

DIGITAL VORTEX-GENIE® 2

OPERATING INSTRUCTIONS

Models SI-A236 through SI-A296



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VORTEX-GENIE® mixers are the "Gold Standard" for laboratory mixers. The quality and reliability, that you have come to know so well, are characteristics that are, by design, an integral part of all GENIE™ products.

The Digital Vortex-Genie® 2 is a technologically advanced vortex mixer designed to give the operator true speed feedback. Please note that displayed speed is ACTUAL speed, which may differ slightly from SET speed due to load. There is nothing wrong with your mixer.

APPLICATIONS

The 3-inch Platform accepts single or multiple test tubes, beakers and various flasks. The removable cover, made of thermoplastic rubber, is highly impervious to chemicals. It is, however, recommended that spills be blotted quickly. Do not attempt to use the 3-inch Platform without the thermoplastic cover.

The Pop-off Cup can accommodate 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 you retain the original packaging for 90 days in case you need to return the product for any reason to your distributor or Scientific Industries.

- 1.0 - Plug the line cord into a properly grounded electrical outlet. (**120 VAC for the SI-A236 model; 230 VAC for the SI-A246 – SI-A276 models; 100 VAC for the SI-A286 model; 240V for the SI-A296 model**). Illuminated numbers will appear in the **TIME** and **SPEED** windows indicating that the unit is ON and ready for use.
- 2.0 - The DIGITAL VORTEX-GENIE 2 Mixer has the following modes of operation:
 - 2.1 - "TT" (TIMED TOUCH - 1 to 99 seconds)
For procedures that require **short duration vortex** mixing from 1 to 99 seconds. Or, for procedures that require **accurate and repetitive vortex mixing sequences** of 1 to 99 seconds each.

To initiate the "TT" mode, press the **MODE** button until **SEC** is illuminated beneath the word **TOUCH**. Press the UP/DOWN arrow buttons beneath the **TIME** window to set the desired mixing time. Next, set the speed control by pressing the UP/DOWN arrow buttons beneath the **SPEED** window.

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 to 99 seconds, depending on the **TIME** setting. The mixer will automatically turn off at the end of the 1 to 99 second cycle. Releasing the pressure on the 3-inch Platform or Pop-off Cup and then re-applying the pressure will initiate another 1 to 99 second cycle. The mixing cycles will be precisely timed and you may initiate as many mixing cycles as you wish.

- 2.2 - "CT" (CONTINUOUS TOUCH)

The "CT" mode allows for operation that will continue indefinitely until you release pressure on the 3-inch Platform or Pop-off Cup.



To initiate the "CT" mode, press the **MODE** button until **SEC** is illuminated above the **START/STOP** text. Next, press and hold the DOWN arrow button beneath the **TIME** window until the illuminated display reaches "0". Upon releasing the button, the display will have two dash marks (--), indicating that *no time limit* is set. Set the speed by pressing the UP/DOWN arrow buttons beneath the **SPEED** window. Apply pressure to the 3-inch Platform or Pop-off Cup to initiate mixer. Release pressure to stop mixer.

2.3 - "FT" (HANDS FREE TIMED - 1 to 99 minutes)

The "FT" mode allows for unattended operation that is timed from 1 to 99 minutes. In this mode, you may use any of the accessory attachments that are available for the DIGITAL VORTEX-GENIE® 2 Mixer. Review instruction 3.0 before attempting to change attachments.

To initiate the "FT" mode, press the **MODE** button until **MIN** is illuminated above the **START/STOP** text. Next, press the UP/DOWN arrow buttons beneath the **TIME** window to set the desired mixing time. Next, set the speed control by pressing the UP/DOWN arrow buttons beneath the **SPEED** window. Press the **START/STOP** button to begin the mixing action. The mixer will run until the set time has elapsed. To stop the cycle before the set time has elapsed, press the **START/STOP** button. To initiate a new timed cycle, press the **START/STOP** button again.

2.4 - "FC" (HANDS FREE CONTINUOUS)

The "FC" mode allows for unattended operation that will continue indefinitely until you stop the cycle by pressing the **START/STOP** button. In this mode, you may also use any of the accessory attachments available for the DIGITAL VORTEX-GENIE 2 Mixer.

To initiate the "FC" mode, press the **MODE** button until **MIN** is illuminated above the **START/STOP** text. Next, press the DOWN arrow beneath the **TIME** window until the illuminated display reaches "0". Upon releasing the button, the display will have two dash marks (--), indicating that *no time limit* is set. Next, set the speed control by pressing the UP/DOWN arrow buttons beneath the **SPEED** window. Upon pressing the **START/STOP** button, the mixer will start and continue to run, unattended, until you once again press the **START/STOP** button. To restart the cycle, press the **START/STOP** button again.

2.5 - "SLEEP"

The mixer will automatically go into a "SLEEP" mode if the mixer is plugged in but not used for 10 minutes. The **TIME** and **SPEED** illuminated displays will go blank and the **SEC** or **MIN** illuminated display will blink. Press the **START/STOP** button to "WAKE UP" the mixer.

Note: The speed control can be adjusted up or down during the mixing cycle, however, the TIME can only be adjusted before the cycle begins.

- 3.0 - To change accessory mixing attachments, the following sequence is to be followed explicitly.
 - 3.1 - Grasp the installed attachment and pull straight up until it releases from the shaft. A technique of lifting the attachment with your finger tips while using your knuckles as a fulcrum will give you the leverage to remove the installed component smoothly.
 - 3.2 - 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.
 - 3.3 - Press attachment firmly downward until it "snaps" into place. The DIGITAL VORTEX-GENIE 2 is now ready to use with the newly installed accessory attachment. Follow instructions 1.0 through 2.5 for proper use of the mixer.
- 4.0 - With prolonged use, your DIGITAL VORTEX-GENIE 2 Mixer may become warm to the touch. The motor will radiate a certain amount of heat that will dissipate by the cast zinc housing.

⚠ CAUTION! Do not lift your DIGITAL VORTEX-GENIE® 2 Mixer by its attachment. All attachments, including the Pop-off Cup and the 3-inch Platform are removable. They will pop off easily if you lift them, and snap back on again just as easily by aligning the flats and pressing down firmly.

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

CARE AND HANDLING

Your DIGITAL VORTEX-GENIE 2 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 Scientific Industries. Refer to "Parts Assembly List" and enclosed multi-fold brochure.

⚠ CAUTION! Unplug from power before cleaning. Do not immerse.

SPECIFICATIONS

The DIGITAL VORTEX-GENIE 2 Mixer is classified as "Installation Category 2"

Environmental: 0°C - 38°C (32°F - 100°F), 95% Humidity max.

MODEL	POWER REQUIRED	AMPS
SI-A236	120V	0.65
SI-A246 – SI-A276	230V	0.5
SI-A286	100V	1.0
SI-A296	240V	0.5

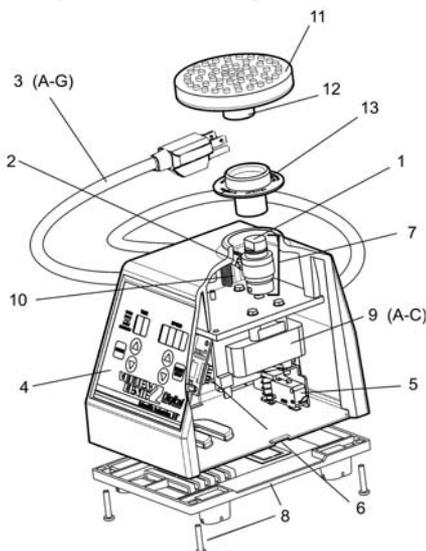


Weight: 4 Kg (8.8 lb) - Zinc casting with shock absorbing feet
 Base Dimensions: (DxWxH) 165x122x165mm (6.5x4.8x6.5in)

PARTS ASSEMBLY LIST

To order parts for the DIGITAL VORTEX-GENIE 2 Mixer:

Contact your local distributor or visit www.scientificindustries.com. Please specify Part No., quantity and electric voltage.



Indicator No	Part No.	Description
1	0K-0236-902	Bearing Retainer Kit
2	0K-0236-903	Eccentric Clamp
3A	318-0510-02	120V Line Cord
3B	0K-0246-901	230V Line Cord, No Plug
3C	0K-0256-901	230V Line Cord, European Plug
3D	0K-0266-901	230V Line Cord, British Plug
3E	0K-0276-901	230V Line Cord, Swiss Plug
3F	0K-0286-901	100V Line Cord
3G	ECP0021	Australian Plug (only)
4	EL-A236-575	Control Panel
5	ESP0005	Micro Switch
6	EB-A236-500	Digital Timer Board
7	0K-A236-904	Digital Eccentric with Clamp Assembly
8	0K-0236-408	Bottom Closure with Feet Kit
9A	0K-A236-915	Motor 120V Assembly
9B	0K-A246-915	Motor 230V Assembly
9C	0K-A286-915	Motor 100V Assembly
10	566-0028-00	Spring, Extension, Eccentric
11	580-2013-00	Rubber Cover for 3-inch Platform
12	0K-0500-901	3-inch Platform
13	146-3011-00	Pop-off Cup