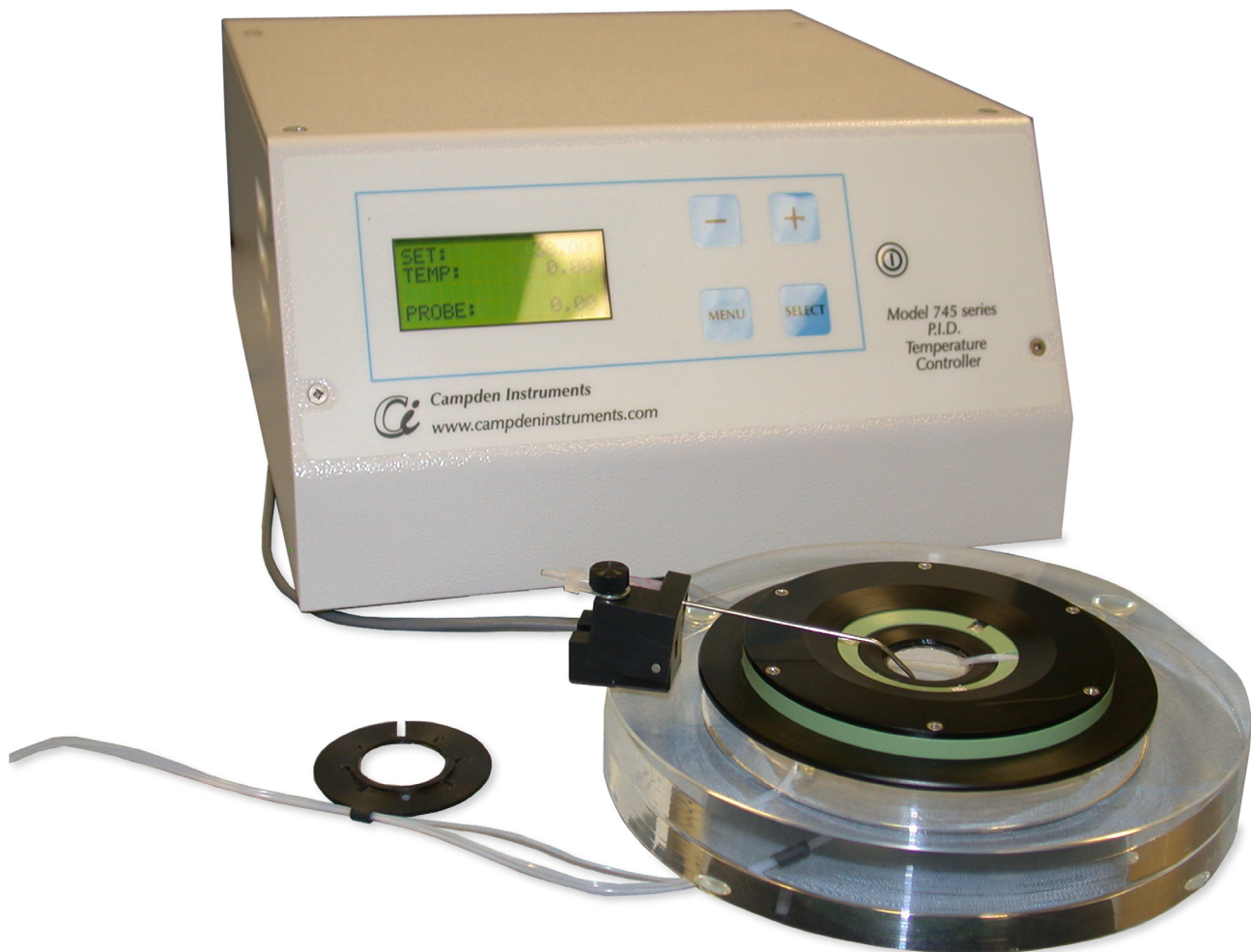


# Slice Patch Clamp

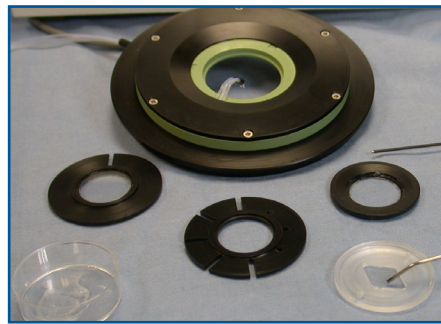
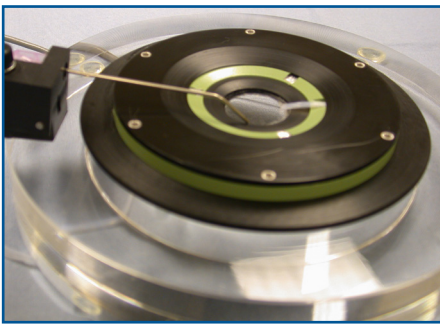
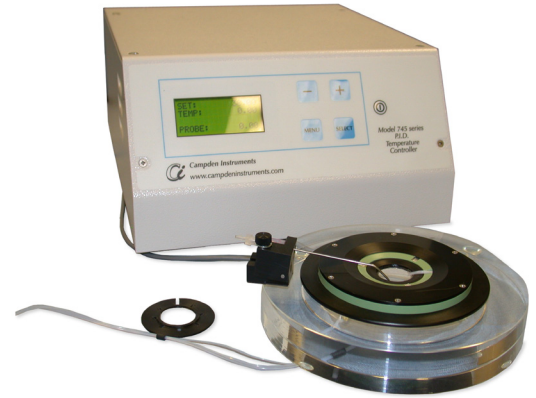


 **Campden  
Instruments**

# VISUAL PATCHING/IMAGING CHAMBER

Never worry about a chamber/perfusate temperature imbalance again with stable temperature control and laminar flow

- Integrated heater supplies concentric heat to the chamber itself and in-line heat to the incoming perfusate ensuring uniform heating
- Uses a P.I.D. algorithm for temperature control to within 0.1° C
- Configurable alarms for temperature envelopes
- Unique suction capillary design ensures steady state of flow and a smooth surface in a shallow pool of 1mm depth
- Low risk of drug adhesion and flood resistant
- Heating with no electromagnetic noise
- Ultra-Low profile for easy access
- Fits any upright or inverted microscope



## RESEARCH

Studies of visual patching and extracellular recording of neurological, heart, kidney and lung tissue have been published using our Chambers and Vibrating Microtomes for over 30 years. More published research is available upon request.

Huang S & Uusisaari MY (2013). Physiological temperature during brain slicing enhances the quality of acute slice preparations. *Front Cell Neurosci* 7, 48.

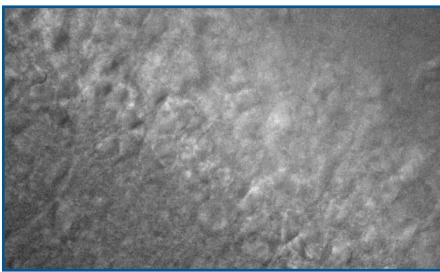
Kopp-Scheinpflug C, Tozer AJB, Robinson SW, Tempel BL, Hennig MH & Forsythe ID (2011). The sound of silence: ionic mechanisms encoding sound termination. *Neuron* 71, 911–925.

Puskarjov M, Ahmad F, Kaila K & Blaesse P (2012). Activity-Dependent Cleavage of the K-Cl Cotransporter KCC2 Mediated by Calcium-Activated Protease Calpain. *Journal of Neuroscience* 32, 11356–11364.

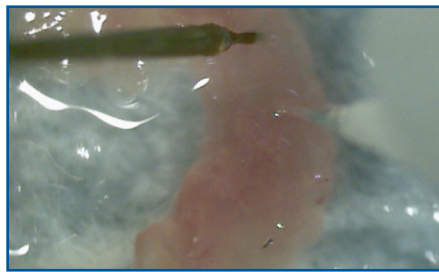
# 7000SMZ-2

The culmination of over 30 years of tissue slicer research and development, the Campden Vibrating Microtome 7000smz-2 provides an optimal slice surface, perfect for techniques such as visual patch-clamp recording or high resolution imaging.

- Minimal Z-axis deflection (less than 1  $\mu\text{m}$ ) at all speeds and amplitudes
- Tissue sample is automatically retracted before blade returns to start point
- The full range of adjustable parameters for the expert user with 8 Customizable User profiles
- Manual, Semi or Fully automatic operation
- Leaf spring vibratory mechanism for optimal longevity and accuracy observation



Mouse Hippocampus



Rat Heart



Rat Calyx of Held

## TEMPERATURE CONTROLLED TISSUE BATH

The Model 7610A Tissue Bath Cooler and Model 7611A Tissue bath warmer hold the slice at a constant temperature without manually refresh the outer ice bath

- 7610A provides controlled cooling of the slicing chamber to  $<10^{\circ}\text{C}$
- The 7611A heats the inner bath to physiological temperature ( $\sim 34^{\circ}\text{C}$ ), for use with the slicing technique as described by Huang et al. (2013)
- Uses a P.I.D (proportional integral derivative ) temperature control to take the bath temperature to within  $1^{\circ}\text{C}$  at the point of measurement
- Utilizes the standard autoclavable inner bath, replaces the outer ice bath





## **Contact Us for a Quotation, a Full Bibliography, and More**

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