

## Advanced 3500 Orbital Shaker &amp; Advanced 3750 Reciprocating Shaker



- Exceptional speed control, accuracy and durability
- LED displays for speed and time
- Calibration mode for speed

The Talboys Advanced 3500 Orbital Shaker and the Advanced 3750 Reciprocating Shaker are designed for a wide range of applications including cell cultures that require accurate and repeatable results. The microprocessor control provides consistent uniform shaking while safely ramping to the set speed.

**Operating Features:**

**Accu-Drive Shaking System:** The exclusive patented Accu-Drive Shaking System delivers exceptional speed control, accuracy, and durability (Advanced 3500). The shaking system in both models continuously monitors shaking speed and maintains set-point, even under changing loads. When unit is set to a speed above 100rpm, the speed accuracy is  $\pm 1\%$  of set speed. When set under 100rpm, speed accuracy is  $\pm 1\text{rpm}$ .

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform shaking action. Microprocessor will display last set-point and will restart if power is interrupted.

**Triple Eccentric Drive:** Permanently lubricated ball bearings and maintenance free, brushless DC motor provide reliable service and continuous duty operation (3500 Orbital Shaker only).

**Single Eccentric Drive:** Permanently lubricated ball bearings and maintenance free, brushless DC motor provide reliable service and continuous duty operation (3750 Orbital Shaker only).

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for speed and time allow operator to view both settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

**RS-232 Interface:** Provides two-way communication for data logging and unit control.

**Speed Calibration Mode:** Allows user to automatically recalibrate speed display.

**Safety Features:**

**Load Sensor:** A built-in load sensor detects unbalanced conditions and automatically reduces rpm to a safe speed to protect samples.

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Audible Alarm:** In timed mode, an alarm will sound when the time reaches zero. Alarm has optional mute function which can be set from the touch pad control.

**Spill-Resistant Design:** Channels fluids away from internal components.



980407 with  
platform 980457

**Operating Conditions:**

Unit can be run in cold rooms, incubators, and CO<sub>2</sub> environments from -10 to 60°C (14 to 140°F), maximum 80% relative humidity, non-condensing.

**Applications:**

Cell cultures, solubility studies, and extraction procedures.

**Ordering Information**

Unit includes a 92" (234cm) detachable, 3-wire cord and plug (230 volt units are supplied with Euro type plug). Unit is also supplied with an 11 x 13" (27.9 x 33cm) non-skid rubber mat. **5 year limited warranty on parts and labor.**

**Optional NIST Traceable Calibration Certificate** provided by Troemner's ISO/IEC 17025 accredited laboratory. Multiple data points within the speed range and time function are reported on the certificate with the associated uncertainties.

Specifications		
Speed Range		
Advanced 3500		15 to 500rpm
Advanced 3750		20 to 300rpm
Speed Accuracy		above 100rpm $\pm 1\%$ of set speed below 100rpm $\pm 1\text{rpm}$
Timer		1 second to 160 hours
Motion		
Advanced 3500, orbital		19mm (0.75") orbit
Advanced 3750, reciprocating		19mm (0.75") stroke
Maximum Weight Capacity		
Advanced 3500		35lbs (16kg)
Advanced 3750		15lbs (6.8kg)
Tray Material		Aluminum
Tray Dimensions (L x W)		11 x 13" (27.9 x 33cm)
Overall Dimensions (L x W x H)		23.5 x 14 x 5.75" (41.3 x 35.6 x 14.6cm)
Ship Weight		49lbs (22.2kg)

Description		Electrical (50/60 Hz)	Part Number
Advanced 3500 Orbital Shaker	<b>Distributed by:</b> Safety Emporium PO Box 1003 Blackwood, NJ 08012 Ph: (866) 326-5412 (toll-free) Fax: (856) 553-6154 esales@safetyemporium.com www.safetyemporium.com	120V   5.0 amps   75 watts	980403
Advanced 3500 Orbital Shaker		230V   2.5 amps   75 watts	980404
Advanced 3750 Reciprocating Shaker		120V   5.0 amps   40 watts	980407
Advanced 3750 Reciprocating Shaker		230V   2.5 amps   40 watts	980408
Advanced 3500 Orbital Shaker with NIST Traceable Certificate		120V   5.0 amps   75 watts	980403-C
Advanced 3500 Orbital Shaker with NIST Traceable Certificate		230V   2.5 amps   75 watts	980404-C
Advanced 3750 Reciprocating Shaker with NIST Traceable Certificate		120V   5.0 amps   40 watts	980407-C
Advanced 3750 Reciprocating Shaker with NIST Traceable Certificate		230V   2.5 amps   40 watts	980408-C