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# XenoWorks<sup>®</sup> Micromanipulator

## Quick Start Guide



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Scan for manual



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XWM-100 Quick Start Guide | Rev. 2.1 (20260320.01)

## Unboxing

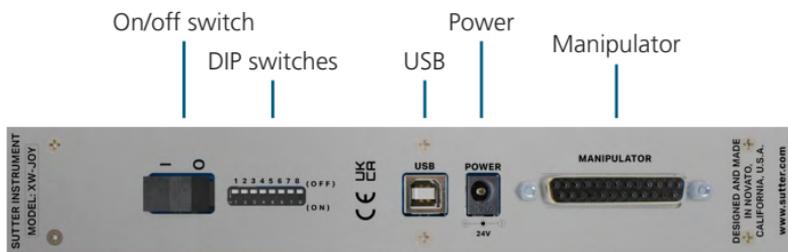
Check that the package arrived intact and shows no gross signs of damage.

Open the box and confirm that all the following parts are present and undamaged:

- XenoWorks XWM-100 Joystick / Controller
- External AC/DC Power Supply ('brick')
- AC Power Cord ('Line cord') for the Power Supply
- 6 ft. (~2m) USB Cable
- Printed copy of this document



Features | Figure 1



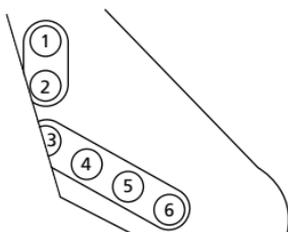
Rear Panel | Figure 2

## Quick Setup

1. Set the Configuration Switches (see Fig. 4) for how the XenoWorks controller will be used with its manipulator.
  - ii. If the manipulator will be used on the right side of the preparation, make sure DIP switch 1 is pushed to the left (as viewed from the rear). Alternatively, if the manipulator will be used on the left side of the preparation, make sure DIP switch 1 is pushed to the right.
  - iii. If the manipulator is a Sutter MP-285/M or MP-225/M, make sure DIP switch 4 is pushed to the left. If the manipulator is a Sutter MP-845/M, MP-865/M or other member of Sutter's TRIO family of manipulators, be sure DIP switch 4 is pushed to the right.
2. Connect the manipulator to the controller.
  - i. **CAUTION:** Be sure power is turned OFF to any controller before changing its cable's connections.
  - ii. Disconnect the manipulator's 25-conductor cable from any other controller, and carefully connect the free end of that cable to the DB-25 Manipulator Port on the rear of the XenoWorks XWM-100. Be sure to securely tighten the mechanical cinch screws on either side of the DB-25 connector.
3. Place the manipulator where it is to be used, on either the right- or left-side of the preparation/microscope.
4. Adjust the height of the joystick handle for comfort.
  - i. Gently loosen the Height Adjustment Clamp and carefully raise or lower the joystick assembly as needed.
    - ii. When done, be sure to and re-tighten the adjustment clamp.
5. Connect the power supply to the controller.
  - i. **CAUTION:** Be sure the Power Switch on the XenoWorks XWM-100 is OFF (bottom side pressed in) before connecting the power supply.
  - ii. Insert the barrel plug from the power supply into the Power Connector on the rear of the XenoWorks controller. Be sure the plug is fully seated in the socket.
6. Connect the power supply to the wall (AC mains).
  - i. **CAUTION:** Double-check that the Power Switch on the XenoWorks XWM-100 is OFF (bottom side pressed in) before connecting to the AC power.
  - ii. Connect the AC line cord to the power supply and then to a grounded wall outlet.
7. Power up and go!
  - i. Turn the Power Switch ON (top side is pressed in). After a few seconds the display should show its sign-on messages and the XenoWorks unit should beep briefly. Then the display will switch to its 'Status Mode.'
  - ii. If the display reports that the configuration has changed, simply press, and briefly hold Button 6 until the report clears.
  - iii. Hold a finger on the Declutch Band and then press and hold Button 6 for 3 seconds, until the joystick beeps. This will recalibrate the manipulator's physical position and the joystick's internal records.
  - iv. That's it. You're ready to go! See the manual for more details and suggestions.

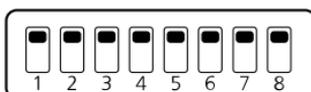
### Function Buttons | Figure 3

Button	Primary Function		Secondary Function	
	Click (tap)	Hold (3 sec)	Off	Up
1	Speed up	Set approach angle	Display mode	Choose user profile
2	Speed down	Diagonal mode		
3	Pulse forward	Z-limit operation		X-limit operation
4	Y-Axis On/Off		Z-Axis EOT/Limit	
5	Go to WORK Pos. #1	Define WORK Pos. #1	Go to WORK Pos. #2	Define WORK Pos. #2
6	Go to HOME Pos.	Define HOME Pos.	Go to Origin	Go to Setup



### Rear Panel DIP Switches | Figure 4

Sw	Definition	Left (ON)	Right (OFF)
1	X-axis polarity	Manipulator on right of microscope	Manipulator on left of microscope
2	Y-axis polarity	Forward motion moves towards user	Forward motion moves away from user
3	Z-axis polarity	Clockwise rotations lowers manipulator	Clockwise rotations raises manipulator
4	Electromechanical device compatibility	XWM/M or MP-285/M 8 micro-steps/micron	MP-845/M or MP-865/M 10.6667 micro-steps/micron
5	Power-ON auto calibration	Auto calibration OFF	Auto calibration ON
6	Pulse mode	Ramped-pulse (slower; minimizes vibration)	Standard-pulse (faster; slightly more vibration)
7	<reserved for future use>		
8	Touch-pulse enable	Enable	Disable



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