



## Operations Manual Item: B3D2300 (-E)

### BenchRocker™ 3D 3D (Nutating) Rocker



#### Introduction:

Benchmark's BenchRocker™ 3D Rocker Rotator is a quiet, high capacity, gyratory 3D rocker who's speed and tilt angle are easily user adjustable. The BenchRocker™ 3D produces a simultaneous rocking and rotating low speed action that is ideal for blot washing, gel staining and de-staining applications. At higher speeds, the BenchRocker™ 3D produces a vigorous gyratory action that is excellent for mixing sample tubes of all sizes. The BenchRocker™ 3D has a 2.0kg (4.4lb) load capacity and comes with both flat and dimpled rubber mats.

#### I. Specifications:

**Speed:** User adjustable from 2rpm to 30rpm (4 tilts per minute to 60 tilts per minute)

**Tilt angle:** User adjustable from 0 to +/-30 degrees

**Motor:** Electronically controlled brushless gear motor (no carbon brushes to replace)

**Platform:** 30 x 30.0 cm (12" x 12")

**Load Capacity:** 2kg (4.4 lbs) centered and balanced

**Dimensions:** wxdxh 30x30.0x20 cm (12x12x8")

**Max tilt height:** 29.2 cm (11.5")

**Weight:** 34.5kg (10lbs)

**Mat:** Flat, non-skid, black, autoclavable

**Electrical:** 115VAC, 60Hz, 0.24 amps (B3D2300)  
230VAC, 50Hz, 0.12 amps (B3D2300-230)

**Operating environment:** 4°C (cold room) to 65°C

**Warranty:** 2 years

#### II. Product Set-Up:

Place the rocker on a clean, flat, stable surface. Make sure that the power switch is in the OFF position. Set the unit to the desired tilt angle (see below). Plug the rocker into a properly grounded outlet. Check that nothing blocks the up and down rocking action of the platform. **Set the Speed Control knob to the lowest speed setting (full counter clock wise).**

#### III. Product Operation:

Load the platform from the center out, making sure the items placed on the platform create a balanced load around the center line of the platform. This is important as large, overhung platform loads may cause the rocker to tip over. Turn the unit on by activating the ON/OFF switch so that it is illuminated. Rotate the Speed Control knob clockwise to set the desired rocking speed.

#### IV. Tilt Angle Adjustment

The tilt angle is adjusted by hand. First remove the mat(s) from the platform. Then observe the hole at the center of the platform and the RED mark on the screw seen through the hole. This RED mark is the key to adjusting the platform tilt angle. **To increase the tilt angle**, grasp the platform and push down on the platform edge or corner pointed to by the red

mark while simultaneously lifting up on the opposite platform edge or corner. The platform will loosen from its position allowing the tilt angle to be set by hand. Once the new tilt angle is selected simply replace the mat(s) on the platform. **To decrease the tilt angle**, grasp the platform and lift up on the edge or corner pointed to by the red mark while simultaneously pushing down on the opposite platform edge or corner. The tilt angle is adjusted by hand. First remove the mat(s) from the platform. Then observe the hole at the center of the platform and the RED mark on the screw seen through the hole. This RED mark is the key to adjusting the platform tilt angle. **To increase the tilt angle**, grasp the platform and push down on the platform edge or corner pointed to by the red mark while simultaneously lifting up on the opposite platform edge or corner. The platform will loosen from its position allowing the tilt angle to be set by hand. Once the new tilt angle is selected simply replace the mat(s) on the platform. **To decrease the tilt angle**, grasp the platform and lift up on the edge or corner pointed to by the red mark while simultaneously pushing down on the opposite platform edge or corner.

#### V. Accessories, stacking platforms and mats:

Stacking platforms are available (Item: BR1000-STACK) that allow doubling of the work area. There is a 7.5 cm (3") separation between the two platforms, allowing access to the content of both trays. The stacking platform comes with a flat mat. Additional dimpled and flat mats are also available.

#### VI. Care and Maintenance:

No routine maintenance is required other than to keep the unit clean. Cleaning can be done with a damp cloth. Avoid the use of solvents as they may damage the product housing.

#### Service and Contact:

In the event that service or technical support is required, please contact **Benchmark** by phone at **1-908-769-5555** or by email at [info@benchmarkscientific.com](mailto:info@benchmarkscientific.com).

## **ATTENTION:**

**Your 3D Rocker is shipped at 0° tilt angle for improved reliability during shipping.**

**Prior to operation, please read section IV of the operation manual for detailed instructions on the adjustment of the tilt angle.**

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