

## Advanced Dura-Shaker for Extreme Environments

- Designed for use in CO<sub>2</sub> Incubators
- Can withstand extreme environments up to 100% humidity
- Remote controller magnetically attaches to most incubators

The Talboys Dura Shaker is designed for a wide range of applications including cell cultures that require CO<sub>2</sub> and humidity for optimal cell growth. 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).

**Remote Controller:** The control module is designed to sit outside of the incubator. Settings can be easily viewed or changed from outside of the incubator without disturbing the incubator's atmosphere. The thin ribbon cable is 5.5 feet long and easily passes underneath an incubator door via incubator's utility port. Controller magnetically attaches to most incubator doors or can sit on a lab bench.

**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:

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction.

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

**Audible Alarm:** In timed mode, 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.

### 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), up to 100% humidity.



### 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	15 to 500rpm
Speed Accuracy	above 100rpm $\pm 1\%$ of set speed below 100rpm $\pm 1\text{rpm}$
Timer	1 second to 160 hours
Orbit	0.75" (19mm)
Maximum Weight Capacity	35lbs (16kg)
Tray Material	Aluminum
Tray Dimensions (L x W)	11 x 13" (27.9 x 33cm)
Overall Dimensions (L x W x H)	Shaker 11.85 x 14 x 6.1" (30.1 x 35.6 x 15.4cm)
	Remote 5.3 x 14 x 4.6" (13.5 x 35.6 x 11.6cm)
Ship Weight	49lbs (22.2kg)

### Distributed by:

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Description	Electrical (50/60 Hz)	Part Number
Advanced Dura-Shaker	120V   0.5 amps   30 watts	980403C02
Advanced Dura-Shaker	230V   0.3 amps   30 watts	980404C02
Advanced Dura-Shaker with NIST Traceable Certificate	120V   0.5 amps   30 watts	980403C02C
Advanced Dura-Shaker with NIST Traceable Certificate	230V   0.3 amps   30 watts	980404C02C