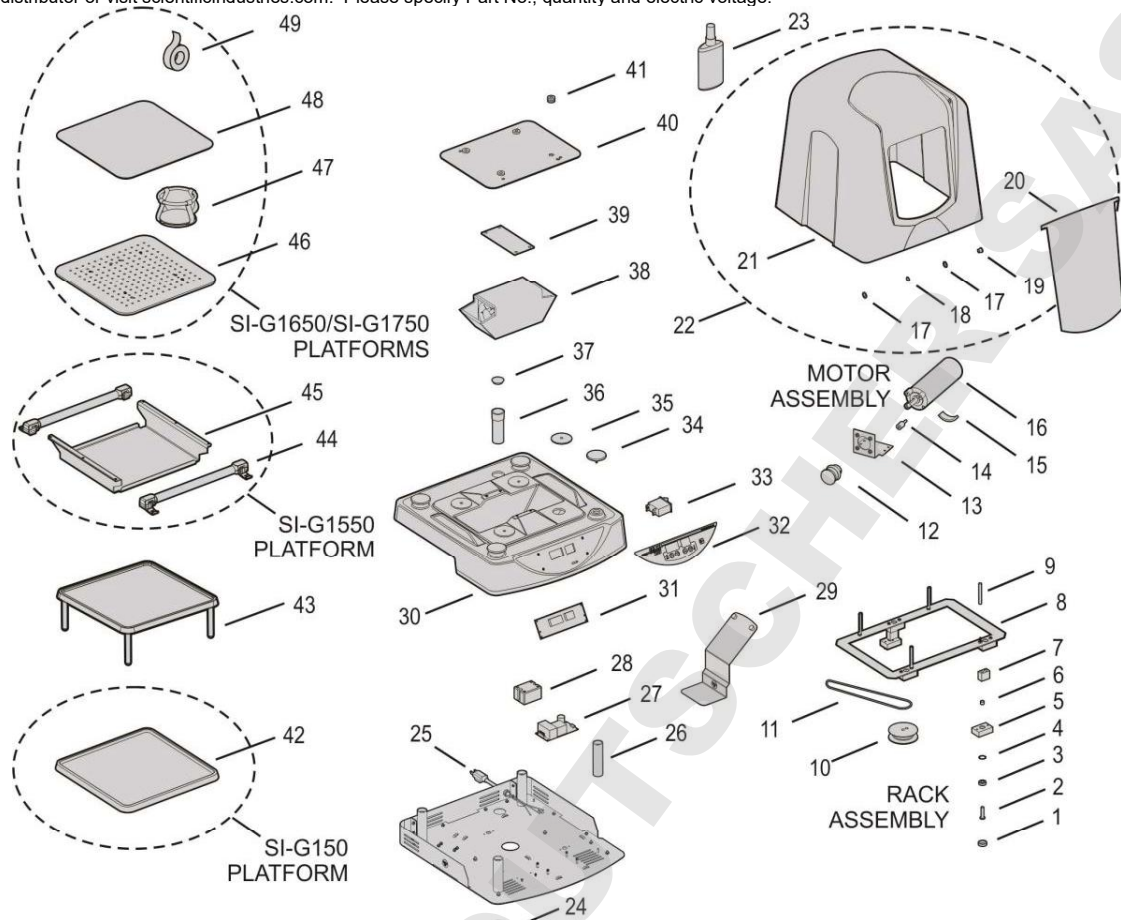


## Parts Assembly List

To order parts for the **GENIE TEMP-SHAKER™**:

Contact your local distributor or visit [scientificindustries.com](http://scientificindustries.com). Please specify Part No., quantity and electric voltage.



Item No.	Part No.	Description	Item No.	Part No.	Description
1	WAP0049	Spacer	26	OM-G100-220	Spacer
2a	SCP0105	Screw #1/4-28 X 1"	27	EPP0034	Power supply
2b	SCP0134	Screw #1/4-28 X 5/8" (Pulley-300 only)	28	EPP0035	Relay
3	BRP0001	Bearing	29	0A-G100-030	Kickstand Assembly
4	WAP0050	Washer	30	PP-G100-400	Housing
5	OM-G100-201	Bearing Block	31	EB-G100-500	Controller PCB
6	HWP0131	Sleeve	32a	EL-G100-575	Overlay-100
7	OM-G100-217	Offset	32b	EL-G1500-575	Overlay-300
8	OM-G100-202	Cage	33a	ESP0006	Rocker Switch 120V 5A
9	HWP0141	Standoff	33b	ESP0007	Rocker Switch 240V 2.5A
10a	OM-G100-219	Pulley-100	34	OM-G100-212	Disc Bubble
10b	OM-G1500-200	Pulley-300	35	OM-G100-207	Disc Heat Shield
11a	OM-G100-223	Belt-100	36	OM-G100-218	Access Tube
11b	OM-G1500-206	Belt-300	37	HWP0147	Cap
12a	OM-M100-214	Motor Pulley-100	38	0A-G100-020	Heating Element Assembly
12b	OM-M1500-208	Motor Pulley-300	39	OM-G100-208	Plate, Heating Element
13	OM-M100-215	Motor Bracket	40	OM-G100-203	Plate, Adaptor
14	HWP0139	Vibration Mount	41	HWP0144	Grommet
15	OM-M100-206	Motor Pad	42	SI-G150	Non-Slip Platform
16	EMP0016	Motor	43	SI-M150	Stacking Tray
17	WAP0055	Washer	44	SI-G1510	Universal Ratchet Clamp
18	WAP0054	Wave Washer	45	SI-G1550	Ratcheting Clamp Platform
19	HWP0143	Bushing	46	SI-G1650	Flask Clamp Platform
20	OM-G100-209	Door	47a	SI-1610	100mL Flask Clamp
21	PP-G100-401	Chamber	47b	SI-1611	125/150mL Flask Clamp
22	0A-G100-010	Chamber Assembly	47c	SI-1612	250mL Flask Clamp
23	CLP0002	NOVUS® Plastic Polish #1	47d	SI-1613	500 mL Flask Clamp
24	HWP0034	Foot	47e	SI-1614	1 L Flask Clamp
25a	318-0510-02	120V Line Cord	47f	SI-1615	2 L Flask Clamp
25b	OK-0246-901	230V Line Cord, C14 Socket	48	SI-M1617	Adhering Mat
25c	OK-0256-901	230V Line Cord, Euro Plug	49	SI-1616	Double Sided Adhesive Roll
25d	OK-0266-901	230V Line Cord, British Plug			
25e	OK-0276-901	230V Line Cord, Swiss Plug			
25f	OK-0286-901	100V Line Cord			

# GENIE TEMP-SHAKER™ ORBITAL SHAKING INCUBATOR OPERATING INSTRUCTIONS

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



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Customer Service: [custsvc@scientificindustries.com](mailto:custsvc@scientificindustries.com)  
[scientificindustries.com](http://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

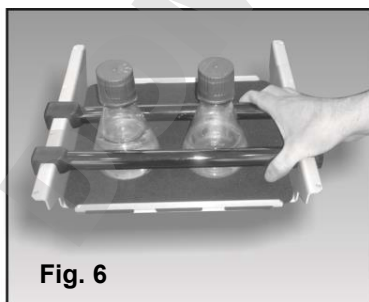


Fig. 6

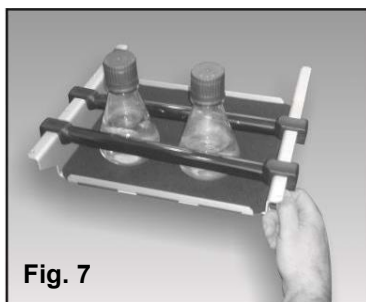


Fig. 7

## 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  $\pm 2^{\circ}\text{C}$ , the display will turn solid red. At  $\pm 3^{\circ}\text{C}$  deviation, the display will blink red. At  $\pm 4^{\circ}\text{C}$  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  $37^{\circ}\text{C}$ , lab thermometer reads  $38^{\circ}\text{C}$ ; difference is  $-1^{\circ}\text{C}$ ). This difference is the calibration value to be entered.

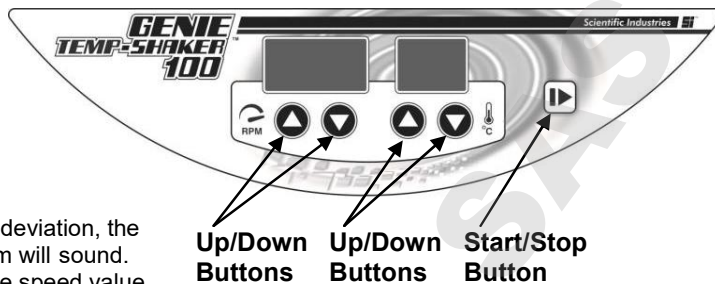
To access the calibration menu, simultaneously press and hold the UP ARROW button in the temperature control area and the START/STOP button while turning the unit ON.

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  $\pm 9$  for each  $^{\circ}\text{C}$  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:  $0^{\circ}\text{C}$  -  $38^{\circ}\text{C}$  ( $32^{\circ}\text{F}$ - $100^{\circ}\text{F}$ ), 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:  $28^{\circ}\text{C}$  to  $75^{\circ}\text{C}$

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.