

Operations Manual

Item: BT1502 (-E) Orbi-Shaker™ MP Microplate Vortexing Shaker



Benchmark's Orbi-Shaker MP is a digital microplate vortexing shaker that can hold up to 4 standard or deep well microplates. The Orbi-Shaker MP has a speed range of 300 to 1500 rpm in 10 rpm increments and a digital timer for settings up to 99 hours in 1 minute increments. The unit can operate in cold rooms down to 4°C and in heated chambers up to 65°C at relative humidity levels of less than or equal to 80%RH

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I. Specifications:

Speed: 300 to 1500rpm, (deep well max 1000rpm)
Orbit: 3mm
Motor: Brushless motor
Load Capacity: Up to 4 plates
Dimensions (wxdxh) 13.1 x 11.7 x 4.7 in. /
33.3 x 29.7 x 12cm
Weight: 16.5lbs. (7.5kg)
Electrical: 120V, 60HZ or 230V, 50Hz, 110W
Warranty: 2 years
Operating environment: 4°C to 65°C, 80%RH

II. Product Set-Up:

Place the vortexing shaker on a clean, flat, stable surface. Make sure that the power switch is in the OFF position. Plug the power pack into the shaker, then plug the electrical cord into a properly grounded outlet. Check that nothing blocks the platforms orbital motion.

III. Product Operation:

Load the platform with equal size microplates, two at a time in opposite corners for balance. NOTE: Use empty skirted plates to support non-skirted PCR plates. Press each plate against the stainless steel clips. This is important, as unbalanced loads may cause excessive vibration and the product to walk while shaking. Turn the unit on by activating the ON/OFF switch so that the display is illuminated. Rotate the Speed Control knob clockwise to set the desired shaking speed and press the start/stop knob to toggle the controls to adjust the mixing time. To start the instrument, press and hold the Start/Stop knob.

IV. Setting SPEED and TIME:

Shaker speed can be set between 300 and 1500rpm. Setting the speed below 50rpm causes the display to show the word **OFF**. The timer can be set up to 99hrs in one-minute increments. Setting the time to all zeros (00:00) will allow the shaker to operate continuously. To set shaker speed and time, press the knob briefly and release. You will see one of the **SPEED** digits flashing. Rotate the knob clockwise to increase the speed setting and counterclockwise to decrease the speed setting.

Once the speed is set, press the knob briefly again and the **Time** minute digit will begin to flash. Rotate the knob to set the desired number of minutes then press the knob briefly again to set the desired number of hours. When done, press the knob briefly one more time and the display will show both the speed setting and the time setting. Press and hold down the knob to begin operation.

V. Maintenance and Service:

No routine maintenance is required other than to keep the unit clean. When cleaning, use a mild detergent (such as isopropyl alcohol).

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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.