ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Thorlabs / Exfo / Burleigh PCS-6000* at our website: *Click HERE*

Patch Clamp Micromanipulators

Burleigh®
PCS-6000

The Piezo-Driven Advanced Positioning System for Ultimate Control

- Predictable motion with unique Piezoelectric Technology
- Ultra-precise positioning without disruptive jerks or drift
- Superior stability
- Easy-set motorized memory positions
- Intuitive computer software for enhanced control
- Trusted design with 2 year warranty



EXFO
Life Sciences & Industrial Division
putting you in control

Burleigh®
Micromanipulators • In Control

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



Burleigh® PCS-6000

The Ultimate in Micromanipulation Control and Precision

The Burleigh® PCS-6000 was designed by electrophysiologists to be the complete patch clamp solution to achieve the best possible results. Long travel motors give flexibility for coarse positioning, with Piezoelectric Technology for extremely smooth, very precise movement for the final patch. Fast easy pipette changes, memory positions and new PC software give you the highest possible productivity.



FEEL THE DIFFERENCE WITH PIEZO

The extremely precise, fast, and stable micropositioning you get with the PCS-6000 comes from our expertise in Piezoelectric Technology. For patch clamp applications, harness nanometer precision with smooth and predictable Piezo control. Position your pipette confidently, without the jerky motion, drift or backlash of hydraulics and stepper motors that can lose seals and damage tissue. Once in position, our Piezo Technology eliminates drift to ensure that you get the best possible results. Patch confidently and consistently with Piezo.

Motorized Coarse Positioning in Seconds

The PCS-6000 has one inch of motorized travel within each axis for rapid coarse positioning, minimizing time lag between sample preparation and performing the experiment. Combining long travel motors and Piezo control in one micromanipulator allows you to position pipettes quickly and precisely, perfect for multiple-patch experiments.

Optimized Pipette Placement with Built in Rotary Stages

The PCS-6000 contains two rotary stages with adjustable Home and Work positions to lock-in approach angles, allowing you to return quickly to your field of view. To further simplify the pipette exchange procedure, use our Steep/Shallow Headstage Adapter with sliding stage and repeatable stops at both ends of travel.

Eliminate Drift Worries

All aspects of construction, stage design and cabling have been designed to eliminate experiment-jeopardizing drift. No other micromanipulator has inherently lower drift than a Burleigh® Micromanipulator.

Electrical Noise Prevention

Electrically quiet motors, specialty shielded cables, internal ground skeleton and grounding pin eliminate noise and interference - promising best results.

Motorized Memory Positions

Easy-set motorized memory positions take you from Home position to Work in seconds saving crucial set-up time while avoiding the hassles of complex programming.

Computer Control

Computer controlled user software provides you with an intuitive and versatile option for enhanced control. A virtual joystick, 3D position readouts and easy-set motorized memory positions minimize experimental set-up time and increase productivity.

Ensure Reliability

Designed by electrophysiologists and trusted by researchers everywhere, the PCS-6000 along with all Burleigh® high performance micromanipulators and mounting solutions are backed by a 2 year warranty.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



Wide Range of Accessories

Available for Additional Productivity

The PCS-6000 is compatible with a wide range of accessories, providing maximum flexibility and easy customization.

Accessories include:

Steep/Shallow Headstage Adapter ***(Fig. 1)***
Allows orientation of the headstage and pipette holder at very steep or shallow angles and simplifies pipette exchange even in the tightest spaces. Symmetrical design works on the left and right side of the microscope.

Extension Bracket ***(Fig. 2)***
When you need a little boost to achieve perfect pipette position.

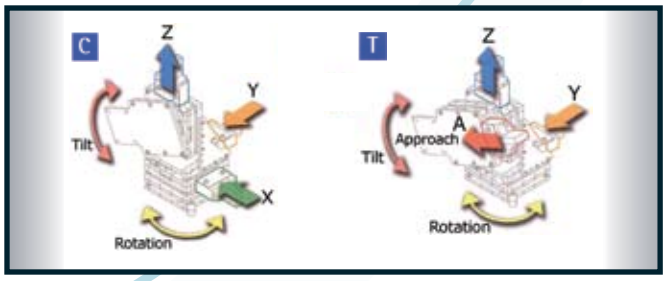
Magnetic Base ***(Fig. 3)***
Can be used to mount to a magnetic surface. This allows quick attachment and detachment of the micromanipulator for more versatile positioning on a magnetic surface.

Microscope Mounting Solutions ***(Fig. 4)***
Stable, convenient mounting methods for the most popular fixed stage upright and inverted microscopes.

It's All About Choice

Cultured cells or brain slice? The optimum micromanipulator axis configuration for patching cultured cells is different from that used for traditional brain slice applications. For cultured cell applications, we recommend configuration C in which the axes are arranged orthogonally in X, Y and Z. The X and Y axes are used to position the patch pipette over the cell of interest, then the Z axis is used to move the pipette down to achieve the patch.

In traditional brain slice work, the patch pipette moves to the slice at an approach angle of approximately 20 to 30 degrees, thus the axis configuration is Y (front to back of the microscope), Z and Approach. We call this configuration T.



AVAILABLE ACCESSORIES

Fig. 1

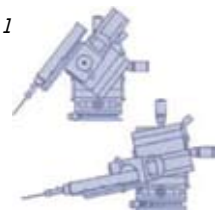


Fig. 2



Fig. 3



Fig. 4



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

SPECIFICATIONS	Piezo	Motorized
Travel	150µm or 300µm	25mm nominal
Resolution	<60nm	1.6µm minimum step size
Operator Interface	Large knobs for Piezo	Joystick/PC for motorized axes
Speed	Directly proportional to rate knob turns	Continuously variable between 0.0005 mm/sec and 2mm/sec
Memory Speed	3.5mm/sec	
Drift	<1µm per hour	
Computer Interface	USB	
Manipulator Dimesions*	7" x 8.5" x 7.5" (length, width, height) * Height can be adjusted.	
Warranty	2 Years	

How to Order: There are 12 primary configurations for the PCS-6000 based on combinations of three variables: Piezo travel, axis arrangement and position. Dual PCS-6200 manipulator packages are available in either axis arrangement and include a right and left manipulator. The various combinations are reflected in the part number, which is structured as follows.

PCS-6 (200, 300 or 400) - (C or T) - (L or R)

	Stage 1	Stage 2	Stage 3	Axis Arrangement (C or T) where:	Positioning according to microscope (L or R)* where:
6 200	150µm	150µm	150µm	C is for CULTURED cells T is for TRADITIONAL tissue slice	L is the LEFT side of the microscope R is the RIGHT side of the mircroscope *Dual PCS-6200 package includes both right and left manipulators.
6 300	300µm	150µm	150µm		
6 400	300µm	300µm	300µm		
Dual **6** 200	150µm	150µm	150µm		

Example: A PCS-6200-T-L has 150µm of Piezo movement on three axes, is configured for traditional brain slice work and is designed for left-handed applications.

EXFO
Life Sciences & Industrial Division
putting you in control

2260 Argentia Road
Mississauga, Ontario
L5N 6H7 CANADA

Telephone: +1 905 821-2600
Toll Free (USA and Canada): +1 800 668-8752
Facsimile: +1 905 821-2055

www.EXFO-Burleigh.com
Burleigh@EXFO.com

EXFO Photonic Solutions Inc. is certified under the ISO 9000 Quality Management System. Our global customers can trust that EXFO strives to be the best possible supplier in all aspects of our business.

EXFO has made every effort to ensure that the information contained in this specification sheet is accurate. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation.

Contact EXFO for prices and availability or to obtain the phone number of your local EXFO representative.

Burleigh® is a registered trademark of EXFO Photonic Solutions, Inc. All rights reserved.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP