

## Description:

The RoboRocker™ is a programmable rocker, ideal for 3D cell and organoid culturing in plates and can be used in CO<sub>2</sub> incubators. Programming the speed, tilt angles and pause times and operation are simple with intuitive controls on a large graphics touch screen. This Rocker facilitates gravity driven perfusion to occur at the desired flow rate and duration in several culture plates simultaneously. The RoboRocker is ideal for maintaining a constant flow rate of media/fluids for microfluidic platforms in cell culture incubators. It is versatile for other applications as well.

The RoboRocker has more flexibility in tilting, speeds, and pauses, to better mimic *in vivo* conditions than any other rocker on the market! You can program it to do most anything.

## Features:

- Continuous operation of a programmable cycle which includes:
  - Up to 6 programmable tilt angles (depending on the model).
  - Programmable speed to each tilt angle (depending on the model).
  - Programmable pause can be set or bypassed for each angle, from 1 second to 90 minutes.
- Tilt range up to ± 30 degrees.
- Pause time from seconds to 1-1/2 hours
- Large graphics touch screen with simple and intuitive interface.
- Extensively tested to operate inside a CO<sub>2</sub> incubator.
- Compact design saves space in an incubator.
- Culture plates are processed in their own slots and not stacked on top of each other in racks.
- Capacity: 11 pounds (5 kg), on platform. Platform with optional stacking platform (2nd level) can hold and 4 level rack can hold up to 12 plates.
- Made in USA

## Models

- 3 Firmware Feature levels:
  - **Basic - 210**: rocking with pauses for culture medium to perfuse past the 3D cell or organoid culture. Tilt, speed and pause times are all programmable. The rocking is symmetric – same tilt angle and pause time in both directions.
  - **Standard - 212** (mid-level firmware upgrade): up to 4 tilt angles; store up to 3 programs; extremely slow rocking to maintain constant flow rate, compensating for the liquid level retreating in the reservoir.
  - **Advanced – 214** (top-level firmware upgrade): pulsatile rocking to mimic *in vivo* pulsatile flow; program scheduling to change perfusion conditions over time, store up to 6 programs.
- Several Platform/Rack options:
  - **Platform**: 11.5 X 11.5 inches (28 x 28 cm).



*A RoboRocker with a culture plate on the platform. The platform can hold up to 6 culture plates, tilting them to a precise angle so that the culture medium flows past the cells at the desired rate.*



*Two and four level racks are available, with capacities to securely hold 6 and 12 culture plate, respectively. They allow plenty of air circulation, in contrast to stacking plates directly on top of each other.*

- Comes with a removable docking bar to position 6 culture plates on a single platform + 6 more on optional stacking platform. Additional plates can be stacked on top of each other however, aeration will be limited.
- Docking bar can be positioned across width or depth of platform, so culture plates can rock across either axis.
- With docking bar removed, platform can hold petri dishes, other vessels and cartridges, etc.
- **Rack:** 2 level – 6 culture plates; 4 level – 12 culture plates. Racks retain culture plates with a small spring force. Racks enable lots of air circulation around every culture plate while maintaining small footprint.
- Special versions available:
  - **High Speed** to reach steep angles quickly for unidirectional shear flow.
  - **Heavy Duty** to hold up to 22 pounds (10 kg).
- Compatible in a cell culture incubator
- Programmable tilts up to  $\pm 30^\circ$

**Specifications:**

Power: 24V DC, 60-Watt UL/CE external power supply

Weight: 8.5 lb. (4 kg)

Height: Models with platform: 4.75 inches (12 cm) high. Allow clearance room above for samples and optional stacking trays. Models with 2-level rack: 6.5 inches (16 cm) high. Models with 4-level rack: 9.5 inches (24 cm) high.

Width: Models with platform: 11.5 inches (29 cm) wide. Models with rack: 8 inches (20 cm) wide. Allow clearance room on both sides for travel.

Depth: Models with platform: 11.5 inches (29 cm) deep. Models with rack: 12.5 inches (32 cm) deep.

Capacity: 11 lb. (5 kg)

Operating Environment: +4°C to +40°C, up to 10% CO<sub>2</sub>, up to 90% RH, non-condensing

Warranty: 1 year

Certifications: CE

MK19-1301B