



MPC-200/MPC-385/MPC-325 MULTI-MICROMANIPULATOR SYSTEMS



(Shown: MPC-385-2)

FEATURES MPC-200

- Single controller and ROE will run two stepper motor drive manipulators
 - Self-detecting, daisy-chain capability allows control of four manipulators from one ROE-200
 - User-friendly interface: single button access to all major functions
 - Easily configurable virtual 4th axis set without external computer
 - New Accelerated Mode for fast, manual manipulator movement
 - Easy toggle selection of Mode (speed/resolution, pulsed diagonal, Accelerated Mode)
 - Display indicates X, Y, Z coordinates, Mode, active manipulator
 - Robotic Home and Work Position moves for easy automated pipette exchange
 - Faster robotic moves than previous versions
 - Definable 4th axis for coaxial pipette movement, angle selected by DIP switches
 - Simple USB interface, open source command set available
 - Toggle switch selects which manipulator is connected to input device
 - LED and display indicate active manipulator
 - Ultra-low drift, ultra-smooth movement
- (Patents pending)



Neurobiological experiments are becoming more complex. Many require multiple manipulators with control units that quickly become space and/or cost prohibitive. The MPC-200 is the solution you have been asking for. A single controller capable of running 2 manipulators! Sutter Instrument has taken the simplicity of the MP-225 controller and expanded it to run two manipulators from a single controller/ROE. The MPC-200 works with our world-renowned mechanicals, the MP-285 (MPC-385), MP-225 (MPC-325) or narrow format MP-265 (MPC-365).

If two manipulators aren't enough, a second controller can be daisy-chained to allow the single ROE-200 to move up to four manipulators. Thus the system can be easily expanded to control highly sophisticated experiments.

The Sutter MPC-200 is electrically quiet. Unique to the MPC-200 is our multi-unit controller which employs linear output circuitry to minimize electrical noise. Sutter adds additional manipulators to the same controller without requiring potentially noisy chopper drives.

In all our manipulators, the 4th axis can be set up and changed without the need to connect an external computer and download and configure software. A separate configuration is allowed for each output on this manipulator controller. If desired, each manipulator can approach the prep at a different angle from the horizontal. The 4th axis can be configured between the X and Z axes or the Y and Z axes (useful when manipulator is rotated 90 degrees relative to the preparation).

Faster automated pipette exchange

The MPC-200 has faster "Home" and "Work Position" moves for quicker pipette exchange. Automation is set up and run via the same interface used in the MP-225 controller; however, the speeds of the automated movement are much faster.

Accelerated manual mode

For users who prefer manual pipette exchange we have added "Accelerated Mode" to the ROE. Using Accelerated Mode, the user can make quick manual moves in and out of a setup. Accelerated Mode amplifies the speed attainable in a manual move by smoothly accelerating to the maximum speed during sustained, fast turns of the ROE. Accelerated movement ends as soon as the user stops turning the knob. This mode can be fully disabled for those who feel the need for direct control of the pipette.

To provide the ultimate in flexibility, the MPC-200 can be purchased separately or as basic systems such as the MPC-385, MPC-365 and MPC-325. Additional component pieces can be added at any time, allowing the user to develop a system tailored to his or her particular needs. The controller is self-detecting so there is no need for manual configuration of the components.



SPECIFICATIONS MPC-200

MICROMANIPULATION

- **Resolution and Full Travel** Minimal microstep size is 62.5 nanometers per microstep. Display has single micron resolution. Full travel is 25mm in each axis.
- **Maximum Speed** MP225 mechanical 3mm/sec. MP285 mechanical 5mm/sec.
- **DRIFT** < 1 micron/hr
Drive Mechanism
- **DIMENSIONS**
- **Controller** 15.75in x 10.75in x 3.5in
40cm x 27.3cm x 9cm
- **ROE** 10in x 6in x 4in
25cm x 15cm x 23cm
- **WEIGHT**
- **Controller** 6.5lbs
3kg
- **ROE** 3.5lbs
1.6kg
- **Electrical** 115/230 Volts
50/60 Hertz power line





MPC-385 SYSTEMS

- **MPC-385** One MP-285 manipulator mechanical, one MPC-200 controller and one ROE-200. Also includes mounting adapter plate, rod holder, hinged headstage mount, 4 inch dovetail extension, manipulator and ROE connecting cables, power cord and manual.*
- **MPC-385-2** Same as the MPC-385, but with two MP-285 manipulator mechanicals.*
- **MPC-385-3** Same as the MPC-385, but with three MP-285 manipulator mechanicals, and two MPC-200 controllers.*
- **MPC-385-4** Same as the MPC-385, but with four MP-285 manipulator mechanicals, and two MPC-200 controllers.*

MPC-325 SYSTEMS

- **MPC-325** One MP-225 manipulator mechanical, one MPC-200 controller and one ROE-200. Also includes mounting adapter plate, rod holder, hinged headstage mount, 4 inch dovetail extension, manipulator and ROE connecting cables, power cord and manual.*
- **MPC-325-2** Same as the MPC-325, but with two MP-225 manipulator mechanicals.*
- **MPC-325-3** Same as the MPC-325, but with three MP-225 manipulator mechanicals, and two MPC-200 controllers.*
- **MPC-325-4** Same as the MPC-325, but with four MP-225 manipulator mechanicals, and two MPC-200 controllers.*
- **MPC-200-ROE** Consists of the MPC-200 controller and ROE-200. This "system" is made available at a special price for those who wish to use previously purchased Sutter manipulators with the newer controller system or to use the MPC-200-ROE to control other devices. Includes cable to connect ROE to controller, power cord and manual.

** Indicate right- or left-handed set-up when ordering*