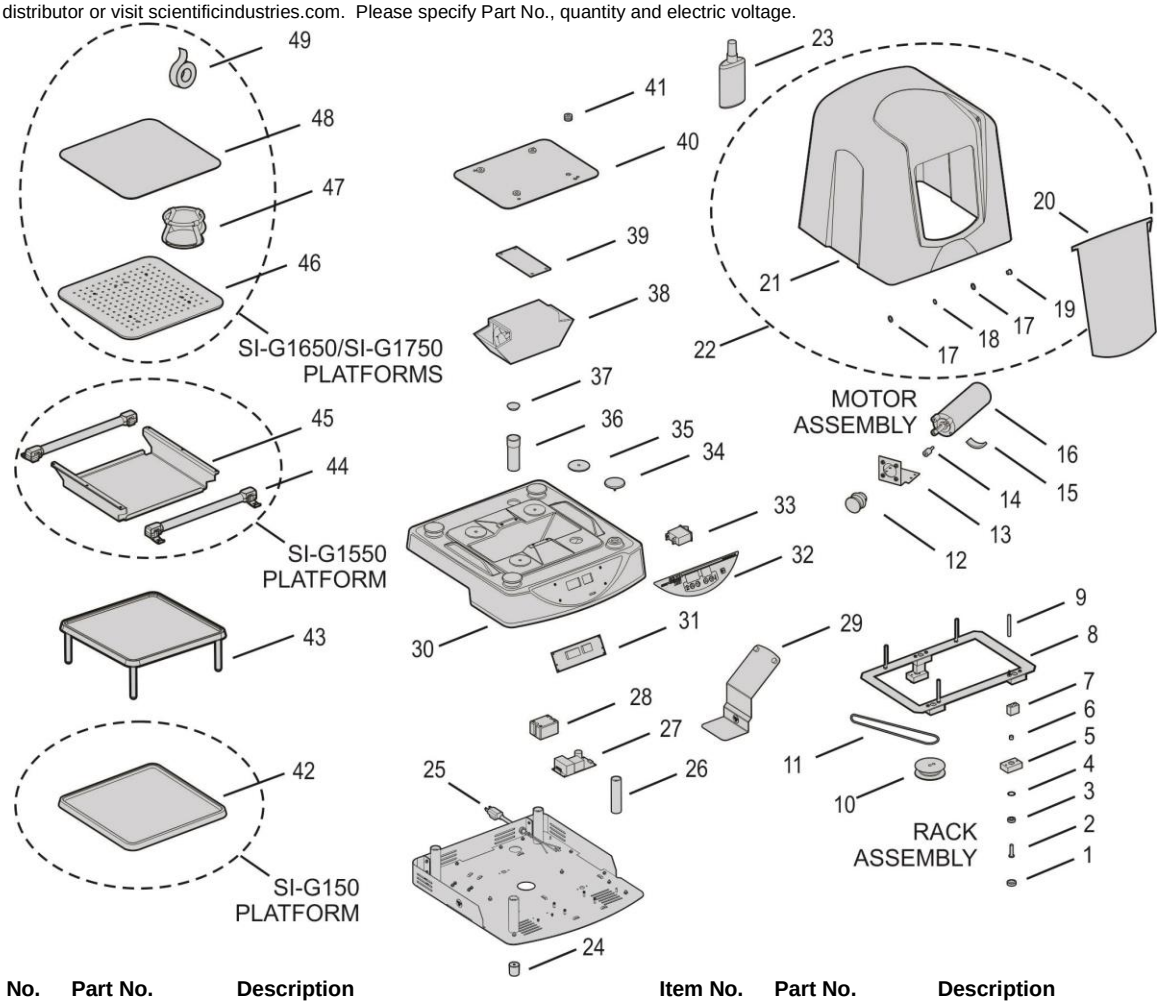
Parts Assembly List

To order parts for the GENIE TEMP-SHAKER™:

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



Item No.	Part No.	Description
1	WAP0049	Spacer
2a	SCP0105	Screw #1/4-28 X 1"
2b	SCP0134	Screw #1/4-28 X 5/8" (Pulley-300 only)
3	BRP0001	Bearing
4	WAP0050	Washer
5	0M-G100-201	Bearing Block
6	HWP0131	Sleeve
7	0M-G100-217	Offset
8	0M-G100-202	Cage
9	HWP0141	Standoff
10a	0M-G100-219	Pulley-100
10b	0M-G1500-200	Pulley-300
11a	0M-G100-223	Belt-100
11b	0M-G1500-206	Belt-300
12a	0M-M100-214	Motor Pulley-100
12b	0M-M1500-208	Motor Pulley-300
13	0M-M100-215	Motor Bracket
14	HWP0139	Vibration Mount
15	0M-M100-206	Motor Pad
16	EMP0016	Motor
17	WAP0055	Washer
18	WAP0054	Wave Washer
19	HWP0143	Bushing
20	0M-G100-209	Door
21	PP-G100-401	Chamber
22	0A-G100-010	Chamber Assembly
23	CLP0002	NOVUS® Plastic Polish #1
24	HWP0034	Foot
25a	318-0510-02	120V Line Cord
25b	0K-0246-901	230V Line Cord, C14 Socket
25c	0K-0256-901	230V Line Cord, Euro Plug
25d	0K-0266-901	230V Line Cord, British Plug
25e	0K-0276-901	230V Line Cord, Swiss Plug
25f	0K-0286-901	100V Line Cord

Item No.	Part No.	Description
26	0M-G100-220	Spacer
27	EPP0034	Power supply
28	EPP0035	Relay
29	0A-G100-030	Kickstand Assembly
30	PP-G100-400	Housing
31	EB-G100-500	Controller PCB
32a	EL-G100-575	Overlay-100
32b	EL-G1500-575	Overlay-300
33a	ESP0006	Rocker Switch 120V 5A
33b	ESP0007	Rocker Switch 240V 2.5A
34	0M-G100-212	Disc Bubble
35	0M-G100-207	Disc Heat Shield
36	0M-G100-218	Access Tube
37	HWP0147	Cap
38	0A-G100-020	Heating Element Assembly
39	0M-G100-208	Plate, Heating Element
40	0M-G100-203	Plate, Adaptor
41	HWP0144	Grommet
42	SI-G150	Non-Slip Platform
43	SI-M150	Stacking Tray
44	SI-G1510	Universal Ratchet Clamp
45	SI-G1550	Ratcheting Clamp Platform
46	SI-G1650	Flask Clamp Platform
47a	SI-1610	100mL Flask Clamp
47b	SI-1611	125/150mL Flask Clamp
47c	SI-1612	250mL Flask Clamp
47d	SI-1613	500 mL Flask Clamp
47e	SI-1614	1 L Flask Clamp
47f	SI-1615	2 L Flask Clamp
48	SI-M1617	Adhering Mat
49	SI-1616	Double Sided Adhesive Roll

GENIE TEMP-SHAKER™
ORBITAL SHAKING INCUBATOR
OPERATING INSTRUCTIONS

Models SI-G100 through SI-G106 and SI-G1500 through SI-G1706

80 Orville Drive, Suite 102, Bohemia, NY 11716 U.S.A.
Phone: (631) 567-4700 • Fax: (631) 567-5896 Toll Free: 888-850-6208
Customer Service: custsvc@scientificindustries.com
scientificindustries.com

The GENIE TEMP-SHAKER™ is designed to provide environmentally controlled, variable speed, multi vessel orbital shaking in a compact, durable and user friendly unit. Chamber air is gently and continuously circulating at a rate that ensures the temperature consistency and uniformity of all test samples. Microprocessor control easily achieves desired speed and temperature (28°C to 75°C) which are shown on large, easy to read displays for accurate reproducible conditions. Visible and audible alarms exist for temperature. Models SI-G100 thru SI-G106 have speed ranges of 20-100 RPM. Models SI-G1500 thru SI-G1506, SI-G1600 thru SI-G1606 and SI-G1700 thru SI-G1706 have speed ranges of 35-300 RPM.

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.

Plug the line cord into a properly grounded electrical outlet.

The work surface on which the shaker is placed must be level, stable and non-slip.


Fig. 1


Fig. 2


Fig. 3

GENIE TEMP-SHAKER™ 100 with Non Slip Platform

The shaker is supplied with a durable thermoplastic platform with an anti-slip rubber mat (Fig.1). The platform has a molded raised edging that contains minor spills and keeps the work surface dry and clean. Place the vessels so that they do not touch each other. Position vessels evenly distributed on the platform. Uneven loading may result in excessive vibrating of the shaker and support table. Should this occur, reduce the speed or turn the shaker off and redistribute the vessels. The platform can accommodate up to 2 liter vessels with a 2.3 Kg (5 lbs) load capacity. Stacking trays are available that increase the capacity of vessels that can be utilized (Fig.2). These trays also have an anti-slip rubber mat and raised molded edge.

GENIE TEMP-SHAKER™ 300 with Ratcheting Clamp Platform

The shaker is supplied with two ratcheting cushioned clamps (Fig.3) Position the two ratcheting clamps on the platform with sufficient space to fit the vessels. It is very important to regularly monitor shaking cycles to ensure that the vessels remain firmly secure. Press the ratcheting clamps together until the foam is compressed against the vessels (Fig.6). To release the ratcheting clamps, press the release arm and slide away (Fig.7).


Fig. 4

GENIE TEMP-SHAKER™ 300 with Flask Clamp Platform

The shaker is supplied with a platform for accepting various size flasks or beakers (Fig.4). Flask clamps attach to the platform with captive mounting screws. Flask clamps are sold separately. Position clamps evenly distributed on the platform. Uneven loading may result in excessive vibrating of the shaker and support table. Should this occur, reduce the mixing speed or turn the shaker off and redistribute the load of the vessels.

GENIE TEMP-SHAKER™ 300 with Adhering Mat Platform

The shaker is supplied with an adhering rubber mat for use with bottles and dishes that cannot be held with conventional clamps (Fig.5). Patented material is naturally adhering. Rinse the rubber clean to renew adhering properties. Flasks clamps can be used on this unit by removing the adhering mat.


Fig. 5

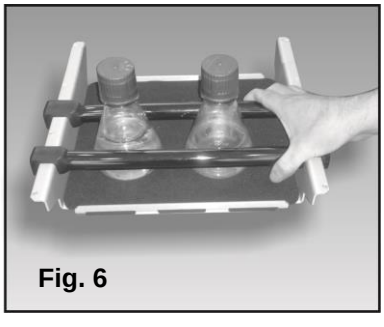


Fig. 6

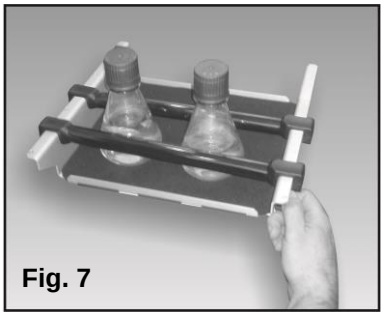


Fig. 7

OPERATION

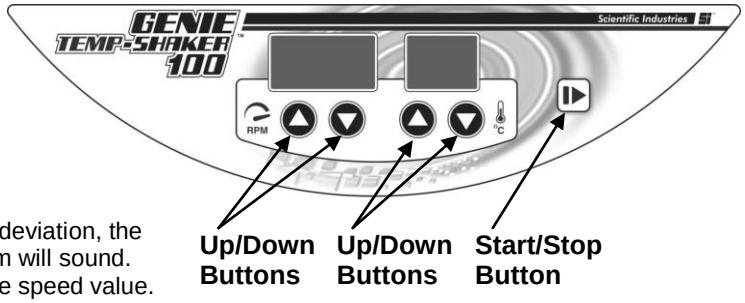
The unit can be turned on/off by pressing the start/stop button. When the unit is first turned ON (rocker switch on right side of housing) the heater and fan will turn on and begin regulating toward the set temperature. During this time, the temperature display will blink green. The display will become solid green after achieving the desired temperature.

Pressing the Up/Down Arrow buttons in the temperature control area allows you to change the desired temperature. While adjusting temperature, the display will be amber in color.

If there is a change of ±2°C, the display will turn solid red. At ±3°C deviation, the display will blink red. At ±4°C the display will blink red and the alarm will sound.

UP and DOWN buttons in the speed area are used for changing the speed value. While adjusting speed, the display will be amber in color. The display will turn back to solid red shortly after the button is released.

START/STOP button is used for starting/stopping the operation.



CALIBRATION

The unit is electronically factory calibrated and should not need calibration, nor is it recommended. However, should the need arise, the unit may be calibrated, as follows:

In order to calibrate, you will need to make an independent measurement of the chamber temperature. Make sure the thermometer is accurate! Generally speaking, glass thermometers found around the lab will be less accurate than your ***GENIE TEMP-SHAKER™***. Good, certified glass or digital thermometers are available from laboratory supply dealers. A thermocouple wire may be passed through the access port (rear/underside of unit).

Measure the temperature in the chamber via the lab thermometer, after chamber temperature has been allowed to settle for twenty minutes. Note the difference in temperature between ***GENIE TEMP-SHAKER™*** displayed temperature and your lab thermometer temperature (ex. ***GENIE TEMP-SHAKER™*** display reads 37°C, lab thermometer reads 38°C; difference is –1°C). This difference is the calibration value to be entered.

To access the calibration menu, simultaneously press and hold the UP ARROW button in the temperature control area and the START/STOP button while turning the unit ON.

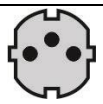
The parameters on the display show:

TEMPERATURE: The temperature blinks amber and begins adjusting to reach the last temperature setting. Once there, it changes to solid amber.

SPEED: 0 – The speed readout displays “0” in an amber color and can be adjusted ± 9 for each °C desired.

Press the START/STOP button to exit calibration mode.

SPECIFICATIONS	
The GENIE TEMP-SHAKER™ is classified as "Installation Category 2”, “Overvoltage Category 2” and “Pollution Degree 2”. Environmental: 0°C - 38°C (32°F-100°F), 95% Humidity max. Indoor use only in elevation up to 2000m of altitude.	Weight: 9 Kg (20 lbs.) Dimensions: (WxD) 450 x 480mm (17.6 x 19 in.) Orbit: 19mm Temperature: 28°C to 75°C Platform: 305mm x 305mm (12 x 12 in.) Chamber Height: 305mm (12 in.) Chamber Volume: 40 L (2400 cubic inches)

SI-G100		60HZ	0.50A	SI-G104		1.0	0.25A
SI-G1500		60HZ	0.50A	SI-G1504		1.0	0.25A
SI-G1600		60HZ	0.50A	SI-G1604		1.0	0.25A
SI-G1700		60HZ	0.50A	SI-G1704		1.0	0.25A
SI-G101		50HZ	0.25A	SI-G106		1.0	0.25A
SI-G1501		50HZ	0.25A	SI-G1506		1.0	0.25A
SI-G1601		50HZ	0.25A	SI-G1606		1.0	0.25A
SI-G1701		50HZ	0.25A	SI-G1706		1.0	0.25A
SI-G102		50HZ	0.25A	SI-G105		50/60HZ	0.50A
SI-G1502		50HZ	0.25A	SI-G1505		50/60HZ	0.50A
SI-G1602		50HZ	0.25A	SI-G1605		50/60HZ	0.50A
SI-G1702		50HZ	0.25A	SI-G1705		50/60HZ	0.50A
SI-G103		50HZ	0.25A				
SI-G1503		50HZ	0.25A				
SI-G1603		50HZ	0.25A				
SI-G1703		50HZ	0.25A				

CAUTION! Do not lift your ***GENIE TEMP-SHAKER™*** by the platform.

CAUTION! If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

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

CAUTION! Do not position the equipment so that it is difficult to disconnect the power cord.

CAUTION! This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CARE & HANDLING

Your ***GENIE TEMP-SHAKER™*** should be given the care normally required for any electrical appliance. Unplug unit and wipe housing with damp cloth and detergent. Blot any spills immediately. We recommend cleaning the clear dome with Novus Plastic Polish #1 and a clean soft cloth. Alternatively, mild soap or detergent and luke warm water may be used. Do not dry rub the clear dome as scratching will occur.