

# OLYMPUS®

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MICROMANIPULATOR

# ON

ONU-31P

*Innovative micromanipulator for patch clamping —  
a collaborative achievement of Narishige Scientific Instrument Lab and Olympus*



# Advanced Narishige Scientific Instrument Lab technology and Olympus' proprietary ultrasonic motor combine in the ONU-31P, a dynamic innovation in the field of electrophysiology.

## Unique Olympus ultrasonic motor for drift-free stability.

The ONU-31P is the first micromanipulator of its kind to employ an ultrasonic motor to drive micromanipulators in the X, Y and Z axes. Probe drift is thus minimized to a level below that of conventional piezoelectric and water hydraulic units. As a result, the ONU-31P perfectly meets the high-precision requirements of patch clamping and other electrophysiological applications.

## Integral fine/coarse movement control combines with an extra-wide stroke.

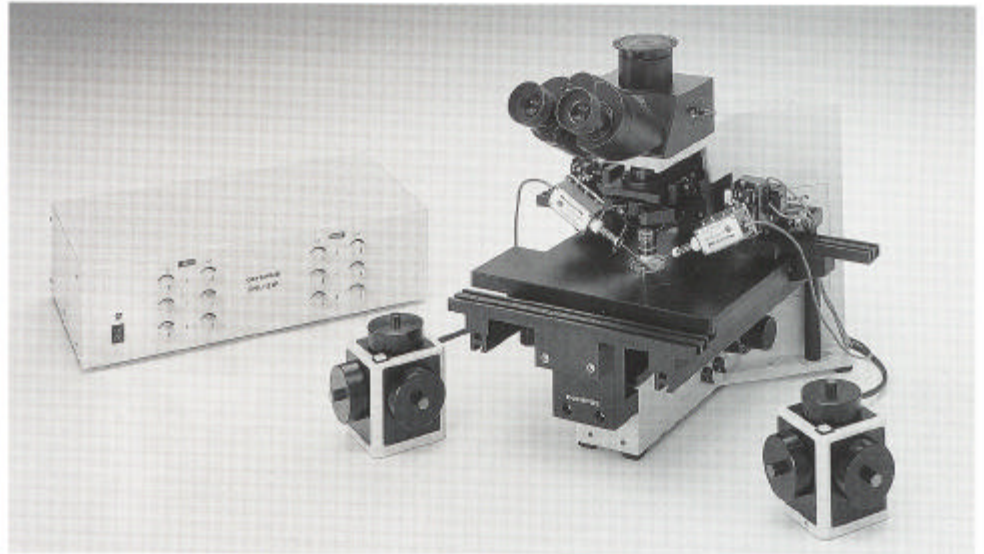
The ultrasonic motor offers an extra large movement range of 25mm along all three axes. Fine and coarse movement change-over is effortlessly attained by a key stroke on the control unit. One-hand control of fine and coarse movements is also provided to significantly improve operator efficiency.

## Compact design expands workspace.

The extremely compact micromanipulator configuration and easy installation combine to assure ample workspace on the microscope stage.

## Single power supply unit for dual manipulators.

For added economy, two manipulators can be connected to the power supply. The X-, Y- and Z-axis movement scale can be set independently for each manipulator, assuring greater versatility to meet a variety of applications.



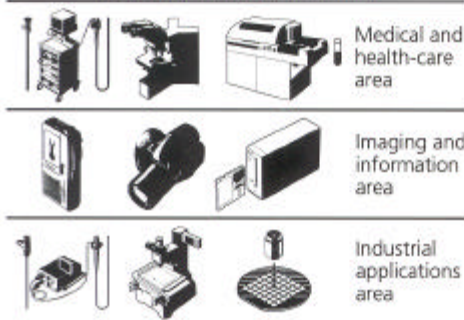
## Specifications

Micromanipulator main body (ONU-TAM)	Drive system	Integral 3-axis coarse/fine movement Standing wave ultrasonic linear motor
	Minimum scale	Approx. 0.1µm
	Coarse movement speed	2.5mm/sec. or above
	Cable length	2.5m
	Weight	680g
Control Unit (ONU-TOP)	Type	3-axis drum knob type
	Coarse movement	Changeover by a key stroke
	Weight	1,000g
Power supply with control circuit board (ONU-DUD)	Control method	Open-loop control, 2-channel applicable
	Fine/coarse movement drive system	Fine: 15-step variable speed/Coarse: fixed single speed
	Weight	7200g
	Rating	110/240V, 3.15A
Accessories	Amp adapter, AC cable, wrench	



Specifications are subject to change without any obligation on the part of the manufacturer.

## Olympus business areas



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