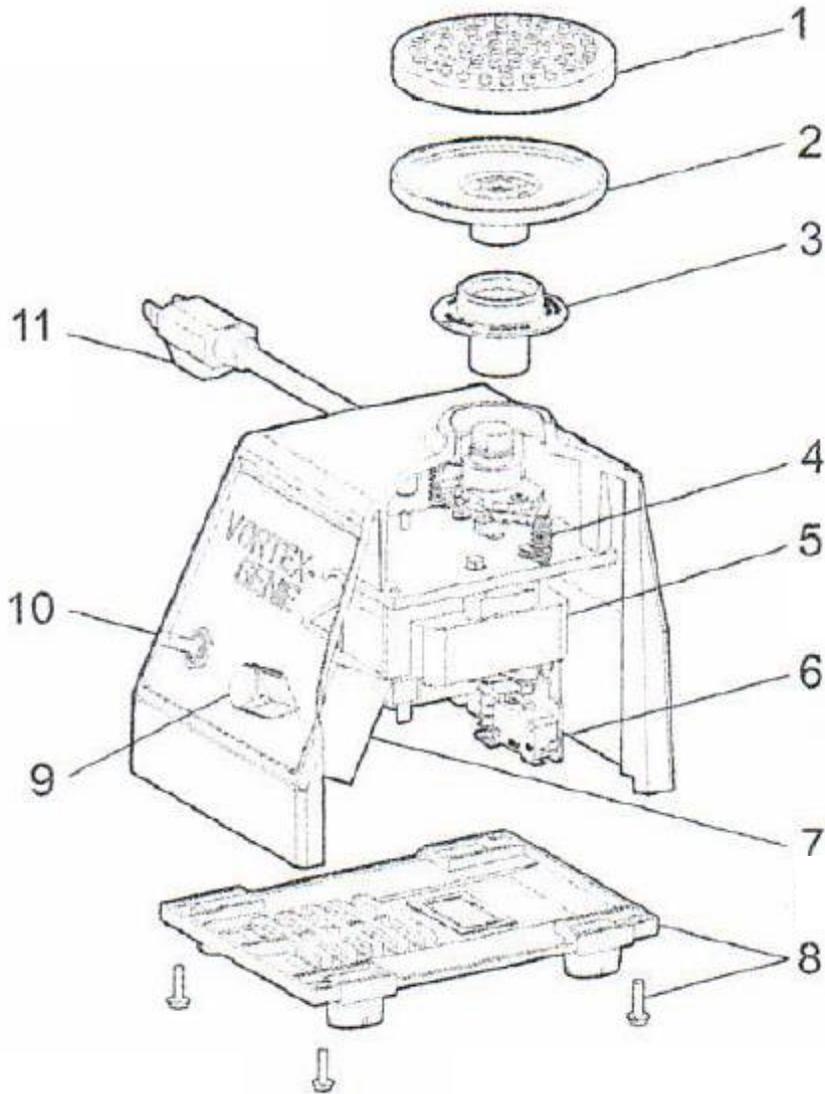


Parts Assembly List

To order parts for the VORTEX-GENIE 2T Mixer, contact your local distributor or visit www.emsdiasum.com. Please specify Part No., quantity and electric voltage.

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For any questions or for ordering
information, please contact Customer
Service at 1-800-523-5874.

*Thank you for choosing
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